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Now one industry leader focuses its worldwide resources on delivering maximum value to customers. It's the cost-effective advantage of a single resource, a single company that provides the broadest product range, the highest level of commitment to customer and technical support, the most cost-effective manufacturing and distribution, and the most responsive customer-first service. In today's highly competitive worldwide markets, General Cable provides the single-source solution with benefits that go straight to your bottom line. Ask your representative about other General Cable products.

The Power of ONE



Energy Cables

Bare Overhead High-Voltage Transmission and Distribution Cables

Our BICC Brand cables satisfy the varied and specialized demands of the electrical utility marketplace. Our TransPowr™ bare aluminum overhead cables and PowrMax™ insulated high-voltage cables for buried applications are available in numerous combinations of aluminum and steel strands and layers. Our new aerial high-density transmission cables feature innovative composite core construction.

Low- and Medium-Voltage Distribution Cables

General Cable's extensive line of BICC Brand PowrServ™ and EmPowr™ copper and aluminum cables serve the total distribution needs of electrical utilities, rural electrical co-ops and the public power market for both traditional and renewable energy resources.

Industrial & Specialty Cables

Automotive Products

From ignition wire sets to battery starter cables and primary wire, our Carol Brand is the answer for the automotive aftermarket.

Cord and Mining Cables

Carol Brand is the most recognized name in flexible cords. The extensive line includes portable cord, cordsets, portable power cable and premium-grade cable for commercial and industrial applications. Both our Carol and premier Anaconda Brand cables are built for rugged uses such as mining, welding and diesel locomotives.

Instrumentation, Power and Control Cables

Our industrial and Brand Rex cables serve the factory automation, transit, marine, oil rig, petrochemical and military markets. We manufacture instrumentation tray cables and automation cables for standard, specialized and custom applications. When uptime, reliability and performance are essential, customers count on our power cables—from low-voltage single-conductor to medium-voltage armored or unarmored.

Communications Cables

Data Communications Cables

Our products are on the job wherever enhanced performance is critical—from Gigabit Ethernet, token ring and broadband applications to patch panels, communications closets and plenum applications. We offer one of the most comprehensive lines of enhanced high-speed Category products, including GenSPEED 6000 and our PanGen™ structured cabling system solutions.

Electronics Cables

Our Carol and Helix/HiTemp Brand products fulfill the complete wire and cable requirements of the fast-changing electronics, sound and security marketplaces. We offer hookup wire; communications cable; computer, coaxial and microphone cables; and special designs for security systems, fire alarms, and audio, video and digital broadcasts.

Fiber Optic Cables

We provide a full menu of NextGen Brand fiber optic cables for data communications and voice and video networks. Our products range from tight buffer and armored products for military applications to loose tube and hybrid cables for communications networks. We also offer advanced Blolite™ blown fiber systems for Local Area Networks and campus applications.

Telecommunications Cables

Our broad range of industry-standard outside plant wire and cable products ensures reliable, cost-effective performance. We provide air core, filled core and specialty wire products for aerial, buried and duct applications.

Wire Harnesses and Assemblies

We supply custom-designed cable, harnesses and assemblies for a wide variety of OEM applications, including business machines, material handling equipment, factory automation and medical equipment.

FPO



General Cable

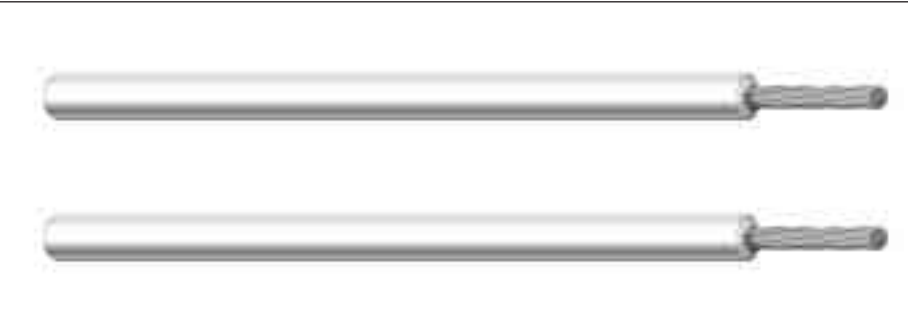
**CAROL
BRAND**

Helix/HiTemp™

Electronics

Hook-Up Wire

1



Most applications of hook-up and lead wire for board-to-board or point-to-point wiring rely on PVC-insulated designs. General Cable’s Carol® Brand products offer both electrical and electronic designers a vast array of quality PVC hook-up wire to meet the specific technical demands of today, with “off-the-shelf” distributor inventoried products.

Hook-up wire is also available in special colors and/or stripe combinations with a minimum of lead time. In addition, General Cable offers a variety of put-ups to meet individual customer requirements.

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UL 1007, UL 1569, CSA TR-64

Product Construction:

Conductor:

- 24 thru 16 AWG
- Fully annealed tinned copper per ASTM B-33
- Solid or stranded

Insulation:

- Premium-grade, color-coded PVC
- Temperature range: -20°C to +105°C
- Color Code: See chart below

Applications:

- Internal wiring of electrical and electronic equipment
- Internal wiring of panels and meters
- Point-to-point wiring
- Suggested voltage rating: 300 volts

Compliances:

- UL Style 1007 - 80°C, 300V
- UL Style 1569 - 105°C, 300V
- CSA TR-64 - 90°C, 300V
- Designed to meet UL VW-1 Vertical Wire Flame Test

Packaging:

- Please contact Customer Service for packaging and color options



CATALOG NUMBER	AWG SIZE	COND. STRAND.	NOM. INSULATION THICKNESS		NOMINAL O.D.	
			INCHES	mm	INCHES	mm

SOLID CONDUCTORS

C2003	24	Solid	0.016	0.41	0.052	1.32
C2004	22	Solid	0.016	0.41	0.057	1.45
C2028	20	Solid	0.016	0.41	0.064	1.63
C2052	18	Solid	0.016	0.41	0.072	1.83
C2053	16	Solid	0.016	0.41	0.083	2.11

STRANDED CONDUCTORS

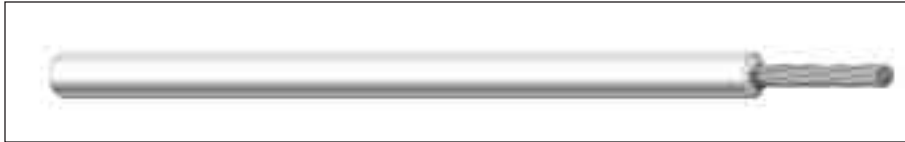
C2015	24	7/32	0.016	0.41	0.056	1.42
C2016	22	7/30	0.016	0.41	0.062	1.57
C2040	20	10/30	0.016	0.41	0.070	1.78
C2064	18	16/30	0.016	0.41	0.080	2.03
C2065	16	26/30	0.016	0.41	0.092	2.34

Color Code Chart

ORDERING SUFFIX	COLORS	ORDERING SUFFIX	COLORS
01	Black	06	Green
02	White	07	Blue
03	Red	08	Brown
04	Orange	10	Gray
05	Yellow	19	Violet

Striped combinations available upon request, consult Customer Service.

UL 1015, CSA TEW



Product Construction:

Conductor:

- 24 thru 10 AWG
- Fully annealed tinned copper per ASTM B-33
- Solid or stranded

Insulation:

- Premium-grade, color-coded PVC
- Temperature range: -20°C to +105°C
- Color Code: See chart below

Applications:

- Internal wiring of electrical and electronic equipment
- Internal wiring of panels and meters
- Point-to-point wiring
- Suggested voltage rating: 600 volts

Compliances:

- UL Style 1015 - 105°C, 600V
- CSA Type TEW
- Designed to meet UL VW-1 Vertical Wire Flame Test

Packaging:

- Please contact Customer Service for packaging and color options

CATALOG NUMBER	AWG SIZE	COND. STRAND.	NOM. INSULATION THICKNESS		NOMINAL O.D.	
			INCHES	mm	INCHES	mm

SOLID CONDUCTORS

C2117	22	Solid	0.032	0.81	0.089	2.26
C2118	20	Solid	0.032	0.81	0.096	2.44
C2119	18	Solid	0.032	0.81	0.104	2.64

STRANDED CONDUCTORS

C2100	24	7/32	0.032	0.81	0.088	2.24
C2101	22	7/30	0.032	0.81	0.094	2.39
C2102	20	10/30	0.032	0.81	0.102	2.59
C2103	18	16/30	0.032	0.81	0.112	2.84
C2104	16	26/30	0.032	0.81	0.124	3.15
C2105	14	41/30	0.032	0.81	0.141	3.58
C2106	12	65/30	0.032	0.81	0.160	4.06
C2107	10	105/30	0.033	0.84	0.184	4.67

Color Code Chart

ORDERING SUFFIX	COLORS	ORDERING SUFFIX	COLORS
01	Black	06	Green
02	White	07	Blue
03	Red	08	Brown
04	Orange	10	Gray
05	Yellow	19	Violet

Striped combinations available upon request, consult Customer Service.

MIL-W-76B

Type MW

Product Construction:

Conductor:

- 24 thru 12 AWG
- Fully annealed stranded tinned copper per ASTM B-33

Insulation:

- Premium-grade, color-coded PVC
- Type MW: Medium wall
- Temperature range:
– 12°C to +90°C
- Color Code: See chart below

Applications:

- Internal wiring of electrical and electronic equipment
- Internal wiring of panels and meters
- Point-to-point wiring
- Suggested voltage rating: 1000 volts (MIL-W-76B)
- Non QPL

Packaging:

- Please contact Customer Service for packaging and color options



CATALOG NUMBER	TYPE DESIGNATION	AWG SIZE	COND. STRAND.	NOM. INSULATION THICKNESS		NOMINAL O.D.	
				INCHES	mm	INCHES	mm
MIL-W-76B TYPE MW (MEDIUM WALL)							
C7600	MW-C24(7)U	24	7/32	0.016	0.41	0.056	1.42
C7602	MW-C22(7)U	22	7/30	0.016	0.41	0.062	1.57
C7604	MW-C20(10)U	20	10/30	0.016	0.41	0.070	1.78
C7606	MW-C18(16)U	18	16/30	0.016	0.41	0.080	2.03
C7608*	MW-C16(26)U	16	26/30	0.016	0.41	0.092	2.34
C7610*	MW-C14(41)U	14	41/30	0.016	0.41	0.109	2.77
C7611*	MW-C12(65)U	12	65/30	0.016	0.41	0.128	3.25

*–25°C to +105°C

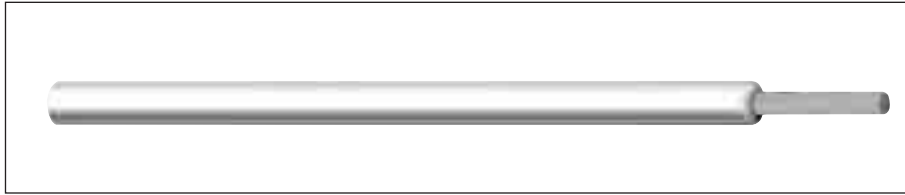
Color Code Chart

ORDERING SUFFIX	COLORS	ORDERING SUFFIX	COLORS
01	Black	06	Green
02	White	07	Blue
03	Red	08	Brown
04	Orange	10	Gray
05	Yellow	19	Violet

Striped combinations available upon request, consult Customer Service.

UL Types MTW, TFF, AWM & CSA TEW

90°C 600 Volt MTW, TFF 105°C 600 Volt AWM/TEW



UL TYPE MTW, AWM, TFF, CSA TYPE TEW – 600 VOLT

CATALOG NUMBER	AWG SIZE	COND. STRAND	NOM. INSULATION THICKNESS		NOMINAL. O.D.		STOCK COLORS	APPROX. NET WEIGHT LBS/M ^(S)
			INCHES	mm	INCHES	mm		
76502	18	16/30	0.031	0.79	0.110	2.79	1-12	10
76512	16	26/30	0.031	0.79	0.123	3.12	1-12	14
76812	14	19/.0159	0.031	0.79	0.136	3.45	1-12	20
76822	12	19/.0185	0.031	0.79	0.155	3.94	1-7	28
76832	10	19/.0234	0.031	0.79	0.179	4.55	1-5	42
76843	8	19/.0295	0.045	0.79	0.242	6.15	1-5	72

^(S) Actual shipping weight may vary.

Color Code Chart

ORDERING SUFFIX	COLORS	ORDERING SUFFIX	COLORS
01	Black	04	Orange
02	White	08	Brown
03	Red	19	Purple
07	Blue	10	Gray
06	Green	13	Pink
05	Yellow	77	Light Blue

Product Construction:

Conductor:

- 18 through 8 AWG fully annealed stranded bare copper per ASTM B-8

Insulation:

- Premium-grade, color-coded PVC
- Temperature Range:
MTW: -40°C to +90°C
TEW/AWM: -20°C to +105°C
- Color Code: See chart below

Jacket Marking:

- 18 and 16 AWG:
CAROL (SIZE) 600V E# MTW (UL) OR TFF OR AWM VW-1 --- CSA TEW 105°C FT-1
- 14 through 8 AWG:
CAROL (SIZE) 600V E# MTW (UL) OR AWM VW-1 --- CSA TEW 105°C FT-1

Applications:

- Motor and transformer lead
- External wiring of machinery
- Internal wiring of electrical and electronic equipment
- Internal wiring of panels and meters
- Point-to-point wiring

Features:

- Outstanding oil, flame and moisture resistance
- Extra flexible

Compliances:

- UL and NMTBA Type MTW/AWM
- CSA TEW
- Passes VW-1 Vertical Flame Test
- AWM Style 1015 – 18-8 AWG
- AWM Style 1335 – 18-10 AWG
- AWM Style 1336 – 8 AWG

Packaging:

- Please contact Customer Service for packaging and color options

Heavy Wall UL Types MTW, AWM & NEC Type THW

90°C 600 Volts

Product Construction:

Conductor:

- 6 and 4 AWG fully annealed stranded bare copper per ASTM B-8

Insulation:

- Premium-grade, color-coded PVC, Black
- Temperature Range: -40°C to +90°C

Jacket Marking:

- CAROL 6 AWG 600V E# MTW OR THW (UL) OR AWM

Applications:

- Motor and transformer lead
- External wiring of machinery

Features:

- Outstanding oil, flame and moisture resistance
- Extra flexible

Compliances:

- UL Type AWM
- UL and NMTBA Type MTW
- NEC Type THW
- Passes UL VW-1 Vertical Flame Test

Packaging:

- Please contact Customer Service for packaging and color options



AWM, MTW, THW - 600 VOLT - UL							
CATALOG NUMBER	AWG SIZE	COND. STRAND	NOM. INSULATION THICKNESS		NOMINAL O.D.		APPROX. NET WEIGHT LBS/M ^(S)
			INCHES	mm	INCHES	mm	
76954	6	19/.0372	0.060	1.52	0.315	8.00	110
76994	4	19/.0469	0.060	1.52	0.365	9.27	150

^(S) Actual shipping weight may vary.

Rubber/PVC Test Lead



CATALOG NUMBER	NO. OF COND.	AWG SIZE	COND. STRAND.	NOM. INSULATION THICKNESS		BREAKDOWN VOLTAGE (AC, rms)	WORKING VOLTAGE*	NOMINAL O.D.	
				INCHES	mm			INCHES	mm
Rubber Test Lead									
C1326	1	20	41/36	0.040	1.02	6,000V	1,500V	0.125	3.18
C1319	1	20	41/36	0.047	1.19	12,000V	3,000V	0.140	3.56
C1321	1	18	65/36	0.045	1.14	20,000V	5,000V	0.145	3.68
C1318	1	18	65/36	0.088	2.24	29,000V	10,000V	0.230	5.84

*For intermittent duty only.

Color Code Chart

ORDERING SUFFIX	COLORS
01	Black
03	Red

CATALOG NUMBER	NO. OF COND.	AWG SIZE	COND. STRAND.	NOM. INSULATION THICKNESS		BREAKDOWN VOLTAGE (AC, rms)	WORKING VOLTAGE*	NOMINAL O.D.	
				INCHES	mm			INCHES	mm
PVC Test Lead									
C1320	1	18	65/36	0.047	1.19	20,000V	5,000V	0.140	3.56

*For intermittent duty only.

Color Code Chart

ORDERING SUFFIX	COLORS
01	Black
03	Red
06	Green

Product Construction:

Conductor:

- 20 and 18 AWG
- Fully annealed stranded tinned copper per ASTM B-33

Insulation:

- Premium-grade, color-coded Rubber or PVC
- Temperature range:
 - 20°C to +60°C Rubber
 - 25°C to +60°C PVC
- Color Code: See chart below

Applications:

- Test equipment
- Oscillators

Compliances:

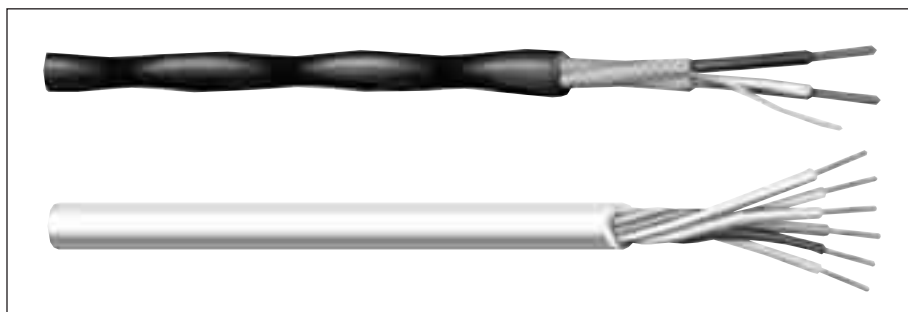
- RoHS Compliant Directive 2002/95/EC

Packaging:

- Please contact Customer Service for packaging and color options

Communication & Control Cable, Multi-Conductor

2



The multi-conductor array of communication and control cable facilitates cable pull-ins and single-site installations.

This cable is typically used for industrial equipment control, electric valve actuation and remote signaling, as well as communications and broadcast applications. These designs are available in a wide variety of insulation and jacketing materials, as well as shield designs to alleviate unwanted circuit noise.

General Cable's Carol® Brand products are manufactured to meet the latest UL, CSA and NEC requirements and approvals.

A Design To Meet Every Application

PVC/PVC designs employ polyvinyl chloride insulations and jackets capable of meeting everyday, general purpose applications.

PE or PP/PVC designs employ high quality polyethylene or polypropylene insulations to assure faithful reproduction of transmitted signals across interconnection circuits.

Foamed PP/PVC designs use high speed, foamed polypropylene insulations for long distance, critical circuits, which would not perform if higher loss insulations were employed.

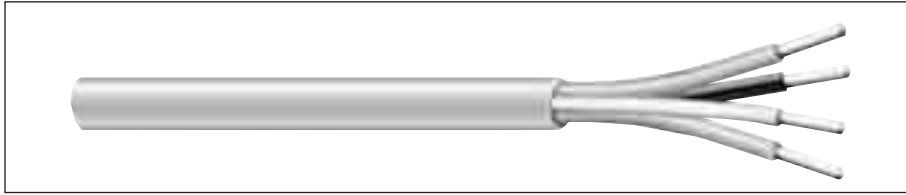
Rubber/Rubber is typically employed in installations characterized as severely hostile environments, where these designs provide unsurpassed service life.

Rubber/Carolprene® offers the ultimate performance for applications that demand the greatest protection from the environment, including physical abuse. The specially formulated Carolprene® jacket has been proven time and again to withstand all types of abuse, both mechanical and chemical.

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Multi-Conductor, Unshielded

UL 2464, NEC Type CM (UL) c(UL), CSA CMG



CATALOG NUMBER	NO. OF COND.	AWG SIZE	COND. STRAND.	NOM. INSULATION THICKNESS		NOM. JACKET THICKNESS		NOMINAL O.D.		COLOR CODE	NOM. C-C CAP.* pF/ft
				INCHES	mm	INCHES	mm	INCHES	mm		
C4008	2	22	Solid	0.010	0.25	0.032	0.81	0.155	3.93	Black/Red	25.0
C4311	2	20	Solid	0.010	0.25	0.032	0.81	0.168	4.27	Black/Red	28.0
C2754	2	19	Solid	0.010	0.25	0.032	0.81	0.176	4.47	Brown/Tan	29.5

*Capacitance between conductors

Product Construction:

Conductor:

- Fully annealed tinned copper per ASTM B-33
- Fully annealed solid bare copper per ASTM B-3, (C2754, C2755)

Insulation:

- Premium-grade, color-coded S-R PVC per UL 1061

Jacket:

- PVC, gray
- Temperature Range: -20°C to +80°C

Applications:

- Public address systems
- Intercoms
- Remote control circuits
- Suggested voltage rating: 300 volts

Compliances:

- NEC Article 800 Type CM (UL: 75°C)
- UL Style 2464 (UL: 80°C 300V)
- CSA CMG (CSA: 60°C)
- Designed to meet UL 70,000 BTU Vertical Tray Flame Test
- Passes CSA CMG Flame Test

Packaging:

- Please contact Customer Service for packaging and color options

CAROL BRAND



Designed to Meet
UL VW-1 Vertical
Wire Flame Test

Underwriters Laboratories Inc.



CMG
Certified

Canadian Standards Association



General Cable

Multi-Conductor, Unshielded

UL 2464, UL 2576, NEC Type CM (UL) c(UL), CSA CMG

Product Construction:

Conductor:

- 24 AWG fully annealed stranded tinned copper per ASTM B-33

Insulation:

- Premium-grade, color-coded S-R PVC per UL 1061
- Color Code: See charts below

Jacket:

- PVC, gray
- Temperature Range: -20°C to +80°C

Applications:

- Public address systems
- Intercoms
- Internal telephones
- Remote control circuits
- Suitable for EIA RS-232 applications
- Suggested voltage rating: 300 volts

Features:

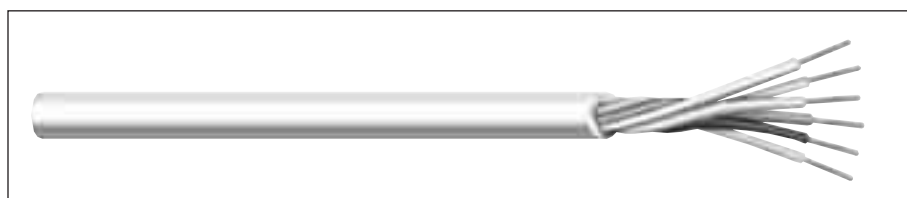
- Easy to terminate
- Excellent electrical properties
- Tinned conductors provide excellent corrosion resistance
- Assists soldering applications

Compliances:

- NEC Article 800 Type CM (UL: 75°C)
- UL Style 2464 (UL: 80°C, 300V)
- UL Style 2576 (UL: 80°C, 150V)
- CSA CMG (CSA: 60°C)
- Designed to meet UL 70,000 BTU Vertical Tray Flame Test
- Passes CSA CMG Flame Test

Packaging:

- Please contact Customer Service for packaging and color options



CATALOG NUMBER	NO. OF COND.	AWG SIZE	COND. STRAND.	NOM. INSULATION THICKNESS		NOM. JACKET THICKNESS		NOMINAL O.D.		COLOR CODE	NOM. C-C CAP.* pF/ft
				INCHES	mm	INCHES	mm	INCHES	mm		
C2461	2	24	7/32	0.010	0.25	0.032	0.81	0.156	3.96	Black/Red	23.0
C2462	3	24	7/32	0.010	0.25	0.032	0.81	0.163	4.14	Black/Red/Green	23.0
C2463	4	24	7/32	0.010	0.25	0.032	0.81	0.174	4.42	1	23.0
C2464	5	24	7/32	0.010	0.25	0.032	0.81	0.187	4.75	1	23.0
C2466	6	24	7/32	0.010	0.25	0.032	0.81	0.200	5.08	1	23.0
C2488	7	24	7/32	0.010	0.25	0.032	0.81	0.200	5.08	1	23.0
C2465	8	24	7/32	0.010	0.25	0.032	0.81	0.214	5.44	1	23.0
C2470	9	24	7/32	0.010	0.25	0.032	0.81	0.227	5.77	1	23.0
C2471	10	24	7/32	0.010	0.25	0.032	0.81	0.244	6.20	1	23.0
C2467	12	24	7/32	0.010	0.25	0.032	0.81	0.251	6.38	1	23.0
C2473	15	24	7/32	0.010	0.25	0.032	0.81	0.275	6.99	2	23.0

*Capacitance between conductors

Color Code Chart 1 - For cables up to and including 12 conductors

NO. OF COND.	COLOR	NO. OF COND.	COLOR
1	Black	7	Orange
2	White	8	Yellow
3	Red	9	Violet
4	Green	10	Gray
5	Brown	11	Pink
6	Blue	12	Tan

Color Code Chart 2 Per ICEA - For cables of 15 thru 25 conductors

NO. OF COND.	COLOR	NO. OF COND.	COLOR	NO. OF COND.	COLOR
1	Black	10	Orange/Black	19	Blue/Red
2	White	11	Blue/Black	20	Red/Green
3	Red	12	Black/White	21	Orange/Green
4	Green	13	Red/White	22	Black/White/Red
5	Orange	14	Green/White	23	White/Black/Red
6	Blue	15	Blue/White	24	Red/Black/White
7	White/Black	16	Black/Red	25	Green/Black/White
8	Red/Black	17	White/Red		
9	Green/Black	18	Orange/Red		

Multi-Conductor, Unshielded

UL 2464, UL 2576, NEC Type CM (UL) c(UL), CSA CMG



Product Construction:

Conductor:

- 22 AWG fully annealed, stranded tinned copper per ASTM B-33

Insulation:

- Premium-grade, color-coded S-R PVC per UL 1061
- Color Code: See charts below

Jacket:

- PVC, gray
- Temperature Range: -20°C to +80°C

Applications:

- Public address systems
- Intercoms
- Internal telephones
- Remote control circuits
- Suitable for EIA RS-232 applications
- Suggested voltage rating: 300 volts

Features:

- Easy to terminate
- Excellent electrical properties
- Tinned conductors provide excellent corrosion resistance
- Assists soldering applications

Compliances:

- NEC Article 800 Type CM (UL: 75°C)
- UL Style 2464 (UL: 80°C, 300V)
- UL Style 2576 (UL: 80°C, 150V)
- CSA CMG (CSA 80°C)
- Designed to meet UL 70,000 BTU Vertical Tray Flame Test
- Passes CSA CMG Flame Test

Packaging:

- Please contact Customer Service for packaging and color options

CATALOG NUMBER	NO. OF COND.	AWG SIZE	COND. STRAND.	NOM. INSULATION THICKNESS		NOM. JACKET THICKNESS		NOMINAL O.D.		COLOR CODE	NOM. C-C CAP.* pF/ft
				INCHES	mm	INCHES	mm	INCHES	mm		
C6348†	2	22	7/30	0.010	0.25	0.015	0.38	0.130	3.30	Black/Red	25.5
C4062	3	22	7/30	0.010	0.25	0.032	0.81	0.176	4.47	Black/Red/Green	25.5
C4063	4	22	7/30	0.010	0.25	0.032	0.81	0.189	4.80	1	25.5
C4064	5	22	7/30	0.010	0.25	0.032	0.81	0.203	5.16	1	25.5
C4066	6	22	7/30	0.010	0.25	0.032	0.81	0.218	5.54	1	25.5
C4088	7	22	7/30	0.010	0.25	0.032	0.81	0.218	5.54	1	25.5
C4065	8	22	7/30	0.010	0.25	0.032	0.81	0.230	5.94	1	25.5
C4070	9	22	7/30	0.010	0.25	0.032	0.81	0.249	6.32	1	25.5
C4071	10	22	7/30	0.010	0.25	0.032	0.81	0.268	6.81	1	25.5
C4067	12	22	7/30	0.010	0.25	0.032	0.81	0.276	7.01	1	25.5
C4073	15	22	7/30	0.010	0.25	0.032	0.81	0.303	7.70	2	25.5
C4075	20	22	7/30	0.010	0.25	0.032	0.81	0.334	8.48	2	25.5
C4076	25	22	7/30	0.010	0.25	0.032	0.81	0.368	9.35	2	25.5
C4077	30	22	7/30	0.010	0.25	0.032	0.81	0.389	9.88	2	25.5
C4078	40	22	7/30	0.010	0.25	0.032	0.81	0.434	11.02	2	25.5
C4079	50	22	7/30	0.010	0.25	0.032	0.81	0.489	12.42	2	25.5

*Capacitance between conductors

† CM-CSA CMG Only

Color Code Chart 1 - For cables up to and including 12 conductors

NO. OF COND.	COLOR	NO. OF COND.	COLOR
1	Black	7	Orange
2	White	8	Yellow
3	Red	9	Violet
4	Green	10	Gray
5	Brown	11	Pink
6	Blue	12	Tan

Color Code Chart 2 Per ICEA - For cables of 15 thru 50 conductors

NO. OF COND.	COLOR	NO. OF COND.	COLOR	NO. OF COND.	COLOR
1	Black	18	Orange/Red	35	White/Red/Orange
2	White	19	Blue/Red	36	Orange/White/Blue
3	Red	20	Red/Green	37	White/Red/Blue
4	Green	21	Orange/Green	38	Black/White/Green
5	Orange	22	Black/White/Red	39	White/Black/Green
6	Blue	23	White/Black/Red	40	Red/White/Green
7	White/Black	24	Red/Black/White	41	Green/White/Blue
8	Red/Black	25	Green/Black/White	42	Orange/Red/Green
9	Green/Black	26	Orange/Black/White	43	Blue/Red/Green
10	Orange/Black	27	Blue/Black/White	44	Black/White/Blue
11	Blue/Black	28	Black/Red/Green	45	White/Black/Blue
12	Black/White	29	White/Red/Green	46	Red/White/Blue
13	Red/White	30	Red/Black/Green	47	Green/Orange/Red
14	Green/White	31	Green/Black/Orange	48	Orange/Red/Blue
15	Blue/White	32	Orange/Black/Green	49	Blue/Red/Orange
16	Black/Red	33	Blue/White/Orange	50	Black/Orange/Red
17	White/Red	34	Black/White/Orange		

CAROL BRAND



Designed to Meet
UL Vertical Tray
Flame Test

Underwriters Laboratories Inc.



CMG
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Canadian Standards Association

General Cable

Multi-Conductor, Unshielded

UL 2464, UL 2576, NEC Type CM (UL) c(UL), CSA CMG

Product Construction:

Conductor:

- 20 or 18 AWG fully annealed stranded, tinned copper per ASTM B-33

Insulation:

- Premium-grade, color-coded PVC per UL 1007
- Color Code: See charts below

Jacket:

- PVC, gray
- Temperature Range: -20°C to +80°C

Applications:

- Public address systems
- Intercoms
- Internal telephones
- Remote control circuits
- Suitable for EIA RS-232 applications
- Suggested voltage rating: 300 volts

Compliances:

- NEC Article 800 Type CM (UL: 75°C)
- UL Style 2464 (UL: 80°C, 300V)
- UL Style 2576 (UL: 80°C, 150V)
- CSA CMG (CSA: 60°C)
- Designed to meet UL 70,000 BTU Vertical Tray Flame Test
- Passes CSA CMG Flame Test

Packaging:

- Please contact Customer Service for packaging and color options



CATALOG NUMBER	NO. OF COND.	AWG SIZE	COND. STRAND.	NOM. INSULATION THICKNESS		NOM. JACKET THICKNESS		NOMINAL O.D.		COLOR CODE	NOM. C-C CAP* pF/ft
				INCHES	mm	INCHES	mm	INCHES	mm		
C6351†	2	20	7/28	0.016	0.41	0.025	0.64	0.192	4.88	Black/Red	26.0
C6352	3	20	7/28	0.016	0.41	0.032	0.81	0.216	5.50	1	26.0
C6353	4	20	7/28	0.016	0.41	0.032	0.81	0.235	5.97	1	26.0
C6355	5	20	7/28	0.016	0.41	0.032	0.81	0.254	6.46	1	26.0
C6356	7	20	7/28	0.016	0.41	0.032	0.81	0.275	6.99	1	26.0
C6357	9	20	7/28	0.016	0.41	0.032	0.81	0.317	8.05	1	26.0
C6360	12	20	7/28	0.016	0.41	0.032	0.81	0.354	9.00	2	26.0
C6358	15	20	7/28	0.016	0.41	0.032	0.81	0.392	9.96	2	26.0
C2830†	2	18	16/30	0.015	0.41	0.025	0.64	0.190	5.33	Black/Red	28.0
C2831	3	18	16/30	0.016	0.41	0.032	0.81	0.236	5.99	1	28.0
C2404	4	18	16/30	0.016	0.41	0.032	0.81	0.258	6.55	1	28.0
C2420	5	18	16/30	0.016	0.41	0.032	0.81	0.280	7.11	1	28.0
C2421	7	18	16/30	0.016	0.41	0.032	0.81	0.309	7.85	1	28.0
C2422	9	18	16/30	0.016	0.41	0.032	0.81	0.358	9.09	1	28.0
C2412	12	18	16/30	0.016	0.41	0.032	0.81	0.401	10.19	2	28.0
C2423	15	18	16/30	0.016	0.41	0.032	0.81	0.445	11.30	2	28.0
C2424	19	18	16/30	0.016	0.41	0.032	0.81	0.469	11.91	2	28.0
C2433	25	18	16/30	0.016	0.41	0.032	0.81	0.549	13.94	2	28.0

* Capacitance between conductors

† CM (UL) c(UL), CSA CMG Only

Color Code Chart 1 - For cables up to and including 9 conductors

NO. OF COND.	COLOR	NO. OF COND.	COLOR
1	Black	6	Blue
2	White	7	Orange
3	Red	8	Yellow
4	Green	9	Violet
5	Brown		

Color Code Chart 2 Per ICEA - For cables of 12 thru 25 conductors

NO. OF COND.	COLOR	NO. OF COND.	COLOR	NO. OF COND.	COLOR
1	Black	10	Orange/Black	19	Blue/Red
2	White	11	Blue/Black	20	Red/Green
3	Red	12	Black/White	21	Orange/Green
4	Green	13	Red/White	22	Black/White/Red
5	Orange	14	Green/White	23	White/Black/Red
6	Blue	15	Blue/White	24	Red/Black/White
7	White/Black	16	Black/Red	25	Green/Black/White
8	Red/Black	17	White/Red		
9	Green/Black	18	Orange/Red		

Multi-Conductor, Unshielded

UL 2464, UL 2587, NEC Type CL3 and CM (UL) c(UL), CSA CMG



Product Construction:

Conductor:

- 16 thru 12 AWG fully annealed stranded tinned copper per ASTM B-33

Insulation:

- Premium-grade, color-coded PVC
- Color Code: See chart below

Jacket:

- PVC, gray
- Temperature Range: -20°C to +80°C

Applications:

- Public address systems
- Intercoms
- Internal telephones
- Remote control circuits
- Suitable for EIA RS-232 applications
- Suggested voltage rating: 300 volts

Compliances:

- NEC Article 725 Type CL3 (UL: 75°C)
- NEC Article 800 Type CM (UL: 75°C)
- UL Style 2464 (UL: 80°C, 300V)
- UL Style 2587 (UL: 90°C, 600V)
- CSA CMG (CSA: 60°C)
- Designed to meet UL 70,000 BTU Vertical Tray Flame Test
- Passes CSA CMG Flame Test

Packaging:

- Please contact Customer Service for packaging and color options

CATALOG NUMBER	NO. OF COND.	AWG SIZE	COND. STRAND.	NOM. INSULATION THICKNESS		NOM. JACKET THICKNESS		NOMINAL O.D.		NOM. C-C CAP.* pF/ft
				INCHES	mm	INCHES	mm	INCHES	mm	

NEC TYPE CM, UL STYLE 2464 (300 volts)

C2405	2	16	19/.0117	0.021	0.53	0.032	0.81	0.268	6.81	30.5
C2406	3	16	19/.0117	0.021	0.53	0.032	0.81	0.283	7.19	30.5
C2425	4	16	19/.0117	0.021	0.53	0.032	0.81	0.306	7.77	30.5
C2434	5	16	19/.0117	0.021	0.53	0.032	0.81	0.334	8.48	30.5
C2426	7	16	19/.0117	0.021	0.53	0.032	0.81	0.363	9.25	30.5
C2443	8	16	19/.0117	0.021	0.53	0.032	0.81	0.393	10.03	30.5
C2435	9	16	19/.0117	0.021	0.53	0.032	0.81	0.423	10.80	30.5
C2427	12	16	19/.0117	0.021	0.53	0.032	0.81	0.476	12.17	30.5
C2428	15	16	19/.0117	0.021	0.53	0.032	0.81	0.530	13.46	30.5
C2429	19	16	19/.0117	0.021	0.53	0.032	0.81	0.559	14.33	30.5
C2436	25	16	19/.0117	0.021	0.53	0.032	0.81	0.657	16.69	30.5

NEC TYPE CL3, UL STYLE 2587 (600 volts)

C2409†	2	14	19/.0147	0.032	0.81	0.032	0.81	0.326	8.51	29.0
C2430	4	14	19/.0147	0.032	0.81	0.032	0.81	0.391	9.93	28.2
C2437	5	14	19/.0147	0.032	0.81	0.032	0.81	0.428	10.87	28.2
C2431	7	14	19/.0147	0.032	0.81	0.032	0.81	0.469	11.91	28.2
C2410	2	12	19/0.0185	0.032	0.81	0.032	0.81	0.366	9.40	31.5
C2440	4	12	19/0.0185	0.032	0.81	0.032	0.81	0.434	11.02	31.5

*Capacitance between conductors

†CL3, UL2587, CSA CMH Only

Color Code Chart Per ICEA

NO. OF COND.	COLOR	NO. OF COND.	COLOR	NO. OF COND.	COLOR
1	Black	10	Orange/Black	19	Blue/Red
2	White	11	Blue/Black	20	Red/Green
3	Red	12	Black/White	21	Orange/Green
4	Green	13	Red/White	22	Black/White/Red
5	Orange	14	Green/White	23	White/Black/Red
6	Blue	15	Blue/White	24	Red/Black/White
7	White/Black	16	Black/Red	25	Green/Black/White
8	Red/Black	17	White/Red		
9	Green/Black	18	Orange/Red		

CAROL BRAND



Designed to Meet
UL Vertical Tray
Flame Test
Underwriters Laboratories Inc.



CMG
Certified
Canadian Standards Association

General Cable

Multi-Conductor, Unshielded

UL 2464, NEC Type CM (UL) c(UL), CSA CMG

Product Construction:

Conductor:

- 22 thru 18 fully annealed stranded tinned copper per ASTM B-33

Insulation:

- Premium-grade, color-coded PVC (18 AWG), S-R PVC (22 AWG)
- Color Code: See chart below

Jacket:

- PVC, gray
- Temperature Range: -20°C to +80°C

Applications:

- TV antenna rotor control
- Satellite actuator control
- Public address systems
- Suggested voltage rating: 300 volts

Features:

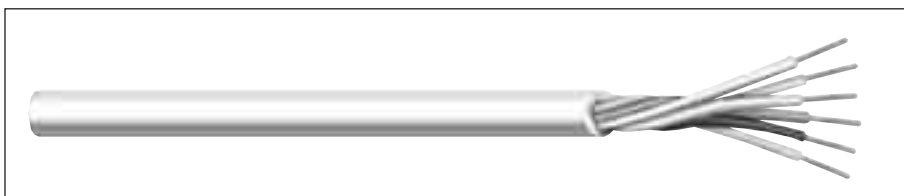
- Tinned copper conductors provide excellent corrosion resistance
- Assists with soldering applications

Compliances:

- NEC Article 800 Type CM (UL: 75°C)
- UL Style 2464 (UL: 80°C, 300V)
- CSA CMG (CSA: 60°C)
- Designed to meet UL 70,000 BTU Vertical Tray Flame Test
- Passes CSA CMG Flame Test

Packaging:

- Please contact Customer Service for packaging and color options



CATALOG NUMBER	NO. OF COND.	AWG SIZE	COND. STRAND.	NOM. INSULATION THICKNESS		NOM. JACKET THICKNESS		NOMINAL O.D.		NOM. C-C CAP* pF/ft
				INCHES	mm	INCHES	mm	INCHES	mm	
C4081	6	4-22 2-18	7/30 16/30	0.010 0.016	0.25 0.41	0.032	0.81	0.244	6.20	25.5 28.0
C4082	7	5-22 2-18	7/30 16/30	0.010 0.016	0.25 0.41	0.032	0.81	0.253	6.43	25.5 28.0
C4083	8	6-22 2-18	7/30 16/30	0.010 0.016	0.25 0.41	0.032	0.81	0.263	6.69	25.5 28.0
C4084	9	7-22 2-18	7/30 16/30	0.010 0.016	0.25 0.41	0.032	0.81	0.273	6.94	25.5 28.0

* Capacitance between conductors

Color Code Chart

NO. OF COND.	COLOR
1 18 ga.	Black
2	White
1 22 ga.	Red
2	Green
3	Brown
4	Blue
5	Orange
6	Yellow
7	Violet

Power-Limited Tray Cable, Unshielded

NEC Type PLTC



Product Construction:

Conductor:

- 22 thru 12 AWG fully annealed stranded tinned copper per ASTM B-33

Insulation:

- Premium-grade, color-coded PVC
- Color Code: See chart below

Jacket:

- PVC, gray
- Temperature Range: -20°C to +105°C

Applications:

- Cable tray installations
- Power limited circuits
- Intercom systems
- Business machines
- Cash registers
- Automatic valve control systems
- Irrigation systems
- Suggested voltage rating: 300 volts
- Burglar alarms

Features:

- Sunlight-resistant PVC jacket
- UL rated for cable tray use

Compliances:

- NEC Article 725 Power-Limited Tray Cable (UL: 105°C, 300V)
- Meets UL 70,000 BTU Vertical Tray Flame Test

Packaging:

- Please contact Customer Service for packaging and color options

CATALOG NUMBER	NO. OF COND.	AWG SIZE	COND. STRAND.	NOM. INSULATION THICKNESS		NOM. JACKET THICKNESS		NOMINAL O.D.		NOM. C-C CAP.* pF/ft
				INCHES	mm	INCHES	mm	INCHES	mm	
C0431	2	22	7/30	0.013	0.33	0.037	0.94	0.190	4.83	25.5
C0432	3	22	7/30	0.013	0.33	0.037	0.94	0.198	5.03	25.5
C0433	2	20	7/28	0.013	0.33	0.037	0.94	0.206	5.23	28.0
C0434	3	20	7/28	0.013	0.33	0.037	0.94	0.216	5.49	28.0
C0435	2	18	16/30	0.015	0.38	0.037	0.94	0.226	5.74	28.0
C0436	3	18	16/30	0.015	0.38	0.037	0.94	0.237	6.02	28.0
C0444	4	18	16/30	0.015	0.38	0.037	0.94	0.257	6.53	28.0
C0437	2	16	19/.0117	0.013	0.33	0.037	0.94	0.243	6.17	34.0
C0438	3	16	19/.0117	0.013	0.33	0.037	0.94	0.250	6.35	34.0
C0439	2	14	19/.0147	0.013	0.33	0.042	1.07	0.288	7.32	37.0
C0440	3	14	19/.0147	0.013	0.33	0.042	1.07	0.290	7.37	37.0
C0441	2	12	19/.0185	0.013	0.33	0.042	1.07	0.315	8.00	40.0

*Capacitance between conductors

Color Code Chart

NO. OF COND.	COLOR
1	Black
2	Red
3	White
4	Green

CAROL BRAND



Designed to Meet
UL Vertical Tray
Flame Test

Underwriters Laboratories Inc.

General Cable

Multi-Conductor, Rubber, Unshielded



Product Construction:

Conductor:

- 20 AWG fully annealed stranded tinned copper per ASTM B-33

Insulation:

- Premium-grade, color-coded rubber
- Color Code: See chart below

Jacket:

- Rubber, black
- Temperature Range: -20°C to +60°C

Applications:

- Energy management systems
- Control circuits
- Fire alarm control
- Broadcast and studio requirements
- Suggested voltage rating: 350 volts

Features:

- Excellent impact resistance
- High level of abrasion resistance
- High flexibility
- Excellent mechanical strength
- Excellent moisture resistance

Compliances:

- RoHS Compliant Directive 2002/95/EC

Packaging:

- Please contact Customer Service for packaging and color options



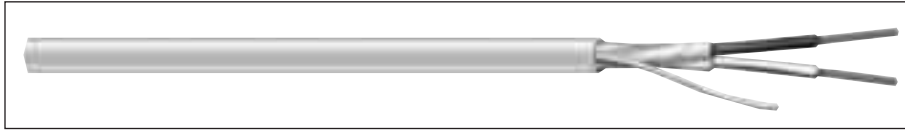
CATALOG NUMBER	NO. OF COND.	AWG SIZE	COND. STRAND.	NOM. INSULATION THICKNESS		NOM. JACKET THICKNESS		NOMINAL O.D.	
				INCHES	mm	INCHES	mm	INCHES	mm
C3602	2	20	26/34	0.020	0.51	0.035	0.89	0.230	5.84
C3603	3	20	26/34	0.020	0.51	0.035	0.89	0.255	6.48
C3604	4	20	26/34	0.020	0.51	0.035	0.89	0.260	6.60
C3605	5	20	26/34	0.020	0.51	0.035	0.89	0.300	7.62
C3606	6	20	26/34	0.020	0.51	0.035	0.89	0.315	8.00
C3607	7	20	26/34	0.020	0.51	0.035	0.89	0.347	8.81
C3608	8	20	26/34	0.020	0.51	0.035	0.89	0.360	9.14
C3610	10	20	26/34	0.020	0.51	0.035	0.89	0.410	10.41

Color Code Chart

NO. OF COND.	COLOR
1	Black
2	White
3	Red
4	Green
5	Blue
6	Brown
7	Yellow
8	Orange
9	Gray
10	Violet

Multi-Conductor, Foil Shield

NEC Type CL2 and CM (UL) c(UL) CMH



CATALOG NUMBER	NO. OF COND.	AWG SIZE	COND. STRAND.	NOM. INSULATION THICKNESS		NOM. JACKET THICKNESS		NOMINAL O.D.		NOM. CAP.*** pF/ft	
				INCHES	mm	INCHES	mm	INCHES	mm	A	B
UL STYLE 2092, CM (UL) c(UL) CMH, 300V											
C2513	2	24	7/32	0.016	0.41	0.026	0.66	0.167	4.24	19.0	34.0
C2514	2	22	7/30	0.016	0.41	0.020	0.51	0.167	4.24	21.0	37.0
C2524	2	20	7/28	0.016	0.41	0.020	0.51	0.183	4.65	23.0	41.0
C2534	2	18	16/30	0.016	0.41	0.020	0.51	0.205	5.21	26.0	47.0

Polyethylene Insulation, Color Code Chart #1

UL STYLE 2093, CM (UL) c(UL) CMH, 300V											
C2526	3	22	7/30	0.016	0.41	0.030	0.76	0.196	4.98	19.0	34.0
C2528	3	20	7/28	0.016	0.41	0.030	0.76	0.210	5.34	21.0	38.0
C2525	3	20	7/28	0.016	0.41	0.030	0.76	0.213	5.41	21.0	37.0
C2535	3	18	16/30	0.016	0.41	0.020	0.51	0.219	5.56	23.0	42.0

Polyethylene Insulation, Color Code Chart #1

UL STYLE 2094, CM (UL) c(UL) CMH, 300V											
C2523	4	22	7/30	0.016	0.41	0.030	0.76	0.213	5.41	19.0	34.0
C2555	4	20	7/28	0.016	0.41	0.030	0.76	0.234	5.94	21.0	38.0

Polyethylene Insulation, Color Code Chart #1

UL STYLE 2106, CSA, 600V											
C2536*	2	16	19/.0117	0.031	0.79	0.032	0.81	0.307	7.80	20.0	36.0
C2538**	2	14	19/.0147	0.031	0.79	0.032	0.81	0.335	8.51	23.0	42.0
C2539**	2	12	19/.0185	0.032	0.81	0.032	0.81	0.376	9.55	26.0	47.0

* CM (UL) c(UL) CMH

** CL2

Polyethylene Insulation, Color Code Chart #1

UL STYLE 2107, CM (UL) c(UL) CMH, 600V											
C2537	3	16	19/.0117	0.031	0.79	0.032	0.81	0.325	8.26	19.0	34.0

Polyethylene Insulation, Color Code Chart #1

UL STYLE 2464, CL2/CM (UL) c(UL) CMH, 300V											
C2540	2	20	7/28	.013	0.33	.032	0.81	.194	4.9	49.7	89.5

PVC Insulation, Color Code Chart #2

CM (UL) c(UL) CMH, 300V											
C2515	2	22	Solid	0.007	0.18	0.020	0.51	0.124	3.15	30.0	55.0
C2516	2	22	7/30	0.008	0.20	0.020	0.51	0.137	3.48	28.0	51.0
C2517	3	22	7/30	0.008	0.20	0.020	0.51	0.144	3.66	25.0	46.0

Polypropylene Insulation, Color Code Chart #2

***A - Capacitance between conductors

***B - Capacitance between one conductor and other conductors connected to shield

Color Code Chart 1

NO. OF COND.	COLOR
1	Black
2	Natural
3	Red
4	Green

Color Code Chart 2

NO. OF COND.	COLOR
1	Black
2	Red
3	Clear

Product Construction:

Conductor:

- 24 thru 12 AWG fully annealed solid or stranded tinned copper per ASTM B-33

Insulation:

- Premium-grade, color-coded polyethylene
- Premium-grade, color-coded polypropylene
- Color Code: See charts below

Shield:

- 100% Flexfoil® aluminum/polyester, 25% overlap, foil facing out
- Stranded tinned copper drain wire

Jacket:

- PVC, gray
- Temperature Range: -20°C to +75°C

Applications:

- Recording studios and sound stages
- Broadcast and sound systems
- Computers
- Industrial equipment control
- Suggested voltage rating: 300 or 600 volts

Features:

- Excellent electrical properties
- Superior shielding effectiveness
- 25% shield overlap provides excellent shielding efficiency
- Good flexibility

Compliances:

- UL Style 2092 (UL: 60°C, 300V)
- UL Style 2093 (UL: 60°C, 300V)
- UL Style 2094 (UL: 60°C, 300V)
- UL Style 2106 (UL: 60°C, 600V)
- UL Style 2107 (UL: 60°C, 600V)
- UL Style 2464 (UL: 80°C, 300V)
- NEC Article 725 Type CL2 (UL: 75°C)
- NEC Article 800 Type CM (UL: 75°C)
- Designed to meet UL 70,000 BTU Vertical Tray Flame Test
- CSA CMH (CSA: 60°C)
- Passes CSA CMH Flame Test

Packaging:

- Please contact Customer Service for packaging and color options

CAROL BRAND

UL
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UL

Designed to Meet
UL Vertical Tray
Flame Test
Underwriters Laboratories Inc.

CSA
CMG
Certified
Cable Manufacturers Association

General Cable

Multi-Conductor, Foil Shield

UL 2464, NEC Type CM (UL) c(UL), CSA CMG

Product Construction:

Conductor:

- 18 AWG fully annealed stranded tinned copper per ASTM B-33

Insulation:

- Premium-grade, color-coded S-R PVC
- Color Code: See chart below

Shield:

- 100% Flexfoil® aluminum/polyester, 25% overlap, foil facing out
- Stranded tinned copper drain wire

Jacket:

- PVC, gray
- Temperature Range: -20°C to +80°C

Applications:

- Audio, broadcast, instrumentation and sound systems
- Suggested voltage rating: 300 volts

Compliances:

- NEC Article 800 Type CM (UL: 75°C)
- UL Style 2464 (UL: 80°C, 300V)
- CSA CMG (60°C)
- Designed to meet UL 70,000 BTU Vertical Tray Flame Test
- Passes CSA CMG Flame Test

Packaging:

- Please contact Customer Service for packaging and color options



CATALOG NUMBER	NO. OF COND.	AWG SIZE	COND. STRAND.	NOM. INSULATION THICKNESS		NOM. JACKET THICKNESS		NOMINAL O.D.		NOM. CAP.* pF/ft	
				INCHES	mm	INCHES	mm	INCHES	mm	A	B
C2543	4	18	19/30	0.010	0.25	0.032	0.81	0.238	6.05	48	87

*A - Capacitance between conductors

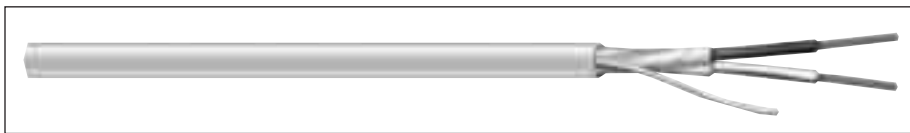
*B - Capacitance between one conductor and other conductors connected to shield

Color Code Chart

NO. OF COND.	COLOR
1	Black
2	Red
3	White
4	Green

Multi-Conductor, Foil Shield

UL 2092, NEC Type CM (UL) c(UL) CMH



CATALOG NUMBER	NO. OF COND.	AWG SIZE	COND. STRAND.	NOM. INSULATION THICKNESS		NOM. JACKET THICKNESS		NOMINAL O.D.		NOM. CAP.* pF/ft	
				INCHES	mm	INCHES	mm	INCHES	mm	A	B
UL STYLE 2092, CM (UL) c(UL) CMH, 300V											
C2518	2	22	7/30	0.016	0.41	0.026	0.66	0.181	4.60	20.0	36.0
C2519	2	20	7/28	0.016	0.41	0.028	0.71	0.201	5.11	22.0	40.0
C2521	2	18	16/30	0.018	0.46	0.028	0.71	0.229	5.82	24.3	44.8

Polyethylene Insulation, Color Code Chart #1

CM (UL) c(UL) CMH, 300V											
C2520	2	22	7/30	0.008	0.20	0.020	0.51	0.137	3.48	28.3	44.6

Polypropylene Insulation, Color Code Chart #2

*A - Capacitance between conductors

*B - Capacitance between one conductor and other conductors connected to shield

Color Code Chart 1

NO. OF COND.	COLOR
1	Black
2	Natural

Color Code Chart 2

NO. OF COND.	COLOR
1	Black
2	Red

Product Construction:

Conductor:

- 22 thru 18 AWG fully annealed stranded tinned copper per ASTM B-33

Insulation:

- Premium-grade, color-coded polypropylene or polyethylene
- Color Code: See charts below

Shield:

- 100% aluminum/polyester foil "bonded" to jacket, foil facing in
- Stranded tinned copper drain wire

Jacket:

- PVC, gray
- Temperature Range: -20°C to +75°C

Applications:

- 100% shielded cable where RF shielding is required
- Control circuits
- Data and signal transmission
- Computer interconnections
- Suggested voltage rating: 300 volts

Features:

- The jacket and shield are "bonded" for ease of removal on automatic stripping equipment

Compliances:

- NEC Article 800 Type CM (UL: 75°C)
- UL Style 2092 (UL: 60°C, 300V)
- Designed to meet UL 70,000 BTU Vertical Tray Flame Test
- CSA CMH (CSA: 60°C)
- Passes CSA CMH Flame Test

Packaging:

- Please contact Customer Service for packaging and color options

CAROL BRAND

UL
LISTED

RA

Designed to Meet
UL Vertical Tray
Flame Test

Underwriters Laboratories Inc.

CSA
CMH
Certified
Canadian Standard Association

General Cable

Power-Limited Tray Cable, Foil Shield

NEC Type PLTC

Product Construction:

Conductor:

- 22 thru 12 AWG fully annealed stranded tinned copper per ASTM B-33

Insulation:

- Premium-grade, color-coded PVC
- Color Code: See chart below

Shield:

- 100% Flexfoil® aluminum/polyester, 25% overlap foil facing out
- Stranded tinned copper drain wire

Jacket:

- PVC, gray
- Temperature Range: -20°C to +105°C

Applications:

- Cable tray installations
- Power limited circuits
- Intercom systems
- Business machines
- Cash registers
- Industrial control systems
- Petrochemical refineries
- Suggested voltage rating: 300 volts
- Burglar Alarms

Features:

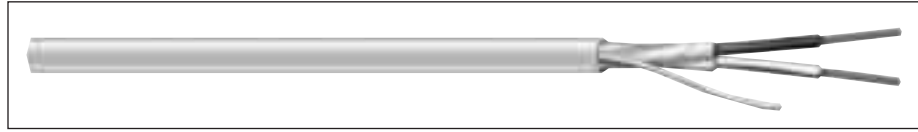
- Sunlight-resistant PVC jacket
- Good weather resistance
- UL tray cable rated

Compliances:

- NEC Article 725 Power-Limited Tray Cable (UL: 105°C, 300V)
- Designed to meet UL 70,000 BTU Vertical Tray Flame Test

Packaging:

- Please contact Customer Service for packaging and color options



CATALOG NUMBER	NO. OF COND.	AWG SIZE	COND. STRAND.	NOM. INSULATION THICKNESS		NOM. JACKET THICKNESS		NOMINAL O.D.		NOM. CAP.* pF/ft	
				INCHES	mm	INCHES	mm	INCHES	mm	A	B
C0450	2	22	7/30	0.013	0.33	0.037	0.94	0.191	4.85	39.0	70.0
C0451	3	22	7/30	0.013	0.33	0.037	0.94	0.199	5.05	36.0	64.0
C0452	2	20	7/28	0.013	0.33	0.037	0.94	0.207	5.26	44.0	80.0
C0453	3	20	7/28	0.013	0.33	0.037	0.94	0.217	5.51	40.0	72.0
C0454	2	18	16/30	0.015	0.38	0.037	0.94	0.227	5.77	46.0	82.0
C0455	3	18	16/30	0.015	0.38	0.037	0.94	0.238	6.04	41.0	74.0
C0456	2	16	19/.0117	0.013	0.33	0.037	0.94	0.243	6.17	57.0	103.0
C0457	3	16	19/.0117	0.013	0.33	0.037	0.94	0.255	6.48	50.0	90.0
C0458	2	14	19/.0147	0.013	0.33	0.042	1.07	0.288	7.32	66.0	119.0
C0459	3	14	19/.0147	0.013	0.33	0.042	1.07	0.298	7.57	57.0	103.0
C0460	2	12	19/.0185	0.013	0.33	0.042	1.07	0.315	8.00	71.0	129.0

*A - Capacitance between conductors

*B - Capacitance between one conductor and other conductors connected to shield

Color Code Chart

NO. OF COND.	COLOR
1	Black
2	Red
3	White

Multi-Conductor, Spiral Shield

UL 2095, NEC Type CL2 and CM (UL) c(UL), CSA CMG



CATALOG NUMBER	NO. OF COND.	AWG SIZE	COND. STRAND.	NOM. INSULATION THICKNESS		NOM. JACKET THICKNESS		NOMINAL O.D.		NOM. CAP.* pF/ft	
				INCHES	mm	INCHES	mm	INCHES	mm	A	B

UL STYLE 2095, CM (UL) c(UL), CSA CMG, 300V

C2882	2	22	7/30	0.015	0.38	0.032	0.81	0.197	5.00	41.0	73.0
C2888	2	20	7/28	0.016	0.41	0.032	0.81	0.215	5.46	44.0	80.2

Color Code Chart #1

CL2/CM (UL) c(UL), CSA CMG, 300V

C1335	3	22	7/30	0.015	0.38	0.032	0.81	0.206	5.23	37.0	67.0
C1337	4	22	7/30	0.015	0.38	0.032	0.81	0.222	5.64	37.0	67.0
C1341	6	22	7/30	0.015	0.38	0.032	0.81	0.257	6.53	40.6	73.1
C2768	3	18	7/26	0.020	0.51	0.032	0.81	0.266	6.76	41.0	74.0

Color Code Chart #1

CM (UL) c(UL), CSA CMG, 300V

C2892	2	18	16/30	0.016	0.41	0.032	0.81	0.252	6.40	50.4	90.8
C2895	2	16	19/.0117	0.016	0.41	0.032	0.81	0.265	6.73	58.0	104.0

Color Code Chart #2

*A - Capacitance between conductors

*B - Capacitance between one conductor and other conductors connected to shield

Color Code Chart 1

NO. OF COND.	COLOR
1	Black
2	Red
3	White
4	Green
5	Yellow
6	Blue

Color Code Chart 2

CATALOG NUMBER	CONDUCTOR	COLOR
C2892	1	White
	2	Red
C2895	1	White
	2	Black

Product Construction:

Conductor:

- 22 thru 16 AWG fully annealed stranded tinned copper per ASTM B-33

Insulation:

- Premium-grade, color-coded PVC
- Color Code: See charts below

Shield:

- 85% spiral tinned copper

Jacket:

- PVC, gray
- Temperature Range: -20°C to +80°C

Applications:

- Electronic circuits where RF shielding is required
- Radio transmitters
- Sound systems
- Recording studios
- Suggested voltage rating: 300 volts

Features:

- Spiral shield allows ease of "pigtail soldering"
- Maximum flexibility

Compliances:

- NEC Article 800 Type CM (UL: 75°C)
- UL Style 2095 (UL: 80°C, 300V)
- CSA CMG (CSA: 60°C)
- Designed to meet UL 70,000 BTU Vertical Tray Flame Test
- Passes CSA CMG Flame Test
- NEC Article 725 Type CL2 (UL: 75°C)

Packaging:

- Please contact Customer Service for packaging and color options

Multi-Conductor, Braid Shield

NEC Type CL2 and CM(UL) c(UL), CSA CMG

Product Construction:

Conductor:

- 22 AWG fully annealed solid or stranded tinned copper per ASTM B-33

Insulation:

- Premium-grade, color-coded PVC
- Color Code: See chart below

Shield:

- 88% tinned copper braid
- Stranded or solid tinned copper drain wire

Jacket:

- PVC, black
- Temperature Range: -20°C to +75°C

Applications:

- Electronic circuits where RF shielding is required
- Radio transmitters
- Sound systems
- Recording studios
- Good flexibility
- Excellent shielding for noise reduction
- Suggested voltage rating: 300 volts

Compliances:

- NEC Article 800 Type CM (UL: 75°C)
- Designed to meet UL 70,000 BTU Vertical Tray Flame Test
- CSA CMG (CSA: 60°C)
- Passes CSA CMG Flame Test
- NEC Article 725 Type CL2 (UL: 75°C)

Packaging:

- Please contact Customer Service for packaging and color options



CATALOG NUMBER	NO. OF COND.	AWG SIZE	COND. STRAND.	NOM. INSULATION THICKNESS		NOM. JACKET THICKNESS		NOMINAL O.D.		NOM. CAP.* pF/ft	
				INCHES	mm	INCHES	mm	INCHES	mm	A	B
C2676	2	22	Solid	0.015	0.38	0.032	0.81	0.209	5.31	38.6	69.4
C2677	2	22	7/30	0.015	0.38	0.032	0.81	0.211	5.36	39.3	70.7

*A - Capacitance between conductors

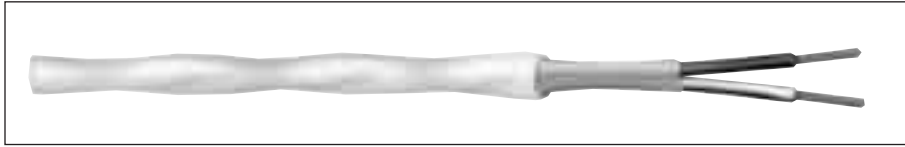
*B - Capacitance between one conductor and other conductors connected to shield

Color Code Chart

NO. OF COND.	COLOR
1	Black
2	Red

Multi-Conductor, Braid Shield

UL 2095, NEC Type CM (UL) c(UL), CSA CMG



CATALOG NUMBER	NO. OF COND.	AWG SIZE	COND. STRAND.	NOM. INSULATION THICKNESS		NOM. JACKET THICKNESS		NOMINAL O.D.		NOM. CAP.* pF/ft	
				INCHES	mm	INCHES	mm	INCHES	mm	A	B
C2679	2	22	7/30	0.015	0.38	0.032	0.81	0.212	5.38	41.0	73.0
C2678	3	22	7/30	0.015	0.38	0.032	0.81	0.221	5.61	37.0	67.0
C2680	4	22	7/30	0.015	0.38	0.032	0.81	0.237	6.02	37.0	67.0
C2681	2	20	7/28	0.016	0.41	0.032	0.81	0.230	5.84	44.0	80.0
C1332	3	20	7/28	0.016	0.41	0.032	0.81	0.240	6.10	40.0	72.0
C2683	4	20	7/28	0.016	0.41	0.032	0.81	0.259	6.58	40.0	73.0
C2686	2	18	16/30	0.016	0.41	0.032	0.81	0.252	6.40	50.0	91.0
C2687	3	18	16/30	0.016	0.41	0.032	0.81	0.264	6.71	46.0	82.0
C2688	4	18	16/30	0.016	0.41	0.032	0.81	0.286	7.26	46.0	82.0
C2689	2	16	19/29	0.020	0.51	0.030	0.76	0.280	7.11	51.0	91.0

*A - Capacitance between conductors

*B - Capacitance between one conductor and other conductors connected to shield

Color Code Chart

NO. OF COND.	COLOR
1	Black
2	Red
3	White
4	Green

Product Construction:

Conductor:

- 22 thru 18 AWG fully annealed stranded tinned copper per ASTM B-33

Insulation:

- Premium-grade, color-coded PVC
- Color Code: See chart below

Shield:

- 75% tinned copper braid

Jacket:

- PVC, gray
- Temperature Range: -20°C to +80°C

Applications:

- Electronic circuits where RF shielding is required
- Radio transmitters
- Sound systems
- Recording studios
- Provides good flexibility
- Excellent shielding for noise reduction
- Suggested voltage rating: 300 volts

Compliances:

- NEC Article 800 Type CM (UL: 75°C)
- UL Style 2095 (UL: 80°C, 300V)
- Designed to meet UL 70,000 BTU Vertical Tray Flame Test
- CSA CMG (CSA: 60°C)
- Passes CSA CMG Flame Test

Packaging:

- Please contact Customer Service for packaging and color options

Multi-Conductor, Braid Shield

MIL-W-16878 Type B

Product Construction:

Conductor:

- 28 AWG fully annealed stranded tinned copper per ASTM B-33

Insulation:

- Premium-grade, color-coded PVC per MIL-W-16878 Type B
- Color Code: See chart below

Shield:

- 90% tinned copper braid

Jacket:

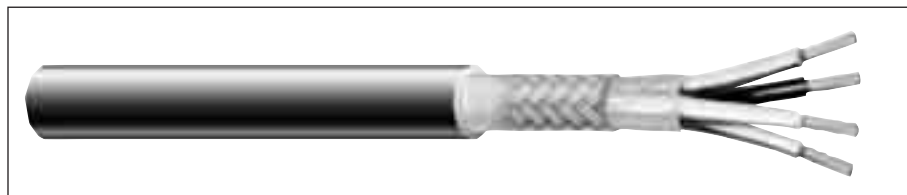
- PVC, gray
- Temperature Range: -20°C to +90°C

Applications:

- Electronic circuits where RF shielding is required
- Remote control for studio equipment
- Sound systems
- Provides good flexibility
- Excellent shielding for noise reduction
- Suggested voltage rating: 600 volts
- Non QPL

Packaging:

- Please contact Customer Service for packaging and color options



CATALOG NUMBER	NO. OF COND.	AWG SIZE	COND. STRAND.	NOM. INSULATION THICKNESS		NOM. JACKET THICKNESS		NOMINAL O.D.		NOM. CAP.* pF/ft	
				INCHES	mm	INCHES	mm	INCHES	mm	A	B
C6500	2	28	7/36	0.010	0.28	0.016	0.41	0.130	3.30	30.0	54.0
C6501	3	28	7/36	0.010	0.28	0.016	0.41	0.135	3.30	28.0	51.0
C6502	4	28	7/36	0.010	0.28	0.016	0.41	0.145	3.68	28.0	51.0
C6503	6	28	7/36	0.010	0.28	0.019	0.48	0.172	4.37	27.0	48.0
C6504	8	28	7/36	0.010	0.28	0.021	0.53	0.187	4.75	27.0	48.0
C6505	10	28	7/36	0.010	0.28	0.021	0.53	0.212	5.38	27.0	48.0
C6506	12	28	7/36	0.010	0.28	0.021	0.53	0.217	5.51	27.0	48.0
C6507	15	28	7/36	0.010	0.28	0.021	0.53	0.239	6.02	27.0	48.0
C6508	20	28	7/36	0.010	0.28	0.021	0.53	0.289	7.34	27.0	48.0

*A - Capacitance between conductors

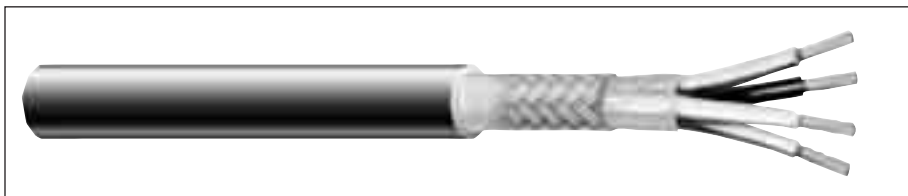
*B - Capacitance between one conductor and other conductors connected to shield

Color Code Chart

NO. OF COND.	COLOR	NO. OF COND.	COLOR	NO. OF COND.	COLOR
1	Black	8	Red/Black	15	Blue/White
2	White	9	Green/Black	16	Black/Red
3	Red	10	Orange/Black	17	White/Red
4	Green	11	Blue/Black	18	Orange/Red
5	Orange	12	Black/White	19	Blue/Red
6	Blue	13	Red/White	20	Red/Green
7	White/Black	14	Green/White		

Multi-Conductor, Braid Shield

UL 2092, 2093, 2094



CATALOG NUMBER	NO. OF COND.	AWG SIZE	COND. STRAND.	NOM. INSULATION THICKNESS		NOM. JACKET THICKNESS		NOMINAL O.D.		NOM. CAP.*	
				INCHES	mm	INCHES	mm	INCHES	mm	A	B

AWM STYLE 2092, CM (UL) c(UL) CMH, 300V

C1642	2	20	26/34	0.016	0.38	0.029	0.74	0.226	5.74	24.0	41.0
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AWM STYLE 2093, CM (UL) c(UL) CMH, 300V

C1643	3	20	26/34	0.016	0.38	0.029	0.74	0.236	5.99	22.0	40.0
--------------	---	----	-------	-------	------	-------	------	-------	------	------	------

AWM STYLE 2094, CM (UL) c(UL) CMH, 300V

C1644	4	20	26/34	0.016	0.38	0.029	0.74	0.255	6.48	22.0	37.6
C1645	5	20	26/34	0.016	0.38	0.029	0.74	0.274	6.96	22.0	37.6
C1646	6	20	26/34	0.016	0.38	0.029	0.74	0.294	7.47	19.4	37.0

*A - Capacitance between conductors

*B - Capacitance between one conductor and other conductors connected to shield

Color Code Chart

NO. OF COND.	COLOR
1	Black
2	White
3	Red
4	Green
5	Yellow
6	Blue

Product Construction:

Conductor:

- 20 AWG fully annealed stranded tinned copper per ASTM B-33

Insulation:

- Premium-grade, color-coded polyethylene
- Color Code: See chart below

Shield:

- 80% tinned copper braid
- Mylar wrap under braid

Jacket:

- PVC, gray
- Temperature Range: -20°C to +75°C

Applications:

- Electronic circuits where RF shielding is required
- Video interconnect
- Broadcast and studio
- Sound systems
- Suggested voltage rating: 300 volts

Features:

- Low capacitance
- Lightweight
- Excellent shielding for noise reduction

Compliances:

- NEC Article 800 Type CM (UL: 75°C)
- AWM style 2092 (UL: 60°C, 300V)
- AWM style 2093 (UL: 60°C, 300V)
- AWM style 2094 (UL: 60°C, 300V)
- Designed to meet UL VW-1 Vertical Wire Flame Test

Packaging:

- Please contact Customer Service for packaging and color options

CAROL BRAND



Designed to Meet
UL VW-1 Vertical
Wire Flame Test

Underwriters Laboratories Inc.

General Cable

Multi-Conductor, Foil/Braid Shield

UL 2094, NEC Type CL2

Product Construction:

Conductor:

- 20 AWG fully annealed stranded tinned copper per ASTM B-33

Insulation:

- Premium-grade, color-coded polyethylene
- Color Code: See chart below

Shield:

- 100% Flexfoil® aluminum/polyester, 25% overlap, foil facing out
- 80% tinned copper braid

Jacket:

- PVC, gray
- Temperature Range: -20°C to +75°C

Applications:

- Electronic circuits where RF shielding is required
- Video interconnect
- Broadcast and studio
- Sound systems
- Suggested voltage rating: 300 volts

Features:

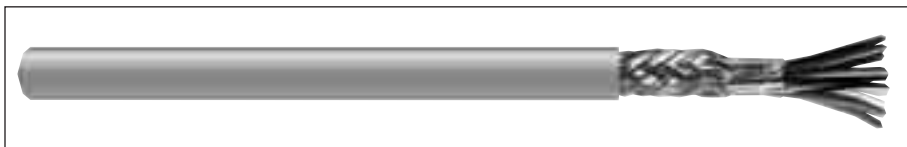
- Low capacitance
- Lightweight
- Excellent shielding for noise reduction

Compliances:

- NEC Article 725 Type CL2 (UL: 75°C)
- UL Style 2094 (UL: 60°C, 300V)
- Designed to meet UL 70,000 BTU Vertical Tray Flame Test

Packaging:

- Please contact Customer Service for packaging and color options



CATALOG NUMBER	NO. OF COND.	AWG SIZE	COND. STRAND.	NOM. INSULATION THICKNESS		NOM. JACKET THICKNESS		NOMINAL O.D.		NOM. CAP.* pF/ft	
				INCHES	mm	INCHES	mm	INCHES	mm	A	B
C1648	8	20	26/34	0.016	0.38	0.029	0.74	0.316	8.03	20.0	36.0

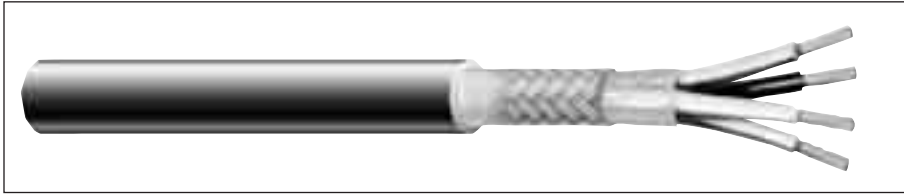
*A - Capacitance between conductors

*B - Capacitance between one conductor and other conductors connected to shield

Color Code Chart

NO. OF COND.	COLOR	NO. OF COND.	COLOR
1	Black	5	Yellow
2	White	6	Blue
3	Red	7	Brown
4	Green	8	Orange

Multi-Conductor, Rubber, Braid Shield



CATALOG NUMBER	NO. OF COND.	AWG SIZE	COND. STRAND.	NOM. INSULATION THICKNESS		NOM. JACKET THICKNESS		NOMINAL O.D.	
				INCHES	mm	INCHES	mm	INCHES	mm
C1302	2	20	26/34	0.020	0.51	0.035	0.89	0.270	6.86
C1304	3	20	26/34	0.020	0.51	0.035	0.89	0.285	7.24
C1305	4	20	26/34	0.020	0.51	0.035	0.89	0.300	7.62
C1308	5	20	26/34	0.020	0.51	0.035	0.89	0.330	8.38
C1310	6	20	26/34	0.020	0.51	0.035	0.89	0.340	8.64
C1312	7	20	26/34	0.020	0.51	0.035	0.89	0.355	9.02
C1313	8	20	26/34	0.020	0.51	0.035	0.89	0.385	9.78

Color Code Chart

NO. OF COND.	COLOR	NO. OF COND.	COLOR
1	Black	5	Blue
2	White	6	Brown
3	Red	7	Yellow
4	Green	8	Orange

Product Construction:

Conductor:

- 20 AWG fully annealed stranded tinned copper per ASTM B-33

Insulation:

- Premium-grade, color-coded rubber
- Color Code: See chart below

Shield:

- 80% tinned copper braid

Jacket:

- Rubber, black
- Temperature Range: -20°C to +60°C

Applications:

- Control circuits
- Broadcast and studio applications
- Audio interconnects
- Suggested voltage rating: 300 volts

Features:

- Impact- and abrasion-resistant
- Stranded conductors for superior flexibility

Compliances:

- RoHS Compliant Directive 2002/95/EC

Packaging:

- Please contact Customer Service for packaging and color options

Multi-Conductor, Carolprene[®], Braid Shield



Product Construction:

Conductor:

- 18 thru 14 AWG fully annealed stranded tinned copper per ASTM B-33

Insulation:

- Premium-grade, color-coded rubber
- Color Code: See chart below

Shield:

- 80% tinned copper braid

Jacket:

- Carolprene[®], black
- Temperature Range: -20°C to +60°C

Applications:

- Control circuits
- Broadcast and studio applications
- Audio interconnects
- Suggested voltage rating: 300 volts

Features:

- Impact- and abrasion-resistant
- Stranded conductors for superior flexibility
- Designed to Meet UL VW-1 Vertical Wire Flame Test

Compliance:

- RoHS Compliant Directive 2002/95/EC

Packaging:

- Please contact Customer Service for packaging and color options



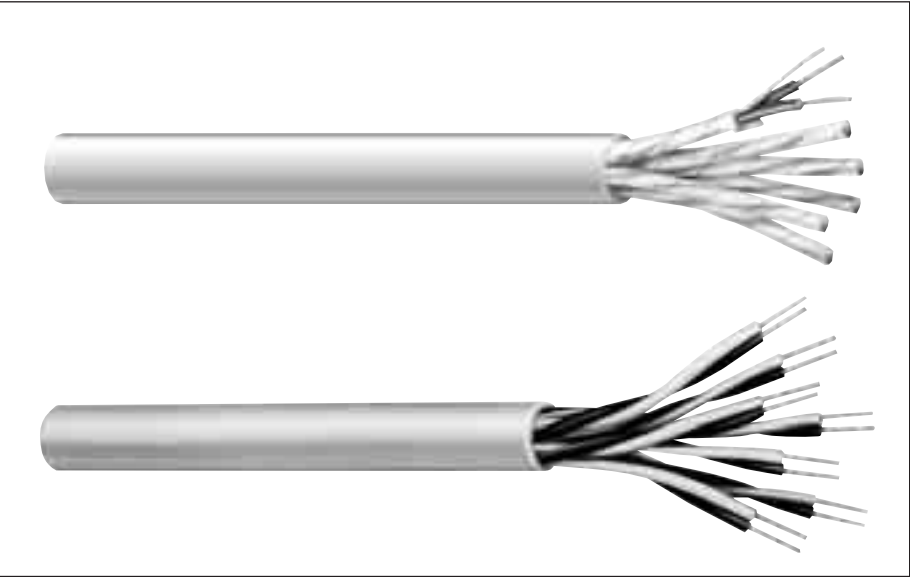
CATALOG NUMBER	NO. OF COND.	AWG SIZE	COND. STRAND.	NOM. INSULATION THICKNESS		NOM. JACKET THICKNESS		NOMINAL O.D.	
				INCHES	mm	INCHES	mm	INCHES	mm
C1202	2	18	41/34	0.020	0.51	0.035	0.89	0.295	7.49
C1203	3	18	41/34	0.020	0.51	0.035	0.89	0.305	7.75
C1204	4	18	41/34	0.020	0.51	0.035	0.89	0.330	8.38
C1206	6	18	41/34	0.020	0.51	0.035	0.89	0.370	9.39
C1208	8	18	41/34	0.020	0.51	0.035	0.89	0.420	10.67
C1210	10	18	41/34	0.020	0.51	0.035	0.89	0.425	10.80
C1212	12	18	41/34	0.020	0.51	0.065	1.65	0.555	14.10
C1602	2	16	65/34	0.025	0.64	0.035	0.89	0.335	8.51
C1603	3	16	65/34	0.025	0.64	0.035	0.89	0.355	9.02
C1604	4	16	65/34	0.025	0.64	0.035	0.89	0.385	9.78
C1606	6	16	65/34	0.025	0.64	0.040	1.02	0.445	11.30
C1608	8	16	65/34	0.025	0.64	0.040	1.02	0.510	12.95
C1612	2	14	41/30	0.030	0.76	0.040	1.02	0.395	10.03
C1614	4	14	41/30	0.030	0.76	0.040	1.02	0.455	11.56

Color Code Chart

NO. OF COND.	COLOR	NO. OF COND.	COLOR
1	Black	7	Yellow
2	White	8	Orange
3	Red	9	Gray
4	Green	10	Violet
5	Blue	11	White/Black
6	Brown	12	White/Red

Communication & Control Cable, Multi-Paired

3



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In many electronic applications, two wires are required to complete circuits; these are often referred to as “balanced arrays” or “twisted pair” constructions.

Paired cable designs find frequent application in circuits requiring circuit-to-circuit isolation from noise, minimization of capacitance imbalances and a reduction of EMI interference currents.

Circuit separation is further enhanced in those designs employing individual circuit shields in concert with an overall shield. These shielding systems are available from General Cable in myriad combinations to suit the unique needs of the circuit designer.

As with the multi-conductor designs, a wide array of insulating and jacketing materials are available to meet specific electronic applications.

General Cable’s Carol® Brand communication cable products are manufactured to meet the latest UL, CSA and NEC requirements and approvals.

Multi-Paired, Unshielded

UL 2464, NEC Type CM (UL) c(UL), CSA CMG

Product Construction:

Conductor:

- 22 AWG fully annealed solid or stranded tinned copper per ASTM B-33
- Twisted pairs

Insulation:

- Premium-grade, color-coded S-R PVC
- Color Code: See chart below

Jacket:

- PVC, gray
- Temperature Range: -20°C to +80°C

Applications:

- Computers
- Industrial equipment
- Data transmission
- Control circuits
- Suitable for EIA RS-232 applications
- Suggested voltage rating: 300 volts

Compliances:

- NEC Article 800 Type CM (UL: 75°C)
- UL Style 2464 (UL: 80°C, 300V)
- CSA CMG (CSA: 60°C)
- Designed to meet UL 70,000 BTU Vertical Tray Flame Test
- Passes CSA CMG Flame Test

Packaging:

- Please contact Customer Service for packaging and color options



CATALOG NUMBER	NO. OF PAIRS	AWG SIZE	COND. STRAND.	NOM. INSULATION THICKNESS		NOM. JACKET THICKNESS		NOMINAL O.D.		NOM C-C pF/ft
				INCHES	mm	INCHES	mm	INCHES	mm	
NEC TYPE CM										
C4008	1	22	Solid	0.010	0.25	0.032	0.81	0.156	3.94	24.5
C4010	2	22	Solid	0.010	0.25	0.032	0.81	0.218	5.54	24.5
C4014	3	22	Solid	0.010	0.25	0.032	0.81	0.229	5.82	24.5
C4015	4	22	Solid	0.010	0.25	0.032	0.81	0.249	6.32	24.5
C4017	6	22	Solid	0.012	0.30	0.032	0.81	0.293	7.44	22.4
C6010	2	22	7/30	0.010	0.25	0.032	0.81	0.228	5.79	27.0
C6014	3	22	7/30	0.010	0.25	0.032	0.81	0.240	6.10	27.0
C6015	4	22	7/30	0.010	0.25	0.032	0.81	0.262	6.65	27.0
C6017	6	22	7/30	0.010	0.25	0.032	0.81	0.300	7.62	27.0
C6019	9	22	7/30	0.010	0.25	0.032	0.81	0.366	9.30	27.0
C6023	12	22	7/30	0.010	0.25	0.032	0.81	0.410	10.40	27.0
C6026	15	22	7/30	0.010	0.25	0.032	0.81	0.456	11.58	25.5

*Capacitance between conductors

Color Code Chart

NO. OF PAIRS	COLOR	NO. OF PAIRS	COLOR
1	Black paired with Red	9	Red paired with Green
2	Black paired with White	10	Red paired with Blue
3	Black paired with Green	11	Red paired with Yellow
4	Black paired with Blue	12	Red paired with Brown
5	Black paired with Yellow	13	Red paired with Orange
6	Black paired with Brown	14	Green paired with White
7	Black paired with Orange	15	Green paired with Blue
8	Red paired with White		

Multi-Paired, Unshielded

UL 2464, NEC Type CM (UL) c(UL), CSA CMG



Product Construction:

Conductor:

- 18 AWG fully annealed stranded tinned copper per ASTM B-33
- Twisted pairs

Insulation:

- Premium-grade, color-coded S-R PVC
- Color Code: See chart below

Jacket:

- PVC, gray
- Temperature Range: -20°C to +80°C

Applications:

- Computers
- Industrial equipment
- Data transmission
- Control circuits
- Suitable for EIA RS-232 applications
- Suggested voltage rating: 300 volts

Compliances:

- NEC Article 800 Type CM (UL: 75°C)
- UL Style 2464 (UL: 80°C, 300V)
- CSA CMG (CSA: 60°C)
- Designed to meet UL 70,000 BTU Vertical Tray Flame Test
- Passes CSA CMG Flame Test

Packaging:

- Please contact Customer Service for packaging and color options

CATALOG NUMBER	NO. OF PAIRS	AWG SIZE	COND. STRAND.	NOM. INSULATION THICKNESS		NOM. JACKET THICKNESS		NOMINAL O.D.		NOM C-C pF/ft
				INCHES	mm	INCHES	mm	INCHES	mm	
C6101	1	18	16/30	0.013	0.33	0.032	0.81	0.206	5.23	26.3
C6118	2	18	16/30	0.013	0.33	0.032	0.81	0.320	8.13	26.3
C6103	3	18	16/30	0.013	0.33	0.032	0.81	0.338	8.59	26.3
C6119	4	18	16/30	0.013	0.33	0.032	0.81	0.372	9.45	26.3
C6120	5	18	16/30	0.013	0.33	0.032	0.81	0.408	10.36	26.3
C6106	6	18	16/30	0.013	0.33	0.032	0.81	0.445	11.30	26.3
C6121	8	18	16/30	0.013	0.33	0.032	0.81	0.484	12.29	26.3
C6109	9	18	16/30	0.013	0.33	0.032	0.81	0.522	13.26	26.3
C6111	15	18	16/30	0.013	0.33	0.032	0.81	0.659	16.74	26.3

*Capacitance between conductors

Color Code Chart

NO. OF PAIRS	COLOR	NO. OF PAIRS	COLOR
1	Black paired with Red	9	Red paired with Green
2	Black paired with White	10	Red paired with Blue
3	Black paired with Green	11	Red paired with Yellow
4	Black paired with Blue	12	Red paired with Brown
5	Black paired with Yellow	13	Red paired with Orange
6	Black paired with Brown	14	Green paired with White
7	Black paired with Orange	15	Green paired with Blue
8	Red paired with White		

CAROL BRAND



Designed to Meet
UL Vertical Tray
Flame Test

Underwriters Laboratories Inc.



CMG
Certified

Canadian Standards Association



General Cable

Multi-Paired, Foil Shield

UL 2464, UL 2576, NEC Type CM (UL) c(UL), CSA CMG

Product Construction:

Conductor:

- 22 AWG fully annealed solid tinned copper per ASTM B-33
- Twisted pairs

Insulation:

- Premium-grade, color-coded S-R PVC
- Color Code: See chart below

Shield:

- 100% Flexfoil® aluminum/polyester, 25% overlap, foil facing out
- Stranded tinned copper drain wire

Jacket:

- PVC, gray
- Temperature Range: -20°C to +75°C

Applications:

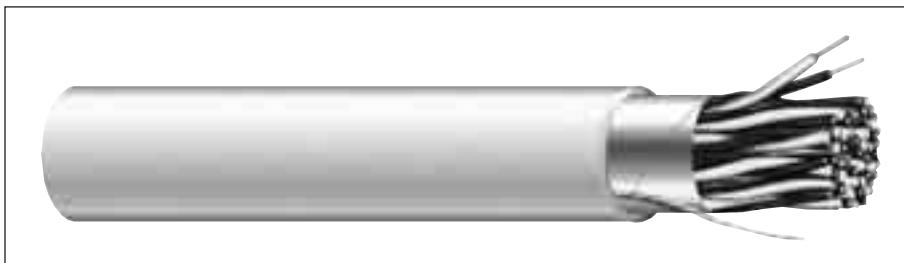
- Audio systems
- Communication circuits
- Instrumentation and control use
- Suggested voltage rating: 300 volts

Compliances:

- NEC Article 800 Type CM (UL: 75°C, 300V)
- CSA CMG (CSA: 60°C)
- UL Style 2464 (UL: 80°C, 300V)
- UL Style 2576 (UL: 80°C, 150V)
- Designed to meet UL 70,000 BTU Vertical Tray Flame Test
- Passes CSA CMG Flame Test

Packaging:

- Please contact Customer Service for packaging and color options



CATALOG NUMBER	NO. OF PAIRS	AWG SIZE	COND. STRAND.	NOM. INSULATION THICKNESS		NOM. JACKET THICKNESS		NOMINAL O.D.		NOMINAL CAP.*	
				INCHES	mm	INCHES	mm	INCHES	mm	A	B
C1670	2	22	Solid	0.010	0.25	0.032	0.81	0.218	5.54	32.0	57.0
C1676	4	22	Solid	0.010	0.25	0.032	0.81	0.249	6.32	28.0	50.0
C1671	6	22	Solid	0.010	0.25	0.032	0.81	0.292	7.42	25.0	45.0
C1672	9	22	Solid	0.010	0.25	0.032	0.81	0.338	8.59	25.0	45.0
C1673	15	22	Solid	0.010	0.25	0.032	0.81	0.419	10.64	25.0	45.0

*A - Capacitance between conductors

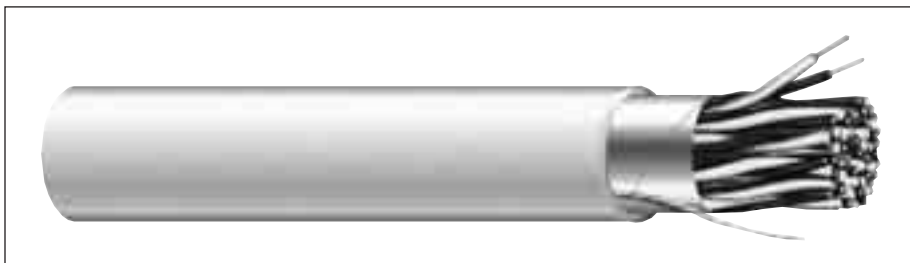
*B - Capacitance between one conductor and other conductors connected to shield

Color Code Chart

NO. OF PAIRS	COLOR	NO. OF PAIRS	COLOR
1	Black paired with Red	9	Red paired with Green
2	Black paired with White	10	Red paired with Blue
3	Black paired with Green	11	Red paired with Yellow
4	Black paired with Blue	12	Red paired with Brown
5	Black paired with Yellow	13	Red paired with Orange
6	Black paired with Brown	14	Green paired with White
7	Black paired with Orange	15	Green paired with Blue
8	Red paired with White		

Multi-Paired, Foil Shield

UL 2095, NEC Type CM (UL) c(UL)



CATALOG NUMBER	NO. OF PAIRS	AWG SIZE	COND. STRAND.	NOM. INSULATION THICKNESS		NOM. JACKET THICKNESS		NOMINAL O.D.		NOMINAL CAP.*	
				INCHES	mm	INCHES	mm	INCHES	mm	A	B
C6451	51	22	Solid	0.010	0.25	0.050	1.27	0.715	18.16	25.0	45.0

*A - Capacitance between conductors

*B - Capacitance between one conductor and other conductors connected to shield

Color Code Chart

NO. OF PAIRS	COLOR	NO. OF PAIRS	COLOR	NO. OF PAIRS	COLOR
1	Blue paired with White	18	Brown/White striped paired with White	35	Green/White striped paired with Red
2	Orange paired with White	19	Brown/Gray striped paired with White	36	Green/Brown striped paired with Red
3	Green paired with White	20	Gray/White striped paired with White	37	Green/Gray striped paired with Red
4	Brown paired with White	21	Blue paired with Red	38	Brown/White striped paired with Red
5	Gray paired with White	22	Orange paired with Red	39	Brown/Gray striped paired with Red
6	Blue/White striped paired with White	23	Green paired with Red	40	Gray/White striped paired with Red
7	Blue/Orange striped paired with White	24	Brown paired with Red	41	Blue paired with Black
8	Blue/Green striped paired with White	25	Gray paired with Red	42	Orange paired with Black
9	Blue/Brown striped paired with White	26	Blue/White striped paired with Red	43	Green paired with Black
10	Blue/Gray striped paired with White	27	Blue/Orange striped paired with Red	44	Brown paired with Black
11	Orange/White striped paired with White	28	Blue/Green striped paired with Red	45	Gray paired with Black
12	Orange/Green striped paired with White	29	Blue/Brown striped with Red	46	Blue/White striped paired with Black
13	Orange/Brown striped paired with White	30	Blue/Gray striped paired with Red	47	Blue/Orange striped paired with Black
14	Orange/Gray striped paired with White	31	Orange/White striped paired with Red	48	Blue/Green striped paired with Black
15	Green/White striped paired with White	32	Orange/Green striped paired with Red	49	Blue/Brown striped paired with Black
16	Green/Brown striped paired with White	33	Orange/Brown striped paired with Red	50	Blue/Gray striped paired with Black
17	Green/Gray striped paired with White	34	Orange/Gray striped paired with Red	51	Orange/White striped paired with Black

Product Construction:

Conductor:

- 22 AWG fully annealed solid tinned copper per ASTM B-33
- Twisted pairs

Insulation:

- Premium-grade, color-coded S-R PVC
- Color Code: See chart below

Shield:

- 100% Flexfoil® aluminum/polyester, 25% overlap, foil facing out
- Stranded tinned copper drain wire

Jacket:

- PVC, gray
- Temperature Range: -20°C to +80°C

Applications:

- Intercom systems
- Sound systems
- Electronic instrumentation control systems
- Suggested voltage rating: 300 volts

Compliances:

- NEC Article 800 Type CM (UL: 75°C, 300V)
- UL Style 2095 (UL: 80°C, 300V)
- Designed to meet UL 70,000 BTU Vertical Tray Flame Test

Packaging:

- Please contact Customer Service for packaging and color options

CAROL BRAND



Designed to Meet
UL Vertical Tray
Flame Test

Underwriters Laboratories Inc.

General Cable

Power-Limited Tray Cable, Foil Shield

UL 2464, NEC Type PLTC, CSA CMG

Product Construction:

Conductor:

- 22 or 18 AWG fully annealed stranded tinned copper per ASTM B-33
- Twisted pairs

Insulation:

- Premium-grade, color-coded PVC
- Color code: each pair black and red numbered at one inch intervals

Shield:

- 100% Flexfoil® aluminum/polyester, 25% overlap, foil facing out
- Stranded tinned copper drain wire

Jacket:

- PVC, gray
- Temperature range: -20°C to +105°C

Applications:

- Power limited circuits
- Intercom systems
- Business machines
- Computer interconnects
- Suitably marked for appropriate tray cable installations
- Petrochemical control systems
- Burglar alarms
- Suggested voltage rating: 300 volts

Features:

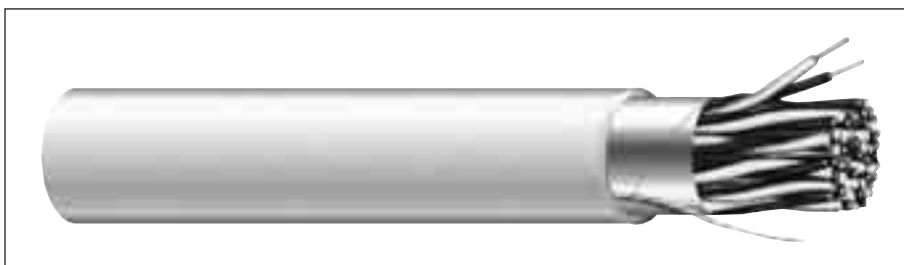
- Superior temperature characteristics
- Robust, highly durable
- Sunlight-resistant jacket

Compliances:

- NEC Article 725 Power-Limited Tray Cable (UL: 105°C, 300V)
- UL Style 2464 (UL: 80°C, 300V)
- CSA CMG (CSA: 60°C)
- Designed to meet UL 70,000 BTU Vertical Tray Flame Test
- Passes CSA CMG Flame Test

Packaging:

- Please contact Customer Service for packaging and color options



CATALOG NUMBER	NO. OF PAIRS	AWG SIZE	COND. STRAND.	NOM. INSULATION THICKNESS		NOM. JACKET THICKNESS		NOMINAL O.D.		NOMINAL CAP.*	
				INCHES	mm	INCHES	mm	INCHES	mm	A	B
C0550	2	22	7/30	0.015	0.38	0.042	1.07	0.294	7.47	28.0	50.0
C0551	3	22	7/30	0.015	0.38	0.042	1.07	0.309	7.85	26.1	47.0
C0552	4	22	7/30	0.015	0.38	0.042	1.07	0.337	8.56	26.1	47.0
C0553	6	22	7/30	0.015	0.38	0.053	1.35	0.418	10.62	24.2	43.6
C0554	9	22	7/30	0.015	0.38	0.053	1.35	0.480	12.19	24.2	43.6
C0555	11	22	7/30	0.015	0.38	0.053	1.35	0.520	13.21	24.2	43.6
C0556	15	22	7/30	0.015	0.38	0.053	1.35	0.592	15.04	24.2	43.6
C0560	2	18	16/30	0.016	0.41	0.042	1.07	0.314	7.98	36.0	65.0
C0561	3	18	16/30	0.016	0.41	0.053	1.35	0.403	10.24	31.0	56.0
C0562	4	18	16/30	0.016	0.41	0.053	1.35	0.440	11.18	31.0	56.0
C0563	6	18	16/30	0.016	0.41	0.053	1.35	0.519	13.18	28.0	51.0
C0564	9	18	16/30	0.016	0.41	0.063	1.60	0.622	15.80	28.0	51.0
C0566	15	18	16/30	0.016	0.41	0.063	1.60	0.770	19.56	28.0	51.0

*A - Capacitance between conductors

*B - Capacitance between one conductor and other conductors connected to shield

Color Code Chart

NO. OF PAIRS	COLOR
1 thru 9	Black Red
10 thru 15	Black Red

Each pair marked and numbered

Multi-Paired, Individually Shielded

UL 2464, UL 2576, NEC Type CMR (UL) c(UL), CSA CMG



CATALOG NUMBER	NO. OF PAIRS	AWG SIZE	COND. STRAND.	NOM. INSULATION THICKNESS		NOM. JACKET THICKNESS		NOMINAL O.D.		NOMINAL CAP.*	
				INCHES	mm	INCHES	mm	INCHES	mm	A	B
C1350	2	22	7/30	0.010	0.25	0.035	0.889	0.175 x 0.280	4.45 x 7.11	40	73

*A - Capacitance between conductors

*B - Capacitance between one conductor and other conductors connected to shield

Color Code Chart

NO. OF PAIRS	COLOR
1	Black/White
2	Black/Yellow

Product Construction:

Conductor:

- 22 AWG fully annealed stranded tinned copper per ASTM B-33
- Twisted pairs

Insulation:

- Premium-grade, color-coded S-R PVC per UL 1061
- Color Code: See chart below

Shield:

- Individually shielded pairs with overall shield
- 100% Flexfoil® aluminum/polyester, 25% overlap, foil facing in
- Stranded tinned copper drain wire

Jacket:

- PVC, beige
- Temperature range: -20°C to +80°C

Applications:

- Computer interconnections
- Data transmission
- Control circuits
- Industrial equipment control
- Suggested voltage rating: 300 volts

Features:

- Excellent high frequency properties
- Mechanical durability

Compliances:

- NEC Article 800 Type CM (UL: 75°C)
- UL Style 2464 (UL: 80°C, 300V)
- UL Style 2576
- CSA CMG (CSA: 60°C)
- Designed to meet UL 70,000 BTU Vertical Tray Flame Test
- Passes CSA CMG Flame Test

Packaging:

- Please contact Customer Service for packaging and color options

CAROL BRAND



Designed to Meet
UL Vertical Tray
Flame Test

Underwriters Laboratories Inc.



CMG
Certified

Canadian Standards Association



General Cable

Multi-Paired, Individually Shielded

UL 2717, UL 2835, NEC Type CM (UL) c(UL), CMH

Product Construction:

Conductor:

- 22 AWG fully annealed stranded tinned copper per ASTM B-33
- Twisted pairs

Insulation:

- Premium-grade, color-coded polypropylene
- Color Code: See chart below

Shield:

- Individually shielded pairs
- 100% Flexfoil® aluminum/polyester, 25% overlap, foil facing out
- Stranded tinned copper drain wire

Jacket:

- PVC, gray
- Temperature range: -20°C to +90°C

Applications:

- Where total isolation of signal is required
- Computers
- Control circuits
- Industrial equipment
- Suggested voltage rating: 300 volts

Features:

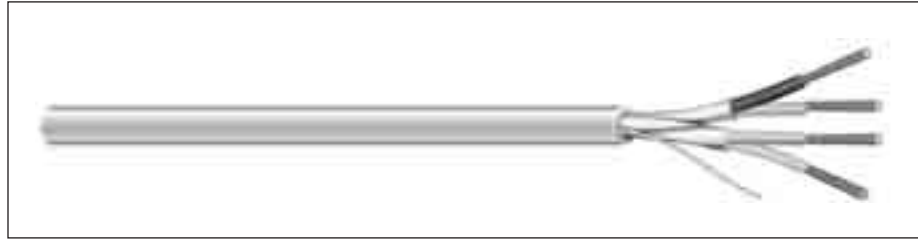
- Excellent high frequency properties
- Mechanical durability

Compliances:

- NEC Article 800 Type CM (UL: 75°C, 300V)
- UL Style 2717 (UL: 80°C)
- UL Style 2835 (UL: 60°C, 30V)
- CSA CMH (CSA: 60°C)
- Designed to meet CSA 70,000 BTU Vertical Tray Flame Test
- Passes CSA CMH Flame Test

Packaging:

- Please contact Customer Service for packaging and color options



CATALOG NUMBER	NO. OF PAIRS	AWG SIZE	COND. STRAND.	NOM. INSULATION THICKNESS		NOM. JACKET THICKNESS		NOMINAL O.D.		NOMINAL CAP.*	
				INCHES	mm	INCHES	mm	INCHES	mm	A	B

NEC Type CM (UL) c(UL) CMH

C1352	2	22	7/30	0.007	0.18	0.020	0.51	0.160	4.06	30.0	55.0
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*A - Capacitance between conductors

*B - Capacitance between one conductor and other conductors connected to shield

Color Code Chart

NO. OF PAIRS	COLOR
1	Black/Red
2	Green/White



CATALOG NUMBER	NO. OF PAIRS	AWG SIZE	COND. STRAND.	NOM. INSULATION THICKNESS		NOM. JACKET THICKNESS		NOMINAL O.D.		NOMINAL CAP. pF/ft	
				INCHES	mm	INCHES	mm	INCHES	mm	A	B

UL Style 2835, CM (UL) c(UL) CMH

C1353*	2	22	7/30	0.010	0.25	0.028	0.71	0.208	5.28	25.0	45.0
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A - Capacitance between conductors

B - Capacitance between one conductor and other conductors connected to shield

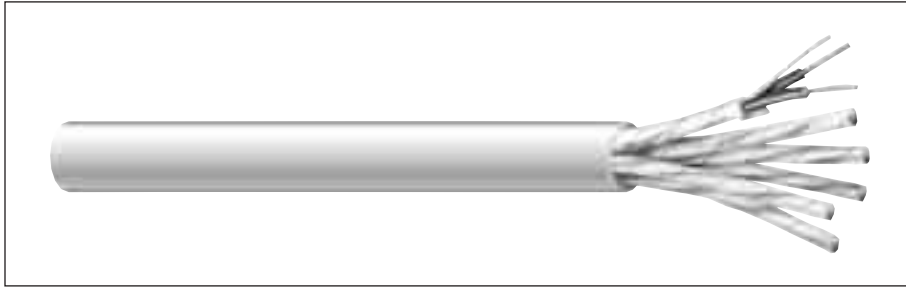
*Individually shielded with overall shield

Color Code Chart

NO. OF PAIRS	COLOR
1	Black/Red
2	Green/White

Power-Limited Tray Cable, Individually Shielded

UL 2464, NEC Type PLTC AND ITC, CSA CMG



Product Construction:

Conductor:

- 22 or 18 AWG fully annealed stranded tinned copper per ASTM B-33
- Twisted pairs

Insulation:

- Premium-grade, color-coded PVC
- Color Code: Each pair black and red numbered at one inch intervals

Shield:

- Pairs are 100% individually shielded with Flexfoil® aluminum/polyester, foil facing in
- Stranded tinned copper drain wire each pair

Jacket:

- PVC, gray
- Temperature range: -20°C to +105°C

Applications:

- Power limited circuits
- Intercom systems
- Business machines
- Cash registers
- Computer interconnects
- Suitably marked for appropriate tray cable installations
- Burglar alarms
- Suggested voltage rating: 300 volts

Features:

- Superior temperature characteristics
- Robust, highly durable
- Sunlight-resistant jacket

Compliances:

- NEC Article 725 Power-Limited Tray Cable (UL: 105°C, 300V)
- NEC Article 727 Instrumentation Tray Cable (UL: 105°C)
- UL Style 2464 (UL: 80°C)
- CSA CMG (CSA: 60°C)
- Designed to meet UL 70,000 BTU Vertical Tray Flame Test
- Passes CSA CMG Flame Test

Packaging:

- Please contact Customer Service for packaging and color options

CATALOG NUMBER	NO. OF PAIRS	AWG SIZE	COND. STRAND.	NOM. INSULATION THICKNESS		NOM. JACKET THICKNESS		NOMINAL O.D.		NOMINAL CAP.*	
				INCHES	mm	INCHES	mm	INCHES	mm	A	B
C0570	2	22	7/30	0.016	0.41	0.042	1.07	0.327	8.31	35.0	63.0
C0571	3	22	7/30	0.016	0.41	0.042	1.07	0.345	8.76	35.0	63.0
C0572	4	22	7/30	0.016	0.41	0.042	1.07	0.378	9.60	35.0	63.0
C0573	6	22	7/30	0.016	0.41	0.053	1.35	0.469	11.91	35.0	63.0
C0574	9	22	7/30	0.016	0.41	0.053	1.35	0.542	13.77	35.0	63.0
C0575	11	22	7/30	0.016	0.41	0.053	1.35	0.589	14.96	35.0	63.0
C0584	2	18	16/30	0.016	0.41	0.042	1.07	0.380	9.65	45.0	81.0
C0585	3	18	16/30	0.016	0.41	0.053	1.35	0.437	11.10	45.0	81.0
C0586	4	18	16/30	0.016	0.41	0.053	1.35	0.478	12.14	45.0	81.0
C0587	6	18	16/30	0.016	0.41	0.053	1.35	0.566	14.38	45.0	81.0
C0588	9	18	16/30	0.016	0.41	0.063	1.60	0.679	17.25	45.0	81.0
C0589	11	18	16/30	0.016	0.41	0.063	1.60	0.738	18.75	45.0	81.0
C0590	15	18	16/30	0.016	0.41	0.063	1.60	0.845	21.46	45.0	81.0

*A - Capacitance between conductors

*B - Capacitance between one conductor and other conductors connected to shield

Color Code Chart

NO. OF PAIRS	COLOR
1 thru 9	Black Red

Each pair marked and numbered

Computer Cable

4



General Cable manufactures a comprehensive line of computer cables.

This complete line of paired and unpaired, shielded computer cables—which are UL and CSA listed—are used primarily for the internal or external interconnection of electronic equipment and computers. Applications include data transmission, CAD/CAM, telemetry, data displays, computer print-out, credit verification systems and similar applications.

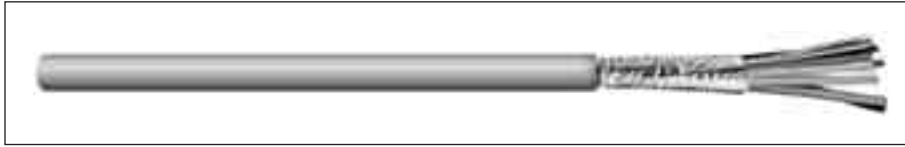
General Cable also offers a variety of put-ups for computer cables to meet your individual requirements.

Our products are manufactured to meet the latest UL, CSA and NEC requirements and approvals.

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Multi-Conductor, Foil Shield

UL 2464, NEC Type CMR (UL) c(UL), CSA CMG



CATALOG NUMBER	NO. OF COND.	AWG SIZE	COND. STRAND.	NOM. INSULATION THICKNESS		NOM. JACKET THICKNESS		NOMINAL O.D.		NOMINAL DCR @ 20°C		NOMINAL CAP.*	
				INCHES	mm	INCHES	mm	INCHES	mm	COND.	SHLD.	A	B

Color Code Chart 1

C0740	2	24	7/32	0.010	0.25	0.032	0.81	0.157	3.99	26.0	7.2	36.0	64.0
C0741	3	24	7/32	0.010	0.25	0.032	0.81	0.164	4.17	26.0	7.2	33.0	59.0
C0742	4	24	7/32	0.010	0.25	0.032	0.81	0.175	4.45	26.0	7.2	33.0	59.0
C0753	5	24	7/32	0.010	0.25	0.032	0.81	0.188	4.78	26.0	7.2	33.0	59.0
C0743	6	24	7/32	0.010	0.25	0.032	0.81	0.201	5.11	26.0	7.2	30.0	55.0
C0754	7	24	7/32	0.010	0.25	0.032	0.81	0.210	5.11	26.0	7.2	30.0	55.0
C0744	8	24	7/32	0.010	0.25	0.032	0.81	0.215	5.46	26.0	7.2	30.0	55.0
C0755	9	24	7/32	0.010	0.25	0.032	0.81	0.228	5.79	26.0	7.2	30.0	55.0
C0745	10	24	7/32	0.010	0.25	0.032	0.81	0.245	6.22	26.0	7.2	30.0	55.0

Color Code Chart 2

C0746	15	24	7/32	0.010	0.25	0.032	0.81	0.276	7.01	26.0	7.2	30.0	55.0
C0747	20	24	7/32	0.010	0.25	0.032	0.81	0.303	7.70	26.0	7.2	30.0	55.0
C0748	25	24	7/32	0.010	0.25	0.032	0.81	0.333	8.46	26.0	7.2	30.0	55.0
C0749	30	24	7/32	0.010	0.25	0.032	0.81	0.351	8.92	26.0	7.2	30.0	55.0
C0750	40	24	7/32	0.010	0.25	0.032	0.81	0.391	9.93	26.0	7.2	30.0	55.0
C0751	50	24	7/32	0.010	0.25	0.032	0.81	0.439	11.15	26.0	7.2	30.0	55.0

*A - Capacitance between conductors

*B - Capacitance between one conductor and other conductors connected to shield

Color Code Chart 1 - For cables up to and including 10 conductors

NO. OF COND.	COLOR	NO. OF COND.	COLOR
1	Black	6	Light Blue
2	White	7	Orange
3	Red	8	Yellow
4	Light Green	9	Violet
5	Light Brown	10	Gray

Color Code Chart 2 Per ICEA - For cables of 15 to 50 conductors

NO. OF COND.	COLOR	NO. OF COND.	COLOR	NO. OF COND.	COLOR
1	Black	18	Orange/Red	35	White/Red/Orange
2	White	19	Light Blue/Red	36	Orange/White/Blue
3	Red	20	Red/Green	37	White/Red/Blue
4	Light Green	21	Orange/Green	38	Black/White/Green
5	Orange	22	Black/White/Red	39	White/Black/Green
6	Light Blue	23	White/Black/Red	40	Red/White/Green
7	White/Black	24	Red/Black/White	41	Light Green/White/Blue
8	Red/Black	25	Light Green/Black/White	42	Orange/Red/Green
9	Light Green/Black	26	Orange/Black/White	43	Light Blue/Red/Green
10	Orange/Black	27	Light Blue/Black/White	44	Black/White/Blue
11	Light Blue/Black	28	Black/Red/Green	45	White/Black/Blue
12	Black/White	29	White/Red/Green	46	Red/White/Blue
13	Red/White	30	Red/Black/Green	47	Light Green/Orange/Red
14	Light Green/White	31	Light Green/Black/Orange	48	Orange/Red/Blue
15	Light Blue/White	32	Orange/Black/Green	49	Light Blue/Red/Orange
16	Black/Red	33	Light Blue/White/Orange	50	Black/Orange/Red
17	White/Red	34	Black/White/Orange		

Product Construction:

Conductor:

- 24 AWG fully annealed stranded tinned copper per ASTM B-33

Insulation:

- Premium-grade, color-coded S-R PVC per UL 1061
- Color Code: See charts below

Shield:

- 100% Flexfoil® aluminum/polyester with 25% overlap, foil facing out
- Stranded tinned copper drain wire

Jacket:

- PVC, gray
- Temperature Range: -20°C to +80°C

Applications:

- Computer interconnections
- Data transmission
- Control circuits
- Industrial equipment control
- Suitable for EIA RS-232 applications
- Suggested voltage rating: 300 volts

Compliances:

- NEC Article 800 Type CMR (UL: 75°C)
- UL Style 2464 (UL: 80°C, 300V)
- CSA CMG (CSA: 60°C)
- Designed to meet UL 70,000 BTU Vertical Tray Flame Test
- Passes CSA CMG Flame Test

Packaging:

- Please contact Customer Service for packaging and color options

CAROL BRAND



Designed to Meet
UL Vertical Tray
Flame Test

Underwriters Laboratories Inc.



CMG
Certified

Canadian Standards Association



General Cable

Multi-Conductor, Foil Shield

UL 2464, NEC Type CM (UL) c(UL) or CMR (UL) c(UL), CSA CMG

Product Construction:

Conductor:

- 22 or 20 AWG fully annealed stranded tinned copper per ASTM B-33

Insulation:

- Premium-grade, color-coded S-R PVC or PVC
- Color Code: See chart below

Shield:

- 100% Flexfoil® aluminum/polyester with 25% overlap, minimum, foil facing out
- Stranded tinned copper drain wire

Jacket:

- PVC, gray
- Temperature Range: -20°C to +80°C

Applications:

- Computer interconnections
- Data transmission
- Control circuits
- Industrial equipment control
- Suitable for EIA RS-232 applications
- Suggested voltage rating: 300 volts

Compliances:

- NEC Article 800 Type CM - 20 or 22 AWG (UL: 75°C)
- NEC Article 800 Type CMR - 20 or 22 AWG (UL: 75°C)
- UL Style 2464 (UL: 80°C, 300V)
- CSA CMG (CSA: 60°C)
- Designed to meet UL 70,000 BTU Vertical Tray Flame Test
- Passes CSA CMG Flame Test

Packaging:

- Please contact Customer Service for packaging and color options



CATALOG NUMBER	NO. OF COND.	AWG SIZE	COND. STRAND.	NOM. INSULATION THICKNESS		NOM. JACKET THICKNESS		NOMINAL O.D.		NOMINAL DCR Ω/kft @ 20°C		NOMINAL CAP.* pF/ft	
				INCHES	mm	INCHES	mm	INCHES	mm	COND.	SHLD.	A	B

S-R PVC

C0760	2	22	7/30	0.010	0.25	0.032	0.81	0.169	4.29	15.0	13.0	36.0	65.0
C0761	3	22	7/30	0.010	0.25	0.032	0.81	0.177	4.50	15.0	13.0	36.0	65.0
C0762	4	22	7/30	0.010	0.25	0.032	0.81	0.190	4.83	15.0	12.0	36.0	65.0
C0763	6	22	7/30	0.010	0.25	0.032	0.81	0.219	5.56	15.0	12.0	34.0	61.0
C0764	8	22	7/30	0.010	0.25	0.032	0.81	0.235	5.97	15.0	10.7	34.0	61.0
C0765	10	22	7/30	0.010	0.25	0.032	0.81	0.269	6.83	15.0	10.7	34.0	61.0
C0766	15	22	7/30	0.010	0.25	0.032	0.81	0.304	7.72	15.0	10.7	34.0	61.0
C0767	20	22	7/30	0.010	0.25	0.032	0.81	0.335	8.51	15.0	9.1	34.0	61.0
C0768	25	22	7/30	0.010	0.25	0.032	0.81	0.369	9.37	15.0	9.1	34.0	61.0

PVC

C0780	2	20	7/28	0.016	0.41	0.032	0.81	0.207	5.26	11.0	12.0	39.0	70.0
C0781	3	20	7/28	0.016	0.41	0.032	0.81	0.217	5.51	11.0	12.0	39.0	70.0
C0782	4	20	7/28	0.016	0.41	0.032	0.81	0.236	5.99	11.0	9.1	39.0	70.0
C0783	6	20	7/28	0.016	0.41	0.032	0.81	0.276	7.01	11.0	9.1	37.0	66.0
C0784	8	20	7/28	0.016	0.41	0.032	0.81	0.297	7.54	11.0	9.1	37.0	66.0
C0785	10	20	7/28	0.016	0.41	0.032	0.81	0.345	8.76	11.0	7.9	37.0	66.0
C0786	15	20	7/28	0.016	0.41	0.032	0.81	0.393	9.98	11.0	7.9	37.0	66.0
C0787	20	20	7/28	0.016	0.41	0.032	0.81	0.435	11.05	11.0	7.1	37.0	66.0
C0788	25	20	7/28	0.016	0.41	0.032	0.81	0.483	12.27	11.0	7.1	40.0	72.0

*A - Capacitance between conductors

*B - Capacitance between one conductor and other conductors connected to shield

Color Code Chart Per ICEA

NO. OF COND.	COLOR	NO. OF COND.	COLOR	NO. OF COND.	COLOR
1	Black	10	Orange/Black	19	Blue/Red
2	White	11	Blue/Black	20	Red/Green
3	Red	12	Black/White	21	Orange/Green
4	Green	13	Red/White	22	Black/White/Red
5	Orange	14	Green/White	23	White/Black/Red
6	Blue	15	Blue/White	24	Red/Black/White
7	White/Black	16	Black/Red	25	Green/Black/White
8	Red/Black	17	White/Red		
9	Green/Black	18	Orange/Red		

Multi-Conductor, Foil/Braid Shield

UL 2464, NEC Type CL2 or CM (UL) c(UL), CSA CMG



CATALOG NUMBER	NO. OF COND.	AWG SIZE	COND. STRAND.	NOM. INSULATION THICKNESS		NOM. JACKET THICKNESS		NOMINAL O.D.		NOMINAL DCR Ω/kft @ 20°C		NOMINAL CAP.** pF/ft	
				INCHES	mm	INCHES	mm	INCHES	mm	COND.	SHLD.	A	B
C0939*	3	28	7/36	0.010	0.25	0.032	0.81	0.166	4.22	67.5	4.6	26.0	47.0
C0940*	4	28	7/36	0.010	0.25	0.032	0.81	0.176	4.47	67.5	4.7	26.0	47.0
C0941*	5	28	7/36	0.010	0.25	0.032	0.81	0.186	4.72	67.5	4.6	26.0	47.0
C0942*	6	28	7/36	0.010	0.25	0.032	0.81	0.196	4.98	67.5	4.1	25.0	44.0
C0943*	7	28	7/36	0.010	0.25	0.032	0.81	0.196	4.98	67.5	4.0	25.0	44.0
C0944*	8	28	7/36	0.010	0.25	0.032	0.81	0.207	5.26	67.5	4.1	25.0	44.0
C0945*	9	28	7/36	0.010	0.25	0.032	0.81	0.217	5.51	67.5	6.3	20.0	36.0
C0946*	10	28	7/36	0.010	0.25	0.032	0.81	0.231	5.87	67.5	7.0	20.0	36.0
C0947	15	28	7/36	0.010	0.25	0.032	0.81	0.256	6.50	67.5	10.2	20.0	36.0
C0948	25	28	7/36	0.010	0.25	0.032	0.81	0.301	7.65	67.5	4.5	20.0	36.0
C0951	3	24	7/32	0.010	0.25	0.032	0.81	0.186	4.72	25.7	5.3	33.0	59.0
C0952	4	24	7/32	0.010	0.25	0.032	0.81	0.197	5.00	25.7	5.5	33.0	59.0
C0953	5	24	7/32	0.010	0.25	0.032	0.81	0.210	5.33	25.7	4.4	33.0	59.0
C0954	6	24	7/32	0.010	0.25	0.032	0.81	0.223	5.66	25.7	4.6	30.0	55.0
C0955	7	24	7/32	0.010	0.25	0.032	0.81	0.223	5.66	25.7	4.6	30.0	55.0
C0956	8	24	7/32	0.010	0.25	0.032	0.81	0.237	6.02	25.7	3.8	30.0	55.0
C0957	9	24	7/32	0.010	0.25	0.032	0.81	0.250	6.35	25.7	3.9	30.0	55.0
C0958	10	24	7/32	0.010	0.25	0.032	0.81	0.267	6.78	25.7	4.2	30.0	55.0
C0959	15	24	7/32	0.010	0.25	0.032	0.81	0.298	7.57	25.7	3.6	30.0	55.0
C0960	20	24	7/32	0.010	0.25	0.032	0.81	0.325	8.26	25.7	4.5	30.0	55.0
C0961	25	24	7/32	0.010	0.25	0.032	0.81	0.355	9.02	25.7	3.5	30.0	55.0

*A - Capacitance between conductors

**B - Capacitance between one conductor and other conductors connected to shield

* Color Code Chart 1. Remaining items Color Code Chart 2

Color Code Chart 1

NO. OF COND.	COLOR	NO. OF COND.	COLOR
1	Black	6	Light Blue
2	White	7	Orange
3	Red	8	Yellow
4	Light Green	9	Violet
5	Light Brown	10	Gray

Color Code Chart 2 Per ICEA

NO. OF COND.	COLOR	NO. OF COND.	COLOR	NO. OF COND.	COLOR
1	Black	10	Orange/Black	19	Light Blue/Red
2	White	11	Light Blue/Black	20	Red/Green
3	Red	12	Black/White	21	Orange/Green
4	Light Green	13	Red/White	22	Black/White/Red
5	Orange	14	Light Green/White	23	White/Black Red
6	Light Blue	15	Light Blue/White	24	Red/Black/White
7	White/Black	16	Black/Red	25	Light Green/Black/White
8	Red/Black	17	White/Red		
9	Light Green/Black	18	Orange/Red		

Product Construction:

Conductor:

- 28 and 24 AWG fully annealed stranded tinned copper per ASTM B-33

Insulation:

- Premium-grade, color-coded S-R PVC per UL 1061
- Color Code: See charts below

Shield:

- 100% Flexfoil® aluminum/polyester with 25% overlap, minimum, foil facing out
- Stranded tinned copper drain wire (28 AWG only)
- 65% tinned copper braid

Jacket:

- PVC, gray
- Temperature Range: -20°C to +80°C

Applications:

- Computers
- Industrial equipment
- Data transmission
- Control circuits
- Suitable for EIA RS-232 applications
- Suggested voltage rating: 300 volts

Features:

- Braid shield provides good flexibility
- Superior shielding where noise rejection is critical
- Assists system designers in meeting FCC Docket 20780 demands

Compliances:

- NEC Article 725 Type CL2 - 28 AWG (UL: 75°C)
- NEC Article 800 Type CM - 24 AWG (UL: 75°C)
- UL Style 2464 (UL: 80°C, 300V)
- CSA CMG (CSA: 60°C)
- Designed to meet UL 70,000 BTU Vertical Tray Flame Test
- Passes CSA CMG Flame Test

Packaging:

- Please contact Customer Service for packaging and color options

CAROL BRAND

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Designed to Meet
UL Vertical Tray
Flame Test

Underwriters Laboratories Inc.

CSA

CMG Certified

Canadian Standards Association

General Cable

Multi-Conductor, Foil/Braid Shield

UL 2464, NEC Type CM (UL) c(UL), CSA CMG

Product Construction:

Conductor:

- 22 AWG fully annealed stranded tinned copper per ASTM B-33

Insulation:

- Premium-grade, color-coded S-R PVC per UL 1061
- Color Code: See chart below

Shield:

- 100% Flexfoil® aluminum/polyester with 25% overlap, minimum, foil facing out
- 65% tinned copper braid

Jacket:

- PVC, gray
- Temperature Range: -20°C to +80°C

Applications:

- Computers
- Industrial equipment
- Data transmission
- Control circuits
- Suitable for EIA RS-232 applications
- Suggested voltage rating: 300 volts

Features:

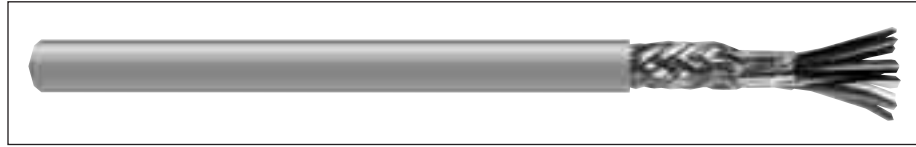
- Braid shield provides good flexibility
- Superior shielding where noise rejection is critical
- Assists system designers in meeting FCC Docket 20780 demands

Compliances:

- NEC Article 800 Type CM (UL: 75°C)
- UL Style 2464 (UL: 80°C, 300V)
- CSA CMG (CSA: 60°C)
- Designed to meet UL 70,000 BTU Vertical Tray Flame Test
- Passes CSA CMG Flame Test

Packaging:

- Please contact Customer Service for packaging and color options



CATALOG NUMBER	NO. OF COND.	AWG SIZE	COND. STRAND.	NOM. INSULATION THICKNESS		NOM. JACKET THICKNESS		NOMINAL O.D.		NOMINAL DCR Ω/kft @ 20°C		NOMINAL CAP.* pF/ft	
				INCHES	mm	INCHES	mm	INCHES	mm	COND.	SHLD.	A	B
C0971	3	22	7/30	0.010	0.25	0.032	0.81	0.199	5.05	16.6	5.6	36.0	66.0
C0972	4	22	7/30	0.010	0.25	0.032	0.81	0.212	5.38	16.6	4.4	36.0	66.0
C0973	5	22	7/30	0.010	0.25	0.032	0.81	0.226	5.74	16.6	4.7	36.0	66.0
C0974	6	22	7/30	0.010	0.25	0.032	0.81	0.241	6.12	16.6	3.8	34.0	60.0
C0975	7	22	7/30	0.010	0.25	0.032	0.81	0.241	6.12	16.6	6.2	34.0	60.0
C0976	8	22	7/30	0.010	0.25	0.032	0.81	0.257	6.53	16.6	4.0	34.0	60.0
C0977	9	22	7/30	0.010	0.25	0.032	0.81	0.272	6.91	16.6	3.4	34.0	60.0
C0978	10	22	7/30	0.010	0.25	0.032	0.81	0.291	7.39	16.6	3.6	34.0	60.0
C0979	15	22	7/30	0.010	0.25	0.032	0.81	0.326	8.28	16.6	3.6	34.0	60.0
C0980	20	22	7/30	0.010	0.25	0.032	0.81	0.357	9.07	16.6	3.9	34.0	60.0
C0981	25	22	7/30	0.010	0.25	0.032	0.81	0.391	9.93	16.6	2.7	34.0	60.0

*A - Capacitance between conductors

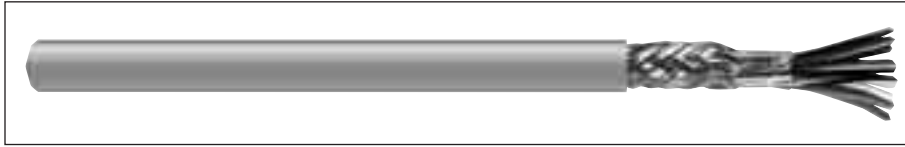
*B - Capacitance between one conductor and other conductors connected to shield

Color Code Chart Per ICEA

NO. OF COND.	COLOR	NO. OF COND.	COLOR	NO. OF COND.	COLOR
1	Black	10	Orange/Black	19	Light Blue/Red
2	White	11	Light Blue/Black	20	Red/Green
3	Red	12	Black/White	21	Orange/Green
4	Light Green	13	Red/White	22	Black/White/Red
5	Orange	14	Light Green/White	23	White/Black/Red
6	Light Blue	15	Light Blue/White	24	Red/Black/White
7	White/Black	16	Black/Red	25	Light Green/Black/White
8	Red/Black	17	White/Red		
9	Light Green/Black	18	Orange/Red		

Multi-Conductor, Foil/Braid Shield, Lo-Cap®

UL 2919, NEC Type CL2 or CM (UL) c(UL), CMH, CSA CMH



CATALOG NUMBER	NO. OF COND.	NOM. INSULATION THICKNESS		NOM. JACKET THICKNESS		NOMINAL O.D.		NOMINAL DCR Ω/kft		NOMINAL CAP.* pF/ft	
		INCHES	mm	INCHES	mm	INCHES	mm	COND.	SHLD.	A	B
28 AWG (7/36): CL2, CSA CMH											
C0530	3	0.016	0.41	0.032	0.81	0.192	4.88	64.9	7.8	9.5	17.0
C0531	4	0.016	0.41	0.032	0.81	0.205	5.21	64.9	5.9	9.5	17.0
C0532	5	0.016	0.41	0.032	0.81	0.218	5.54	64.9	5.9	9.5	17.0
C0533	6	0.016	0.41	0.032	0.81	0.232	5.89	64.9	6.2	9.0	16.0
C0534	7	0.016	0.41	0.032	0.81	0.232	5.89	64.9	6.2	9.0	16.0
C0535	8	0.016	0.41	0.032	0.81	0.247	6.27	64.9	4.8	9.0	16.0
C0536	9	0.016	0.41	0.032	0.81	0.261	6.63	64.9	4.9	9.0	16.0
C0537	10	0.016	0.41	0.032	0.81	0.279	7.09	64.9	5.2	9.0	16.0
C0538	15	0.016	0.41	0.032	0.81	0.312	7.92	64.9	4.2	9.0	16.0
C0539	25	0.016	0.41	0.032	0.81	0.373	9.47	64.9	4.0	9.0	16.0

24 AWG (7/32): CM (UL) c(UL) CMH											
C0680	3	0.016	0.41	0.032	0.81	0.211	5.36	25.7	3.8	11.9	21.5
C0681	4	0.016	0.41	0.032	0.81	0.227	5.77	25.7	3.8	11.9	21.5
C0682	5	0.016	0.41	0.032	0.81	0.242	6.15	25.7	3.8	11.9	21.5
C0683	6	0.016	0.41	0.032	0.81	0.259	6.58	25.7	3.2	11.2	20.2
C0684	7	0.016	0.41	0.032	0.81	0.259	6.58	25.7	3.2	11.2	20.2
C0685	8	0.016	0.41	0.032	0.81	0.276	7.01	25.7	3.2	11.2	20.2
C0686	9	0.016	0.41	0.032	0.81	0.293	7.44	25.7	3.6	11.2	20.2
C0687	10	0.016	0.41	0.032	0.81	0.315	8.00	25.7	3.6	11.2	20.2
C0688	15	0.016	0.41	0.032	0.81	0.354	8.99	25.7	3.6	11.2	20.2
C0689	25	0.016	0.41	0.032	0.81	0.427	10.85	25.7	3.6	11.2	20.2

*A - Capacitance between conductors

*B - Capacitance between one conductor and other conductors connected to shield

Vp = 78%

Impedance: 100

Color Code Chart 1 For cables up to and including 10 conductors

NO. OF COND.	COLOR	NO. OF COND.	COLOR
1	Black	6	Light Blue
2	White	7	Orange
3	Red	8	Yellow
4	Light Green	9	Violet
5	Brown	10	Gray

Color Code Chart 2 Per ICEA For cables up to 15

NO. OF COND.	COLOR	NO. OF COND.	COLOR
1	Black	10	Orange/Black
2	White	11	Light Blue/Black
3	Red	12	Black/White
4	Light Green	13	Red/White
5	Orange	14	Light Green/White
6	Light Blue	15	Light Blue/White
7	White/Black		
8	Red/Black		
9	Light Green/Black		

Product Construction:

Conductor:

- 28 and 24 AWG fully annealed stranded tinned copper per ASTM B-33

Insulation:

- Premium grade foamed Lo-Cap® color coded polypropylene
- Color Code: See chart below

Shield:

- 100% Flexfoil® aluminum/polyester with 25% overlap, minimum, foil facing out
- Stranded tinned copper drain wire
- 70% tinned copper braid

Jacket:

- PVC, gray
- Temperature Range: - 20°C to + 80°C

Applications:

- High speed computers
- Industrial equipment
- Control circuits
- Designed for low capacitance applications
- Suitable for EIA RS-232 and RS-423 CAD/CAM applications
- Suggested voltage rating: 30 volts

Features:

- Braid shield provides good flexibility
- Superior shielding where noise rejection is critical
- Assists system designers in meeting FCC Docket 20780 demands

Compliances:

- NEC Article 800 Type CM (UL: 75°C)
- UL Style 2919 (UL: 80°C, 30V)
- CSA CMH (CSA: 60°C)
- Designed to Meet UL 70,000 BTU Vertical Tray Flame Test
- Passes CSA CMH Flame Test

Packaging:

- 1000' (305 m) Spools or Reels
- 500' (152 m) Spools or Reels
- Other put-ups available—consult Customer Service

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Designed to Meet
UL Vertical Tray
Flame Test

Underwriters Laboratories Inc.

CSA

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General Cable

Multi-Paired, Foil Shield

UL 2464, NEC Type CMR (UL) c(UL), CSA CMG

Product Construction:

Conductor:

- 24 AWG fully annealed stranded tinned copper per ASTM B-33
- Twisted pairs

Insulation:

- Premium-grade, color-coded S-R PVC per UL 1061
- Color Code: See chart below

Shield:

- 100% Flexfoil® aluminum/polyester with 25% overlap, minimum, foil facing out
- Stranded tinned copper drain wire

Jacket:

- PVC, gray
- Temperature Range: -20°C to +80°C

Applications:

- Computers
- Industrial equipment
- Data transmission
- Control circuits
- Suitable for EIA RS-232 applications
- Suggested voltage rating: 300 volts

Features:

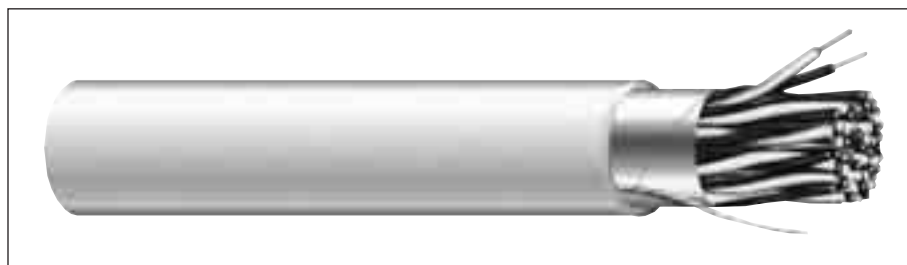
- Superior shielding where noise rejection is critical
- Assists system designers in meeting FCC Docket 20780 demands

Compliances:

- NEC Article 800 Type CMR (UL: 75°C)
- UL Style 2464 (UL: 80°C, 300V)
- CSA CMG (CSA, 60°C)
- Designed to meet UL 70,000 BTU Vertical Tray Flame Test
- Passes CSA CMG Flame Test

Packaging:

- Please contact Customer Service for packaging and color options



CATALOG NUMBER	NO. OF PAIRS	AWG SIZE	COND. STRAND.	NOM. INSULATION THICKNESS		NOM. JACKET THICKNESS		NOMINAL O.D.		NOMINAL DCR Ω/kft		NOMINAL CAP.* pF/ft	
				INCHES	mm	INCHES	mm	INCHES	mm	COND.	SHLD.	A	B
C0600	1	24	7/32	0.010	0.25	0.032	0.81	0.157	3.99	25.7	7.2	19.7	21.5
C0601	2	24	7/32	0.010	0.25	0.032	0.81	0.214	5.44	25.7	7.2	28.7	21.5
C0602	3	24	7/32	0.010	0.25	0.032	0.81	0.225	5.72	25.7	7.2	25.7	21.5
C0603	4	24	7/32	0.010	0.25	0.032	0.81	0.245	6.23	25.7	7.2	25.7	20.2
C0604	5	24	7/32	0.010	0.25	0.032	0.81	0.265	6.73	25.7	7.2	25.7	20.2
C0605	6	24	7/32	0.010	0.25	0.032	0.81	0.287	7.29	25.7	7.2	23.7	42.7
C0606	7	24	7/32	0.010	0.25	0.032	0.81	0.287	7.29	25.7	7.2	23.7	42.7
C0607	8	24	7/32	0.010	0.25	0.032	0.81	0.309	7.85	25.7	7.2	23.7	42.7
C0608	9	24	7/32	0.010	0.25	0.032	0.81	0.331	8.41	25.7	7.2	23.7	42.7
C0609	10	24	7/32	0.010	0.25	0.032	0.81	0.359	9.12	25.7	7.2	23.7	42.7
C0610	15	24	7/32	0.010	0.25	0.032	0.81	0.410	10.41	25.7	7.2	23.7	42.7
C0611	19	24	7/32	0.010	0.25	0.032	0.81	0.432	10.97	25.7	7.2	23.7	42.7
C0612	25	24	7/32	0.010	0.25	0.032	0.81	0.505	12.84	25.7	7.2	23.7	42.7
C0720	1	22	7/30	0.010	0.25	0.032	0.81	0.169	4.29	16.6	6.2	40.4	72.6
C0721	2	22	7/30	0.010	0.25	0.032	0.81	0.234	5.94	16.6	6.2	32.3	58.1
C0722	3	22	7/30	0.010	0.25	0.032	0.81	0.246	6.25	16.6	6.2	27.8	50.1
C0723	4	22	7/30	0.010	0.25	0.032	0.81	0.269	6.83	16.6	6.2	27.8	50.1
C0724	5	22	7/30	0.010	0.25	0.032	0.81	0.292	7.42	16.6	6.2	27.8	50.1
C0725	6	22	7/30	0.010	0.25	0.032	0.81	0.317	8.05	16.6	6.2	25.5	45.9
C0726	9	22	7/30	0.010	0.25	0.032	0.81	0.367	9.32	16.6	6.2	25.5	45.9
C0728	15	22	7/30	0.010	0.25	0.032	0.81	0.457	11.62	16.6	6.2	25.5	45.9
C0729	19	22	7/30	0.040	0.25	0.032	0.81	0.482	12.24	16.6	6.2	25.5	45.9
C0730	27	22	7/30	0.040	0.25	0.032	0.81	0.605	15.37	16.6	6.2	26.0	46.0

*A - Capacitance between conductors

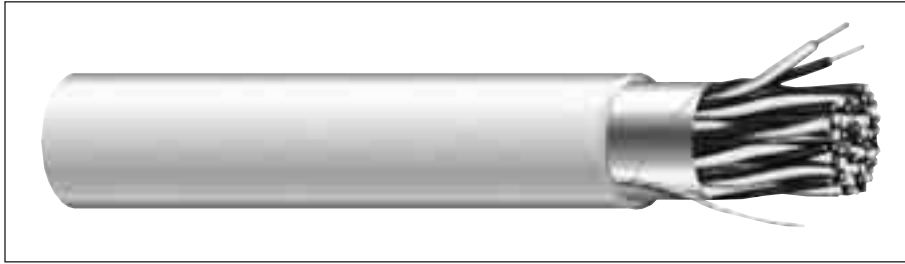
*B - Capacitance between one conductor and other conductors connected to shield

Color Code Chart

NO. OF PAIRS	COLOR	NO. OF PAIRS	COLOR
1	Black with Red	14	Green with White
2	Black with White	15	Green with Blue
3	Black with Green	16	Green with Yellow
4	Black with Blue	17	Green with Brown
5	Black with Yellow	18	Green with Orange
6	Black with Brown	19	White with Blue
7	Black with Orange	20	White with Yellow
8	Red with White	21	White with Brown
9	Red with Green	22	White with Orange
10	Red with Blue	23	Blue with Yellow
11	Red with Yellow	24	Blue with Brown
12	Red with Brown	25	Blue with Orange
13	Red with Orange	26	Brown with Yellow
		27	Brown with Orange

Multi-Paired, Foil Shield, Lo-Cap®

UL 2448, NEC Type CM (UL) c(UL) CMH



Product Construction:

Conductor:

- 24 AWG fully annealed stranded tinned copper per ASTM B-33
- Twisted pairs

Insulation:

- Premium-grade, color-coded polyethylene
- Color Code: See chart below

Shield:

- 100% Flexfoil® aluminum/polyester with 25% overlap, minimum, foil facing out
- Stranded tinned copper drain wire

Jacket:

- PVC, gray
- Temperature Range: -20°C to +75°C

Applications:

- Computers
- Industrial equipment
- Data transmission
- Control circuits
- Suitable for low capacitance applications
- Suggested voltage rating: 30 volts

Compliances:

- NEC Article 800 Type CM (UL: 75°C)
- UL Style 2448 (UL: 60°C, 30V)
- Designed to meet UL 70,000 BTU Vertical Tray Flame Test
- CSA CMH (CSA: 60°C)
- Passes CSA CMH Flame Test

Packaging:

- Please contact Customer Service for packaging and color options

CATALOG NUMBER	NO. OF PAIRS	AWG SIZE	COND. STRAND.	NOM. INSULATION THICKNESS		NOM. JACKET THICKNESS		NOMINAL O.D.		NOMINAL DCR Ω/kft		VEL. OF PROP., %	NOM. IMP., Ω	NOMINAL CAP.* pF/ft	
				IN	mm	IN	mm	IN	mm	COND.	SHLD.			A	B
C0890	2	24	7/32	0.015	0.38	0.032	0.81	0.247	6.27	14.8	26.7	66	100	25.7	7.2
C0901	3	24	7/32	0.015	0.38	0.032	0.81	0.261	6.63	14.2	25.5	66	100	25.7	7.2
C0893	4	24	7/32	0.015	0.38	0.032	0.81	0.277	7.04	14.2	25.5	66	100	25.7	7.2
C0894	5	24	7/32	0.015	0.38	0.032	0.81	0.310	7.87	14.2	25.5	66	100	25.7	7.2
C0899	6	24	7/32	0.015	0.38	0.032	0.81	0.336	8.53	13.2	23.8	66	100	25.7	7.2
C0896	9	24	7/32	0.015	0.38	0.032	0.81	0.391	9.93	13.2	23.8	66	100	25.7	7.2
C0897	12.5	24	7/32	0.015	0.38	0.038	0.97	0.459	11.66	13.2	23.8	66	100	25.7	7.2

*A - Capacitance between conductors

*B - Capacitance between one conductor and other conductors connected to shield

Color Code Chart

NO. OF PAIRS	COLOR	NO. OF PAIRS	COLOR
1	Black paired with White	7	White/Blue paired with Blue/White
2	Red paired with Green	8	White/Brown paired with Brown/White
3	Brown paired with Blue	9	White/Orange paired with Orange/White
4	Orange paired with Yellow	10	White/Green paired with Green/White
5	Violet paired with Gray	11	White/Red paired with Red/White
6	Tan paired with Pink	12	White/Black paired with Black/White

Single Conductor: Green with Yellow Stripe

CAROL BRAND



Designed to Meet
UL Vertical Tray
Flame Test

Underwriters Laboratories Inc.



CMH
Certified

Canadian Standards Association



General Cable

Multi-Paired, Foil/Braid Shield

UL 2464, NEC Type CMR (UL) c(UL), CSA CMG

Product Construction:

Conductor:

- 22 and 24 AWG fully annealed stranded tinned copper per ASTM B-33
- Twisted pairs

Insulation:

- Premium-grade, color-coded S-R PVC per UL 1061
- Color Code: See chart below

Shield:

- 100% Flexfoil® aluminum/polyester with 25% overlap, minimum, foil facing out
- 65% tinned copper braid

Jacket:

- PVC, gray
- Temperature Range: - 20°C to + 80°C

Applications:

- Computers
- Industrial equipment
- Data transmission
- Control circuits
- Suitable for EIA RS-232 applications
- Suggested voltage rating: 300 volts

Features:

- Braid shield provides good flexibility
- Superior shielding where noise rejection is critical
- Assists system designers in meeting FCC Docket 20789 demands

Compliances:

- NEC Article 800 Type CMR (UL: 75°C)
- UL Style 2464 (UL: 80°C, 300V)
- CSA CMG (CSA: 60°C)
- Designed to meet UL 70,000 BTU Vertical Tray Flame Test
- Passes CSA CMG Flame Test

Packaging:

- Please contact Customer Service for packaging and color options



CATALOG NUMBER	NO. OF PAIRS	AWG SIZE	COND. STRAND.	NOM. INSULATION THICKNESS		NOM. JACKET THICKNESS		NOMINAL O.D.		NOMINAL DCR Ω /kft		NOMINAL CAP.* pF/ft	
				INCHES	mm	INCHES	mm	INCHES	mm	COND.	SHLD.	A	B
C0620	2	24	7/32	0.010	0.25	0.032	0.81	0.235	5.97	25.7	5.4	29.5	53.0
C0621	3	24	7/32	0.010	0.25	0.032	0.81	0.246	6.25	25.7	5.0	26.4	47.6
C0622	4	24	7/32	0.010	0.25	0.032	0.81	0.266	6.76	25.7	4.5	26.4	47.6
C0623	5	24	7/32	0.010	0.25	0.032	0.81	0.292	7.42	25.7	4.6	26.4	47.6
C0624	6	24	7/32	0.010	0.25	0.032	0.81	0.313	7.95	25.7	2.9	24.4	43.9
C0625	7	24	7/32	0.010	0.25	0.032	0.81	0.313	7.95	25.7	3.1	24.4	43.9
C0626	8	24	7/32	0.010	0.25	0.032	0.81	0.336	8.53	25.7	4.1	24.4	43.9
C0628	10	24	7/32	0.010	0.25	0.032	0.81	0.386	9.80	25.7	2.6	24.4	43.9
C0630	12.5	24	7/32	0.010	0.25	0.032	0.81	0.396	10.06	25.7	3.6	24.4	43.9
C0650	2	22	7/30	0.010	0.25	0.032	0.81	0.229	5.82	16.6	3.8	33.2	59.7
C0651	3	22	7/30	0.010	0.25	0.032	0.81	0.296	7.52	16.6	4.1	28.6	51.5
C0652	4	22	7/30	0.010	0.25	0.032	0.81	0.320	8.13	16.6	3.5	28.6	51.5
C0653	5	22	7/30	0.010	0.25	0.032	0.81	0.322	8.18	16.6	3.9	28.6	51.5
C0654	6	22	7/30	0.010	0.25	0.032	0.81	0.348	8.84	16.6	4.4	26.2	47.2
C0655	7	22	7/30	0.010	0.25	0.032	0.81	0.348	8.84	16.6	5.0	26.2	47.2
C0656	8	22	7/30	0.010	0.25	0.032	0.81	0.368	9.35	16.6	3.8	26.2	47.2
C0658	10	22	7/30	0.010	0.25	0.032	0.81	0.440	11.18	16.6	4.1	26.2	47.2
C0660	12.5	22	7/30	0.010	0.25	0.032	0.81	0.455	11.56	16.6	4.7	26.2	47.2
C0663	25	22	7/30	0.010	0.25	0.058	0.81	0.620	15.75	16.6	2.1	26.2	46.0

*A - Capacitance between conductors

*B - Capacitance between one conductor and other conductors connected to shield

Color Code Chart

NO. OF PAIRS	COLOR	NO. OF PAIRS	COLOR
1	Black paired with Red	13	Red paired with Orange
2	Black paired with White	14	White paired with Green
3	Black paired with Green	15	Blue paired with Green
4	Black paired with Blue	16	Yellow paired with Green
5	Black paired with Yellow	17	Brown paired with Green
6	Black paired with Brown	18	Orange paired with Green
7	Black paired with Orange	19	White paired with Blue
8	Red paired with White	20	White paired with Yellow
9	Red paired with Green	21	White paired with Brown
10	Red paired with Blue	22	White paired with Orange
11	Red paired with Yellow	23	Yellow paired with Blue
12	Red paired with Brown	24	Blue paired with Brown
		25	Orange paired with Blue
Single Conductor: Green with Yellow Stripe			

Multi-Paired, Foil/Braid Shield, Lo-Cap®

UL 2919, NEC Type CM (UL) c(UL) CMH



Product Construction:

Conductor:

- 24 AWG fully annealed stranded tinned copper per ASTM B-33
- Twisted pairs

Insulation:

- Premium-grade, color-coded polyethylene
- Color Code: See charts below

Shield:

- 100% Flexfoil® aluminum/polyester with 25% overlap, minimum, foil facing out
- Stranded tinned copper drain wire
- 90% tinned copper braid

Jacket:

- PVC, gray
- Temperature Range: -20°C to +80°C

Applications:

- Computers
- Industrial equipment
- Data transmission
- Control circuits
- Low capacitance requirements
- Suitable for EIA RS-485 applications
- Suggested voltage rating: 30 volts

Features:

- Braid shield provides good flexibility
- Superior shielding where noise rejection is critical
- Assists system designers in meeting FCC Docket 20789 demands

Compliances:

- NEC Article 800 Type CM (UL: 75°C)
- UL Style 2919 (UL: 80°C, 30V)
- Designed to meet UL 70,000 BTU Vertical Tray Flame Test
- CSA CMH (CSA: 60°C)
- Passes CSA CMH Flame Test

Packaging:

- Please contact Customer Service for packaging and color options

CATALOG NUMBER	NO. OF PAIRS	AWG SIZE	COND. STRAND.	NOM. INSULATION THICKNESS		NOM. JACKET THICKNESS		NOMINAL O.D.		NOMINAL DCR Ω /kft		VEL. OF PROP., %	NOM. IMP., Ω	NOMINAL CAP.* pF/ft	
				IN	mm	IN	mm	IN	mm	COND.	SHLD.			A	B
C0841	1	24	7/32	0.024	0.61	0.032	0.81	0.235	5.97	25.7	2.9	66	120	14.6	26.2
C0842	2	24	7/32	0.024	0.61	0.032	0.81	0.304	7.72	25.7	2.3	66	120	11.7	21.0
C0843	3	24	7/32	0.024	0.61	0.032	0.81	0.360	9.14	25.7	2.3	66	120	11.9	21.4
C0844	4	24	7/32	0.024	0.61	0.032	0.81	0.390	9.91	25.7	2.1	66	120	11.9	21.4

*A - Capacitance between conductors

*B - Capacitance between one conductor and other conductors connected to shield

Color Code Chart 1

NO. OF PAIRS	COLOR
1	Black paired with Red
2	Black paired with White
3	Black paired with Green
4	Black paired with Blue

CATALOG NUMBER	NO. OF PAIRS	AWG SIZE	COND. STRAND.	NOM. INSULATION THICKNESS		NOM. JACKET THICKNESS		NOMINAL O.D.		NOMINAL DCR Ω /kft		VEL. OF PROP., %	NOM. IMP., Ω	NOMINAL* CAP. pF/ft	
				IN	mm	IN	mm	IN	mm	COND.	SHLD.			A	B
C4841	1	24	7/32	0.024	0.61	0.032	0.81	0.235	5.97	25.7	2.9	66	120	14.6	26.2
C4842	2	24	7/32	0.024	0.61	0.032	0.81	0.304	7.72	25.7	2.3	66	120	11.7	21.0
C4843	3	24	7/32	0.024	0.61	0.032	0.81	0.360	9.14	25.7	2.3	66	120	11.9	21.4
C4844	4	24	7/32	0.024	0.61	0.032	0.81	0.390	9.91	25.7	2.1	66	120	11.9	21.4

*A - Capacitance between conductors

*B - Capacitance between one conductor and other conductors connected to shield

Color Code Chart 2

NO. OF PAIRS	COLOR	NO. OF PAIRS	COLOR
1	White—Blue Stripe Blue—White Stripe	3	White—Green Stripe Green—White Stripe
2	White—Orange Stripe Orange—White Stripe	4	White—Brown Stripe Brown—White Stripe

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Designed to Meet
UL Vertical Tray
Flame Test

Underwriters Laboratories Inc.

CSA

CMH
Certified

Canadian Standards Association

General Cable

General Cable

Multi-Paired, Foil/Braid Shield, Lo-Cap®

UL 2960, NEC Type CL2

Product Construction:

Conductor:

- 28 AWG fully annealed stranded tinned copper per ASTM B-33
- Twisted pairs

Insulation:

- Premium-grade, color-coded polypropylene
- Color Code: See chart below

Shield:

- 100% Flexfoil® aluminum/polyester with 25% overlap, minimum, foil facing out
- Stranded tinned copper drain wire
- 90% tinned copper braid

Jacket:

- PVC, gray
- Temperature Range: - 20°C to + 75°C

Applications:

- Computers
- Industrial equipment
- Data transmission
- Control circuits
- Low capacitance requirements
- Suitable for EIA RS-232 applications
- Suitable for EIA RS-422 applications
- Suggested voltage rating: 30 volts

Features:

- Braid shield provides good flexibility
- Superior shielding where noise rejection is critical
- Assists system designers in meeting FCC Docket 20789 demands

Compliances:

- NEC Article 725 Type CL2 (UL: 75°C)
- UL Style 2960 (UL: 60°C, 30V)
- Designed to meet UL 70,000 BTU Vertical Tray Flame Test

Packaging:

- Please contact Customer Service for packaging and color options



CATALOG NUMBER	NO. OF PAIRS	AWG SIZE	COND. STRAND.	NOM. INSULATION THICKNESS		NOM. JACKET THICKNESS		NOMINAL O.D.		NOMINAL DCR Ω/kft		VEL. OF PROP., %	NOM. IMP., Ω	NOMINAL CAP.* pF/ft	
				IN	mm	IN	mm	IN	mm	COND.	SHLD.			A	B
C0804	2	28	7/36	0.009	0.23	0.032	0.81	0.194	4.93	67.5	4.0	66	100	14.8	26.6
C0805	3	28	7/36	0.009	0.23	0.032	0.81	0.194	4.93	67.5	4.2	66	100	14.0	25.3
C0806	4	28	7/36	0.009	0.23	0.032	0.81	0.211	5.36	67.5	3.3	66	100	14.0	25.3
C0807	5	28	7/36	0.009	0.23	0.032	0.81	0.226	5.74	67.5	3.5	66	100	14.0	25.3
C0808	7	28	7/36	0.009	0.23	0.032	0.81	0.253	6.43	67.5	2.9	66	100	13.1	23.5
C0809	9	28	7/36	0.009	0.23	0.032	0.81	0.286	7.26	67.5	2.9	66	100	13.1	23.5
C0810	10	28	7/36	0.009	0.23	0.032	0.81	0.285	7.24	67.5	2.9	66	100	13.1	23.5
C0812	12	28	7/36	0.009	0.23	0.032	0.81	0.294	7.47	67.5	3.3	66	100	13.1	23.5

*A - Capacitance between conductors

*B - Capacitance between one conductor and other conductors connected to shield

Color Code Chart

NO. OF PAIRS	COLOR	NO. OF PAIRS	COLOR
1	Black paired with Red	7	Black paired with Orange
2	Black paired with White	8	Red paired with White
3	Black paired with Green	9	Red paired with Green
4	Black paired with Blue	10	Red paired with Blue
5	Black paired with Yellow	11	Red paired with Yellow
6	Black paired with Brown	12	Red paired with Brown

Multi-Paired, Foil/Braid Shield, Lo-Cap®

UL 2919, NEC Type CM (UL) c(UL) CMH



Product Construction:

Conductor:

- 24 AWG fully annealed stranded tinned copper per ASTM B-33
- Twisted pairs

Insulation:

- Premium-grade, color-coded polyethylene
- Color Code: See chart below

Shield:

- 100% Flexfoil® aluminum/polyester with 25% overlap, minimum, foil facing out
- Stranded tinned copper drain wire
- 90% tinned copper braid

Jacket:

- PVC, gray
- Temperature Range: -20°C to +80°C

Applications:

- Computers
- Industrial equipment
- Data transmission
- Control circuits
- Low capacitance requirements
- Suitable for EIA RS-232 applications
- Suitable for EIA RS-422 applications
- Suggested voltage rating: 30 volts

Features:

- Braid shield provides good flexibility
- Superior shielding where noise rejection is critical
- Assists system designers in meeting FCC Docket 20789 demands

Compliances:

- NEC Article 800 Type CM (UL: 75°C)
- UL Style 2919 (UL: 80°C, 30V)
- Designed to meet UL 70,000 BTU Vertical Tray Flame Test
- CSA CMH (CSA: 60°C)
- Passes CSA CMH Flame Test

Packaging:

- Please contact Customer Service for packaging and color options

CATALOG NUMBER	NO. OF PAIRS	AWG SIZE	COND. STRAND.	NOM. INSULATION THICKNESS		NOM. JACKET THICKNESS		NOMINAL O.D.		NOMINAL DCR Ω /kft		VEL. OF PROP., %	NOM. IMP., Ω	NOMINAL CAP.* pF/ft	
				IN	mm	IN	mm	IN	mm	COND.	SHLD.			A	B
C0829	2	24	7/32	0.015	0.38	0.032	0.81	0.257	6.53	25.7	2.7	66	100	14.8	26.7
C0830	3	24	7/32	0.015	0.38	0.032	0.81	0.289	7.34	25.7	2.6	66	100	14.2	25.5
C0831	4	24	7/32	0.015	0.38	0.032	0.81	0.313	7.95	25.7	3.2	66	100	14.2	25.5
C0832	5	24	7/32	0.015	0.38	0.032	0.81	0.338	8.59	25.7	1.9	66	100	14.2	25.5
C0839	6	24	7/32	0.015	0.38	0.032	0.81	0.364	9.24	25.7	2.4	66	100	13.2	23.8
C0833	7	24	7/32	0.015	0.38	0.032	0.81	0.364	9.24	25.7	2.0	66	100	13.2	23.8
C0835	10	24	7/32	0.015	0.38	0.038	0.97	0.462	11.73	25.7	1.7	66	100	13.2	23.8
C0836	12	24	7/32	0.015	0.38	0.038	0.97	0.479	12.17	25.7	1.8	66	100	13.2	23.8

*A - Capacitance between conductors

*B - Capacitance between one conductor and other conductors connected to shield

Color Code Chart

NO. OF PAIRS	COLOR	NO. OF PAIRS	COLOR
1	Black paired with Red	7	Black paired with Orange
2	Black paired with White	8	Red paired with White
3	Black paired with Green	9	Red paired with Green
4	Black paired with Blue	10	Red paired with Blue
5	Black paired with Yellow	11	Red paired with Yellow
6	Black paired with Brown	12	Red paired with Brown

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Designed to Meet
UL Vertical Tray
Flame Test

Underwriters Laboratories Inc.

CSA

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Canadian Standards Association



General Cable

Multi-Paired, Foil/Braid Shield, Lo-Cap®

UL 2919, NEC Type CM (UL) c(UL) CMH

Product Construction:

Conductor:

- 24 AWG fully annealed stranded tinned copper per ASTM B-33
- Twisted pairs

Insulation:

- Premium-grade, color-coded Lo-Cap® foamed polypropylene
- Color Code: See chart below

Shield:

- 100% Flexfoil® aluminum/polyester with 25% overlap, minimum, foil facing out
- Stranded tinned copper drain wire
- 65% tinned copper braid

Jacket:

- PVC, gray
- Temperature Range: -20°C to +80°C

Applications:

- High-speed computer interconnects
- CAD/CAM systems
- EIA RS-232 and RS-423 systems
- Control circuits
- Industrial equipment
- Low signal distortion data requirements
- Suggested voltage rating: 30 volts

Features:

- Braid shield provides good flexibility
- Superior shielding where noise rejection is critical
- Assists system designers in meeting FCC Docket 20789 demands

Compliances:

- NEC Article 800 Type CM (UL: 75°C)
- UL Style 2919 (UL: 80°C, 30V)
- Designed to meet UL 70,000 BTU Vertical Tray Flame Test
- CSA CMH (CSA: 60°C)
- Passes CSA CMH Flame Test

Packaging:

- Please contact Customer Service for packaging and color options



CATALOG NUMBER	NO. OF PAIRS	AWG SIZE	COND. STRAND.	NOM. INSULATION THICKNESS		NOM. JACKET THICKNESS		NOMINAL O.D.		NOMINAL DCR Ω/kft		VEL. OF PROP., %	NOM. IMP., Ω	NOMINAL CAP.* pF/ft	
				IN	mm	IN	mm	IN	mm	COND.	SHLD.			A	B
C0515	2	24	7/32	0.016	0.41	0.032	0.81	0.276	7.01	25.7	3.0	78	132	10.2	18.4
C0516	3	24	7/32	0.016	0.41	0.032	0.81	0.290	7.37	25.7	3.2	78	132	9.9	17.8
C0517	4	24	7/32	0.016	0.41	0.032	0.81	0.315	8.00	25.7	3.3	78	132	9.9	17.8
C0518	5	24	7/32	0.016	0.41	0.032	0.81	0.340	8.64	25.7	4.2	78	132	9.9	17.8
C0519	6	24	7/32	0.016	0.41	0.032	0.81	0.368	9.35	25.7	3.6	78	141	9.2	16.6
C0520	7	24	7/32	0.016	0.41	0.032	0.81	0.370	9.40	25.7	3.5	78	141	9.2	16.6
C0521	8	24	7/32	0.016	0.41	0.032	0.81	0.397	10.08	25.7	2.7	78	141	9.2	16.6
C0522	10	24	7/32	0.016	0.41	0.038	0.97	0.473	12.01	25.7	2.4	78	141	9.2	16.6
C0523	12.5	24	7/32	0.016	0.41	0.038	0.97	0.486	12.34	25.7	2.4	78	141	9.2	16.6
C0524	15	24	7/32	0.016	0.41	0.048	1.22	0.555	14.10	25.7	2.6	78	141	9.2	16.6
C0525	18	24	7/32	0.016	0.41	0.048	1.22	0.585	14.86	25.7	2.1	78	141	9.2	16.6
C0526	25	24	7/32	0.016	0.41	0.048	1.22	0.677	17.20	25.7	2.0	78	141	9.2	16.6

*A - Capacitance between conductors

*B - Capacitance between one conductor and other conductors connected to shield

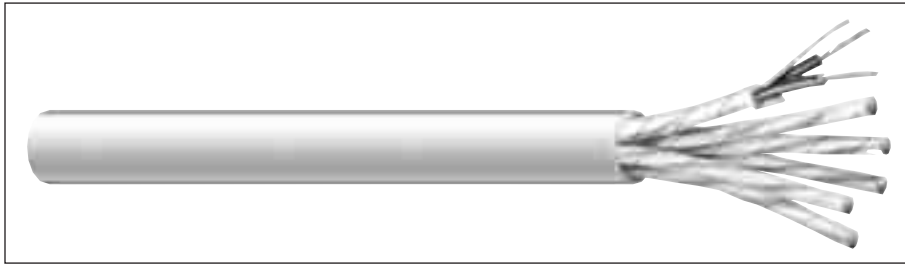
Color Code Chart

NO. OF PAIRS	COLOR	NO. OF PAIRS	COLOR	NO. OF PAIRS	COLOR
1	White—Blue Stripe Blue—White Stripe	10	Red—Gray Stripe Gray—Red Stripe	18	Yellow—Green Stripe Green—Yellow Stripe
2	White—Orange Stripe Orange—White Stripe	11	Black—Blue Stripe Blue—Black Stripe	19	Yellow—Brown Stripe Brown—Yellow Stripe
3	White—Green Stripe Green—White Stripe	12	Black—Orange Stripe Orange—Black Stripe	20	Yellow—Gray Stripe Gray—Yellow Stripe
4	White—Brown Stripe Brown—White Stripe	13	Black—Green Stripe Green—Black Stripe	21	Violet—Blue Stripe Blue—Violet Stripe
5	White—Gray Stripe Gray—White Stripe	14	Black—Brown Stripe Brown—Black Stripe	22	Violet—Orange Stripe Orange—Violet Stripe
6	Red—Blue Stripe Blue—Red Stripe	15	Black—Gray Stripe Gray—Black Stripe	23	Violet—Green Stripe Green—Violet Stripe
7	Red—Orange Stripe Orange—Red Stripe	16	Yellow—Blue Stripe Blue—Yellow Stripe	24	Violet—Brown Stripe Brown—Violet Stripe
8	Red—Green Stripe Green—Red Stripe	17	Yellow—Orange Stripe Orange—Yellow Stripe	25	Violet—Gray Stripe Gray—Violet Stripe
9	Red—Brown Stripe Brown—Red Stripe				

Single Conductor: Green with Yellow Stripe

Multi-Paired, Individually Foil Shielded

UL 2919, NEC Type CM, CSA CMH



Product Construction:

Conductor:

- 24 thru 18 AWG fully annealed stranded tinned copper per ASTM B-33
- Twisted pairs

Insulation:

- Premium grade color coded polyethylene
- Color Code: See chart below

Shield:

- Individually shielded pairs
- 100% Flexfoil® aluminum/polyester with 25% overlap, minimum, foil facing in
- Stranded tinned copper drain wire each pair

Jacket:

- PVC, gray
- Temperature Range: -20°C to +80°C

Applications:

- Applications for total isolation of signal
- Computers
- Control circuits
- Industrial equipment
- Suggested voltage rating: 30 volts

Features:

- Individually shielded pairs for excellent signal isolation
- Excellent high frequency properties
- Mechanical durability

Compliances:

- NEC Article 800 Type CM (UL: 75°C)
- UL Style 2919 (UL: 80°C, 30V)
- CSA CMH (CSA: 60°C)
- Designed to Meet UL 70,000 BTU Vertical Tray Flame Test
- Passes CSA CMH Flame Test

Packaging:

- Please contact Customer Service for packaging and color options

CATALOG NUMBER	NO. OF PAIRS	AWG SIZE	COND. STRAND.	NOM. INSULATION THICKNESS		NOM. JACKET THICKNESS		NOMINAL O.D.		NOMINAL DCR Ω /kft		VEL. OF PROP., %	NOM. IMP., Ω	NOMINAL CAP.** pF/ft	
				IN	mm	IN	mm	IN	mm	COND.	SHLD.			A	B
C6065	3	24	7/32	0.011	0.28	0.032	0.81	0.269	6.83	26.0	18.0	66	71	21.7	39.0
C6066	6	24	7/32	0.011	0.28	0.032	0.81	0.349	8.86	26.0	18.0	66	71	21.7	39.0
C6067	9	24	7/32	0.011	0.28	0.032	0.81	0.406	10.31	26.0	18.0	66	71	21.7	39.0
C6040	3	22	7/30	0.011	0.28	0.032	0.81	0.292	7.42	15.0	11.3	66	63	24.4	43.9
C6041	6	22	7/30	0.011	0.28	0.032	0.81	0.381	9.68	15.0	11.3	66	63	24.4	43.9
C6042	9	22	7/30	0.011	0.28	0.032	0.81	0.445	11.30	15.0	11.3	66	63	24.4	43.9
C6043	11	22	7/30	0.011	0.28	0.032	0.81	0.486	12.34	15.0	11.3	66	63	24.4	43.9
C6059	12	22	7/30	0.011	0.28	0.048	1.22	0.533	13.54	15.0	11.3	66	63	24.4	43.9
C6044	15	22	7/30	0.011	0.28	0.048	1.22	0.591	15.01	15.0	11.3	66	63	24.4	43.9
C6060	17	22	7/30	0.011	0.28	0.048	1.22	0.622	15.80	15.0	11.3	66	63	24.4	43.9
C6045	19	22	7/30	0.011	0.28	0.048	1.22	0.622	15.80	15.0	11.3	66	63	24.4	43.9
C6046*	27	22	7/30	0.011	0.28	0.048	1.22	0.696	17.68	15.0	11.3	66	63	24.4	43.9
C6052	3	20	7/28	0.013	0.33	0.032	0.81	0.339	8.61	10.5	10.2	66	61	25.3	45.6
C6053	6	20	7/28	0.013	0.33	0.032	0.81	0.446	11.33	10.5	10.2	66	61	25.3	45.6
C6054	9	20	7/28	0.013	0.33	0.048	1.22	0.555	14.10	10.5	10.2	66	61	25.3	45.6
C6056	12	20	7/28	0.013	0.33	0.048	1.22	0.623	15.82	10.5	10.2	66	61	25.3	45.6
C6058	15	20	7/28	0.013	0.33	0.048	1.22	0.692	17.58	10.5	10.2	66	61	25.3	45.6
C6047	3	18	16/30	0.016	0.41	0.032	0.81	0.395	10.03	6.4	8.3	66	60	25.7	46.2
C6048	6	18	16/30	0.016	0.41	0.048	1.22	0.556	14.12	6.4	8.3	66	60	25.7	46.2
C6049	9	18	16/30	0.016	0.41	0.048	1.22	0.649	16.48	6.4	8.3	66	60	25.7	46.2
C6050	12	18	16/30	0.016	0.41	0.048	1.22	0.731	18.57	6.4	8.3	66	60	25.7	46.2
C6051	15	18	16/30	0.016	0.41	0.048	1.22	0.776	19.71	6.4	8.3	66	60	25.7	46.2

* UL2919, CSA CMH Only

**A - Capacitance between conductors

**B - Capacitance between one conductor and other conductors connected to shield

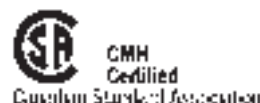
Color Code Chart

NO. OF PAIRS	COLOR	NO. OF PAIRS	COLOR	NO. OF PAIRS	COLOR
1	Black paired with Red	10	Red paired with Blue	19	White paired with Blue
2	Black paired with White	11	Red paired with Yellow	20	White paired with Yellow
3	Black paired with Green	12	Red paired with Brown	21	White paired with Brown
4	Black paired with Blue	13	Red paired with Orange	22	White paired with Orange
5	Black paired with Yellow	14	Green paired with White	23	Blue paired with Yellow
6	Black paired with Brown	15	Green paired with Blue	24	Blue paired with Brown
7	Black paired with Orange	16	Green paired with Yellow	25	Blue paired with Orange
8	Red paired with White	17	Green paired with Brown	26	Brown paired with Yellow
9	Red paired with Green	18	Green paired with Orange	27	Brown paired with Orange

CAROL BRAND



Designed to Meet
UL Vertical Tray
Flame Test
Underwriters Laboratories Inc.



General Cable

Multi-Paired, Individually Foil Shielded

NEC Type CL2 and CM (UL) c(UL)

Product Construction:

Conductor:

- 20 AWG fully annealed stranded tinned copper per ASTM B-33
- Twisted pairs

Insulation:

- Premium grade color coded polypropylene
- Color Code: See chart below

Shield:

- Individually shielded pairs
- 100% Flexfoil® aluminum/polyester with 25% overlap, minimum, foil facing in
- Stranded tinned copper drain wire each pair

Jacket:

- PVC, gray
- Temperature range: - 20°C to + 75°C

Applications:

- Applications for total isolation of signal
- Computers
- Control circuits
- Industrial equipment
- Suggested voltage rating: 300 volts

Features:

- Individually shielded pairs for excellent signal isolation
- Excellent high frequency properties
- Mechanical durability

Compliances:

- NEC Article 725 Type CL2 (UL: 75°C, 150V)
- NEC Article 800 Type CM (UL: 75°C, 300V)
- Designed to Meet UL 70,000 BTU Vertical Tray Flame Test

Packaging:

- Please contact Customer Service for packaging and color options



CATALOG NUMBER	NO. OF PAIRS	AWG SIZE	COND. STRAND.	NOM. INSULATION THICKNESS		NOM. JACKET THICKNESS		NOMINAL O.D.		NOMINAL CAP.*	
				INCHES	mm	INCHES	mm	INCHES	mm	A	B
C1368	4	20	7/28	0.015	0.38	0.032	0.81	0.364	9.25	23.0	41.5

*A - Capacitance between conductors

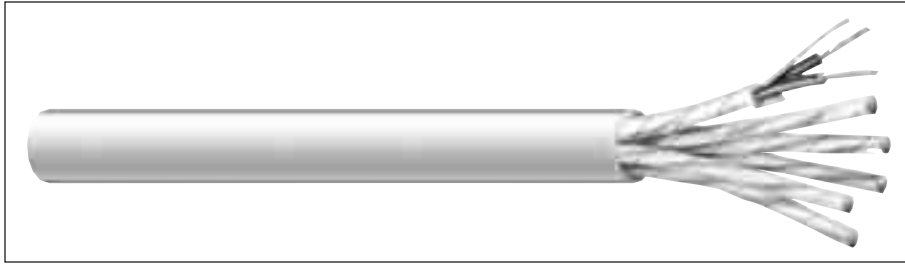
*B - Capacitance between one conductor and other conductors connected to shield

Color Code Chart

NO. OF PAIRS	COLOR
1	Red paired with White/Red
2	Black paired with White/Black
3	Green paired with White/Green
4	White paired with White/Yellow

Multi-Paired, Individually Foil Shielded

UL 2464, NEC Type CM (UL) c(UL), CSA CMG



Product Construction:

Conductor:

- 22 AWG fully annealed solid tinned copper per ASTM B-33
- Twisted pairs

Insulation:

- Premium-grade, color-coded PVC
- Color Code: See chart below

Shield:

- Individually shielded pairs
- 100% Flexfoil® aluminum/polyester with 25% overlap, minimum, foil facing in
- Solid tinned copper drain wire each pair

Jacket:

- PVC, gray
- Temperature range: -20°C to +80°C

Applications:

- Applications for total isolation of signal
- Computers
- Control circuits
- Industrial equipment
- Suggested voltage rating: 300 volts

Features:

- Individually shielded pairs for excellent signal isolation
- Excellent high-frequency properties
- Mechanical durability

Compliances:

- NEC Article 800 Type CM (UL: 75°C)
- UL Style 2464 (UL: 80°C, 300V)
- CSA CMG (CSA: 60°C)
- Designed to meet UL 70,000 BTU Vertical Tray Flame Test
- Passes CSA CMG Flame Test

Packaging:

- Please contact Customer Service for packaging and color options

CATALOG NUMBER	NO. OF PAIRS	AWG SIZE	COND. STRAND.	NOM. INSULATION THICKNESS		NOM. JACKET THICKNESS		NOMINAL O.D.		NOMINAL DCR Ω /kft		NOMINAL IMPEDANCE Ω	NOMINAL CAP.* pF/ft	
				IN	mm	IN	mm	IN	mm	COND.	SHLD.		A	B
C6035	3	22	Solid	0.015	0.38	0.032	0.81	0.304	7.72	16.5	11.3	50	38.6	69.4
C6036	6	22	Solid	0.015	0.38	0.032	0.81	0.397	10.08	16.5	11.3	50	38.6	69.4

*A - Capacitance between conductors

*B - Capacitance between one conductor and other conductors connected to shield

Color Code Chart

NO. OF PAIRS	COLOR	NO. OF PAIRS	COLOR
1	Black paired with Red	4	Black paired with Blue
2	Black paired with White	5	Black paired with Yellow
3	Black paired with Green	6	Black paired with Brown

Multi-Paired, Individually Foil Shielded, Lo-Cap®

UL 2493, NEC Type CM (UL) c(UL) CMH

Product Construction:

Conductor:

- 24 AWG fully annealed stranded tinned copper per ASTM B-33
- Twisted pairs

Insulation:

- Premium-grade, color-coded foamed Lo-Cap® polypropylene
- Color Code: See chart below

Shield:

- Individually shielded pairs
- 100% Flexfoil® aluminum/polyester with 25% overlap, minimum, foil facing in
- Stranded tinned copper drain wire each pair

Jacket:

- PVC, gray
- Temperature Range: -20°C to +60°C

Applications:

- High-speed computers
- Industrial equipment
- Control circuits
- Suitable for low capacitance applications
- Suitable for EIA RS-422 CAD/CAM applications
- Suggested voltage rating: 300 volts

Features:

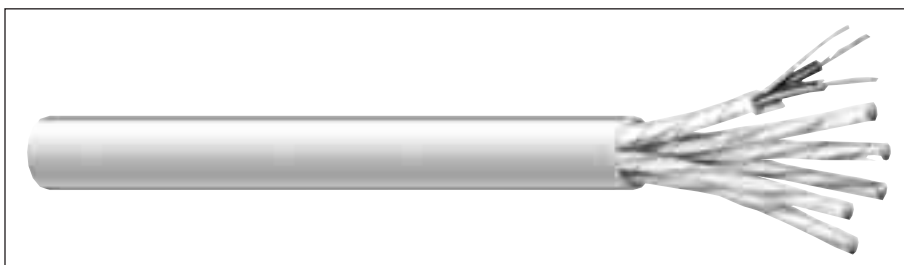
- Individually shielded pairs for excellent signal isolation
- Excellent high-frequency properties
- Mechanical durability

Compliances:

- NEC Article 800 Type CM (UL: 75°C, 300V)
- UL Style 2493 (UL: 60°C)
- Designed to meet UL 70,000 BTU Vertical Tray Flame Test
- CSA CMH (CSA: 60°C)
- Passes CSA CMH Flame Test

Packaging:

- Please contact Customer Service for packaging and color options



CATALOG NUMBER	NO. OF PAIRS	AWG SIZE	COND. STRAND.	NOM. INSULATION THICKNESS		NOM. JACKET THICKNESS		NOMINAL O.D.		NOMINAL DCR Ω/kft		VEL. OF PROP., %	NOM. IMP., Ω	NOMINAL CAP.* pF/ft	
				IN	mm	IN	mm	IN	mm	COND.	SHLD.			A	B
C0910	2	24	7/32	0.022	0.56	0.047	1.19	0.283	7.19	26.0	18.0	78	100	14.8	26.7
C0911	3	24	7/32	0.022	0.56	0.048	1.22	0.381	9.68	26.0	18.0	78	100	14.8	26.7
C0912	4	24	7/32	0.022	0.56	0.048	1.22	0.416	10.57	26.0	18.0	78	100	14.8	26.7
C0913	6	24	7/32	0.022	0.56	0.048	1.22	0.492	12.50	26.0	18.0	78	100	14.8	26.7
C0914	9	24	7/32	0.022	0.56	0.063	1.60	0.601	15.27	26.0	18.0	78	100	14.8	26.7
C0915	11	24	7/32	0.022	0.56	0.063	1.60	0.652	16.56	26.0	18.0	78	100	14.8	26.7
C0916	12	24	7/32	0.022	0.56	0.063	1.60	0.672	17.08	26.0	18.0	78	100	14.8	26.7
C0917	15	24	7/32	0.022	0.56	0.063	1.60	0.743	18.87	26.0	18.0	78	100	14.8	26.7

*A - Capacitance between conductors

*B - Capacitance between one conductor and other conductors connected to shield

Color Code Chart

NO. OF PAIRS	COLOR	NO. OF PAIRS	COLOR
1	Black paired with Red	9	Red paired with Green
2	Black paired with White	10	Red paired with Blue
3	Black paired with Green	11	Red paired with Yellow
4	Black paired with Blue	12	Red paired with Brown
5	Black paired with Yellow	13	Red paired with Orange
6	Black paired with Brown	14	Green paired with White
7	Black paired with Orange	15	Green paired with Blue
8	Red paired with White		

Multi-Paired, Individually Foil/Braid Shielded, Lo-Cap®

UL 2493, NEC Type CM (UL) c(UL) CMH



Product Construction:

Conductor:

- 24 AWG fully annealed stranded tinned copper per ASTM B-33
- Twisted pairs

Insulation:

- Premium-grade, color-coded foamed Lo-Cap® polypropylene
- Color Code: See chart below

Shield:

- Individually shielded pairs
- 100% Flexfoil® aluminum/polyester with 25% overlap, minimum, foil facing in
- Stranded tinned copper drain wire, each pair
- 70% tinned copper braid, each pair

Jacket:

- PVC, gray
- Temperature Range: - 20°C to + 75°C

Applications:

- High-speed computers
- Industrial equipment
- Control circuits
- Designed for low capacitance applications
- Suitable for RS-422 CAD/CAM applications
- Suggested voltage rating: 300 volts

Features:

- Individually shielded pairs for excellent signal isolation
- Excellent high-frequency properties
- Mechanical durability

Compliances:

- NEC Article 800 Type CM (UL: 75°C, 300V)
- UL Style 2493 (UL: 60°C)
- Designed to meet UL 70,000 BTU Vertical Tray Flame Test
- CSA CMH (CSA: 60°C)
- Passes CSA CMH Flame Test

Packaging:

- Please contact Customer Service for packaging and color options

CATALOG NUMBER	NO. OF PAIRS	AWG SIZE	COND. STRAND.	NOM. INSULATION THICKNESS		NOM. JACKET THICKNESS		NOMINAL O.D.		NOMINAL DCR**			VEL. OF PROP., %	NOM. IMP., Ω	NOMINAL CAP.*	
				IN	mm	IN	mm	IN	mm	C	D	E			A	B
C0924	2	24	7/32	0.022	0.56	0.048	1.22	0.390	9.91	26.0	18.0	4.3	78	100	14.8	26.7
C0925	3	24	7/32	0.022	0.56	0.048	1.22	0.410	10.41	26.0	18.0	4.4	78	100	14.8	26.7
C0926	4	24	7/32	0.022	0.56	0.048	1.22	0.445	11.30	26.0	18.0	3.2	78	100	14.8	26.7

*A - Capacitance between conductors

*B - Capacitance between one conductor and other conductors connected to shield

**C - Conductor resistance

**D - Individual shield resistance

**E - Overall shield resistance

Color Code Chart

NO. OF PAIRS	COLOR
1	Black paired with Red
2	Black paired with White
3	Black paired with Green
4	Black paired with Blue

CAROL BRAND

UL LISTED

UL

Designed to Meet
UL Vertical Tray
Flame Test

Underwriters Laboratories Inc.

CSA

CMH
Certified

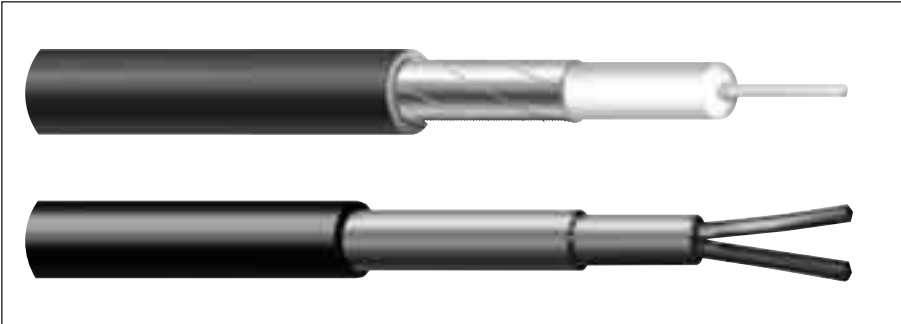
Quantum Standard Association



General Cable

Coaxial Cable

5



To meet the needs of today's sophisticated, high-speed, wide bandwidth electronics over long distances, with minimum signal loss or degradation, General Cable Carol® and Helix/HiTemp™ Brands offers a wide range of coaxial and twinaxial designs in both unbalanced arrays and precision balanced pairs. This offers the system designer a wide choice of cost-effective products that reflect the most recent changes in the standards set by UL, CSA and/or the FCC.

Included in this section are recommended Carol® Brand coaxial products for the CATV market. However, these constructions may differ in certain parts of the country.

Unlike other products in the electronic market, coaxial cable does not have one accepted

standard construction.

General Cable recommends, in order to avoid installing an unacceptable coaxial cable for the CATV application in your area, the local CATV company should be consulted.

General Cable's Carol® Brand product mix encompasses standard RG/U-type coaxial constructions in the more popular 50, 75 and 93 ohm designs and miniature coaxial products for smaller high-speed applications.

The twinaxial products meet or exceed the stringent demands of today's precision balanced pair systems. The minimization of capacitance unbalance is a necessary requirement for long distance data transmission.

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RG 6/U Type

Product Construction:

Conductors:

- Copper per ASTM B-3
- Copper-clad steel per ASTM B-869

Insulation/Core:

- Cellular polyethylene

Shield:

- Bare copper or aluminum braid
- Flexfoil® shield

Jacket:

- Premium PVC compound

Packaging:

- Please contact Customer Service for packaging and color options

Applications:

- Suitable for RF signal transmission
- MATV
- CATV
- CCTV
- Local Area Network
- Drop cable
- FM broadcast
- See Coax Connector Cross Reference, pages 188-195

CATALOG NUMBER	AWG SIZE NOM. DCR	INSULATION MATERIAL		SHIELD COVERAGE NOM SHLD DCR	NOMINAL O.D.		NOMINAL CAPACITANCE		VELOCITY OF PROPAGATION, %	NOMINAL IMPEDANCE, Ω	NOMINAL ATTENUATION	
		INCHES	mm		INCHES	mm	pF/ft	pF/m			MHz	dB/100'
C5760 RG 6/U Type 	18 Ga. Solid Copper- Clad Steel 28.9 V/M	Cellular Polyethylene		100% Flexfoil® 30 Ga. CCS Spiral Served Shield 30.0 V/M	Black PVC		16.20	53.15	85	75	1	0.26
		0.180	4.57		0.240	6.10					10	0.81
C5761 RG 6/U Type CCTV UL CL2, CATV, CM C(UL) CM 	18 Ga. Solid Bare Copper 6.5 V/M	Cellular Polyethylene		100% Flexfoil® +95% Bare Copper Braid 2.6 V/M	Black PVC		16.20	53.15	85	75	1	0.26
		0.180	4.57		0.270	6.86					10	0.81
C5774 RG 6/U Type UL CL2, CATV, CM C(UL) CM 	18 Ga. Solid Copper- Clad Steel 28.9 V/M	Cellular Polyethylene		100% Flexfoil® Bonded +40% Aluminum Braid 10.5 V/M	Black PVC		16.20	53.15	85	75	1	0.26
		0.177	4.50		0.267	6.78					10	0.81
C5775 RG 6/U Type UL CL2, CATV, CM C(UL) CM 	18 Ga. Solid Copper- Clad Steel 28.9 V/M	Cellular Polyethylene		100% Flexfoil® Bonded +60% Aluminum Braid 9.0 V/M	Black PVC		16.20	53.15	85	75	1	0.26
		0.177	4.50		0.263	6.68					10	0.81
C5886 RG 6/U Type Riser UL CL2R, CATVR, CMR C(UL) CMR 	18 Ga. Solid Copper- Clad Steel 28.9 V/M	Cellular Polyethylene		100% Flexfoil® Bonded +60% Aluminum Braid 9.0 V/M	Black PVC		16.20	53.15	85	75	1	0.26
		0.177	4.50		0.263	6.68					10	0.81
C5776 RG 6/U Type UL CL2, CATV, CM C(UL) CM 	18 Ga. Solid Copper- Clad Steel 28.9 V/M	Cellular Polyethylene		100% Flexfoil® Bonded +95% Aluminum Braid 10.5 V/M	Black PVC		16.20	53.15	85	75	1	0.26
		0.177	4.50		0.267	6.78					10	0.81

RG 6/U Type

Product Construction:

Conductors:

- Copper per ASTM B-3
- Copper-clad steel per ASTM B-869

Insulation/Core:

- Solid and cellular polyethylene designs

Shield:

- Tinned, bare copper or aluminum braid
- Flexfoil® shield

Jacket:

- Premium PVC compound or PE compound

Packaging:

- Please contact Customer Service for packaging and color options

Applications:

- CATV
- MATV
- LAN cable
- Digital video
- Direct burial
- See Coax Connector Cross Reference, pages 188-195

CATALOG NUMBER	AWG SIZE NOM. DCR	INSULATION MATERIAL		SHIELD COVERAGE NOM SHLD DCR	NOMINAL O.D.		NOMINAL CAPACITANCE		VELOCITY OF PROPAGATION, %	NOMINAL IMPEDANCE, Ω	NOMINAL ATTENUATION	
		INCHES	mm		INCHES	mm	pF/ft	pF/m			MHz	dB/100'
C5888 RG 6/U Type Riser UL CL2R, CATVR, CMR C(UL) CMR 	18 Ga. Solid Copper- Clad Steel 28.9 V/M	Cellular Polyethylene		100% Flexfoil® Bonded +95% Aluminum Braid 6.5 V/M	Black PVC		16.20	53.15	85	75	1	0.26
		0.177	4.50		0.267	6.78					10	0.81
C5785 RG 6/U Type Quad-Shield UL CL2, CATV, CM C(UL) CM 	18 Ga. Solid Copper- Clad Steel 28.9 V/M	Cellular Polyethylene		(2) 100% Flexfoil® 1st Bonded (1) 60% (2) 40% Aluminum Braids 3.7 V/M	Black PVC		16.20	53.15	85	75	1	0.26
		0.177	4.50		0.292	7.42					10	0.81
C5889 RG 6/U Type Riser Quad-Shield UL CL2R, CATVR, CMR C(UL) CMR 	18 Ga. Solid Copper- Clad Steel 28.9 V/M	Cellular Polyethylene		(2) 100% Flexfoil® 1st Bonded (1) 60% (2) 40% Aluminum Braids 3.7 V/M	Black PVC		16.20	53.15	85	75	1	0.26
		0.177	4.50		0.292	7.42					10	0.81
C5777 RG 6/U Type UL CL2, CATV, CM C(UL) CM 	18 Ga. Solid Copper- Clad Steel 28.9 V/M	Cellular Polyethylene		100% Flexfoil® Bonded +61% Tinned Copper Braid 6.5 V/M	Black PVC		16.20	53.15	85	75	1	0.26
		0.177	4.50		0.267	6.78					10	0.81
C5802 RG 6/U Type Messengered, Self-Supporting 	18 Ga. Solid Copper- Clad Steel 28.9 V/M	Cellular Polyethylene		100% Flexfoil® Bonded +60% Aluminum Braid 9.0 V/M	Black PVC		16.20	53.15	85	75	1	0.26
		0.180	4.57		0.270 X 0.428	6.86 X 10.87					10	0.81
C5804 RG 6/U Type MoistureGuard™ Direct Burial, Flooded  FlexFill®	18 Ga. Solid Copper- Clad Steel 28.9 V/M	Cellular Polyethylene		100% Flexfoil® Bonded +60% Aluminum Braid w/ water block 9.0 V/M	Black PE		16.20	53.15	85	75	1	0.26
		0.180	4.57		0.270	6.86					10	0.81
C5810 RG 6/U Type Special Applications MATV Cable 	21 Ga. Solid Copper- Clad Steel 32.0 V/M	Solid Polyethylene		(2) Bare Copper 95% Braids 1.1 V/M	Black PE		20.50	67.26	66	75	1	0.40
		0.185	4.70		0.332	8.43					10	0.80

Figure 8. Contains 0.051" galvanized steel messenger wire.

RG 6/U Type

Product Construction:

Conductors:

- Copper per ASTM B-3
- Copper-clad steel per ASTM B-869

Insulation/Core:

- Cellular polyethylene

Shield:

- Tinned copper or aluminum braid
- Flexfoil® shield

Jacket:

- Premium PVC compound

Packaging:

- Please contact Customer Service for packaging and color options

Applications:

- LAN cable
- Digital video
- Direct broadcast satellite
- See Coax Connector Cross Reference, pages 188-195

CATALOG NUMBER	AWG SIZE NOM. DCR	INSULATION MATERIAL		SHIELD COVERAGE NOM SHLD DCR	NOMINAL O.D.		NOMINAL CAPACITANCE		VELOCITY OF PROPAGATION, %	NOMINAL IMPEDANCE, Ω	NOMINAL ATTENUATION	
		INCHES	mm		INCHES	mm	pF/ft	pF/m			MHz	dB/100'
C5812 RG 6/U Type LAN Cable IEEE 802.4 MAP Type UL CL2, CATV, CM C(UL) CM	18 Ga. Solid Copper- Clad Steel 28.9 V/M	Cellular Polyethylene		100% Flexfoil® Bonded +77% Aluminum Braid +100% Flexfoil® 5.4 V/M	Black PVC		16.20	53.15	85	75	1	0.26
		0.177	4.50		0.290	7.37					10	0.81
C5814 RG 6/U Type Digital Video UL CL2, CATV, CM C(UL) CM	18 Ga. Solid Bare Copper 6.5 V/M	Cellular Polyethylene		100% Flexfoil® +95% Tinned Copper Braid 2.7 V/M	Black PVC		16.20	53.15	85	75	50	1.46
		0.180	4.57		0.270	6.86					100	2.05
C5822 RG 6/U Dual-Type DBS UL CL2, CATV, CM C(UL) CM	18 Ga. Solid Copper- Clad Steel 28.9 V/M	Cellular Polyethylene		100% Flexfoil® Bonded +60% Aluminum Braid 9.0 V/M	Black PVC		16.20	53.15	85	75	200	2.83
		0.180	4.57		0.267 X 0.595	6.86 X 15.11					500	4.53
C5890 RG 6/U Dual-Type DBS Riser UL CL2R, CATVR, CMR C(UL) CMR	18 Ga. Solid Copper- Clad Steel 28.9 V/M	Cellular Polyethylene		100% Flexfoil® Bonded +60% Aluminum Braid 9.0 V/M	Black PVC		16.20	53.15	85	75	1000	6.59
		0.180	4.57		0.270 X 0.595	6.86 X 10.41					1450	8.10
C5824 RG 6/U Type DBS w/Ground UL CL2, CATV, CM C(UL) CM	18 Ga. Solid Bare Copper 6.5 V/M	Cellular Polyethylene		100% Flexfoil® Bonded +60% Aluminum Braid 9.0 V/M	Black PVC		16.20	53.15	85	75	1800	8.80
		0.180	4.57		0.270 X 0.410	6.86 X 10.41					2200	10.10
C5826 RG 6/U Dual-Type DBS w/ Ground UL CL2, CATV, CM C(UL) CM	18 Ga. Solid Bare Copper 6.5 V/M	Cellular Polyethylene		100% Flexfoil® Bonded +60% Aluminum Braid 9.0 V/M	Black PVC		16.20	53.15	85	75	3000	11.79
		0.180	4.57		0.270 X 0.720	6.86 X 17.86						

RG 6/U Type

Product Construction:

Conductors:

- Copper per ASTM B-3
or copper-clad steel per ASTM B-869

Insulation/Core:

- Cellular polyethylene design
- Cellular fluoropolymer designs

Shield:

- Tinned copper or aluminum braid
- Flexfoil® shield

Jacket:

- Premium-grade PVC compound

Packaging:

- Please contact Customer Service for packaging and color options

Applications:

- Suitable for RF signal transmission
- CATV
- DBS
- Drop cable
- FM broadcast
- Digital Video
- See Coax Connector Cross Reference, pages 188-195

CATALOG NUMBER	AWG SIZE NOM. DCR	INSULATION MATERIAL		SHIELD COVERAGE NOM SHLD DCR	NOMINAL O.D.		NOMINAL CAPACITANCE		VELOCITY OF PROPAGATION, %	NOMINAL IMPEDANCE, Ω	NOMINAL ATTENUATION	
		INCHES	mm		INCHES	mm	pF/ft	pF/m			MHz	dB/100'
C5778 RG 6/U Type UL CL2, CATV, CM C(UL) CM 	18 Ga. Solid Bare Copper 6.5 V/M	Cellular Polyethylene		100% Flexfoil® Bonded +61% Tinned Copper Braid 6.5 V/M	Black PVC		16.20	53.15	85	75	1	0.26
		0.177	4.50		0.267	6.78					10	0.81
C3523 RG 6/U Type Plenum UL CL2P, CMP C(UL) CMP 	18 Ga. Solid Bare Copper 6.5 V/M	Cellular Fluoropolymer		100% Flexfoil® +61% Tinned Copper Braid 2.3 V/M	Flexguard® Natural		16.40	52.50	86	75	50	1.46
		0.170	4.32		0.226	5.74					100	2.05
C3521 RG 6/U Type Plenum UL CL2P, CMP C(UL) CMP 	18 Ga. Solid Bare Copper 6.5 V/M	Cellular Fluoropolymer		100% Flexfoil® 95% Tinned Copper Braid 2.3 V/M	Flexguard® Natural		16.00	52.50	86	75	200	2.83
		0.170	4.32		0.233	5.92					500	4.53
C3524 RG 6/U Type Plenum UL CL2P, CMP C(UL) CMP 	18 Ga. Solid Copper- Clad Steel 6.5 V/M	Cellular Fluoropolymer		100% Flexfoil® +60% Aluminum Braid 9.0 V/M	Flexguard® Natural		16.00	52.50	86	75	1000	6.59
		0.170	4.32		0.226	5.74					2200	10.10
C3525 RG 6/U Type Quad-Shield Plenum UL CL2P, CMP C(UL) CMP 	18 Ga. Solid Copper- Clad Steel 6.5 V/M	Cellular Fluoropolymer		(2) 100% Flexfoil® 1st Bonded (1) 60% (2) 40% Aluminum Braids 5.3 V/M	Flexguard® Natural		16.00	52.50	86	75	3000	11.79
		0.170	4.32		0.226	5.74						
C8029 RG 6/U Type +18 AWG Unshielded Pair UL CL2, CATV, CM C(UL) CM 	18 Ga. Solid BC Coax 18 AWG 7/26 Unshielded Pair	Cellular Polyethylene		100% Flexfoil® +95% Bare Copper Braid Unshielded Pair	Black PVC		16.20	53.15	85	75	10	0.72
		0.177	4.50		0.270 X 0.493	6.86 X 12.52					50	1.48
C8031 RG 6/U Type +18 AWG Unshielded Pair UL CMP C(UL) CMP 	18 AWG Solid BC Coax 18 AWG 7/26 Unshielded Pair	Cellular FEP		95% Bare Copper Braid Unshielded Pair	Natural PVC		16.30	53.48	86	75	100	2.01
		0.170	0.432		0.232 X 0.416	5.89 X 10.57					200	3.10
		Halar									500	5.00
		0.006	0.15								1000	7.30

RG 7/U Type

Product Construction:

Conductors:

- Copper-clad steel per ASTM B-869

Insulation/Core:

- Cellular polyethylene

Shield:

- Aluminum braid
- Flexfoil® shield

Jacket:

- Premium-grade PVC compound or PE compound

Packaging:

- Please contact Customer Service for packaging and color options

Applications:

- Suitable for RF signal transmission
- MATV
- CATV
- Local Area Network
- Drop cable
- FM broadcast
- Direct burial
- See Coax Connector Cross Reference, pages 188-195

CATALOG NUMBER	AWG SIZE NOM. DCR	INSULATION MATERIAL		SHIELD COVERAGE NOM SHLD DCR	NOMINAL O.D.		NOMINAL CAPACITANCE		VELOCITY OF PROPAGATION, %	NOMINAL IMPEDANCE, Ω	NOMINAL ATTENUATION	
		INCHES	mm		INCHES	mm	pF/ft	pF/m			MHz	dB/100'
C5851 RG 7/U Type UL CL2, CATV, CM C(UL) CM 	16 Ga. Solid Copper- Clad Steel 18.2 V/M	Cellular Polyethylene 0.225 5.72		100% Flexfoil® Bonded +61% Aluminum Braid 5.6 V/M	Black PVC		16.20	53.15	85	75	1	0.35
											10	0.77
											50	1.12
											100	1.59
											200	2.28
C5853 RG 7/U Type MoistureGuard™ Direct Burial, Flooded 	16 Ga. Solid Copper- Clad Steel 18.2 V/M	Cellular Polyethylene 0.225 5.72		100% Flexfoil® Bonded +61% Aluminum Braid w/ water block 5.6 V/M	Black PE		16.20	53.15	85	75	1	0.35
											10	0.77
											50	1.12
											100	1.59
											200	2.28
C5856 RG 7/U Type Tri-Shield UL CL2, CATV, CM C(UL) CM 	16 Ga. Solid Copper- Clad Steel 18.2 V/M	Cellular Polyethylene 0.225 5.72		100% Flexfoil® Bonded +61% Aluminum Braid +100% Flexfoil® 4.5 V/M	Black PVC		16.20	53.15	85	75	1	0.35
											10	0.77
											50	1.12
											100	1.59
											200	2.28
C5857 RG 7/U Type Quad-Shield UL CL2, CATV, CM C(UL) CM 	16 Ga. Solid Copper- Clad Steel 18.2 V/M	Cellular Polyethylene 0.225 5.72		(2) 100% Flexfoil® 1st Bonded (1) 60% (2) 40% Aluminum Braids 3.4 V/M	Black PVC		16.20	53.15	85	75	1	0.35
											10	0.77
											50	1.12
											100	1.59
											200	2.28

RG 8/U Type

Product Construction:

Conductors:

- Copper per ASTM B-3

Insulation/Core:

- Solid and cellular polyethylene designs

Shield:

- Tinned or bare copper braid
- Flexfoil® shield

Jacket:

- Premium PVC compound

Packaging:

- Please contact Customer Service for packaging and color options

Applications:

- Suitable for RF signal transmission
- Broadcast
- Citizen band antenna
- See Coax Connector Cross Reference, pages 188-195

CATALOG NUMBER	AWG SIZE NOM. DCR	INSULATION MATERIAL		SHIELD COVERAGE NOM SHLD DCR	NOMINAL O.D.		NOMINAL CAPACITANCE		VELOCITY OF PROPAGATION, %	NOMINAL IMPEDANCE, Ω	NOMINAL ATTENUATION	
		INCHES	mm		INCHES	mm	pF/ft	pF/m			MHz	dB/100'
C1108 RG 8/U Mini Type UL CL2, CM CSA CMG P 1354 	16 Ga. (19x28) Bare Copper 4.2 V/M	Cellular Polyethylene		95% Bare Copper Braid 3.3 V/M	Black PVC		25.30	83.01	80	50	1	0.26
		0.155	3.94		0.242	6.15					10	0.98
C1154 RG 8/U Type JAN-C-17A Type P 1354 	13 Ga. (7x21) Bare Copper 1.9 V/M	Solid Polyethylene		95% Bare Copper Braid 1.2 V/M	Black PVC		29.50	96.79	66	52	1	0.16
		0.285	7.24		0.405	10.29					10	0.56
C1198 RG 8/U Type P 1354 	11 Ga. (19x24) Bare Copper 1.9 V/M	Cellular Polyethylene		95% Bare Copper Braid 1.1 V/M	Black PVC		26.00	85.31	78	50	1	0.17
		0.285	7.24		0.405	10.29					10	0.57
C1197 RG 8/U Type CSA(US) CM CSA CM P 1354 	11 Ga. (7x19) Bare Copper 1.2 V/M	Cellular Polyethylene		97% Bare Copper Braid 1.1 V/M	Black PVC		26.00	85.31	78	50	1	0.17
		0.285	7.24		0.405	10.29					10	0.57
C1180 RG 8/U Type 	9 1/2 Ga. Solid Bare Copper 0.90 V/M	Semi-Solid Polyethylene		100% Flexfoil® Bonded +88% Tinned Copper Braid 1.8 V/M	Black PVC		24.60	80.71	84	50	1	0.13
		0.285	7.24		0.405	10.29					10	0.40
											50	0.90
											100	1.30
											200	1.80
											500	3.00
											1000	4.50

RG 11/U Type

Product Construction:

Conductors:

- Copper per ASTM B-3
- Copper-clad steel per ASTM B-869

Insulation/Core:

- Solid and cellular polyethylene designs

Shield:

- Bare copper or aluminum braid
- Flexfoil® shield

Jacket:

- Premium PVC compound or PE compound

Packaging:

- Please contact Customer Service for packaging and color options

Applications:

- Suitable for RF signal transmission
- MATV
- CATV
- Drop cable
- CCTV
- See Coax Connector Cross Reference, pages 188-195

CATALOG NUMBER	AWG SIZE NOM. DCR	INSULATION MATERIAL		SHIELD COVERAGE NOM SHLD DCR	NOMINAL O.D.		NOMINAL CAPACITANCE		VELOCITY OF PROPAGATION, %	NOMINAL IMPEDANCE, Ω	NOMINAL ATTENUATION	
		INCHES	mm		INCHES	mm	pF/ft	pF/m			MHz	dB/100'
C1160 RG 11/U Type JAN-C-17A Type 	18 Ga. (7X26) Tinned Copper 6.1 V/M	Solid Polyethylene		95% Bare Copper Braid 1.2 V/M	Black PVC		20.50	67.26	66	75	1	0.20
		0.285	6.55		0.400	10.16					10	0.70
C5011 RG 11/U Type CCTV UL CL2, CATV, CM C(UL) CM 	14 Ga. Solid Bare Copper 2.5 V/M	Cellular Polyethylene		100% Flexfoil® +95% Bare Copper Braid 1.2 V/M	Black PVC		16.20	53.15	85	75	1	0.13
		0.280	7.11		.395	10.03					10	0.40
C5025 RG 11/U Type 	14 Ga. Solid Copper- Clad Steel 11.4 V/M	Cellular Polyethylene		97% Bare Copper Braid 1.2 V/M	Black PE		16.20	53.15	83	75	1	0.30
		0.285	7.24		0.405	10.29					10	0.70
C5034 RG 11/U Type 1354 	14 Ga. Solid Copper- Clad Steel 11.4 V/M	Cellular Polyethylene		100% Flexfoil® Bonded +40% Aluminum Braid 5.3 V/M	Black PVC		16.20	53.15	85	75	1	0.30
		0.280	7.11		0.395	10.03					10	0.70
C5039 RG 11/U Type UL CL2, CATV, CM CSA CMG 1354 	14 Ga. Solid Copper- Clad Steel 11.4 V/M	Cellular Polyethylene		100% Flexfoil® Bonded +60% Aluminum Braid 4.6 V/M	Black PVC		16.20	53.15	85	75	1	0.30
		0.280	7.11		0.395	10.03					10	0.70
C5044 RG 11/U Type Quad-Shield UL CL2, CATV, CM CSA CMG 1354 	14 Ga. Solid Copper- Clad Steel 11.4 V/M	Cellular Polyethylene		(2) 100% Flexfoil® 1st Bonded (1) 61% (2) 40% Aluminum Braids 3.4 V/M	Black PVC		16.20	53.15	85	75	1	0.30
		0.280	7.11		0.405	10.29					10	0.70

RG 11/U Type

Product Construction:
Conductor:

- Copper-clad steel per ASTM B-3

Insulation/Core:

- Cellular polyethylene designs
- Cellular fluoropolymer designs

Shield:

- Tinned, bare copper or aluminum braid
- Flexfoil® shield

Jacket:

- Premium PVC compound or PE compound

Packaging:

- Please contact Customer Service for packaging and color options

Applications:

- Suitable for RF signal transmission
- MATV
- CATV
- Drop cable
- Direct burial
- See Coax Connector Cross Reference, pages 188-195

CATALOG NUMBER	AWG SIZE NOM. DCR	INSULATION MATERIAL		SHIELD COVERAGE NOM SHLD DCR	NOMINAL O.D.		NOMINAL CAPACITANCE		VELOCITY OF PROPAGATION, %	NOMINAL IMPEDANCE, Ω	NOMINAL ATTENUATION	
		INCHES	mm		INCHES	mm	pF/ft	pF/m			MHz	dB/100'
C5041 RG 11/U Type Messengered, Self-Supporting 	14 Ga. Solid Copper- Clad Steel 11.4 V/M	Cellular Polyethylene 0.280 7.11		100% Flexfoil® Bonded +60% Aluminum Braid 5.3 V/M	Black PVC		16.20	53.15	85	75	1	0.30
											10	0.70
					0.395	10.03					50	0.90
					X	X					100	1.30
					0.624	15.85					200	1.90
											500	3.00
											1000	4.40
Figure 8. Contains 0.083" galvanized steel messenger wire.												
C5043 RG 11/U Type MoistureGuard™ Direct Burial, Flooded  FlexFill®	14 Ga. Solid Copper- Clad Steel 11.4 V/M	Cellular Polyethylene 0.280 7.11		100% Flexfoil® Bonded +60% Aluminum Braid w/ water block 5.3 V/M	Black PE		16.20	53.15	85	75	1	0.30
											10	0.70
					0.395	10.03					50	0.90
											100	1.30
											200	1.90
											500	3.00
											1000	4.40
C5029 RG 11/U Type UL CL2, CM C(UL) CM 	14 Ga. Solid Copper- Clad Steel 11.4 V/M	Cellular Polyethylene 0.280 7.11		100% Flexfoil® Bonded +61% Tinned Copper Braid 3.0 V/M	Black PVC		16.20	53.15	85	75	1	0.30
											10	0.70
					0.395	10.03					50	0.90
											100	1.30
											200	1.90
											500	3.00
											1000	4.40
											1450	5.30
											1800	5.90
											2200	6.53
											3000	7.62
C5033 RG 11/U Type UL CL2, CM C(UL) CM 	14 Ga. Solid Bare Copper 2.5 V/M	Cellular Polyethylene 0.280 7.11		100% Flexfoil® Bonded +61% Tinned Copper Braid 3.0 V/M	Black PE		16.20	53.15	83	75	1	0.30
											10	0.70
					0.395	10.03					50	0.90
											100	1.30
											200	1.90
											500	3.00
											1000	4.40
											1450	5.30
											1800	5.90
											2200	6.53
											3000	7.62
C5027 RG 11/U Triaxial Type 	14 Ga. Solid Copper- Clad Steel 11.4 V/M	Cellular Polyethylene 0.285 7.24		(2) Bare Copper 97% braids w/ Black PE Wall Separator 1.6 V/M	Black PE		16.20	53.15	83	75	1	0.20
											10	0.50
					0.475	12.07					50	1.00
											100	1.50
											200	2.20
											500	3.70
											1000	5.30
C3528 RG 11/U Type Plenum UL CL2P, CMP C(UL) CMP 	14 Ga. Solid Copper- Clad Steel 11.4 V/M	Cellular Fluoropolymer 0.280 7.11		100% Flexfoil® Bonded +60% Aluminum Braids 4.6 V/M	Flexguard® Natural		16.00	52.50	82	75	1	0.15
											10	0.47
					0.351	8.92					50	1.09
											100	1.49
											200	2.35
											500	3.94
											1000	6.19
											1450	7.45
											1800	8.30
											2200	9.18
C3529 RG 11/U Type Quad-Shield Plenum UL CL2P, CMP C(UL) CMP 	14 Ga. Solid Copper- Clad Steel 11.4 V/M	Cellular Fluoropolymer 0.280 7.11		(2) 100% Flexfoil® 1st Bonded (1) 60% (2) 40% Aluminum Braids 3.4 V/M	Flexguard® Natural		16.00	52.50	82	75	1	0.15
											10	0.47
					0.372	9.45					50	1.09
											100	1.49
											200	2.35
											500	3.94
											1000	6.19
											1450	7.45
											1800	8.30
											2200	9.18

RG 58/U Type

Product Construction:

Conductors:

- Copper per ASTM B-3
- Tinned copper per ASTM B-33

Insulation/Core:

- Solid and cellular polyethylene designs
- Cellular fluoropolymer design

Shield:

- Tinned copper braid

Jacket:

- Premium PVC compound or PE compound

Packaging:

- Please contact Customer Service for packaging and color options

Applications:

- Suitable for RF signal transmission
- Broadcast
- See Coax Connector Cross Reference, pages 188-195

CATALOG NUMBER	AWG SIZE NOM. DCR	INSULATION MATERIAL		SHIELD COVERAGE NOM SHLD DCR	NOMINAL O.D.		NOMINAL CAPACITANCE		VELOCITY OF PROPAGATION, %	NOMINAL IMPEDANCE, Ω	NOMINAL ATTENUATION	
		INCHES	mm		INCHES	mm	pF/ft	pF/m			MHz	dB/100'
C1117 RG 58/U Type 	20 Ga. Solid Bare Copper 10.1 V/M	Solid Polyethylene		70% Tinned Copper Braid 6.0 V/M	Black PVC		28.50	93.51	66	53	1	0.40
		0.116	2.95		0.195	4.95					10	1.20
C1155 RG 58C/U Type MIL-C-17G Type 	20 Ga. (19X.0071) Tinned Copper 10.8 V/M	Solid Polyethylene		95% Tinned Copper Braid 4.3 V/M	Non-contaminating Black PVC		30.80	101.05	66	50	1	0.42
		0.116	2.95		0.195	4.95					10	1.50
C1166 RG 58/U Type JAN-C-17A Type UL 1354 	20 Ga. Solid Bare Copper 10.1 V/M	Solid Polyethylene		95% Tinned Copper Braid 4.3 V/M	Black PVC		30.00	98.43	66	50	1	0.40
		0.116	2.95		0.195	4.95					10	1.20
C1178 RG 58A/U Type JAN-C-17A Type UL 1354 	20 Ga. (19X.0071) Tinned Copper 10.8 V/M	Solid Polyethylene		95% Tinned Copper Braid 4.3 V/M	Black PVC		31.80	104.34	66	50	1	0.42
		0.116	2.95		0.195	4.95					10	1.50
C5045 RG 58/U Type 	20 Ga. Solid Bare Copper 10.1 V/M	Solid Polyethylene		95% Tinned Copper Braid 4.3 V/M	Permaline® Black PE		24.00	78.74	78	50	1	0.40
		0.102	2.59		0.195	4.95					10	1.20
C1188 RG 58 A/U Type UL CL2, CM CSA CMG UL 1354 	20 Ga. (19X32) Tinned Copper 9.5 V/M	Cellular Polyethylene		95% Tinned Copper Braid 4.3 V/M	Black PVC		26.00	85.31	66	50	1	0.45
		0.114	2.90		0.195	4.95					10	1.42
C3519 RG 58/U Type Plenum UL CL2P, CMP C(UL) CMP 	19 Ga. Solid Bare Copper 8.1 V/M	Cellular Fluoropolymer		95% Tinned Copper Braid 2.9 V/M	Flexguard® PVC Natural		25.00	82.00	82	50	1	0.40
		0.102	2.59		0.161	4.09					10	1.30

RG 59/U Type

Product Construction:

Conductors:

- Copper per ASTM B-3
- Copper-clad steel per ASTM B-869

Insulation/Core:

- Solid and cellular polyethylene designs

Shield:

- Bare copper braid

Jacket:

- Premium PVC compound or PE compound

Packaging:

- Please contact Customer Service for packaging and color options

Applications:

- Suitable for RF signal transmission
- CATV
- MATV

• CCTV

- Local Area Network
- Citizen band radio
- Monitor/VDI Display
- See Coax Connector Cross Reference, pages 188-195

CATALOG NUMBER	AWG SIZE NOM. DCR	INSULATION MATERIAL		SHIELD COVERAGE NOM SHLD DCR	NOMINAL O.D.		NOMINAL CAPACITANCE		VELOCITY OF PROPAGATION, %	NOMINAL IMPEDANCE, Ω	NOMINAL ATTENUATION	
		INCHES	mm		INCHES	mm	pF/ft	pF/m			MHz	dB/100'
C1102 RG 59/U Type 	20 Ga. Solid Copper- Clad Steel 45.9 V/M	Cellular Polyethylene		95% Bare Copper Braid 3.5 V/M	Black PE		17.30	56.76	82	75	1	0.26
		0.146	3.71		0.242	6.15					10	0.82
C1104 RG 59/U Type UL 1354 	22 Ga. Solid Copper - Clad Steel 73.4 V/M	Solid Polyethylene		95% Bare Copper Braid 2.6 V/M	Black PVC		20.50	67.26	66	73	1	0.41
		0.146	3.71		0.242	6.15					10	0.99
C1135 RG 59/U Type UL CL2, CATV, CM CSA CMG UL 1354 	22 Ga. Solid Copper- Clad Steel 73.4 V/M	Cellular Polyethylene		95% Bare Copper Braid 2.6 V/M	Black PVC		16.30	53.48	78	80	1	0.42
		0.146	3.71		0.242	6.15					10	0.92
C1103 RG 59/U Type CCTV UL CL2, CATV, CM CSA CMG UL 1354 	22 Ga. (7X30) Bare Copper 14.8 V/M	Cellular Polyethylene		95% Bare Copper Braid 2.6 V/M	Black PVC		17.00	55.78	78	76	1	0.26
		0.146	3.71		0.242	6.15					10	0.91
C1142 RG 59/U Type CCTV UL CL2, CATV, CM CSA CMG UL 1354 	20 Ga. Solid Bare Copper 10.1 V/M	Cellular Polyethylene		95% Bare Copper Braid 2.6 V/M	Black PVC		16.20	53.15	78	71	1	0.25
		0.146	3.71		0.234	5.94					10	0.78
C1106 RG 59B/U Type MIL-C-17D Type UL 1354 	23 Ga. Solid Copper- Clad Steel 68.5 V/M	Solid Polyethylene		95% Bare Copper Braid 2.6 V/M	Non-Contaminating Black PVC		21.00	68.90	66	73	1	0.44
		0.146	3.71		0.242	6.15					10	1.02
C1107 RG 59/U Type CSA(US) CM CSA CMG UL 1354 	23 Ga. Solid Bare Copper- Clad Steel 68.5 V/M	Cellular Polyethylene		95% Bare Copper Braid 2.6 V/M	Black PVC		21.00	68.90	66	73	1	0.44
		0.146	3.71		0.234	5.94					10	1.02
C8030 RG 59/U Type +18 AWG Unshielded Pair UL CMP C(UL) CMP 	20 AWG Solid BC Coax 18 AWG 7/26 Unshielded Pair	Cellular FEP		95% Bare Copper Braid	Natural PVC		16.30	53.48	83	75	1	0.78
		0.135	3.43		0.200	5.08					10	1.90
		Halar		Unshielded Pair	0.200	5.08					100	1.98
		0.006	0.15		0.383	9.73					1000	9.64

RG 59/U Type

Product Construction:

Conductors:

- Copper per ASTM B-3
- Copper-clad steel per ASTM B-869

Insulation/Core:

- Solid and cellular polyethylene designs

Shield:

- Tinned, bare copper or aluminum braid
- Flexfoil® shield

Jacket:

- Premium PVC compound

Packaging:

- Please contact Customer Service for packaging and color options

Applications:

- Suitable for RF signal transmission
- MATV
- Local Area Network

- Citizen band radio
- Monitor/VDT display
- Analog video
- Digital video
- See Coax Connector Cross Reference, pages 188-195

CATALOG NUMBER	AWG SIZE NOM. DCR	INSULATION MATERIAL		SHIELD COVERAGE NOM SHLD DCR	NOMINAL O.D.		NOMINAL CAPACITANCE		VELOCITY OF PROPAGATION, %	NOMINAL IMPEDANCE, Ω	NOMINAL ATTENUATION	
		INCHES	mm		INCHES	mm	pF/ft	pF/m			MHz	dB/100'
C1110 RG 59/U Type  1354	22 Ga. Solid Copper- Clad Steel 73.4 V/M	Solid Polyethylene		70% Bare Copper Braid 4.5 V/M	Black PVC		22.00	72.18	66	73	1	0.41
		0.146	3.71		0.242	6.15					10	0.99
C1112 RG 59/U Type  1354	22 Ga. Solid Copper- Clad Steel 73.4 V/M	Cellular Polyethylene		70% Bare Copper Braid 4.5 V/M	Black PVC		16.30	53.48	78	80	50	2.38
		0.146	3.71		0.242	6.15					100	3.49
C8005 RG 59/U Dual-Type UL CL2, CATV, CM CSA CMG  20063	23 Ga. Solid Copper- Clad Steel 68.5 V/M	Solid Polyethylene		100% Flexfoil® +95% Tinned Copper Braid 2.9 V/M	Black PVC		21.00	68.90	66	73	200	5.09
		0.146	3.71		0.242 X 0.498	6.15 X 12.65					500	8.43
C5834 RG 59/U Dual-Type UL CL2, CATV, CM CSA CMG  20999	20 Ga. Solid Copper- Clad Steel 45.9 V/M	Cellular Polyethylene		100% Flexfoil® Bonded +67% Aluminum Braid 9.7 V/M	Black PVC		16.20	53.15	85	75	1000	13.03
		0.146	3.71		0.242 X 0.498	6.15 X 12.65					1450	15.69
C5816 RG 59/U Type Analog Video Digital Video  1354	20 Ga. Solid Bare Copper 73.4 V/M	Solid Polyethylene		97% Tinned Copper Double Braid 1.2 V/M	Black PVC		21.00	68.90	66	75	1000	10.89
		0.198	5.03		0.305	7.75					2200	19.33
C5836 RG 59/U Type Analog Video UL CL2X, CMX C(UL) CMH  1354	22 Ga. Solid Copper- Clad Steel 73.4 V/M	Solid Polyethylene		85% Bare Copper Braid 2.7 V/M	Black PVC		21.00	68.90	66	73	2200	19.33
		0.146	3.71		.242	6.15					3000	22.57
C8025 RG 59/U Type +22 AWG Shielded Pair UL CL2, CATV, CM C(UL) CM  1354	22 AWG 7/30 Shielded Pair	Cellular Polyethylene		95% Bare Copper Braid	Black PVC		17.00	55.78	78	76	1	0.26
		0.144	3.66		0.242 X 0.445	6.147 X 11.30					10	0.91
		Premium PVC		125% Flexfoil® Al/PP Shielded							50	2.90
		0.013	0.33								100	3.00

**CAROL
BRAND**

 **General Cable**

RG 59/U Type

Product Construction:

Conductors:

- Copper-clad steel per ASTM B-869

Insulation/Core:

- Cellular polyethylene designs

Shield:

- Aluminum braid
- Flexfoil® shield

Jacket:

- Premium PVC compound

Packaging:

- Please contact Customer Service for packaging and color options

Applications:

- Suitable for RF signal transmission
- CATV
- MATV
- Drop cable
- Local Area Network
- Citizen band radio
- Monitor/VDT display
- See Coax Connector Cross Reference, pages 188-195

CATALOG NUMBER	AWG SIZE NOM. DCR	INSULATION MATERIAL		SHIELD COVERAGE NOM SHLD DCR	NOMINAL O.D.		NOMINAL CAPACITANCE		VELOCITY OF PROPAGATION, %	NOMINAL IMPEDANCE, Ω	NOMINAL ATTENUATION	
		INCHES	mm		INCHES	mm	pF/ft	pF/m			MHZ	dB/100'
C5770 RG 59/U Type UL CL2, CATV, CM CSA CMG 1354 	22 Ga. Solid Copper- Clad Steel 73.4 V/M	Cellular Polyethylene 0.144 3.66		100% Flexfoil® Bonded +40% Aluminum Braid 11.0 V/M	Black PVC		16.00	52.50	78	80	1	0.50
											10	1.00
C5780 RG 59/U Type MATV UL CL2, CATV, CM CSA CMG 1354 	20 Ga. Solid Copper- Clad Steel 45.9 V/M	Cellular Polyethylene 0.144 3.66		100% Flexfoil® Bonded +40% Aluminum Braid 11.0 V/M	Black PVC		16.20	53.15	85	75	50	2.30
											100	3.30
C5782 RG 59/U Type UL CL2, CATV, CM CSA CMG 1354 	20 Ga. Solid Copper- Clad Steel 45.9 V/M	Cellular Polyethylene 0.144 3.66		100% Flexfoil® Bonded +67% Aluminum Braid 9.7 V/M	Black PVC		16.20	53.15	85	75	200	4.10
											500	6.50
C5832 RG 59/U Type UL CL2, CATV, CM C(UL) CM 	20 Ga. Solid Copper- Clad Steel 45.9 V/M	Cellular Polyethylene 0.144 3.66		100% Flexfoil® Bonded +95% Aluminum Braid 4.1 V/M	Black PVC		16.20	53.15	85	75	1000	9.40
											1450	11.32
C5831 RG 59/U Type Tri-Shield UL CL2, CATV, CM C(UL) CM 	20 Ga. Solid Copper- Clad Steel 45.9 V/M	Cellular Polyethylene 0.144 3.66		100% Flexfoil® Bonded +67% Aluminum Braid +100% Flexfoil® 11.0 V/M	Black PVC		16.20	53.15	85	75	1800	12.61
											2200	13.94
C5830 RG 59/U Type Tri-Shield UL CL2, CATV, CM C(UL) CM 	20 Ga. Solid Copper- Clad Steel 45.9 V/M	Cellular Polyethylene 0.144 3.66		100% Flexfoil® Bonded +95% Aluminum Braid +100% Flexfoil® 3.0 V/M	Black PVC		16.20	53.15	85	75	3000	16.28
C5784 RG 59/U Type Quad-Shield UL CL2, CATV, CM CSA CMG 1354 	20 Ga. Solid Copper- Clad Steel 45.9 V/M	Cellular Polyethylene 0.144 3.66		100% Flexfoil® 1st Bonded (1) 67% (2) 46% Aluminum Braids 4.1 V/M	Black PVC		16.20	53.15	85	75	1	0.60
											10	1.20

RG 59/U Type

Product Construction:

Conductors:

- Copper-clad steel per ASTM B-869

Insulation/Core:

- Cellular polyethylene and cellular fluoropolymer designs

Shield:

- Bare copper or aluminum braid
- Flexfoil® shield

Jacket:

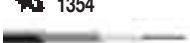
- Premium PVC compound or PE compound

Packaging:

- Please contact Customer Service for packaging and color options

Applications:

- Suitable for RF signal transmission
- MATV
- Local Area Network
- Citizen band radio
- Monitor/VDI display
- Direct burial
- See Coax Connector Cross Reference, pages 188-195

CATALOG NUMBER	AWG SIZE NOM. DCR	INSULATION MATERIAL		SHIELD COVERAGE NOM SHLD DCR	NOMINAL O.D.		NOMINAL CAPACITANCE		VELOCITY OF PROPAGATION, %	NOMINAL IMPEDANCE, Ω	NOMINAL ATTENUATION	
		INCHES	mm		INCHES	mm	pF/ft	pF/m			MHz	dB/100'
C5842 RG 59/U Type Messengered, Self-Supporting 	20 Ga. Solid Copper- Clad Steel 45.9 V/M	Cellular Polyethylene		100% Flexfoil® Bonded +67% Aluminum Braid 9.7 V/M	Black PVC		16.20	53.15	85	75	1	0.60
		0.146 3.71			0.242 X	6.15 X					10	1.20
					0.395	10.03					50	1.95
											100	2.70
											200	3.70
											500	5.70
											1000	8.12
Figure 8. Contains 0.051" galvanized steel messenger wire.												
C5844 RG 59/U Type, TM MoistureGuard Direct Burial, Flooded  FlexFill®	20 Ga. Solid Copper- Clad Steel 45.9 V/M	Cellular Polyethylene		100% Flexfoil® Bonded +67% Aluminum Braid w/ water block 9.7 V/M	Black PE		16.20	53.15	85	75	1	0.60
		0.146 3.71			0.242	6.15					10	1.20
											50	1.95
											100	2.70
											200	3.70
											500	5.70
											1000	8.12
C1158 RG 59/U Type Miniature Type  1354	27 Ga. (7X35) Copper- Clad Steel 120.0 V/M	Solid Polyethylene		93% Tinned Copper Braid 6.5 V/M	Black PVC		20.50	67.26	66	75	1	1.20
		0.100 2.54			0.150	3.81					10	2.40
											50	4.20
											100	5.70
											200	8.30
											500	13.53
											1000	20.00
C3526 RG 59/U Type Plenum UL CL2P, CMP C(UL) CMP 	20 Ga. Solid Copper- Clad Steel 45.9 V/M	Cellular Fluoropolymer		100% Flexfoil® +65% Aluminum Braid 10.7 V/M	Flexguard® Natural		16.00	52.50	84	75	1	0.34
		0.135 3.429			0.202	5.13					10	1.07
											50	1.77
											100	2.50
											200	3.53
											500	5.98
											1000	8.45
											2300	14.10
C3527 RG 59/U Type Quad-Shield Plenum UL CL2P, CMP C(UL) CMP 	20 Ga. Solid Copper- Clad Steel 45.9 V/M	Cellular Fluoropolymer		(2) 100% Flexfoil® 1st Bonded (1) 60% (2) 40% Aluminum Braid 6.3 V/M	Flexguard® Natural		16.00	52.50	84	75	1	0.34
		0.135 3.429			0.235	5.97					10	1.07
											50	1.77
											100	2.50
											200	3.53
											500	5.98
											1000	8.45
											2300	14.10
C3500 RG 59/U Type Plenum UL CL2P, CMP C(UL) CMP 	20 Ga. Solid Copper- Clad Steel 45.9 V/M	Cellular Fluoropolymer		95% Bare Copper Braid 1.9 V/M	Flexguard® PVC Natural		16.50	54.14	82	75	1	0.78
		0.145 3.68			0.201	5.11					10	1.90
											50	1.98
											100	2.80
											200	4.10
											500	6.82
											1000	9.64
C8027 RG 59/U Type +18 AWG Shielded Pair UL CL2, CATV, CM C(UL) CM 	22 AWG 7/30 BC Coax	Cellular Polyethylene		95% Bare Copper Braid	Black PVC		17.00	55.78	78	76	1	0.26
	18 AWG 16/30 Shielded Pair	0.144 3.66			0.242 X	6.15 X					10	0.91
		Premium PVC			0.480	12.19					50	2.09
		0.016 0.41									100	3.00
				125% Flexfoil® Al/PP Shielded							200	4.33
											500	7.03
											1000	10.64
C8028 RG 59/U Type +18 AWG Unshielded Pair UL CL2, CATV, CM C(UL) CM 	20 AWG Solid BC Coax	Cellular Polyethylene		95% Bare Copper Braid	Black PVC		16.20	53.15	78	71	1	0.25
	18 AWG 7/26 Unshielded Pair	0.144 3.66			0.238 X	6.05 X					10	0.78
		Premium PVC			0.440	11.18					50	1.97
		0.010 0.25									100	2.70
				Unshielded Pair							200	3.97
											500	6.35
											1000	9.15

RG 62/U Type

Product Construction:

Conductors:

- Copper-clad steel per ASTM B-869

Insulation/Core:

- Semi-solid polyethylene designs
- Cellular fluoropolymer design

Shield:

- Bare copper braid

Jacket:

- Premium PVC compound

Packaging:

- Please contact Customer Service for packaging and color options

Applications:

- Suitable for RF signal transmission
- Computer
- See Coax Connector Cross Reference, pages 188-195

CATALOG NUMBER	AWG SIZE NOM. DCR	INSULATION MATERIAL		SHIELD COVERAGE NOM SHLD DCR	NOMINAL O.D.		NOMINAL CAPACITANCE		VELOCITY OF PROPAGATION, %	NOMINAL IMPEDANCE, Ω	NOMINAL ATTENUATION	
		INCHES	mm		INCHES	mm	pF/ft	pF/m			MHZ	dB/100'
C1162 RG 62A/U Type MIL-C-17G Type  1354	22 Ga. Solid Copper- Clad Steel 73.4 V/M	Semi-Solid Polyethylene		95% Bare Copper Braid 2.6 V/M	Non-contaminating Black PVC		13.60	44.62	84	93	1	0.38
		0.146 3.71			0.242 6.15						10	0.85
											50	1.90
											100	2.70
											200	3.80
										500	5.90	
										1000	8.70	
C1164 RG 62/U Type Computer Cable JAN-C-17A Type UL CL2, CM CSA CMG  1354	22 Ga. Solid Copper- Clad Steel 73.4 V/M	Semi-Solid Polyethylene		95% Bare Copper Braid 2.6 V/M	Black PVC		13.60	44.62	84	93	1	0.38
		0.146 3.66			0.242 6.15						10	0.85
											50	1.90
											100	2.70
											200	3.80
										500	5.90	
										1000	8.70	
C3520 RG 62/U Type Plenum UL CL2P, CMP C(UL) CMP 	22 Ga. Solid Copper- Clad Steel 54.7 V/M	Cellular Fluoropolymer		95% Bare Copper Braid 1.9 V/M	Flexguard® PVC Natural		13.00	42.65	84	93	1	0.30
		0.145 3.56			0.201 5.11						10	0.90
											50	1.90
											100	2.70
											200	3.80
										500	5.90	
										1000	8.34	

RG 174/U Type

Product Construction:

Conductors:

- Copper per ASTM B-3
- Copper-clad steel per ASTM B-869

Insulation/Core:

- Solid polyethylene designs

Shield:

- Tinned or bare copper braid

Jacket:

- Premium PVC compound

Packaging:

- Please contact Customer Service for packaging and color options

Applications:

- Suitable for RF signal transmission
- MATV
- CATV
- CCTV
- See Coax Connector Cross Reference, pages 188-195

CATALOG NUMBER	AWG SIZE NOM. DCR	INSULATION MATERIAL		SHIELD COVERAGE NOM SHLD DCR	NOMINAL O.D.		NOMINAL CAPACITANCE		VELOCITY OF PROPAGATION, %	NOMINAL IMPEDANCE, Ω	NOMINAL ATTENUATION	
		INCHES	mm		INCHES	mm	pF/ft	pF/m			MHZ	dB/100'
C1156 RG 174/U Type  1354	26 Ga. (7x34) Copper-Clad Steel 97.0 V/M	Solid Polyethylene 0.060 1.52		95% Tinned Copper Braid 10.3 V/M	Black PVC		30.80	101.05	66	50	1	1.90
											10	3.30
											50	5.80
											100	8.40
											200	12.50
											500	21.21
											1000	34.00

RG 213/U Type

CATALOG NUMBER	AWG SIZE NOM. DCR	INSULATION MATERIAL		SHIELD COVERAGE NOM SHLD DCR	NOMINAL O.D.		NOMINAL CAPACITANCE		VELOCITY OF PROPAGATION, %	NOMINAL IMPEDANCE, Ω	NOMINAL ATTENUATION	
		INCHES	mm		INCHES	mm	pF/ft	pF/m			MHZ	dB/100'
C1176 RG 213/U Type MIL-C-17G Type  1354	13 Ga. (7x21) Bare Copper 1.7 V/M	Solid Polyethylene 0.285 7.24		95% Bare Copper Braid 1.2 V/M	Black PVC		30.80	101.05	66	50	1	0.18
											10	0.62
											50	1.50
											100	2.10
											200	3.00
											500	5.03
											1000	8.20

Other Coaxial Cables

Product Construction:

Conductors:

- Copper per ASTM B-3
- Tinned copper per ASTM B-33

Insulation/Core:

- Solid and cellular polyethylene designs
- Cellular fluoropolymer design

Shield:

- Tinned copper braid
- Flexfoil® shield

Jacket:

- Premium PVC compound

Packaging:

- Please contact Customer Service for packaging and color options

Applications:

- Precision video
- Thinnest
- See Coax Connector Cross Reference, pages 188-195

CATALOG NUMBER	AWG SIZE NOM. DCR	INSULATION MATERIAL		SHIELD COVERAGE NOM SHLD DCR	NOMINAL O.D.		NOMINAL CAPACITANCE		VELOCITY OF PROPAGATION, %	NOMINAL IMPEDANCE, Ω	NOMINAL ATTENUATION	
		INCHES	mm		INCHES	mm	pF/ft	pF/m			MHZ	dB/100'
C5838 RG 59/U Type Indoor Use Precision Video 	20 Ga. Solid Bare Copper 10.1 V/M	Solid Polyethylene 0.200 5.08		98% Tinned Copper Double Braid 1.1 V/M	Clear PVC		20.00	65.62	66	77	1	0.25
					0.305 7.75						10	0.78
						50					1.70	
						100					2.50	
						200					3.70	
			500	5.93								
			1000	9.20								
C5779 RG 58/U Type Thinnest UL CL2, CM CSA CMG 1354 	20 Ga. Stranded (19X32) Tinned Copper 9.5 V/M	Cellular Polyethylene 0.100 2.54		100% Flexfoil® Bonded +81% Tinned Copper Braid 9.5 V/M	Gray PVC		25.40	83.34	80	50	1	0.40
					0.186 4.72						10	1.20
						50					2.90	
						100					4.30	
						200					6.20	
			500	10.00								
			1000	14.00								
C3579 RG 58/U Type Thinnest Plenum UL CL2P, CMP C(UL) CMP 	20 Ga. (19X32) Tinned Copper 9.5 V/M	Cellular Fluoropolymer 0.100 2.54		100% Flexfoil® +95% Tinned Copper Braid 3.1 V/M	Flexguard® PVC Natural		26.00	85.31	78	50	1	0.60
					0.165 4.19						10	1.30
						50					2.90	
						100					4.20	
						200					6.10	
			500	10.00								
			1000	14.80								

Twinaxial Cables

Product Construction:

Conductors:

- Copper per ASTM B-3
- Tinned copper per ASTM B-33

Insulation/Core:

- Solid and cellular polyethylene designs
- Lo-Cap® polypropylene designs

Shield:

- Tinned copper braid
- Flexfoil® shield

Jacket:

- Premium PVC compound

Packaging:

- Please contact Customer Service for packaging and color options

Applications:

- Programmable Logic Controllers (PLC)
- Data transmission
- Broadcast
- Computer

CATALOG NUMBER	AWG SIZE NOM. DCR	INSULATION MATERIAL		SHIELD COVERAGE NOM SHLD DCR	NOMINAL O.D.		NOMINAL CAPACITANCE		VELOCITY OF PROPAGATION, %	NOMINAL IMPEDANCE, Ω	NOMINAL ATTENUATION	
		INCHES	mm		INCHES	mm	pF/ft	pF/m			MHZ	dB/100'
C8000 UL CL2 2498 80°C, 300V 	20 Ga. (7X28) (1) Tinned Copper, (1) Bare Copper 9.5 V/M	Solid Polyethylene Coded: Natural, Natural 0.022 0.56		100% Flexfoil® +90% Tinned Copper Braid 2.5 V/M	Black PVC		15.50	50.86	66	100	1	0.40
											10	1.10
C8001 UL CL2, CM C(UL) CM 2464 2582 60°C, 300V 	20 Ga. (7X28) Tinned Copper 9.5 V/M	Solid Polyethylene Coded: Natural, Blue 0.020 0.51		100% Flexfoil® +57% Tinned Copper Braid 4.1 V/M	Blue PVC		19.17	62.90	66	78	1	0.60
											10	2.10
C8012 2092 80°C, 300V 	25 Ga. (7X33) Tinned Copper 31.8 V/M	Solid Polyethylene Coded: Natural, Blue 0.030 0.76		100% Flexfoil® +25 AWG Tinned Copper Drain Wire 12.0 V/M	Blue PVC		12.20	40.03	66	124	1	0.60
											10	1.70
C8013 2448 60°C, 30V 	16 Ga. Solid Bare Copper 4.2 V/M	Cellular Polyethylene Coded: Natural, Blue 0.052 1.32		100% Flexfoil® +92% Tinned Copper Braid 6.3 V/M	Black PVC		10.90	35.76	78	120	1	0.18
											10	0.71
C8014 2668 60°C, 30V 	22 Ga. (19X34) Tinned Copper 15.0 V/M	Lo-Cap® Polypropylene Coded: Black, Yellow 0.051 1.30		100% Flexfoil® +22 AWG Tinned Copper Drain Wire 6.3 V/M	Black PVC		8.80	28.87	78	150	1	0.40
											10	1.20
C8033 2092 60°C, 300V 	22 Ga. (7X30) (1) Tinned Copper, (1) Bare Copper 16.0 V/M	Solid Polyethylene Coded: White, Blue 0.015 0.38		85% Tinned Copper Braid 4.7 V/M	Beige PVC		20.70	67.92	66	78	1	0.80
											10	2.50

Helix/HiTemp™ Coaxial Cable



To meet the needs of today's sophisticated, high-speed, wide bandwidth electronics over long distances with minimum signal loss, General Cable Helix/HiTemp™ offers a wide range of coaxial designs. This offering provides the system designer with a wide choice of cost-effective products that reflect the most recent changes in the standards set forth by UL, CSA and/or the FCC.

Unlike other products in the electronics market, coaxial cable does not have one accepted standard construction. General Cable recommends consulting with the local CATV company, in order to avoid installing an unacceptable coaxial cable for the CATV application in your area.

General Cable's Helix/HiTemp product mix encompasses standard RG/U-type coaxial constructions in the more popular 50 and 75 Ohm designs for video, CATV, MATV, network and computer applications.

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RG 6 & RG 11 Broadband Quad Shield Cable

75 Ohm High-End Coaxial Cables for Video, CATV, MATV & Network Applications

	Part No. & Safety Ratings	Cond. Size/Type & DCR	Insulation Type Nom. O.D. in/mm	Shield Type & DCR/Kft	Jacket & Nom. Dia. in/mm	Nominal Capacitance		Nom. Imp. Ohm	Nom. Vel. of Prop.	Nominal Attenuation												
						pF/ft	pF/m			MHz	dB/ 100FT	dB/ 100m										
	RG 6/U QUAD SHIELD, RISER RATED																					
	395014 UL CMR C(UL) CMG 75°C / 300V	18 Solid BC (6.5 Ohm)	Foam PE Gas Injection 0.180 / 4.57	Quad Shield; AL Foil + 60% AL Braid + AL Foil + 40% AL Braid (5.2 Ohm)	Flame-Retardant PVC 0.305 / 7.75	16.2	53.2	75	83%	1	0.21	0.69										
										3.6	0.40	1.31										
										5	0.54	1.77										
										10	0.76	2.51										
										50	1.39	4.57										
										55	1.46	4.79										
										71.5	1.66	5.46										
										88.5	1.85	6.08										
										100	1.97	6.46										
										135	2.11	6.93										
										180	2.44	8.00										
										200	2.57	8.43										
										211	2.64	8.66										
										270	2.99	9.80										
										360	3.53	11.58										
										400	3.72	12.21										
										500	4.16	13.65										
										540	4.32	14.18										
										700	5.01	16.45										
										750	5.19	17.03										
										862	5.56	18.26										
										900	5.73	18.80										
										1000	6.04	19.82										
										1450	7.97	26.15										
										1500	8.11	26.60										
										1800	8.42	27.63										
										2250	10.19	33.43										
										3000	11.77	38.61										
											RG 6/U QUAD SHIELD, PLENUM RATED											
495024 UL CMP c(UL) CMP 75°C / 300V	18 Solid BC (6.5 Ohm)	Foam FEP 0.170 / 4.32	Quad Shield; AL Foil + 60% AL Braid + AL Foil + 40% AL Braid (5.3 Ohm)	Plenum-PVC 0.264 / 6.71	15.5	50.8	75	84%	1		0.26	0.85										
									3.6		0.49	1.62										
									5		0.58	1.91										
									10		0.70	2.30										
									50		1.48	4.86										
									71.5		1.77	5.81										
									88.5		1.89	6.20										
									100		2.01	6.59										
									135		2.34	7.66										
									180		2.71	8.90										
									200		2.86	9.38										
									270		3.32	10.90										
									360		4.01	13.17										
									400		4.23	13.88										
									540		4.91	16.13										
									700		5.96	19.55										
									750		6.17	20.24										
									900		6.96	22.84										
									1000		7.45	24.44										
									1450		11.50	37.73										
									1500		11.70	38.38										
									1800		13.10	42.98										
									2250		14.80	48.56										
									3000		17.09	56.07										
											RG 11/U QUAD SHIELD, PLENUM RATED											
											495017 UL CMP c(UL) CMP 125°C / 300V	14 Solid BC (2.6 Ohm)	Foam FEP 0.285 / 7.24	Quad Shield; AL Foil + 60% AL Braid + AL Foil + 40% AL Braid (1.8 Ohm)	PVDF 0.380 / 9.65	16.0	52.5	75	84%	1	0.15	0.49
																				3.6	0.28	0.93
																				10	0.39	1.28
																				50	1.10	3.61
71.5	1.32	4.32																				
88.5	1.60	5.25																				
100	1.70	5.58																				
135	1.98	6.48																				
180	2.37	7.78																				
200	2.50	8.20																				
270	5.64	18.50																				
360	3.32	10.89																				
400	3.50	11.48																				
540	4.07	13.34																				
700	4.60	15.09																				
750	4.76	15.62																				
900	9.30	30.51																				
1000	5.60	18.37																				
1500	6.86	22.50																				
2250	8.40	27.56																				
3000	9.70	31.82																				

RG 8/U Type Cable

50 Ohm LAN & Data Transmission Computer Cables

	Part No. & Safety Ratings	Cond. Size/Type & DCR	Insulation Type Nom. O.D. in/mm	Shield Type & DCR/KFt	Jacket & Nom. Dia. in/mm	Nominal Capacitance		Nom. Imp. Ohm	Nom. Vel. of Prop.	Nominal Attenuation		
						pF/ft	pF/m			MHz	dB/ 100FT	dB/ 100m
	395009 UL- CMR c(UL) AWM-1354 75°C / 300V	10 AWG Solid BC (.108) .9 / 2.96	Foam High- Density Polyethylene Gas-Injected .285 / 7.24	Bonded Dual Foil + 95% TC Braid Shield 1.10 / 3.61	Flame-Retardant PVC 0.405 / 10.29	24.5	80.35	50	83%	1 5 10 50 100 200 400 700 900 1000 2000 4000	0.14 0.31 0.44 1.01 1.45 2.11 3.08 4.22 4.88 5.19 7.85 12.11	0.45 1.02 1.45 3.32 4.77 6.91 10.11 13.86 16.01 17.03 25.75 39.75
	395062 AWM-1354 -40°C to +80°C 300V	11 AWG (7/19) (.108) Stranded BC 1.2 / 3.94	Foam High- Density Polyethylene Gas-Injected .285 / 7.24	Bonded Dual Foil + 95% TC Braid Shield 1.10 / 3.61	TPE 0.405 / 10.29	24.5	80.35	50	83%	1 5 10 50 100 200 400 700 900 1000 2000 4000	0.16 0.32 0.46 1.05 1.51 2.19 3.16 4.32 4.98 5.26 8.03 12.45	0.53 1.05 1.51 3.44 4.95 7.18 10.36 13.87 16.33 17.25 26.34 40.84
	495029 UL-CMP c(UL) Plenum 150°C / 300V	10 AWG Solid BC (.108) .9 / 2.96	Foam FEP .285 / 7.24	Bonded Dual Foil + 90% TC Braid Shield 1.60 / 5.90	PVDF .355 / 9.02	24.2	79.38	50	84%	1 5 10 50 100 200 400 700 900 1000 2000 4000	0.13 0.30 0.42 0.98 1.42 2.11 3.18 4.50 5.28 5.67 9.01 14.76	0.42 0.95 1.36 3.18 4.67 6.92 10.45 14.78 17.36 18.58 29.57 48.39
	395059 UL-CM c(UL) AWM-1354 75°C / 300V	11 AWG (7/19) (.108) Stranded BC 1.2 / 3.94	Foam PE .285 / 7.24	Braid Shield + 97% BC 1.10 / 3.61	Flame-Retardant PVC .405 / 10.29	26.0	85.28	50	78%	1 5 10 50 100 200 400 700 900 1000 2000 4000	0.13 0.32 0.45 1.03 1.48 2.15 3.16 4.33 5.02 5.34 8.11 12.59	0.43 1.04 1.47 3.37 4.86 7.06 10.35 14.22 16.46 17.51 26.61 41.31
	395159 Outdoor Rated Triax -55°C to +80°C 300V	11 AWG (7/19) (.108) Stranded BC 1.2 / 3.94	Foam PE .285 / 7.24	Inner: 96% BC Braid (1.32/4.33) Outer: 96% BC Braid 1.31 / 4.30	Inner: PE .365 / 9.27 Outer: PE .408 / 12.19	26.0	85.28	50	78%	1 5 10 50 100 200 400 700 900 1000 2000 4000	0.13 0.32 0.45 1.03 1.48 2.15 3.16 4.33 5.02 5.34 8.11 12.59	0.43 1.04 1.47 3.37 4.86 7.06 10.35 14.22 16.46 17.51 26.61 41.31
	395022 JAN-C-17A UL/CMX c(UL) AWM-1354 75°C / 300V	13 AWG (7/21) (.085) Stranded BC 1.74 / 5.71	Solid PE .285 / 7.24	Braid Shield 97% BC 1.20 / 3.94	Non Contaminating PVC .405 / 10.29	28.5	93.48	50	66%	1 5 10 50 100 200 400 700 900 1000 2000 4000	0.16 0.36 0.58 1.23 1.81 2.68 4.07 5.60 6.47 6.88 10.44 16.18	0.53 1.18 1.90 4.03 5.94 8.79 13.35 18.37 21.22 22.57 34.24 53.07
	395053 RG-8x Mini UL/CM c(UL) AWM-1354 75°C / 300V	16 AWG (19/011721) (.058) Stranded BC 4.06 / 13 / 31	Foam High- Density Polyethylene Gas-Injected .285 / 7.24	Braid Shield 95% BC 3.23 / 10.59	Flame-Retardant PVC .242 / 6.15	25.0	82.0	50	82%	1 1 5 10 50 100 200 400 700 900 1000 2000 4000	0.25 0.57 0.81 1.84 2.62 3.76 5.42 7.33 8.41 8.91 13.12 19.62 0.84	1.87 2.66 6.02 8.59 12.33 17.78 24.04 27.57 29.21 43.05 64.36 4.67 6.92

RG 8/U Type Thicknet/Trunk Cable

50 Ohm IEEE 802.3 and ISO/IEC 8802.3 10 Base 5 LAN and Computer Cables

	Part No. & Safety Ratings	Cond. Size/Type & DCR	Insulation Type Nom. O.D. in/mm	Shield Type & DCR/KFt	Jacket & Nom. Dia. in/mm	Nominal Capacitance		Nom. Imp. Ohm	Nom. Vel. of Prop.	Nominal Attenuation		
						pF/ft	pF/m			MHz	dB/ 100FT	dB/ 100m
	397001 Thicknet DEC 17- 000451-00 UL-CM c(UL) 75°C / 300V	12 AWG Solid BC (.0855") 1.42 / 4.66	Foam PE 0.245 / 6.22	Quad Shield Dual Foil + 94% TC Braid + Dual Foil + 94% TC Braid 1.52 / 4.99	Yellow Flame-Retardant PVC .405 / 10.29	26.0	85.3	50	78%	1	0.17	0.54
										5	0.37	1.21
										10	0.53	1.72
										50	1.20	3.93
										100	1.73	5.65
										200	2.50	8.17
										400	3.64	11.92
										700	4.97	16.31
										900	5.74	18.83
										1000	6.10	20.01
	497001 Thicknet DEC 17- 000324-00 UL-CMP c(UL) Plenum 125°C / 300V	12 AWG Solid BC (.0855") 1.42 / 4.66	Foam FEP 0.245 / 6.22	Quad Shield Dual Foil + 94% TC Braid + Dual Foil + 94% TC Braid 1.52 / 4.99	Orange PVDF .375 / 9.53	25.0	82.0	50	84%	1	0.16	0.53
										5	0.35	1.15
										10	0.51	1.65
										50	1.19	3.90
										100	1.75	5.74
										200	2.61	8.56
										400	3.97	13.01
										700	5.65	18.54
										900	6.67	21.88
										1000	7.14	23.42

RG 58/U Type Cable

50 Ohm LAN & Data Transmission Cables

	Part No. & Safety Ratings	Cond. Size/Type & DCR	Insulation Type Nom. O.D. in/mm	Shield Type & DCR/KFt	Jacket & Nom. Dia. in/mm	Nominal Capacitance		Nom. Imp. Ohm	Nom. Vel. of Prop.	Nominal Attenuation		
						pF/ft	pF/m			MHz	dB/ 100FT	dB/ 100m
	397108 UL-CM c(UL) AWM 1354 75°C / 300V	20 AWG (19/32) Stranded TCC 9.47 / 31.06	Foam PE 0.102 / 2.59	Braid Shield; 95% Tinned Copper 4.19 / 13.74	Flame-Retardant PVC .193 / 4.90	26.0	85.3	53	78%	1	0.36	1.18
										3.6	0.67	2.20
										5	0.79	2.59
										10	1.12	3.67
										50	2.54	8.33
										71.5	3.04	9.97
										88.5	3.41	11.17
										100	3.62	11.88
										135	0.42	1.38
										180	4.91	16.12
										200	5.15	16.90
										270	6.02	19.75
										360	7.06	23.16
										400	7.44	24.41
										540	8.64	28.36
										700	10.00	32.81
										750	10.35	33.96
										900	11.44	37.53
										1000	12.11	39.73
										1500	14.83	48.66
										2250	18.17	59.60
										3000	20.98	68.82
	397008 UL-CMR c(UL) AWM 1354 75°C / 300V	20 AWG (19/32) Stranded TCC 9.47 / 31.06	Foam PE 0.102 / 2.59	Dual Foil + 56% Tinned Copper Braid Shield 9.50 / 31.16	Flame-Retardant PVC .193 / 4.90	26.5	86.9	52	78%	1	0.50	1.64
										3.6	0.94	3.09
										5	1.11	3.64
										10	1.57	5.15
										50	3.51	11.52
										71.5	4.20	13.77
										88.5	4.67	15.31
										100	4.96	16.27
										135	5.76	18.91
										180	6.67	21.88
										200	7.03	23.07
										270	8.17	26.80
										360	9.44	30.97
										400	9.95	32.65
										540	11.56	37.93
										700	13.18	43.24
										750	13.64	44.76
										900	14.95	49.05
										1000	15.76	51.71
										1500	19.30	63.33
										2250	23.64	77.56
										3000	27.30	89.56
	397106 UL-CMR c(UL) AWM 1354 75°C / 300V	20 AWG Solid BC 10.3 / 33.78	Solid PE 0.116 / 2.95	Braid Shield + 95% Tinned Copper 4.19 / 13.74	Flame-Retardant PVC .193 / 4.90	28.5	93.5	51.5	66%	1	0.39	1.28
										3.6	0.74	2.42
										5	0.87	2.85
										10	1.23	4.04
										50	2.79	9.15
										71.5	3.34	10.95
										88.5	3.73	12.25
										100	3.97	13.03
										135	4.61	15.13
										180	5.38	17.65
										200	5.67	18.60
										270	6.59	21.62
										360	7.73	25.37
										400	8.15	26.74
										540	9.47	31.07
										700	10.96	35.96
										750	11.34	37.22
										900	12.53	41.11
										1000	13.27	43.54
										1500	16.25	53.32
										2250	19.91	65.31
										3000	22.98	75.41
	497105 UL-CMP c(UL) Plenum 75°C / 300V	20 AWG Solid BC 10.3 / 33.78	Solid FEP 0.106 / 2.69	Braid Shield + 95% Tinned Copper 4.0 / 13.12	Plenum-PVC .159 / 4.04	26.4	86.59	53	69%	1	0.39	1.28
										3.6	0.76	2.51
										5	0.90	2.95
										10	1.28	4.20
										50	3.05	10.01
										71.5	3.65	11.97
										88.5	4.22	13.86
										100	4.49	14.73
										135	5.22	17.12
										180	6.38	20.92
										200	6.72	22.05
										270	7.81	25.62
										360	9.72	31.90
										400	10.25	33.63
										540	11.91	39.07
										700	14.64	48.03
										750	15.15	49.72
										900	17.27	56.66
										1000	18.53	60.80
										1500	22.69	74.46
										2250	27.80	91.20
										3000	32.09	105.30

RG 58/U Type Cable

50 Ohm LAN & Data Transmission Cables

	Part No. & Safety Ratings	Cond. Size/Type & DCR	Insulation Type Nom. O.D. in/mm	Shield Type & DCR/KFt	Jacket & Nom. Dia. in/mm	Nominal Capacitance		Nom. Imp. Ohm	Nom. Vel. of Prop.	Nominal Attenuation		
						pF/ft	pF/m			MHz	dB/ 100FT	dB/ 100m
	495011 UL-CMP Plenum 125°C / 300V	20 AWG Solid BC 10.3 / 33.78	Solid FEP 0.106 / 2.69	Braid Shield; 95% Tinned Copper 4.0 / 13.12	PVDF .193 / 4.90	26.4	86.59	53	69%	1	0.39	1.28
										3.6	0.76	2.51
										5	0.90	2.95
										10	1.28	4.20
										50	3.05	10.01
										71.5	3.65	11.97
										88.5	4.22	13.86
										100	4.49	14.73
										135	5.22	17.12
										180	6.38	20.92
										200	6.72	22.05
										270	7.81	25.62
										360	9.72	31.90
										400	10.25	33.63
										540	11.91	39.07
										700	14.64	48.03
										750	15.15	49.72
										900	17.27	56.66
										1000	18.53	60.80
										1500	22.69	74.46
										2250	27.80	91.20
										3000	32.09	105.30

RG 58/U Type Thinnet Cable

50 Ohm IEEE 802.3 and ISO/IEC 8802.3 10 Base 2 Computer Cables

	Part No. & Safety Ratings	Cond. Size/Type & DCR	Insulation Type Nom. O.D. in/mm	Shield Type & DCR/KFt	Jacket & Nom. Dia. in/mm	Nominal Capacitance		Nom. Imp. Ohm	Nom. Vel. of Prop.	Nominal Attenuation		
						pF/ft	pF/m			MHz	dB/ 100FT	dB/ 100m
	397002 Thinnet DEC 17- 01248-00 UL-CM c(UL) 75°C / 300V	20 AWG (19/32) Stranded TCC 9.47 / 31.06	Foam PE 0.102 / 2.59	Bonded Dual Foil + 93% Tinned Copper Braid Shield 5.40 / 17.71	Flame-Retardant PVC .183 / 4.65					1 5 10 50 100 200 400 700 900 1000	0.43 0.95 1.35 3.04 4.33 6.18 8.85 11.86 13.55 14.33	1.39 3.12 4.43 9.98 14.21 20.27 29.02 38.91 41.75 47.00
	397107 Thinnet UL-CMX c(UL) AWM 1354 75°C / 300V	21 AWG (19/33) Stranded TCC 10.46 / 34.31	Solid PE 0.116 / 2.95	Braid Shield 95% Tinned Copper 4.1 / 13.44	Flame-Retardant PVC .193 / 4.90	30.5	100.04	50	66%	1 5 10 50 100 200 400 700 900 1000	0.41 0.98 1.32 3.22 4.59 6.56 9.42 12.65 14.46 15.31	1.35 3.21 4.33 10.56 15.06 21.52 30.89 41.49 47.42 50.22
	397009 Thinnet Outdoor Rated -65°C to +80°C 300V	20 AWG (19/32) Stranded TCC 9.47 / 31.06	Solid PE 0.116 / 2.95	Braid Shield 95% Tinned Copper 4.1 / 13.44	PE .193 / 4.90	28.5	93.5	51.5	66%	1 5 10 50 100 200 400 700 900 1000	0.41 0.98 1.32 3.22 4.59 6.56 9.42 12.65 14.46 15.31	1.35 3.21 4.33 10.56 15.06 21.52 30.89 41.49 47.42 50.22
	497022 Thinnet DEC 17- 01246-00 UL-CMP c(UL) Plenum 75°C / 300V	20 AWG (19/32) Stranded TCC 9.47 / 31.06	Foam FEP 0.100 / 2.54	Bonded Dual Foil + 93% Tinned Copper Braid Shield 5.40 / 17.71	Plenum-PVC .160 / 4.06	25.4	83.31	50	80%	1 5 10 50 100 200 400 700 900 1000	0.43 0.98 1.39 3.18 4.57 6.61 9.62 13.12 15.13 16.07	1.43 3.22 4.58 10.45 15.00 21.67 31.54 43.05 49.64 52.72
	497002 Thinnet DEC 17- 01246-00 UL-CMP c(UL) Plenum 150°C / 300V	20 AWG (19/32) Stranded TCC 9.47 / 31.06	Foam PE 0.100 / 2.54	Bonded Dual Foil + 93% Tinned Copper Braid Shield 5.40 / 17.71	PVDF	25.4	83.31	50	80%	1 5 10 50 100 200 400 700 900 1000	0.43 0.98 1.39 3.18 4.57 6.61 9.62 13.12 15.13 16.07	1.43 3.22 4.58 10.45 15.00 21.67 31.54 43.05 49.64 52.72

Headend CATV Drop Cable

75 Ohm Low Loss Quad Shield RG-59



CATALOG NUMBER	COND. DIAMETER NOM.	INSULATION & O.D.	JACKET & O.D.	RATINGS
395020	.032" (0.81mm)	.144" (3.66mm)	.273" (6.93mm)	CMR CATVR

Electrical Characteristics

Conductor DCR	25.83 Ohms/Kft Nom.
Shield DCR	1.15 Ohm/Kft Max.
Capacitance	16.2 pF/Ft Nom.
Impedance	75.0 +/- 3 Ohms
Velocity of Propagation	85% Nom.
SRL	20dB Min. (1MHz – 1GHz)

Attenuation

FREQUENCY (MHz)	dB/100 ft. (MAX.)	Db/100 m. (MAX.)
1	0.46	1.51
3.6	0.73	2.39
5	0.86	2.82
10	1.22	3.99
50	1.95	6.41
55	2.05	6.73
71.5	2.27	7.46
83	2.45	8.04
88.5	2.53	8.30
100	2.69	8.82
135	3.12	10.25
180	3.53	11.59
187	3.60	11.81
200	3.70	12.14
211	3.80	12.47
250	4.10	13.45
270	4.26	13.98
300	4.45	14.60
350	4.80	15.75
360	4.87	15.97
375	4.95	16.24
400	5.10	16.73
450	5.40	17.72
500	5.70	18.70
540	5.90	19.34
550	5.95	19.52
600	6.20	20.34
650	6.45	21.16
700	6.73	22.09
750	6.97	22.87
862	7.47	24.52
900	7.66	25.13
1000	8.12	26.64
1450	9.78	32.08
1500	9.94	32.63
1800	10.89	35.74
2250	12.18	39.96
3000	14.06	46.14

Product Construction:

Conductor:

- 20 AWG; Silver-Plated, Copper-Covered Steel

Insulation:

- Cellular Polyethylene

Shield:

- Shield #1: Bonded Aluminum-Poly Tape; 100% Nom. Coverage
- Shield #2: 34 AWG Aluminum Braid; 95% Nom. Coverage
- Shield #3: Dual Aluminum-Poly Tape; 100% Nom. Coverage
- Shield #4: 34 AWG Aluminum Braid; 95% Nom. Coverage

Jacket:

- Flame-retardant PVC

Jacket Markings:

- HELIX/HITEMP P/N 395020 BROADBAND 20 AWG CATVR OR CMR 75C (UL) c(UL) – RG-59/U TYPE TRI QUAD SHIELD - MADE IN USA -XXXXXXX*

Compliances:

- UL Standard 444 and NEC Article 800 Type CMR and NEC Article 820 Type CATVR
- c(UL) meets CSA Communications Cable Type CMG
- Passes UL-1666 Riser Tray Cable and CSA FT-4 Flame Test

Cable Weight:

- 33.5 Lbs/Kft Nom. (15.2 Kg)

Packaging and Jacket Colors:

- Please consult Customer Service for packaging and color options

*XXXXXXX: Indicates sequential footage marking every 2 feet

Headend Tinned Copper Drop Cable

75 Ohm Low Loss Tri-Shield RG-59



CATALOG NUMBER	COND. DIAMETER NOM.	INSULATION & O.D.	JACKET & O.D.	RATINGS
395016	.032" (0.81mm)	.144" (3.66mm)	.270" (6.86mm)	CMR

Electrical Characteristics

Conductor DCR	25.83 Ohms/Kft Nom.
Shield DCR	1.15 Ohm/Kft Max.
Capacitance	16.2 pF/Ft Nom.
Impedance	75.0 +/- 3 Ohms
Velocity of Propagation	85% Nom.
SRL	20dB Min. (1MHz – 1GHz)

Attenuation

FREQUENCY (MHz)	dB/100 ft. (MAX.)	Db/100 m. (MAX.)
1	0.46	1.51
3.6	0.73	2.39
5	0.86	2.82
10	1.22	3.99
50	1.95	6.41
55	2.05	6.73
71.5	2.27	7.46
83	2.45	8.04
88.5	2.53	8.30
100	2.69	8.82
135	3.12	10.25
180	3.53	11.59
187	3.60	11.81
200	3.70	12.14
211	3.80	12.47
250	4.10	13.45
270	4.26	13.98
300	4.45	14.60
350	4.80	15.75
360	4.87	15.97
375	4.95	16.24
400	5.10	16.73
450	5.40	17.72
500	5.70	18.70
540	5.90	19.34
550	5.95	19.52
600	6.20	20.34
650	6.45	21.16
700	6.73	22.09
750	6.97	22.87
862	7.47	24.52
900	7.66	25.13
1000	8.12	26.64
1450	9.78	32.08
1500	9.94	32.63
1800	10.89	35.74
2250	12.18	39.96
3000	14.06	46.14

Product Construction:

Conductor:

- 20 AWG; Silver-Plated, Copper-Covered Steel

Insulation:

- Cellular Polyethylene

Shield:

- Shield #1: Bonded Aluminum-Poly Tape; 100% Nom. Coverage
- Shield #2: 34 AWG Tinned Copper Braid; 95% Nom. Coverage
- Shield #3: 34 AWG Tinned Copper Braid; 95% Nom. Coverage

Jacket:

- Flame-retardant PVC

Jacket Markings:

- HELIX/HITEMP P/N 395016 BROADBAND 20 AWG CATVR OR CMR 75C (UL) c(UL) – RG-59/U TYPE TRI-SHIELD - MADE IN USA -XXXXXXX*

Compliances:

- UL Standard 444 and NEC Article 800 Type CMR) and NEC Article 820 Type CATVR
- c(UL) meets CSA Communications Cable Type CMG
- Passes UL-1666 Riser Tray Cable and CSA FT-4 Flame Test

Cable Weight:

- 54.0 Lbs/Kft Nom. (24.5 Kg)

Packaging and Jacket Colors:

- Please consult Customer Service for packaging and color options

*XXXXXXX: Indicates sequential footage marking every 2 feet

RG 213, RG 214, RG 174 Cable

50 Ohm LAN & Data Transmission Computer Cables

	Part No. & Safety Ratings	Cond. Size/Type & DCR	Insulation Type Nom. O.D. in/mm	Shield Type & DCR/KFt	Jacket & Nom. Dia. in/mm	Nominal Capacitance		Nom. Imp. Ohm	Nom. Vel. of Prop.	Nominal Attenuation		
						pF/ft	pF/m			MHz	dB/ 100FT	dB/ 100m
	397010 RG-213/U MIL-C-17/163A UL-CMX c(UL) AWM-1354 75°C / 300V	13 AWG (7/.0296) (.089) Stranded BC 1.70 / 5.58	Solid PE .285 / 7.24	Braid Shield 97% BC 1.20 / 3.94	Non-Contaminating PVC 0.405 / 10.29	30.8	101.02	50	66%	1	0.16	53.07
										5	0.53	STS3
										10	1.18	100
										50	1.90	DS4
										100	4.03	200
										200	5.94	0.45
										400	8.79	0.54
										700	13.35	1.02
										900	18.37	1.10
										1000	21.22	1.53
										2000	22.57	2.02
										4000	34.24	2.33
	397011 RG-214/U MIL-C-17/164 UL-CMX c(UL) AWM-1354 75°C / 300V	13 AWG (7/.0296) (.089) Stranded SPC Silver-Plated Copper 1.70 / 5.58	Solid PE .285 / 7.24	Dual Braid Shield 97% SPC Silver-Plated Copper .74 / 2.43	Non-Contaminating PVC 0.425 / 10.79	30.8	101.02	50	66%	1	0.16	0.53
										5	0.36	1.18
										10	0.58	1.90
										50	1.23	4.03
										100	1.81	5.94
										200	2.68	8.79
										400	4.07	13.35
										700	5.60	18.37
										900	6.47	21.22
										1000	6.88	22.57
										2000	10.44	34.24
										4000	16.18	53.073
	395027 RG-174/U AWM-1354 75°C / 300V	26 AWG (7/34) Stranded Bare Copper Covered Steel 93.0 / 305.04	Solid PE .059 / .139	Braid Shield 88% TC 10.7 / 35.09	Flame-Retardant PVC .110 / 2.82	30.8	101.02	50	66%	1	1.90	6.2
										5	2.32	7.60
										10	3.30	11.0
										50	5.80	19.0
										100	8.40	27.60
										200	12.50	41.0
										400	19.0	62.3
										700	27.0	89.0
										900	31.0	102.0
										1000	34.0	116.01

Alarm and Security Solutions Guide

CAROL BRAND

ELECTRONICS WIRE & CABLE

General Cable's Carol® Brand is the right solution for alarm and security wire and cable. Carol offers as broad an offering as anyone in the industry. Our Alarm and Security Solutions Guide makes it easier to specify and sell the right cables for every application in this ever-growing market.

There are five basic areas where alarm and security cables are used. General Cable has the right product to serve every application, including:

- Access Control
- Video Surveillance/CCTV
- Data Communications
- Fire Protection
- Sound Systems and Burglar Alarms

Our alarm and security cables offer solutions in all these major security applications markets, including:

- Commercial Buildings
- Residential Housing
- Business and Office Campus Environments
- Public Stadiums and Arenas
- Airport, Train, Bus and Other Transportation Hubs
- Schools, Colleges and Universities

The General Cable Alarm and Security Solutions Guide provides a quick and easy reference tool to identify every Carol Brand cable for the appropriate alarm and security applications. Whatever the security application need calls for, we have a cable that delivers the performance you need.

Access Control



Applications:
Door Controllers
Prox Sensors
Key Pads

Cable Solution Description

E2002S	22/2 Conductor Shielded Riser
E2004S	22/4 Conductor Shielded Riser
E2006S	22/6 Conductor Shielded Riser
E2008S	22/8 Conductor Shielded Riser
E2010S	22/10 Conductor Shielded Riser
E2012S	22/12 Conductor Shielded Riser
E2102S	22/2 Conductor Shielded Plenum
E2104S	22/4 Conductor Shielded Plenum
E2106S	22/6 Conductor Shielded Plenum
E2108S	22/8 Conductor Shielded Plenum
E2032S	18/2 Conductor Shielded Riser
E2034S	18/4 Conductor Shielded Riser
E2036S	18/6 Conductor Shielded Riser
E2038S	18/8 Conductor Shielded Riser
E2202S	18/2 Conductor Shielded Plenum
E2204S	18/4 Conductor Shielded Plenum
E2206S	18/6 Conductor Shielded Plenum
E2208S	18/8 Conductor Shielded Plenum

Video Surveillance/CCTV



Applications:
CCTV
Satellites
Digital Video
Analog Video
Switchers/Multiplexers
Digital Recorders

Cable Solution Description

C5761	RG 6 SBC Foil/95% BC Braid CATV/CM
C3523	RG 6 SBC/Foil/61% TC Braid Plenum
C5910	RG 6 CCS/Foil/90% AL Braid CATV/CM
C5775	RG 6 CCS/Foil/60% AL Braid CATV/CM
C3524	RG 6 CCS/Foil/60% AL Braid Plenum
C5785	RG 6 CCS/Quad 60/40% AL Braid CATV/CM
C5889	RG 6 CCS/Quad 60/40% AL Braid CATVR/CMR
C3525	RG 6 CCS/Quad 60/40% AL Braid Plenum
C1103	RG 59 BC/95%BC Braid CATV/CM
C1142	RG 59 SBC/95%BC Braid CATV/CM
C3500	RG 59 CCS/95% BC Braid Plenum
C8027	RG 59 +18/2 Shielded CATV/CM
C8028	RG 59 +18/2 Unshielded CATV/CM
C8029	RG 6 +18/2 Unshielded CATV/CM

Data Communications



Applications:
Telephones
Cat 3, 5e and 6
Connections
Networking
Workstations
Video Conferencing
Telco Closets
Home Automation

Cable Solution Description

C3R002	Cat 3 24/2 Pair Riser
C3R004	Cat 3 24/4 Pair Riser
C3P002	Cat 3 24/2 Pair Plenum
C3P004	Cat 3 24/4 Pair Plenum
C5R004	Cat 5e 24/4 Pair Riser
C5P004	Cat 5e 24/4 Pair Plenum
C6R004	Cat 6 24/4 Pair Riser
C6P004	Cat 6 24/4 Pair Plenum

Alarm and Security Solutions Guide

Fire Protection



Applications:
Smoke Detectors
Strobes/Sirens
Pull Stations
Microprocessor/
Addressable
Controlled Systems

Cable Solution	Description
E1502S	18/2 Conductor Riser FPLR
E1504S	18/4 Conductor Riser FPLR
E1522S	14/2 Conductor Riser FPLR
E1524S	14/4 Conductor Riser FPLR
E2502S	18/2 Conductor Shielded Riser FPLR
E2504S	18/4 Conductor Shielded Riser FPLR
E2532S	14/2 Conductor Shielded Riser FPLR
E2534S	14/4 Conductor Shielded Riser FPLR
E3502S	18/2 Conductor Plenum FPLP
E3504S	18/4 Conductor Plenum FPLP
E3522S	14/2 Conductor Plenum FPLP
E3524S	14/4 Conductor Plenum FPLP
E3602S	18/2 Conductor Shielded Plenum FPLP
E3604S	18/4 Conductor Shielded Plenum FPLP
E3622S	14/2 Conductor Shielded Plenum FPLP
E3624S	14/4 Conductor Shielded Plenum FPLP
C0471	18/2 Conductor Addressable System FPL
C0485	18/4 Conductor Addressable System FPL
C0473	16/2 Conductor Addressable System FPL
C0472	18/2 Conductor Shielded Addressable System FPL
C0494	18/4 Conductor Shielded Addressable System FPL
C0474	16/2 Conductor Shielded Addressable System FPL
C3240	18/2 Conductor Addressable System Plenum FPLP
C3242	18/4 Conductor Addressable System Plenum FPLP
C3241	16/2 Conductor Addressable System Plenum FPLP
C3167	18/2 Conductor Shielded Addressable System Plenum FPLP
C3170	18/4 Conductor Shielded Addressable System Plenum FPLP
C3168	16/2 Conductor Shielded Addressable System Plenum FPLP

Sound Systems and Burglar Alarms



Applications:
Intercoms
PA Systems
Sound Systems
Emergency Phones
Speakers
Burglar Alarms
Home Theatre

Cable Solution	Description
E1002S	22/2 Conductor Riser
E1004S	22/4 Conductor Riser
C4408	22/2 Conductor CMR/CMX
C4412	22/4 Conductor Solid Riser
E1006S	22/6 Conductor Riser
E1008S	22/8 Conductor Riser
E3002S	22/2 Conductor Plenum
E3004S	22/4 Conductor Plenum
E3006S	22/6 Conductor Plenum
E3008S	22/8 Conductor Plenum
E1032S	18/2 Conductor Riser
E1034S	18/4 Conductor Riser
E3032S	18/2 Conductor Plenum
E3034S	18/4 Conductor Plenum
E1042S	16/2 Conductor Riser
E1044S	16/4 Conductor Riser
E3042S	16/2 Conductor Plenum
E3044S	16/4 Conductor Plenum
E1052S	14/2 Conductor Riser
E1054S	14/4 Conductor Riser
E3052S	14/2 Conductor Plenum
E3054S	14/4 Conductor Plenum
E1062S	12/2 Conductor Riser
E1064S	12/4 Conductor Riser
E3062S	12/2 Conductor Plenum
E3064S	12/4 Conductor Plenum
C1362	22/2 Conductor Zip (not for inwall use)
C1357	18/2 Conductor Zip (not for inwall use)
C1458	16/2 Conductor Zip CL2
C1461	14/2 Conductor Zip CL2
C1463	12/2 Conductor Zip CL2
C1702	14/2 Command Series Home Grade Speaker
C1703	14/4 Command Series Home Grade Speaker
C1704	16/2 Command Series Home Grade Speaker
C1705	16/4 Command Series Home Grade Speaker

4 Tesseneer Drive
Highland Heights, Kentucky 41076-9753
Telephone: (800) 424-5666
(859) 572-8000
Fax: (800) 547-8249
www.generalcable.com

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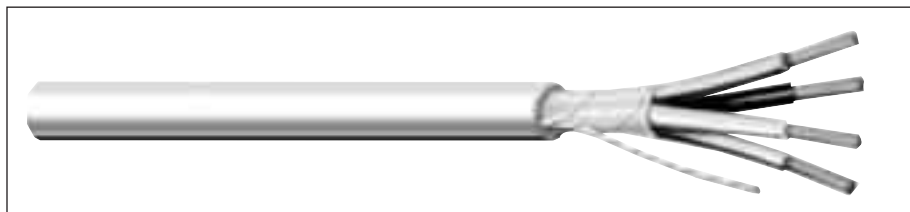
http://www.generalcable.com/NorthAmerica/NA_EL_ProdBulletins.htm

**CAROL
BRAND**

 **General Cable**

Fire Alarm/Life Safety Cable

6



Fire alarm systems have expanded from a rather simple and unsophisticated business configured upon large, electro-mechanical devices to one relying upon the most modern technologies of microprocessor and chip technology.

More and more end users—industrial, commercial as well as consumer—are relying upon these emerging systems to protect both property and life. These systems are only as good as their weakest component, whether that component be a processor or interconnecting wire and cable.

It is General Cable's charter that all products supplied for use in these and any other systems shall be constructed of only the finest available materials, and provide the service and assurance that the end user not only needs, but requires.

Aside from the quality materials used in these designs, specifiers and end users of Carol® Brand wire and cable products have come to expect that these cables are registered and certified with

the leading regulatory agencies such as Underwriters Laboratories ... and we haven't let you down!

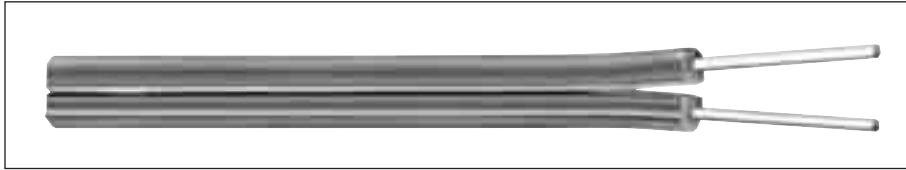
These designs have proven themselves in the area of fire system security over time; all are fabricated with solid, bare copper conductors and insulations and jackets of premium-grade PVC. Offered both with and without shields, the former to protect these critical circuits from noise, these cables will provide the latest in available technology for the system installer and contractor.

General Cable Carol® Brand products are conveniently packaged in 1000' or 500' lengths to assist the installer.

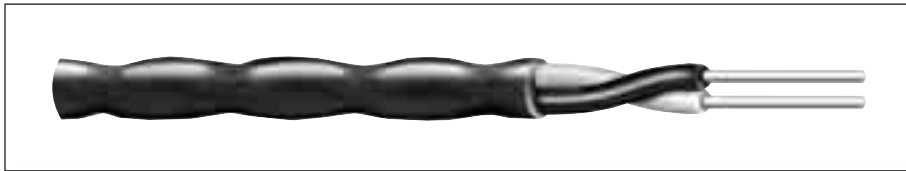
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Multi-Conductor, Unshielded, Non-Plenum

NEC Type FPLR



CATALOG NUMBER	NO. OF COND.	AWG SIZE	COND. STRAND.	NOM. INSULATION THICKNESS		NOMINAL O.D.	
				INCHES	mm	INCHES	mm
DUPLEX PARALLEL, RIBBED FOR POLARITY							
E2402S	2	18	Solid	0.032	0.81	0.105 x 0.210	2.67 x 5.33
E2404S	2	16	Solid	0.032	0.81	0.115 x 0.230	2.92 x 5.84
E2406S	2	14	Solid	0.032	0.81	0.126 x 0.252	3.20 x 6.40



CATALOG NUMBER	NO. OF COND.	AWG SIZE	COND. STRAND.	NOM. INSULATION THICKNESS		NOM. JACKET WALL		NOMINAL O.D.	
				INCHES	mm	INCHES	mm	INCHES	mm

22 AWG CONDUCTORS

E1482S	2	22	Solid	0.010	0.25	0.015	0.38	0.121	3.07
E1484S	4	22	Solid	0.010	0.25	0.015	0.38	0.140	3.56
E1486S	6	22	Solid	0.010	0.25	0.015	0.38	0.168	4.27

18 AWG CONDUCTORS

E1502S	2	18	Solid	0.010	0.25	0.015	0.38	0.150	3.81
E1503S	3	18	Solid	0.010	0.25	0.015	0.38	0.160	4.06
E1504S	4	18	Solid	0.010	0.25	0.015	0.38	0.175	4.45
E1505S	5	18	Solid	0.010	0.25	0.015	0.38	0.193	4.90
E1506S	6	18	Solid	0.010	0.25	0.015	0.38	0.210	5.33
E1508S	8	18	Solid	0.010	0.25	0.015	0.38	0.230	5.84

16 AWG CONDUCTORS

E1512S	2	16	Solid	0.010	0.25	0.015	0.38	0.172	4.37
E1514S	4	16	Solid	0.010	0.25	0.015	0.38	0.202	5.13

14 AWG CONDUCTORS

E1522S	2	14	Solid	0.013	0.33	0.015	0.38	0.210	5.33
E1524S	4	14	Solid	0.013	0.33	0.015	0.38	0.248	6.30

12 AWG CONDUCTORS

E1532S	2	12	Solid	0.013	0.33	0.015	0.38	0.244	6.20
E1534S	4	12	Solid	0.013	0.33	0.015	0.38	0.288	7.32

Product Construction:

Conductor:

- 22 thru 12 AWG fully annealed solid bare copper per ASTM B-3

Insulation:

- Premium-grade, color-coded S-R PVC
- Color Code: See chart below

Jacket:

- Premium-grade, red PVC
- Suitable for use from 20°C to + 75°C
- Round constructions have sequential footage markings to facilitate installation
- Includes ripcord on round constructions

Applications:

- Wiring of fire alarms
- Smoke detectors
- Voice communications
- Burglar alarms
- Fire protective circuits
- Suggested voltage rating: 300 volts

Compliances:

- UL Type FPLR (UL: 75°C, 300V)
- NEC Article 760
- California State Fire Marshall Approved
- Designed to Meet UL 1666 Flame Test

Packaging:

- Please contact Customer Service for packaging and color options

Color Code Chart

NO. OF COND.	COLOR
1	Black
2	Red
3	Brown
4	Blue
5	Orange
6	Yellow
7	Violet
8	Gray

CAROL BRAND

Designed to Meet
UL 1666 Flame Test
Underwriters Laboratories Inc.



General Cable

Multi-Conductor, Shielded, Non-Plenum

NEC Type FPLR

Product Construction:

Conductor:

- 22 thru 12 AWG fully annealed solid bare copper per ASTM B-3

Insulation:

- Premium-grade, color-coded S-R PVC
- Color Code: See chart below

Shield:

- Overall Flexfoil® polyester supported aluminum foil
- Stranded tinned copper drain wire

Jacket:

- Premium-grade, red PVC
- Suitable for use from 20°C to + 75°C
- Sequential footage markings to facilitate installation
- Includes ripcord

Applications:

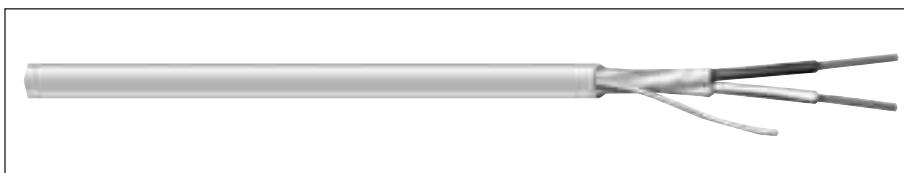
- Wiring of fire alarms
- Smoke alarms
- Voice communications
- Burglar alarms
- Fire protective circuits
- Suggested voltage rating: 300 volts

Compliances:

- UL Type FPLR (UL: 75°C, 300V)
- NEC Article 760
- California State Fire Marshall Approved
- Designed to Meet UL 1666 Flame Test

Packaging:

- Please contact Customer Service for packaging and color options



CATALOG NUMBER	NO. OF COND.	AWG SIZE	COND. STRAND.	NOM. INSULATION THICKNESS		NOM. JACKET WALL		NOMINAL O.D.	
				INCHES	mm	INCHES	mm	INCHES	mm

22 AWG CONDUCTORS

E2482S	2	22	Solid	0.010	0.25	0.015	0.38	0.126	3.20
E2484S	4	22	Solid	0.010	0.25	0.015	0.38	0.145	3.68

18 AWG CONDUCTORS

E2502S	2	18	Solid	0.010	0.25	0.015	0.38	0.158	4.01
E2503S	3	18	Solid	0.010	0.25	0.015	0.38	0.165	4.19
E2504S	4	18	Solid	0.010	0.25	0.015	0.38	0.183	4.65
E2506S	6	18	Solid	0.010	0.25	0.015	0.38	0.216	5.49
E2508S	8	18	Solid	0.010	0.25	0.015	0.38	0.235	5.97

16 AWG CONDUCTORS

E2522S	2	16	Solid	0.010	0.25	0.015	0.38	0.180	4.57
E2524S	4	16	Solid	0.010	0.25	0.015	0.38	0.210	5.33

14 AWG CONDUCTORS

E2532S	2	14	Solid	0.013	0.33	0.015	0.38	0.218	5.54
E2534S	4	14	Solid	0.013	0.33	0.015	0.38	0.253	6.43

12 AWG CONDUCTORS

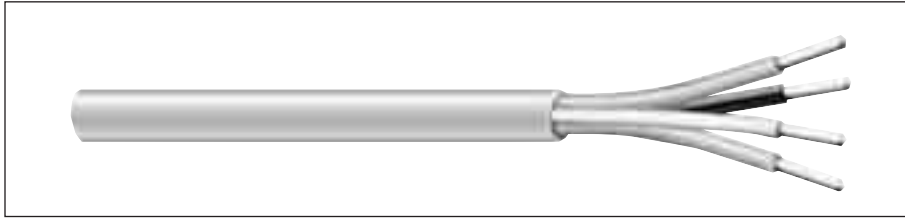
E2542S	2	12	Solid	0.013	0.33	0.015	0.38	0.252	6.40
E2544S	4	12	Solid	0.013	0.33	0.015	0.38	0.293	7.44

Color Code Chart

NO. OF COND.	COLOR
1	Black
2	Red
3	Brown
4	Blue
5	Orange
6	Yellow
7	Violet
8	Gray

Multi-Conductor, Unshielded, Plenum

NEC Type FPLP



CATALOG NUMBER	NO. OF COND.	AWG SIZE	COND. STRAND.	NOM. INSULATION THICKNESS		NOM. JACKET WALL		NOMINAL O.D.	
				INCHES	mm	INCHES	mm	INCHES	mm

22 AWG CONDUCTORS

E3482S	2	22	Solid	0.010	0.25	0.015	0.38	0.121	3.07
E3484S	4	22	Solid	0.010	0.25	0.015	0.38	0.137	3.47

18 AWG CONDUCTORS

E3502S	2	18	Solid	0.010	0.25	0.015	0.38	0.155	3.81
E3503S	3	18	Solid	0.010	0.25	0.015	0.38	0.160	4.06
E3504S	4	18	Solid	0.010	0.25	0.015	0.38	0.175	4.45
E3506S	6	18	Solid	0.010	0.25	0.015	0.38	0.211	5.36

16 AWG CONDUCTORS

E3512S	2	16	Solid	0.010	0.25	0.015	0.38	0.172	4.37
E3514S	4	16	Solid	0.010	0.25	0.015	0.38	0.202	5.13

14 AWG CONDUCTORS

E3522S	2	14	Solid	0.012	0.30	0.015	0.38	0.210	5.28
E3524S	4	14	Solid	0.012	0.30	0.015	0.38	0.243	6.17

12 AWG CONDUCTORS

E3532S	2	12	Solid	0.012	0.30	0.015	0.38	0.244	6.20
E3534S	4	12	Solid	0.012	0.30	0.015	0.38	0.284	7.21

Color Code Chart

NO. OF COND.	COLOR
1	Black
2	Red
3	Brown
4	Blue
5	Orange
6	Yellow

Product Construction:

Conductor:

- 22 thru 12 AWG fully annealed solid bare copper per ASTM B3

Insulation:

- Premium-grade, color-coded Flexguard® PVC
- Color Code: See chart below

Jacket:

- Premium-grade, red Flexguard® PVC
- Suitable for use from 0°C to + 75°C
- Sequential footage markings to facilitate installation
- Includes ripcord

Applications:

- Wiring of fire alarms
- Smoke detectors
- Voice communications
- Burglar alarms
- Fire protective circuits
- Suggested voltage rating: 300 volts

Compliances:

- UL Type FPLP (UL: 75°C, 300V)
- NEC Article 760
- California State Fire Marshall Approved
- Designed to Meet UL 910 Flame Test

Packaging:

- Please contact Customer Service for packaging and color options

**CAROL
BRAND**

Designed to Meet UL 910
Test For Flame Propagation
& Smoke Density
Underwriters Laboratories Inc.



General Cable

Multi-Conductor, Shielded, Plenum

NEC Type FPLP

Product Construction:

Conductor:

- 22 thru 12 AWG fully annealed solid bare copper per ASTM B3

Insulation:

- Premium-grade, color-coded Flexguard® PVC
- Color Code: See chart below

Shield:

- Overall Flexfoil® polyester supported aluminum foil
- Stranded tinned copper drain wire

Jacket:

- Premium-grade, red Flexguard® PVC
- Suitable for use from 0°C to + 75°C
- Sequential footage markings to facilitate installation
- Includes ripcord

Applications:

- Wiring of fire alarms
- Smoke detectors
- Voice communications
- Burglar alarms
- Fire protective circuits
- Suggested voltage rating: 300 volts

Compliances:

- UL Type FPLP (UL: 75°C, 300V)
- NEC Article 760
- California State Fire Marshall Approved
- Designed to Meet UL 910 Flame Test

Packaging:

- Please contact Customer Service for packaging and color options



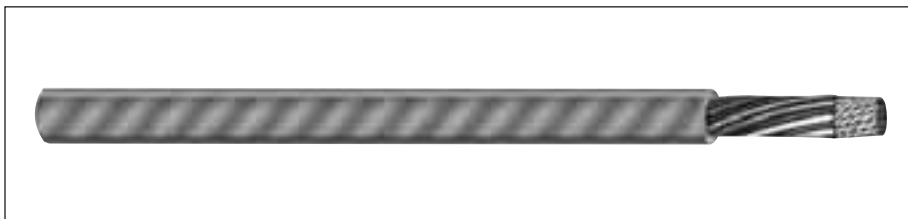
CATALOG NUMBER	NO. OF COND.	AWG SIZE	COND. STRAND.	NOM. INSULATION THICKNESS		NOM. JACKET WALL		NOMINAL O.D.	
				INCHES	mm	INCHES	mm	INCHES	mm
22 AWG CONDUCTORS									
E3542S	2	22	Solid	0.010	0.25	0.015	0.38	0.126	3.20
18 AWG CONDUCTORS									
E3602S	2	18	Solid	0.010	0.25	0.015	0.38	0.158	4.01
E3603S	3	18	Solid	0.010	0.25	0.015	0.38	0.165	4.19
E3604S	4	18	Solid	0.010	0.25	0.015	0.38	0.183	4.65
E3606S	6	18	Solid	0.010	0.25	0.015	0.38	0.216	5.49
16 AWG CONDUCTORS									
E3612S	2	16	Solid	0.010	0.25	0.015	0.38	0.180	4.57
E3614S	4	16	Solid	0.010	0.25	0.015	0.38	0.210	5.33
14 AWG CONDUCTORS									
E3622S	2	14	Solid	0.012	0.30	0.015	0.38	0.210	5.33
E3624S	4	14	Solid	0.012	0.30	0.015	0.38	0.248	6.30
12 AWG CONDUCTORS									
E3632S	2	12	Solid	0.012	0.30	0.015	0.38	0.252	6.40
E3634S	4	12	Solid	0.012	0.30	0.015	0.38	0.300	7.62

Color Code Chart

NO. OF COND.	COLOR
1	Black
2	Red
3	Brown
4	Blue
5	Orange
6	Yellow

Multi-Conductor, Unshielded, Plenum

NEC Type FPLP, PVDF Jacketed



Product Construction

Conductor:

- 18 thru 12 AWG fully annealed solid bare copper to ASTM B3

Insulation:

- Premium-grade, color-coded Flexguard® PVC
- Color Code: See chart below

Jacket:

- Fluoropolymer, red
- Temperature Range: – 10°C to + 75°C
- Includes ripcord

Applications:

- Fire alarm systems
- Voice communications
- Smoke detectors
- Pull boxes
- Suggested voltage rating: 300 volts

Compliances:

- UL Type FPLP (UL: 75°C, 300V)
- NEC Article 760
- California State Fire Marshall Approved
- Designed to Meet UL 910 Flame Test

Features:

- Abrasion-, chemical- and water-resistant jacket
- Sequentially footage marked

Packaging:

- Please contact Customer Service for packaging and color options

CATALOG NUMBER	NO. OF COND.	AWG SIZE	COND. STRAND.	NOM. INSULATION THICKNESS		NOM. JACKET THICKNESS		NOMINAL O.D.		NOM.* C-C CAP. pF/ft
				INCHES	mm	INCHES	mm	INCHES	mm	
C3200	2	18	Solid	0.010	0.23	0.010	0.25	0.140	3.56	29.0
C3201	4	18	Solid	0.010	0.23	0.010	0.25	0.156	3.96	29.0
C3210	2	16	Solid	0.010	0.23	0.010	0.25	0.133	3.38	31.0
C3211	4	16	Solid	0.010	0.23	0.010	0.25	0.186	4.72	31.0
C3220	2	14	Solid	0.013	0.31	0.010	0.25	0.170	4.32	31.0
C3223	4	14	Solid	0.013	0.31	0.010	0.25	0.224	5.69	31.0
C3224	2	12	Solid	0.013	0.31	0.010	0.25	0.194	4.93	35.0
C3225	4	12	Solid	0.013	0.31	0.010	0.25	0.261	6.63	35.0

*Capacitance between conductors

Color Code Chart

NO. OF COND.	COLOR
1	Black
2	Red
3	Brown
4	Blue

CAROL BRAND

Designed to Meet UL 910
Test For Flame Propagation
& Smoke Density
Underwriters Laboratories Inc.



General Cable

Multi-Conductor, Shielded, Plenum

NEC Type FPLP, PVDF Jacketed

Product Construction

Conductor:

- 18 thru 12 AWG fully annealed solid bare copper per ASTM B3

Insulation:

- Premium-grade, color-coded Flexguard® PVC
- Color Code: See chart below

Shield:

- 100% Flexfoil® aluminum/polyester foil, 25% overlap, minimum
- Stranded tinned copper drain wire

Jacket:

- Fluoropolymer, red
- Temperature Range: – 10°C to + 75°C
- Includes ripcord

Applications:

- Fire alarm systems
- Voice communications
- Smoke detectors
- Pull boxes
- Suggested voltage rating: 300 volts

Compliances:

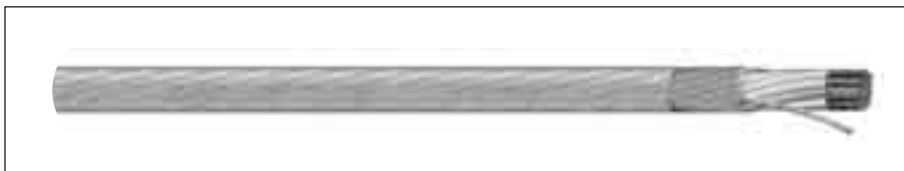
- UL Type FPLP (UL: 75°C, 300V)
- NEC Article 760
- California State Fire Marshall Approved

Features:

- Abrasion-, chemical-resistant jacket
- Sequentially footage marked

Packaging:

- Please contact Customer Service for packaging and color options



CATALOG NUMBER	NO. OF COND.	AWG SIZE	COND. STRAND.	NOM. INSULATION THICKNESS		NOM. JACKET THICKNESS		NOMINAL O.D.		NOMINAL CAP.* pF/ft	
				INCHES	mm	INCHES	mm	INCHES	mm	A	B
C3260	2	18	Solid	0.010	0.25	0.010	0.25	0.149	3.78	50.5	90.8
C3261	4	18	Solid	0.010	0.25	0.010	0.25	0.168	4.27	44.5	80.0
C3270	2	16	Solid	0.010	0.25	0.010	0.25	0.169	4.29	58.0	104.0
C3271	4	16	Solid	0.010	0.25	0.010	0.25	0.194	4.93	50.0	90.0
C3280	2	14	Solid	0.013	0.33	0.010	0.25	0.214	5.44	55.5	100.0
C3284	4	14	Solid	0.013	0.33	0.010	0.25	0.245	6.22	48.0	87.0
C3282	2	12	Solid	0.013	0.33	0.010	0.25	0.234	5.94	65.0	116.0
C3283	4	12	Solid	0.013	0.33	0.010	0.25	0.284	7.21	55.0	99.0

*A - Capacitance between conductors

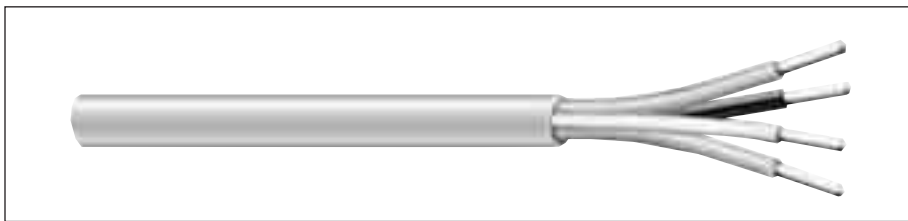
*B - Capacitance between one conductor and other conductors connected to shield

Color Code Chart

NO. OF COND.	COLOR
1	Black
2	Red
3	Brown
4	Blue

Mid-Capacitance, Unshielded, Non-Plenum

NEC Type FPL for Microprocessor-Controlled Systems



CATALOG NUMBER	NO. OF COND.	AWG SIZE	COND. STRAND.	NOM. INSULATION THICKNESS		NOM. JACKET THICKNESS		NOMINAL O.D.		NOM.* C-C CAP. pF/ft
				INCHES	mm	INCHES	mm	INCHES	mm	
C0471	2	18	Solid	0.014	0.36	0.020	0.51	0.177	4.50	16.5
C0485	4	18	Solid	0.014	0.36	0.020	0.51	0.205	5.21	16.5
C0473	2	16	Solid	0.016	0.41	0.020	0.51	0.206	5.23	17.5
C0486	4	16	Solid	0.016	0.41	0.020	0.51	0.241	6.12	17.5
C0491	2	14	Solid	0.018	0.46	0.020	0.51	0.240	6.10	18.0
C0492	2	12	Solid	0.020	0.51	0.020	0.51	0.282	7.16	19.0

*Capacitance between conductors

Color Code Chart

NO. OF COND.	COLOR
1	Black
2	Red
3	Brown
4	Blue

Product Construction:

Conductor:

- 18 thru 12 AWG fully annealed solid bare copper per ASTM B3

Insulation:

- Premium-grade, color-coded polypropylene
- Color Code: See chart below

Jacket:

- PVC, red
- Temperature Range: – 20°C to + 60°C

Applications:

- Addressable fire alarm systems
- Fire alarm systems
- Voice communications
- Smoke detectors
- Pull boxes
- Suggested voltage rating: 300 volts

Compliances:

- UL Type FPL (UL: 60°C, 300V)
- NEC Article 760
- California State Fire Marshall Approved
- Passes UL 70,000 BTU Vertical Tray Flame Test

Features:

- Red PVC jacket for easy critical circuit identification

Packaging:

- Please contact Customer Service for packaging and color options

Mid-Capacitance, Shielded, Non-Plenum

NEC Type FPL for Microprocessor-Controlled Systems

Product Construction:

Conductor:

- 18 thru 12 AWG fully annealed solid bare copper per ASTM B3

Insulation:

- Premium-grade, color-coded polypropylene
- Color Code: See chart below

Shield:

- 100% Flexfoil® aluminum/polyester, 25% overlap, minimum
- Stranded tinned copper drain wire

Jacket:

- PVC, red
- Temperature Range: 0°C to + 60°C

Applications:

- Addressable fire alarm systems
- Fire alarm systems
- Voice communications
- Smoke detectors
- Pull boxes
- Suggested voltage rating: 300 volts

Compliances:

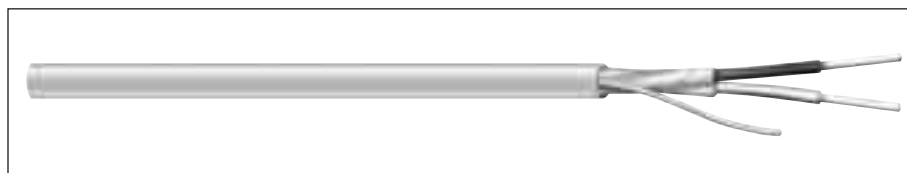
- UL Type FPL (UL:60°C, 300V)
- NEC Article 760
- California State Fire Marshall Approved
- Passes UL 70,000 BTU Vertical Tray Flame Test

Features:

- Red PVC jacket for easy critical circuit identification

Packaging:

- Please contact Customer Service for packaging and color options



CATALOG NUMBER	NO. OF COND.	AWG SIZE	COND. STRAND.	NOM. INSULATION THICKNESS		NOM. JACKET THICKNESS		NOMINAL O.D.		NOMINAL CAP.* pF/ft	
				INCHES	mm	INCHES	mm	INCHES	mm	A	B
C0472	2	18	Solid	0.014	0.36	0.020	0.51	0.182	4.88	27.0	49.0
C0494	4	18	Solid	0.014	0.36	0.020	0.51	0.210	5.33	24.5	44.0
C0474	2	16	Solid	0.016	0.41	0.020	0.51	0.214	5.44	29.0	52.0
C0495	4	16	Solid	0.016	0.41	0.020	0.51	0.246	6.25	26.0	46.5
C0475	2	14	Solid	0.018	0.46	0.020	0.51	0.245	6.22	31.0	55.5
C0496	4	14	Solid	0.018	0.46	0.020	0.51	0.287	7.29	27.5	49.5
C0476	2	12	Solid	0.020	0.51	0.020	0.51	0.287	7.29	33.0	60.0
C0497	4	12	Solid	0.020	0.51	0.020	0.51	0.337	8.56	29.0	52.5

*A - Capacitance between conductors

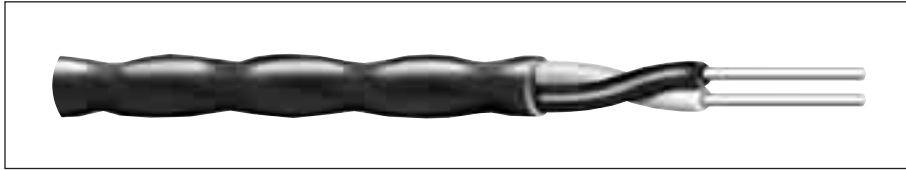
*B - Capacitance between one conductor and other conductors connected to shield

Color Code Chart

NO. OF COND.	COLOR
1	Black
2	Red
3	Brown
4	Blue

Mid-Capacitance, Unshielded, Plenum

NEC Type FPLP for Microprocessor-Controlled Systems



CATALOG NUMBER	NO. OF COND.	AWG SIZE	COND. STRAND.	NOM. INSULATION THICKNESS		NOM. JACKET THICKNESS		NOMINAL O.D.		NOM.* C-C CAP. pF/ft
				INCHES	mm	INCHES	mm	INCHES	mm	
C3240	2	18	Solid	0.014	0.36	0.015	0.38	0.172	4.37	19.0
C3242	4	18	Solid	0.014	0.36	0.015	0.38	0.195	4.95	19.0
C3241	2	16	Solid	0.016	0.41	0.015	0.38	0.196	4.98	20.0
C3243	4	16	Solid	0.016	0.41	0.015	0.38	0.231	5.87	20.0
C3244	2	14	Solid	0.018	0.46	0.020	0.51	0.242	6.15	20.0
C3245	4	14	Solid	0.018	0.46	0.020	0.51	0.286	7.26	20.0
C3246	2	12	Solid	0.020	0.51	0.020	0.51	0.282	7.16	22.0
C3247	4	12	Solid	0.020	0.51	0.020	0.51	0.333	8.45	22.0

*Capacitance between conductors

Color Code Chart

NO. OF COND.	COLOR
1	Black
2	Red
3	Brown
4	Blue

Product Construction:

Conductor:

- 18 thru 12 AWG fully annealed solid bare copper per ASTM B3

Insulation:

- Premium-grade, color-coded Fluoropolymer
- Color Code: See chart below

Jacket:

- Premium-grade, red Flexguard® PVC
- Temperature Range: 0°C to + 75°C
- Includes ripcord

Applications:

- Addressable fire alarm systems
- Fire alarm systems
- Voice communications
- Smoke detectors
- Pull boxes
- Suggested voltage rating: 300 volts

Compliances:

- UL Type FPLP (UL: 75°C, 300V)
- NEC Article 760
- California State Fire Marshall Approved
- Designed to Meet UL 910 Flame Test

Features:

- Red PVC jacket for easy critical circuit identification

Packaging:

- Please contact Customer Service for packaging and color options

CAROL BRAND

Designed to Meet UL 910
Test For Flame Propagation
& Smoke Density
Underwriters Laboratories Inc.



General Cable

Mid-Capacitance, Shielded, Plenum

NEC Type FPLP for Microprocessor-Controlled Systems

Product Construction

Conductor:

- 18 thru 12 AWG fully annealed solid bare copper per ASTM B3

Insulation:

- Premium-grade, color-coded Fluoropolymer
- Color Code: See chart below

Shield:

- 100% Flexfoil® aluminum/polyester foil, 25% overlap, minimum
- Stranded tinned copper drain wire

Jacket:

- Premium-grade, red Flexguard® PVC
- Temperature Range: 0°C to + 75°C
- Includes ripcord

Applications:

- Addressable fire alarm systems
- Fire alarm systems
- Voice communications
- Smoke detectors
- Pull boxes
- Suggested voltage rating: 300 volts

Compliances:

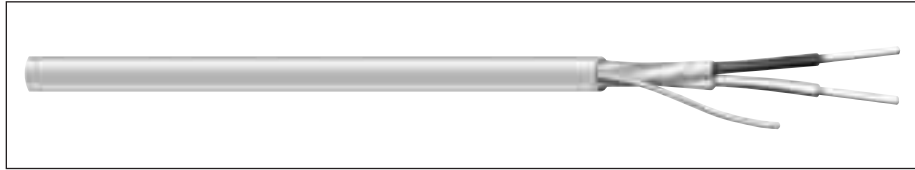
- UL Type FPLP (UL: 75°C, 300V)
- NEC Article 760
- California State Fire Marshall Approved
- Designed to Meet UL 910 Flame Test

Features:

- Red PVC jacket for easy critical circuit identification

Packaging:

- Please contact Customer Service for packaging and color options



CATALOG NUMBER	NO. OF COND.	AWG SIZE	COND. STRAND.	NOM. INSULATION THICKNESS		NOM. JACKET THICKNESS		NOMINAL O.D.		NOMINAL CAP.*	
				INCHES	mm	INCHES	mm	INCHES	mm	A	B
C3167	2	18	Solid	0.014	0.36	0.015	0.38	0.172	4.37	31.0	56.0
C3170	4	18	Solid	0.014	0.36	0.015	0.38	0.202	5.13	28.0	50.0
C3168	2	16	Solid	0.016	0.41	0.015	0.38	0.203	5.16	33.0	59.0
C3171	4	16	Solid	0.016	0.41	0.015	0.38	0.238	6.05	29.0	53.0
C3172	2	14	Solid	0.018	0.46	0.020	0.51	0.247	6.27	35.0	63.0
C3173	4	14	Solid	0.018	0.46	0.020	0.51	0.289	7.34	30.0	56.0
C3174	2	12	Solid	0.020	0.51	0.020	0.51	0.289	7.34	38.0	68.0
C3175	4	12	Solid	0.020	0.51	0.020	0.51	0.340	8.64	33.0	60.0

*A - Capacitance between conductors

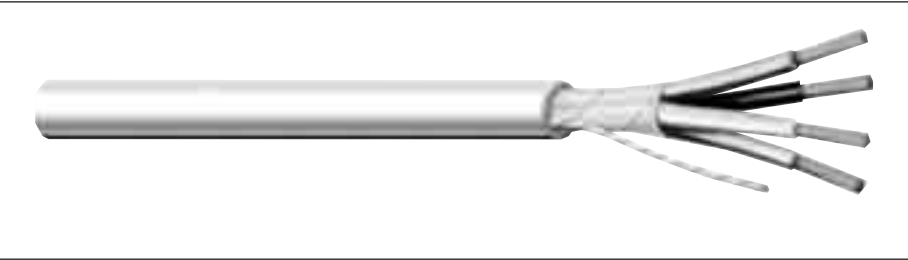
*B - Capacitance between one conductor and other conductors connected to shield

Color Code Chart

NO. OF COND.	COLOR
1	Black
2	Red
3	Brown
4	Blue

Sound, Alarm & Security Cable

7



The sound and security industry in the United States has grown from a simple and unsophisticated business, begun some 45 years ago, to one which has developed technology to the degree that specialized wires and cables are now much in demand.

No longer are the security and sound industries characterized by large electromechanical relays and large contactors; today these circuits incorporate the latest in microprocessors and solid state devices to not only improve functionality but also to guarantee performance.

As a major wire producer, our role is to ensure that the wires and cables that go into these systems are as reliable as the other components ... the net result is a fully integrated system which will provide peace of mind to the system user.

Also in this section are General Cable's Carol® Brand wire and cable designs suitable for a variety of applications, both in industrial and commercial environments,

including telephone systems, intercoms, burglar alarms, business machines and thermostats.

Aside from the quality materials used in these designs, specifiers and users of Carol® Brand wire and cable products have come to expect that these cables are registered and certified with the leading regulatory agencies such as Underwriters Laboratories ... and we haven't let you down!

Carol® Brand designs have proven themselves in the area of sound and security over time; most are fabricated with solid or stranded, bare copper conductors with insulations and jackets of premium grades of PVC. We offer both parallel and cabled designs both with and without shields. Sequential footage markings on the jackets are offered on all products.

General Cable Carol® Brand products are conveniently packaged in 1000' or 500' lengths to assist the installer.

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Multi-Conductor, Unshielded, Riser

NEC Type CMR and/or CL3R

Product Construction:

Conductor:

- Stranded or solid bare copper per ASTM B-3, B-8 and B-286

Insulation:

- Premium-grade, color-coded S-R PVC
- Color Code: See chart below

Jacket:

- Premium-grade, gray PVC
- Sequential footage markings to facilitate installation
- Suitable for use from -20°C to +75°C
- Includes ripcord

Applications:

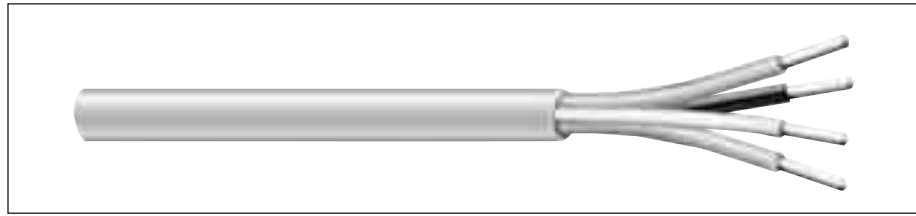
- Power-limited control circuits
- Wiring of the following systems:
 - Intercom
 - Security
 - Audio
 - Background music
- Suggested voltage rating: 300 volts

Compliances:

- NEC Article 725 Type CL3R (UL: 75°C, 150V)
- NEC Article 800 Type CMR (UL: 75°C, 300V)
- California State Fire Marshall Approved

Packaging:

- Please contact Customer Service for packaging and color options



CATALOG NUMBER	NO. OF COND.	AWG SIZE	COND. STRAND.	NOM. INSULATION THICKNESS		NOM. JACKET WALL		NOMINAL O.D.	
				INCHES	mm	INCHES	mm	INCHES	mm

22 AWG CONDUCTORS

E1000S	2	22	Solid	0.007	0.20	0.015	0.38	0.118	3.00
E1001S	4	22	Solid	0.007	0.20	0.015	0.38	0.126	3.20
E1002S	2	22	7/30	0.008	0.20	0.015	0.38	0.122	3.10
E1003S	3	22	7/30	0.008	0.20	0.015	0.38	0.129	3.28
E1004S	4	22	7/30	0.008	0.20	0.015	0.38	0.156	3.96
E1006S	6	22	7/30	0.008	0.20	0.015	0.38	0.164	4.17
E1008S	8	22	7/30	0.008	0.20	0.015	0.38	0.180	4.57
E1010S	10	22	7/30	0.008	0.20	0.015	0.38	0.212	5.38
E1012S	12	22	7/30	0.008	0.20	0.015	0.38	0.219	5.56

20 AWG CONDUCTORS

E1022S	2	20	7/28	0.008	0.20	0.015	0.38	0.134	3.40
E1023S	3	20	7/28	0.008	0.20	0.015	0.38	0.134	3.40
E1024S	4	20	7/28	0.008	0.20	0.015	0.38	0.142	3.60

18 AWG CONDUCTORS

E1030S	2	18	Solid	0.009	0.23	0.015	0.38	0.144	3.66
E1032S	2	18	7/26	0.009	0.23	0.015	0.38	0.156	3.96
E1033S	3	18	7/26	0.009	0.23	0.015	0.38	0.166	4.22
E1034S	4	18	7/26	0.009	0.23	0.015	0.38	0.187	4.75
E1036S	6	18	7/26	0.009	0.23	0.015	0.38	0.225	5.72
E1038S	8	18	7/26	0.009	0.23	0.015	0.38	0.245	6.22
E1040S	10	18	7/26	0.009	0.23	0.015	0.38	0.282	7.16
E1041S	12	18	7/26	0.009	0.23	0.015	0.38	0.291	7.39

16 AWG CONDUCTORS

E1042S	2	16	19/.0117	0.009	0.25	0.015	0.38	0.178	4.52
E1043S	3	16	19/.0117	0.009	0.25	0.015	0.38	0.193	4.90
E1044S	4	16	19/.0117	0.009	0.25	0.015	0.38	0.209	5.31

14 AWG CONDUCTORS

E1052S*	2	14	19/.0147	0.013	0.33	0.015	0.38	0.224	5.69
E1054S*	4	14	19/.0147	0.013	0.33	0.015	0.38	0.264	6.71

12 AWG CONDUCTORS

E1062S*	2	12	19/.0185	0.013	0.33	0.015	0.38	0.260	6.60
E1064S*	4	12	19/.0185	0.013	0.33	0.015	0.38	0.307	7.80

*NEC CL3R only

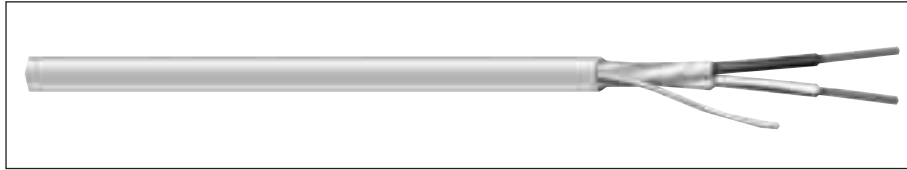
Color Code Chart

NO. OF COND.	COLOR	NO. OF COND.	COLOR
1	Black	7	Orange
2	Red	8	Yellow
3	White	9	Violet
4	Green	10	Gray
5	Brown	11	Pink
6	Blue	12	Tan



Multi-Conductor, Shielded, Riser

NEC Type CMR and/or CL3R



CATALOG NUMBER	NO. OF COND.	AWG SIZE	COND. STRAND.	NOM. INSULATION THICKNESS		NOM. JACKET WALL		NOMINAL O.D.	
				INCHES	mm	INCHES	mm	INCHES	mm

22 AWG CONDUCTORS

E2000S	2	22	Solid	0.008	0.20	0.015	0.38	0.117	2.97
E2002S	2	22	7/30	0.008	0.20	0.015	0.38	0.132	3.35
E2003S	3	22	7/30	0.008	0.20	0.015	0.38	0.135	3.43
E2004S	4	22	7/30	0.008	0.20	0.015	0.38	0.147	3.73
E2006S	6	22	7/30	0.008	0.20	0.015	0.38	0.173	4.39
E2008S	8	22	7/30	0.008	0.20	0.015	0.38	0.195	4.95
E2010S	10	22	7/30	0.008	0.20	0.015	0.38	0.218	5.54
E2012S	12	22	7/30	0.008	0.20	0.015	0.38	0.225	5.72

20 AWG CONDUCTORS

E2022S	2	20	7/28	0.008	0.20	0.015	0.38	0.142	3.61
E2023S	3	20	7/28	0.008	0.20	0.015	0.38	0.151	3.84
E2024S	4	20	7/28	0.008	0.20	0.015	0.38	0.171	4.34

18 AWG CONDUCTORS

E2030S	2	18	Solid	0.009	0.23	0.015	0.38	0.147	3.73
E2032S	2	18	7/26	0.009	0.23	0.015	0.38	0.164	4.17
E2033S	3	18	7/26	0.009	0.23	0.015	0.38	0.172	4.37
E2034S	4	18	7/26	0.009	0.23	0.015	0.38	0.192	4.88
E2036S	6	18	7/26	0.009	0.23	0.015	0.38	0.230	5.54
E2038S	8	18	7/26	0.009	0.23	0.015	0.38	0.250	6.35
E2040S	10	18	7/26	0.009	0.23	0.015	0.38	0.287	7.29
E2041S	12	18	7/26	0.009	0.23	0.015	0.38	0.296	7.52

16 AWG CONDUCTORS

E2042S	2	16	19/.0117	0.010	0.25	0.015	0.38	0.189	4.80
E2043S	3	16	19/.0117	0.010	0.25	0.015	0.38	0.198	5.03
E2044S	4	16	19/.0117	0.010	0.25	0.015	0.38	0.219	5.56

14 AWG CONDUCTORS

E2052S*	2	14	19/.0147	0.013	0.33	0.015	0.38	0.245	6.22
E2054S*	4	14	19/.0147	0.013	0.33	0.015	0.38	0.269	6.83

12 AWG CONDUCTORS

E2062S*	2	12	19/.0185	0.013	0.33	0.015	0.38	0.281	7.14
E2064S*	4	12	19/.0185	0.013	0.33	0.015	0.38	0.312	7.92

* NEC CL3R only

Color Code Chart

NO. OF COND.	COLOR	NO. OF COND.	COLOR
1	Black	7	Orange
2	Red	8	Yellow
3	White	9	Violet
4	Green	10	Gray
5	Brown	11	Pink
6	Blue	12	Tan

Product Construction:

Conductor:

- Stranded or solid bare copper per ASTM B-3, B-8 and B-286

Insulation:

- Premium-grade, color-coded S-R PVC
- Color Code: See chart below

Shield:

- Overall Flexfoil® polyester supported aluminum foil
- Stranded tinned copper drain wire

Jacket:

- Premium-grade, gray PVC
- Sequential footage markings to facilitate installation
- Suitable for use from -20°C to +75°C
- Includes ripcord

Applications:

- Power-limited control circuits
- Wiring of the following systems:
 - Intercom
 - Security
 - Audio
 - Background music
- Suggested voltage rating: 300 volts

Compliances:

- NEC Article 725 Type CL3R (UL: 75°C, 150V)
- NEC Article 800 Type CMR (UL: 75°C, 300V)
- California State Fire Marshall Approved

Packaging:

- Please contact Customer Service for packaging and color options

CAROL BRAND



General Cable

Multi-Conductor, Unshielded, Plenum

NEC Type CMP and/or CL3P

Product Construction:

Conductor:

- Stranded or solid bare copper per ASTM B-3, B-8 and B-286

Insulation:

- Premium-grade, color-coded Flexguard® PVC
- Color Code: See chart below

Jacket:

- Premium-grade natural Flexguard® PVC
- Sequential footage markings to facilitate installation
- Suitable for use from 0°C to +75°C
- Ripcord available—consult Customer Service for details

Applications:

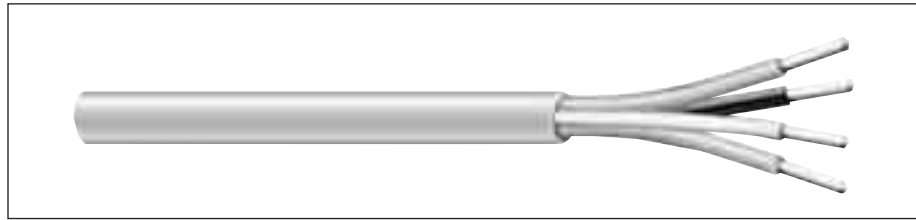
- Power-limited control circuits
- Wiring of the following systems:
 - Intercom
 - Security
 - Audio
 - Background music
- Suggested voltage rating: 300 volts

Compliances:

- NEC Article 725 Type CL3P (UL: 75°C, 150V)
- NEC Article 800 Type CMP (UL: 75°C, 300V)
- Designed to Meet UL 910 Flame Test
- California State Fire Marshall Approved

Packaging:

- Please contact Customer Service for packaging and color options



CATALOG NUMBER	NO. OF COND.	AWG SIZE	COND. STRAND.	NOM. INSULATION THICKNESS		NOM. JACKET WALL		NOMINAL O.D.	
				INCHES	mm	INCHES	mm	INCHES	mm

22 AWG CONDUCTORS

E3000S	2	22	Solid	0.007	0.18	0.015	0.38	0.108	2.74
E3001S	4	22	Solid	0.007	0.18	0.015	0.38	0.124	3.15
E3002S	2	22	7/30	0.008	0.20	0.015	0.38	0.120	3.05
E3003S	3	22	7/30	0.008	0.20	0.015	0.38	0.127	3.23
E3004S	4	22	7/30	0.008	0.20	0.015	0.38	0.139	3.53
E3006S	6	22	7/30	0.008	0.20	0.015	0.38	0.164	4.17
E3008S	8	22	7/30	0.008	0.20	0.015	0.38	0.178	4.52
E3010S	10	22	7/30	0.008	0.20	0.015	0.38	0.194	4.92
E3012S	12	22	7/30	0.008	0.20	0.015	0.38	0.211	5.36

20 AWG CONDUCTORS

E3022S	2	20	7/28	0.008	0.20	0.015	0.38	0.138	3.51
E3023S	3	20	7/28	0.009	0.23	0.015	0.38	0.146	3.71
E3024S	4	20	7/28	0.009	0.23	0.015	0.38	0.161	4.09

18 AWG CONDUCTORS

E3030S	2	18	Solid	0.008	0.20	0.015	0.38	0.142	3.61
E3032S	2	18	7/26	0.008	0.20	0.015	0.38	0.156	3.96
E3033S	3	18	7/26	0.008	0.20	0.015	0.38	0.166	4.22
E3034S	4	18	7/26	0.008	0.20	0.015	0.38	0.187	4.75
E3036S	6	18	7/26	0.008	0.20	0.015	0.38	0.216	5.49
E3038S	8	18	7/26	0.008	0.20	0.015	0.38	0.235	5.97

16 AWG CONDUCTORS

E3042S	2	16	19/.0117	0.008	0.20	0.015	0.38	0.174	4.42
E3043S	3	16	19/.0117	0.008	0.20	0.015	0.38	0.185	4.70
E3044S	4	16	19/.0117	0.008	0.20	0.015	0.38	0.204	5.18

14 AWG CONDUCTORS

E3052S*	2	14	19/.0147	0.011	0.28	0.015	0.38	0.216	5.49
E3054S*	4	14	19/.0147	0.011	0.28	0.015	0.38	0.255	6.48

12 AWG CONDUCTORS

E3062S*	2	12	19/.0185	0.011	0.28	0.015	0.38	0.252	6.40
E3064S*	4	12	19/.0185	0.011	0.28	0.015	0.38	0.298	7.57

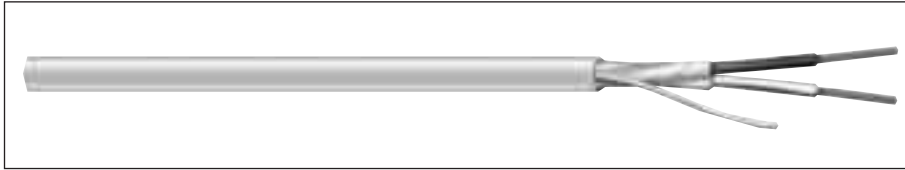
* NEC CL3P only

Color Code Chart

NO. OF COND.	COLOR
1	Black
2	Red
3	White
4	Green
5	Brown
6	Blue
7	Orange
8	Yellow

Multi-Conductor, Shielded, Plenum

NEC Type CMP and/or CL3P



CATALOG NUMBER	NO. OF COND.	AWG SIZE	COND. STRAND.	NOM. INSULATION THICKNESS		NOM. JACKET WALL		NOMINAL O.D.	
				INCHES	mm	INCHES	mm	INCHES	mm

22 AWG CONDUCTORS

E2100S	2	22	Solid	0.007	0.18	0.015	0.38	0.116	2.95
E2102S	2	22	7/30	0.008	0.20	0.015	0.38	0.128	3.25
E2103S	3	22	7/30	0.008	0.20	0.015	0.38	0.131	3.33
E2104S	4	22	7/30	0.008	0.20	0.015	0.38	0.147	3.73
E2106S	6	22	7/30	0.008	0.20	0.015	0.38	0.173	4.39
E2108S	8	22	7/30	0.008	0.20	0.015	0.38	0.184	4.67

20 AWG CONDUCTORS

E2122S	2	20	7/28	0.009	0.23	0.015	0.38	0.143	3.63
E2123S	3	20	7/28	0.009	0.23	0.015	0.38	0.151	3.84
E2124S	4	20	7/28	0.009	0.23	0.015	0.38	0.166	4.22

18 AWG CONDUCTORS

E2200S	2	18	Solid	0.008	0.20	0.015	0.38	0.148	3.76
E2202S	2	18	7/26	0.008	0.20	0.015	0.38	0.164	4.17
E2203S	3	18	7/26	0.008	0.20	0.015	0.38	0.169	4.29
E2204S	4	18	7/26	0.008	0.20	0.015	0.38	0.185	4.70
E2206S	6	18	7/26	0.009	0.23	0.015	0.38	0.231	5.87
E2208S	8	18	7/26	0.009	0.23	0.015	0.38	0.252	6.40

16 AWG CONDUCTORS

E2242S	2	16	19/.0117	0.008	0.20	0.015	0.38	0.179	4.55
E2243S	3	16	19/.0117	0.008	0.20	0.015	0.38	0.190	4.83
E2244S	4	16	19/.0117	0.008	0.20	0.015	0.38	0.209	5.31

14 AWG CONDUCTORS

E2252S*	2	14	19/.0147	0.008	0.20	0.015	0.38	0.207	5.26
E2254S*	4	14	19/.0147	0.008	0.20	0.015	0.38	0.260	6.60

12 AWG CONDUCTORS

E2262S*	2	12	19/.0185	0.008	0.20	0.015	0.38	0.244	6.20
E2264S*	4	12	19/.0185	0.008	0.20	0.015	0.38	0.288	7.32

* NEC CL3P only

Color Code Chart

NO. OF COND.	COLOR
1	Black
2	Red
3	White
4	Green
5	Brown
6	Blue
7	Orange
8	Yellow

Product Construction:

Conductor:

- Stranded or solid bare copper per ASTM B-3, B-8 and B-286

Insulation:

- Premium-grade, color-coded Flexguard® PVC

Shield:

- Overall Flexfoil® polyester supported aluminum foil
- Stranded tinned copper drain wire

Jacket:

- Premium-grade natural Flexguard® PVC
- Sequential footage markings to facilitate installation
- Suitable for use from 0°C to +75°C
- Ripcord available—consult Customer Service for details

Applications:

- Power-limited control circuits
- Wiring of the following systems:
 - Intercom
 - Security
 - Audio
 - Background music
- Suggested voltage rating: 300 volts

Compliances:

- NEC Article 725 Type CL3P (UL: 75°C, 150V)
- NEC Article 800 Type CMP (UL: 75°C, 300V)
- Designed to Meet UL 910 Flame Test
- California State Fire Marshall Approved

Packaging:

- Please contact Customer Service for packaging and color options

CAROL BRAND

Designed to Meet UL 910
Test For Flame Propagation
& Smoke Density
Underwriters Laboratories Inc.



General Cable

Antenna Rotor

Product Construction:

Conductor:

- 22 thru 18 AWG fully annealed stranded bare copper per ASTM B-3

Insulation:

- Premium-grade, color-coded PVC
- Color Code: See charts below

Jacket:

- Permaline® polyethylene, black
- Temperature Range: -20°C to +60°C

Applications:

- Rotor antenna controls
- Outdoor installations
- Direct burial
- Suggested voltage rating: 200 volts

Features:

- Permaline® jackets resist deterioration
- Sunlight-resistant
- Moisture- and salt-resistant



CATALOG NUMBER	NO. OF COND.	AWG SIZE	COND. STRAND.	NOM. INSULATION THICKNESS		NOM. JACKET THICKNESS		NOMINAL O.D.	
				INCHES	mm	INCHES	mm	INCHES	mm
C5076	4	22	7/30	0.010	0.25	0.020	0.51	0.165	4.19
C5086	5	22	7/30	0.010	0.25	0.020	0.51	0.175	4.45
C5096	8	22	7/30	0.010	0.25	0.020	0.51	0.205	5.21
C5078	4	20	10/30	0.010	0.25	0.020	0.51	0.180	4.57
C5460†	2	18	16/30	0.016	0.25	0.020	0.51	0.210	5.33
C5084	4	18	16/30	0.016	0.40	0.030	0.76	0.245	6.22

† Color Code Black/Red

Product Construction:

Conductor:

- 22 thru 16 AWG fully annealed stranded bare copper per ASTM B-3

Insulation:

- Premium-grade, color-coded PVC
- Color Code: See chart below

Jacket:

- PVC, chrome gray, or black (C4080, C4090)
- Temperature Range: -20°C to +80°C

Applications:

- Compatible with Alliance Ham/CB and TV rotors
- Suggested voltage rating: 200 volts

Packaging:

- Please contact Customer Service for packaging and color options



CATALOG NUMBER	NO. OF COND.	AWG SIZE	COND. STRAND.	NOM. INSULATION THICKNESS		NOM. JACKET THICKNESS		NOMINAL O.D.	
				INCHES	mm	INCHES	mm	INCHES	mm
C1118	4	22	7/30	0.010	0.25	0.020	0.51	0.160	4.06
C1124	5	22	7/30	0.010	0.25	0.020	0.51	0.175	4.45
C1130	8	22	7/30	0.010	0.25	0.020	0.51	0.205	5.21
C1119	4	20	10/30	0.010	0.25	0.020	0.51	0.180	4.57
C1126	5	20	10/30	0.010	0.25	0.020	0.51	0.195	4.95
C1123	4	18	16/30	0.016	0.40	0.030	0.76	0.255	6.48

COMBINATION ROTOR CABLE

C4080	8	6-22 2-18	7/30 16/30	0.012 0.016	0.30 0.41	0.030	0.76	0.260	6.60
C4090	8	6-20 2-16	10/30 26/30	0.012 0.016	0.30 0.41	0.030	0.76	0.280	7.11

Antenna Rotor Cable Color Code Chart

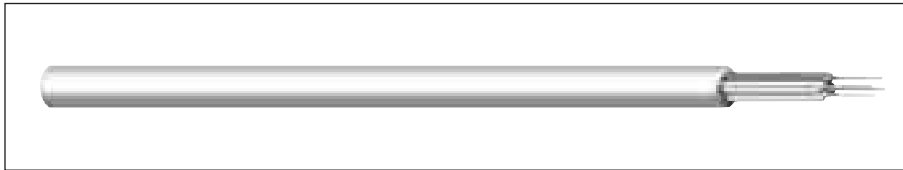
NO. OF COND.	COLOR
1	Black
2	White
3	Red
4	Green
5	Yellow
6	Blue
7	Brown
8	Orange

Combination Rotor Cable Color Code Chart

NO. OF COND.	COLOR
16/18 ga.	
1	Black
2	Red
20/22 ga.	
1	White
2	Green
3	Yellow
4	Blue
5	Brown
6	Orange

Telephone Station/Intercom & Speaker/Burglar Alarm

NEC Type CMR/CMX - Indoor/Outdoor



CATALOG NUMBER	NO. OF COND.	AWG SIZE	COND. STRAND.	NOM. INSULATION THICKNESS		NOM. JACKET THICKNESS		NOMINAL O.D.	
				INCHES	mm	INCHES	mm	INCHES	mm

INTERCOM AND SPEAKER

C4408	2	22	Solid	0.007	0.18	0.018	0.46	0.115	2.92
C4408ST	2	22	7/.0096	0.007	0.18	0.020	0.51	0.125	3.18
C4410	3	22	Solid	0.007	0.18	0.016	0.41	0.118	3.00
C4412	4	22	Solid	0.007	0.18	0.015	0.38	0.125	3.18
C4412ST	4	22	7/.0096	0.007	0.18	0.015	0.38	0.135	3.43

Color Code Chart

NO. OF COND.	COLOR	NO. OF COND.	COLOR
1	Red	3	Yellow
2	Green	4	Black

TELEPHONE STATION

CATEGORY 3

CATALOG NUMBER	NO. OF PAIRS	AWG SIZE	COND. STRAND.	NOM. INSULATION THICKNESS		NOM. JACKET THICKNESS		NOMINAL O.D.	
				INCHES	mm	INCHES	mm	INCHES	mm
C4413	2	24	Solid	0.007	0.18	0.015	0.38	0.145 X 0.095	3.68 X 2.41

Color Code Chart (Bandmarked)

NO. OF PAIR	COLOR	NO. OF PAIR	COLOR
1	White-Blue Band Blue	2	White-Orange Band Orange

Note: Outdoor rating allows cable to be exposed for short distances from the network interface device on the outside of the house to the point where the cable enters the house. This type of cable is not to be buried or direct buried.



BURGLAR ALARM

CATALOG NUMBER	NO. OF COND.	AWG SIZE	COND. STRAND.	NOM. INSULATION THICKNESS		NOMINAL O.D.		NOM.* C-C CAP. pF/ft
				INCHES	mm	INCHES	mm	
C6310	2	22	7/30	0.024	0.61	0.156	3.96	20.0
C6311	2	20	7/28	0.024	0.61	0.172	4.37	22.5
C6312	2	18	16/30	0.024	0.61	0.192	4.88	24.5
C6313	3	18	7/0.015	0.024	0.61	0.202	5.13	28.5

*Capacitance between conductors

Color Code Chart

STOCK COLORS	ORDERING SUFFIX	STOCK COLORS	ORDERING SUFFIX
1. White-White	02	3. Black-White	96
2. Brown-Brown	08		

Product Construction:

Conductor:

- Solid bare copper per ASTM B-3

Insulation:

- Semi-rigid, flame-retardant PVC
- Color Code: See chart below

Core:

- Conductors in a quad configuration (C4412)

Jacket:

- Low-temperature, flame-retardant beige PVC (-20°C to +60°C)
- Sequential footage markings to facilitate installation
- Cables are suitable for installation with T-18 staples

Applications:

- Wiring for single-line telephone service (not recommended for multiple-line use)
- Intercom systems and speaker extension service
- Suggested voltage rating: 300 volts

Compliances:

- UL Listed Type CMR/CMX - Indoor/Outdoor
- NEC Article 800 Type CMR (UL: 60°C, 300V)
- C4413 only, Category 3

Packaging:

- Please contact Customer Service for packaging and color options

Product Construction:

Conductor:

- 22 thru 18 AWG one tinned/one bare fully annealed stranded copper
- Stranded bare copper per ASTM B-3 or stranded tinned copper per ASTM B-33

Insulation:

- Premium-grade, color-coded PVC
- Temperature Range: -20°C to +60°C
- Color Code: See chart below

Applications:

- Burglar alarms
- Intercom systems
- Remote control circuits
- Suggested voltage rating: 150 volts

Features:

- Polarity ridge for easy identification

Compliances:

- NEC Article 725 Type CL2 (UL: 60°C, 150V)
- Designed to Meet UL 70,000 BTU Vertical Tray Flame Test

Packaging:

- Please contact Customer Service for packaging and color options

CAROL BRAND



Passes UL
VW-1 Flame Test
Underwriters Laboratories, Inc.

General Cable

Low-Voltage Sprinkler Wire

60°C 30 Volts UL



LOW VOLTAGE SPRINKLER WIRE - 30 VOLTS - UL

CATALOG NUMBER	NO. OF COND.	AWG SIZE	LENGTH OF CORD (FEET)	PACKAGE TYPE	POWER RATING ⁽¹⁾			PKG PER CTN.	APPROX. WEIGHT PER CTN (LBS) ⁽⁵⁾	CARTON DIMENSIONS (H x W x D)	UPC NUMBER
					VOLTS	AMPS	WATTS				
23824-60-01	4	18	100	Cuff	30	15	450	6	22	8.5 x 12.25 x 14	079407238248
23804-18-01	4	18	500	Spool	30	15	450	1	18	10.625 x 10.625 x 6.313	079407908047
23815-60-01	5	18	50	Cuff	30	15	450	6	13	8.5 x 12.25 x 14	079407238156
23825-60-01	5	18	100	Cuff	30	15	450	6	27	9.5 x 14 x 17	079407238255
23805-18-01	5	18	500	Spool	30	15	450	1	22	10.625 x 10.625 x 6.313	079407908054
23817-60-01	7	18	50	Cuff	30	15	450	6	18	8.5 x 12.25 x 14	079407238170
23827-60-01	7	18	100	Cuff	30	15	450	6	36	9.5 x 14 x 17	079407238279
23807-18-01	7	18	500	Spool	30	15	450	1	31	10.625 x 10.625 x 10.313	079407908078
23810-18-01	10	18	500	Reel	30	15	450	1	44	-	079407908108

⁽¹⁾ Amps and watts are offered ONLY as a guide to the end user

⁽⁵⁾ Actual shipping weight may vary.

Product Construction:

Conductor:

- 18 AWG fully annealed solid bare copper per ASTM B-3

Insulation:

- Premium-grade, color-coded PVC
- Premium grade PE jacket, black
- Nylon rip cord to facilitate jacket removal
- Temperature Range: -20°C to +60°C
- Color Code: See chart below

Jacket Marking:

- CAROL (SIZE) 30V SPRINKLER SYSTEMS WIRE - DIRECT BURIAL E54567 (UL)

Applications:

- Low-voltage golf course satellite sprinkler control
- Residential sprinkler solenoid control

Industry Approvals:

- UL Listed under a UL Miscellaneous Wire file
- UL Listed for outdoors applications
- UL Listed for direct burial applications

Packaging:

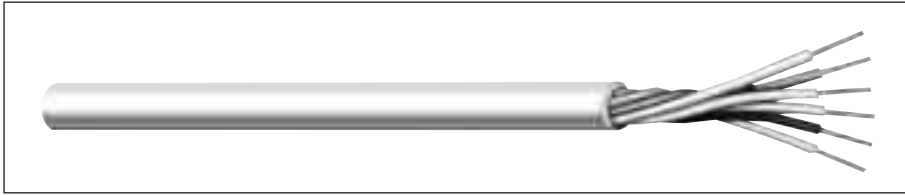
- See tabular data above
- Please contact Customer Service for packaging and color options

Color Code Chart

NO. OF CONDUCTORS	COLOR
1	Black
2	White
3	Red
4	Green
5	Orange
6	Yellow
7	Blue
8	Brown
9	Gray
10	Purple

Thermostat Wire

60°C 300 Volt CSA Type LVT



18 AWG THERMOSTAT WIRE - 300 VOLT - CSA TYPE LVT

CATALOG NUMBER	NO. OF COND.	AWG SIZE	COND. STRAND	NOM. INS. THICKNESS		NOMINAL O.D.		APPROX. NET WEIGHT LBS/M ^(S)	STD. CTN.
				INCHES	mm	INCHES	mm		
05092	2	18	Solid	0.016	0.41	0.210	5.33	25	2000'
05093*	3	18	Solid	0.016	0.41	0.220	5.59	33	500'
05094	4	18	Solid	0.016	0.41	0.242	6.15	41	1000'
05095	5	18	Solid	0.016	0.41	0.262	6.65	50	1000'
05096*	6	18	Solid	0.016	0.41	0.280	7.11	60	1000'
05097*	7	18	Solid	0.016	0.41	0.285	7.24	65	1000'
05098*	8	18	Solid	0.016	0.41	0.304	7.75	74	1000'
05099*	9	18	Solid	0.016	0.41	0.328	8.33	83	1000'
05091*	10	18	Solid	0.016	0.41	0.360	9.14	92	250'

* Non-stock item; minimum quantity purchase required.

^(S) Actual shipping weight may vary.

Product Construction:

Conductors:

- 18 AWG annealed solid bare copper per ASTM B-3

Insulation:

- Premium-grade, color-coded PVC
- Color Code: See chart below

Jacket:

- Polyvinylchloride (PVC), brown
- Temperature Range: -20°C to +60°C

Jacket Marking:

- CAROL (SIZE) CSA LL# TYPE LVT FT-4

Applications:

- Thermostat control
- Heating and air conditioning installations
- Touch-plate systems
- Burglar alarms
- Intercom systems
- Door bells
- Annunciator and bell systems
- Remote control units
- Signal systems
- Other low-voltage installations

Industry Approvals:

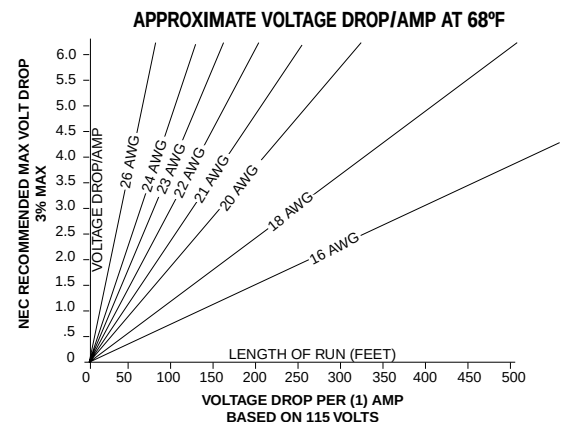
- CSA Type LVT

Packaging:

- Please contact Customer Service for packaging and color options

Color Code Chart

NO. OF CONDUCTORS	COLOR
2	White, Red
3	White, Red, Green
4	White, Red, Green, Blue
5	White, Red, Green, Blue, Yellow
6	White, Red, Green, Blue, Yellow, Brown
7	White, Red, Green, Blue, Yellow, Brown, Orange
8	White, Red, Green, Blue, Yellow, Brown, Orange, Black
9	White, Red, Green, Blue, Yellow, Brown, Orange, Black, Purple
10	White, Red, Green, Blue, Yellow, Brown, Orange, Black, Purple, Gray



Thermostat Wire

105°C 300 Volt UL Type CL2

Product Construction:

Conductors:

- 20 and 18 AWG annealed solid bare copper per ASTM B-3

Insulation:

- Premium-grade, color-coded PVC
- Color Code: See chart below

Jacket:

- Polyvinylchloride (PVC), white
- Temperature Range: -20°C to +105°C

Jacket Marking:

- CAROL AWG TYPE CL2 E# (UL) 105°C SUNLIGHT RESISTANT - MADE IN USA

Applications:

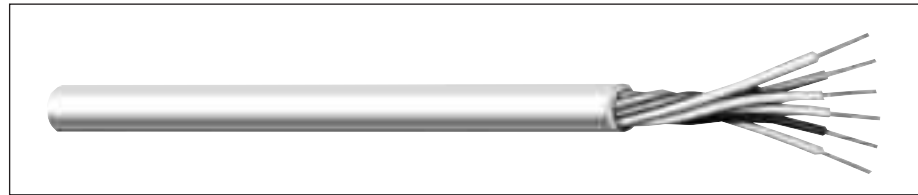
- Thermostat control
- Heating and air conditioning installations
- Touch-plate systems
- Burglar alarms
- Intercom systems
- Door bells
- Annunciator and bell systems
- Remote control units
- Signal systems
- Other low-voltage installations

Industry Approvals:

- UL Listed Type CL2

Packaging:

- Please contact Customer Service for packaging and color options



20 AWG THERMOSTAT WIRE - 300 VOLT - UL TYPE CL2

CATALOG NUMBER	NO. OF COND.	AWG SIZE	COND. STRAND	NOM. INS. THICKNESS		NOMINAL. O.D.		APPROX. NET WEIGHT LBS/M ^(S)	STD. CTN.
				INCHES	mm	INCHES	mm		
05482	2	20	Solid	0.008	0.203	0.128	3.25	11	1000'
05483	3	20	Solid	0.008	0.203	0.135	3.43	16	1000'
05484	4	20	Solid	0.008	0.203	0.144	3.66	19	500'
05485	5	20	Solid	0.008	0.203	0.168	4.27	24	500'
05486	6	20	Solid	0.008	0.203	0.175	4.45	27	500'
05487	7	20	Solid	0.008	0.203	0.175	4.45	31	500'
05488	8	20	Solid	0.008	0.203	0.186	4.72	35	500'
05489	9	20	Solid	0.008	0.203	0.210	5.33	40	500'
05481	10	20	Solid	0.008	0.203	0.235	5.97	45	250'

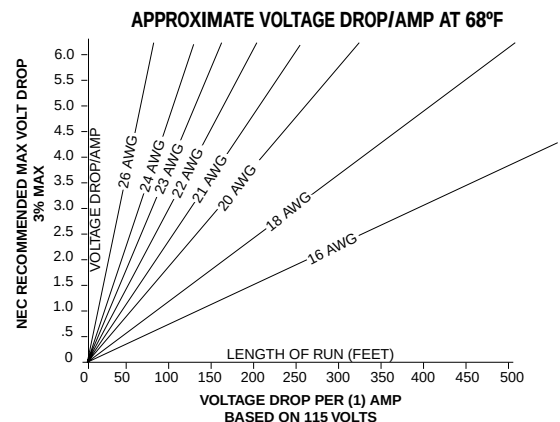
18 AWG THERMOSTAT WIRE - 300 VOLT - UL TYPE CL2

CATALOG NUMBER	NO. OF COND.	AWG SIZE	COND. STRAND	NOM. INS. THICKNESS		NOMINAL. O.D.		APPROX. NET WEIGHT LBS/M ^(S)	STD. CTN.
				INCHES	mm	INCHES	mm		
05582	2	18	Solid	0.008	0.203	0.145	3.68	16	1000'
05583	3	18	Solid	0.008	0.203	0.154	3.91	22	1000'
05584	4	18	Solid	0.008	0.203	0.170	4.32	28	500'
05585	5	18	Solid	0.008	0.203	0.193	4.90	36	500'
05586	6	18	Solid	0.008	0.203	0.200	5.08	42	500'
05587	7	18	Solid	0.008	0.203	0.210	5.33	48	500'
05588	8	18	Solid	0.008	0.203	0.230	5.84	54	500'
05589	9	18	Solid	0.008	0.203	0.245	6.22	61	500'
05581	10	18	Solid	0.008	0.203	0.300	7.62	69	250'

^(S) Actual shipping weight may vary.

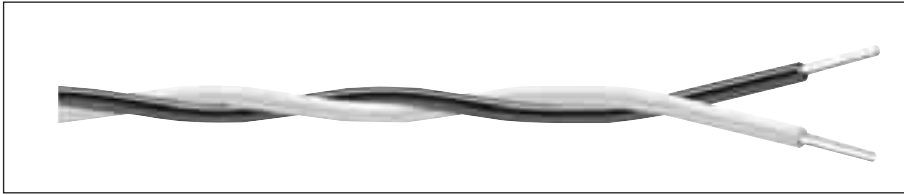
Color Code Chart

NO. OF CONDUCTORS	COLOR
2	White, Red
3	White, Red, Green
4	White, Red, Green, Blue
5	White, Red, Green, Blue, Yellow
6	White, Red, Green, Blue, Yellow, Brown
7	White, Red, Green, Blue, Yellow, Brown, Orange
8	White, Red, Green, Blue, Yellow, Brown, Orange, Black
9	White, Red, Green, Blue, Yellow, Brown, Orange, Black, Purple
10	White, Red, Green, Blue, Yellow, Brown, Orange, Black, Purple, Gray



Thermostat Wire, Unjacketed

60°C Low Voltage and Intercom Cable



20 AWG - TWISTED CONDUCTORS - NO JACKET

CATALOG NUMBER	NO. OF COND.	AWG SIZE	COND. STRAND	NOM. INS. THICKNESS		NOMINAL O.D.		APPROX. NET WEIGHT LBS/M ^(S)	STD. CTN.
				INCHES	mm	INCHES	mm		
05782	2	20	Solid	0.008	0.203	0.098	2.49	7.5	4000'
05783	3	20	Solid	0.008	0.203	0.106	2.69	11.0	2000'
05784*	4	20	Solid	0.008	0.203	0.119	3.01	15.0	2000'
05785*	5	20	Solid	0.008	0.203	0.133	3.38	18.5	1000'
05786*	6	20	Solid	0.008	0.203	0.147	3.73	22.0	1000'
05788*	8	20	Solid	0.008	0.203	0.162	4.11	30.0	1000'

* Non-stock item; minimum quantity purchase required.

^(S) Actual shipping weight may vary.

Product Construction:

Conductors:

- 20 AWG annealed solid bare copper per ASTM B-3

Insulation:

- Premium-grade, color-coded PVC
- Temperature Range: -20°C to +60°C
- Color Code: See chart below

Jacket:

- This product is unjacketed

Applications:

- Thermostat control
- Heating and air conditioning installations
- Touch-plate systems
- Burglar alarms
- Intercom systems
- Door bells
- Annunciator and bell systems
- Remote control units
- Signal systems
- Other low-voltage installations

Packaging:

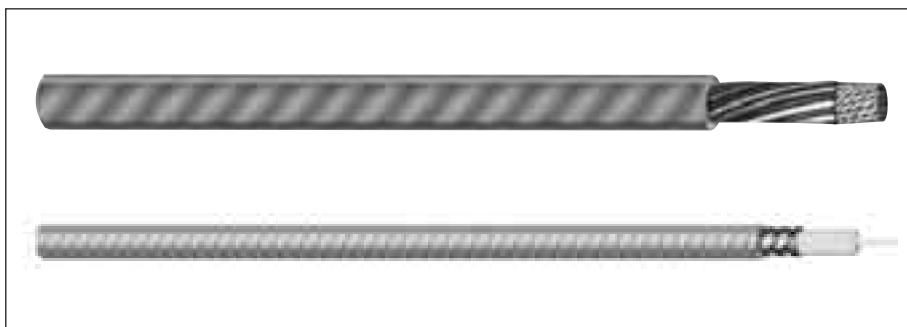
- Please contact Customer Service for packaging and color options

Color Code Chart

NO. OF CONDUCTORS	COLOR
2	White, Red
3	White, Red, Green
4	White, Red, Green, Blue
5	White, Red, Green, Blue, Yellow
6	White, Red, Green, Blue, Yellow, Brown
8	White, Red, Green, Blue, Yellow, Brown, Orange, Black

Plenum Cable

8



Most industrial and office buildings today feature drop ceilings which support various types of lighting, airducts for heating and cooling systems, and wiring for power and communications.

This space in a building between the floor above and the drop ceiling is being utilized for ventilation systems or used for return air distribution and is referred to as a "PLENUM."

Because the plenum is continuous across each floor of a building, it can create a significant hazard by spreading flames quickly from combustible materials such as wire insulation.

The National Electrical Code (NEC) demands that wiring in the plenum either be installed inside metal conduit or have jacket materials that provide adequate fire resistance and low smoke-producing characteristics as tested and approved by a recognized agency such as Underwriters Laboratory (UL).

General Cable's large mix of Carol® Brand plenum cable and wire products features DuPont Teflon®, other fluorocarbon resins as well as Flexguard®. Flexguard® is a unique copolymer blend which joins superior performance with superior handling characteristics. They meet all UL and NEC requirements for low-smoke characteristics and flame-retardant qualities.

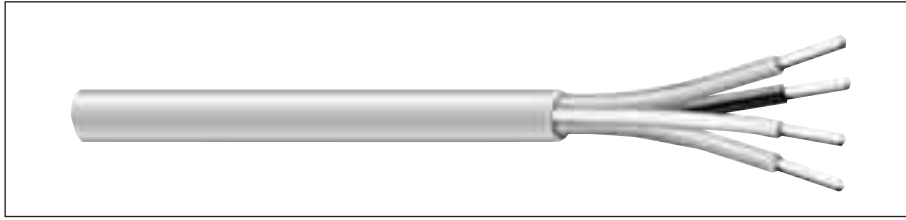
Also, General Cable's plenum products provide outstanding electrical properties, high-temperature performance and excellent chemical resistance.

General Cable's Carol® Brand plenum cable is available to meet the requirements of NEC Articles 725 and 800.

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Multi-Conductor, Unshielded

NEC Type CMP (UL) c(UL) and/or CL3P



Product Construction:

Conductor:

- 22 thru 12 AWG fully annealed stranded tinned or bare copper per ASTM B3, B8 or B33

Insulation:

- Premium-grade, color-coded Flexguard® PVC
- Color Code: See chart below

Jacket:

- Flexguard® PVC, Natural
- Temperature Range: 0°C to +75°C
- Sequential footage marked to facilitate installation
- Ripcord available—consult Customer Service for details

Applications:

- Intercom systems
- Background music
- Audio systems
- Power-limited control circuits
- Suggested voltage rating: 150 volts

Compliances:

- NEC Article 725 (UL: 75°C, 150V)
- NEC Article 800 (UL: 75°C, 300V)
- Designed to Meet NFPA 262 Flame Test

Features:

- Flexible
- Easy to terminate

Packaging:

- Please contact Customer Service for packaging and color options

CATALOG NUMBER	NO. OF COND.	AWG SIZE	COND. STRAND.	NOM. INSULATION THICKNESS		NOM. JACKET THICKNESS		NOMINAL O.D.		NOM.* C-C CAP. pF/ft
				INCHES	mm	INCHES	mm	INCHES	mm	

22 AWG CONDUCTORS

C3115	2	22	7/30 TC	0.008	0.20	0.015	0.38	0.122	3.10	30.0
C3116	4	22	7/30 TC	0.008	0.20	0.015	0.38	0.141	3.58	30.0

18 AWG CONDUCTORS

C3110	2	18	Solid BC	0.008	0.20	0.015	0.38	0.142	3.61	37.0
C3114	3	18	Solid BC	0.008	0.20	0.015	0.38	0.151	3.84	37.0
C3111	4	18	Solid BC	0.008	0.20	0.015	0.38	0.166	4.22	37.0
C3117	5	18	Solid BC	0.008	0.20	0.015	0.38	0.182	4.62	37.0
C3118	6	18	Solid BC	0.008	0.20	0.015	0.38	0.199	5.05	37.0
C3119	8	18	Solid BC	0.008	0.20	0.015	0.38	0.216	5.49	37.0
C3112	2	18	7/26 BC	0.008	0.20	0.015	0.38	0.156	3.96	35.0
C3120	3	18	7/26 BC	0.008	0.20	0.015	0.38	0.166	4.22	35.0
C3113	4	18	7/26 BC	0.008	0.20	0.015	0.38	0.182	4.62	35.0
C3125	5	18	7/26	0.008	0.20	0.015	0.38	0.200	5.08	54.6
C3121	6	18	7/26 BC	0.008	0.20	0.015	0.38	0.216	5.49	35.0
C3122	8	18	7/26 BC	0.008	0.20	0.015	0.38	0.239	6.07	35.0
C3123	10	18	7/26	0.008	0.20	0.015	0.38	0.278	7.06	35.0
C3124	12	18	7/26	0.008	0.20	0.015	0.38	0.287	7.29	35.0

16 AWG CONDUCTORS

C3127	2	16	19/.0117 BC	0.008	0.20	0.015	0.38	0.178	4.52	40.0
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14 AWG CONDUCTORS

C3128†	2	14	19/.0147 BC	0.010	0.20	0.015	0.38	0.212	5.38	40.0
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12 AWG CONDUCTORS

C3129†	2	12	19/.0185 BC	0.010	0.20	0.015	0.38	0.254	6.45	43.0
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*Capacitance between conductors

† CL3P only

Color Code Chart

NO. OF COND.	COLOR
1	Black
2	White
3	Red
4	Green
5	Brown
6	Blue
7	Orange
8	Yellow

CAROL BRAND

Designed to Meet UL 910
Test For Flame Propagation
& Smoke Density
Underwriters Laboratories Inc.



General Cable

Multi-Conductor, Unshielded

NEC Type CMP (UL) c(UL) and/or CL2P

Product Construction:

Conductor:

- 22 thru 14 AWG fully annealed stranded tinned or bare copper per ASTM B3, B8 or B33

Insulation:

- Premium-grade, color-coded Flexguard® PVC
- Color Code: See chart below

Jacket:

- Fluoropolymer, Natural
- Temperature Range: -20°C to +75°C
- Sequential footage marked to facilitate installation
- Ripcord available—consult Customer Service for details

Applications:

- Intercom systems
- Background music
- Audio systems
- Power-limited control circuits
- Suggested voltage rating: 150 volts

Compliances:

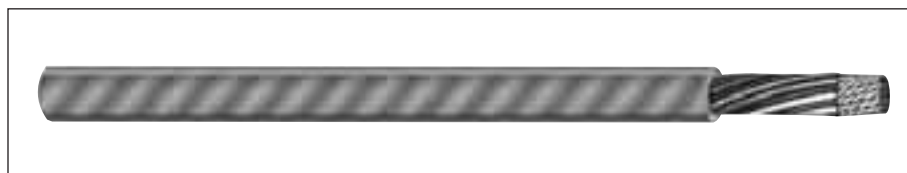
- NEC Article 725 (UL: 75°C, 150V)
- NEC Article 800 (UL: 75°C, 300V)
- Designed to Meet NFPA 262 Flame Test

Features:

- Abrasion-, chemical- and water-resistant jacket

Packaging:

- Please contact Customer Service for packaging and color options



CATALOG NUMBER	NO. OF COND.	AWG SIZE	COND. STRAND.	NOM. INSULATION THICKNESS		NOM. JACKET THICKNESS		NOMINAL O.D.		NOM. C-C CAP.* pF/ft
				INCHES	mm	INCHES	mm	INCHES	mm	

22 AWG CONDUCTORS

C3105†	2	22	7/30 TC	0.006	0.15	0.010	0.25	0.089	2.26	29.0
C3106†	4	22	7/30 TC	0.006	0.15	0.010	0.25	0.121	3.07	29.0

18 AWG CONDUCTORS

C3102	2	18	7/26 BC	0.008	0.20	0.010	0.25	0.123	3.12	31.0
C3190	3	18	7/26 BC	0.008	0.20	0.010	0.25	0.143	3.63	31.0
C3103	4	18	7/26 BC	0.008	0.20	0.010	0.25	0.163	4.14	31.0
C3134	5	18	7/26	0.008	0.20	0.010	0.25	0.187	4.75	30.8
C3192	6	18	7/26 BC	0.008	0.20	0.010	0.25	0.198	5.03	31.0
C3191	8	18	7/26 BC	0.008	0.20	0.010	0.25	0.223	5.66	31.0
C3178	10	18	7/26 BC	0.008	0.20	0.010	0.25	0.244	6.19	31.0
C3179	12	18	7/26 BC	0.008	0.20	0.010	0.25	0.263	6.68	31.0

16 AWG CONDUCTORS

C3193	2	16	19/.0117 BC	0.008	0.20	0.010	0.25	0.141	3.58	33.0
C3194	3	16	7/.0192 BC	0.008	0.20	0.010	0.25	0.164	4.17	33.0
C3195	4	16	7/.0192 BC	0.008	0.20	0.010	0.25	0.187	4.75	33.0

14 AWG CONDUCTORS

C3126†	2	14	19/.0147 BC	0.010	0.25	0.010	0.25	0.168	4.27	35.0
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12 AWG CONDUCTORS

C3135	2	12	19/.0185	0.010	0.25	0.010	0.25	0.238	6.05	37.0
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* Capacitance between conductors

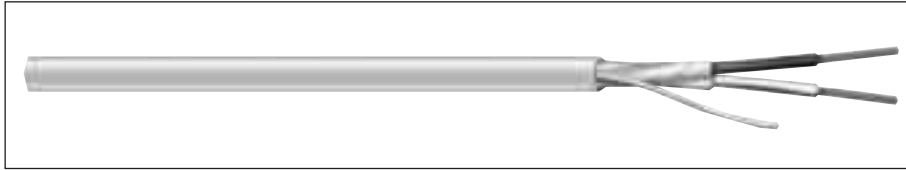
† CL2P only

Color Code Chart

NO. OF COND.	COLOR
1	Black
2	White
3	Red
4	Green
5	Brown
6	Blue
7	Orange
8	Yellow
9	Violet
10	Gray
11	Pink
12	Tan

Multi-Conductor, Foil Shield

NEC Type CMP (UL) c(UL) and CL3P



CATALOG NUMBER	NO. OF COND.	AWG SIZE	COND. STRAND.	NOM. INSULATION THICKNESS		NOM. JACKET THICKNESS		NOMINAL O.D.		NOMINAL CAP.*	
				INCHES	mm	INCHES	mm	INCHES	mm	A	B

22 AWG CONDUCTORS

C3158	2	22	7/30 TC	0.008	0.20	0.015	0.38	0.127	3.23	51.0	91.0
C3159	4	22	7/30 TC	0.008	0.20	0.015	0.38	0.146	3.71	45.0	81.0

18 AWG CONDUCTORS

C3060	2	18	Solid BC	0.008	0.20	0.015	0.38	0.148	3.76	67.0	120.0
C3061	4	18	Solid BC	0.008	0.20	0.015	0.38	0.171	4.34	58.0	104.0
C3062	2	18	7/26 BC	0.008	0.20	0.015	0.38	0.164	4.17	61.0	110.0
C3064	3	18	7/26 BC	0.008	0.20	0.015	0.38	0.169	4.29	53.0	96.0
C3063	4	18	7/26 BC	0.008	0.20	0.015	0.38	0.186	4.72	53.0	96.0
C3065	6	18	7/26 BC	0.010	0.25	0.015	0.38	0.232	5.89	48.0	86.0
C3183	10	18	7/26	0.012	0.30	0.015	0.38	0.310	7.87	47.0	84.0
C3184	12	18	7/26	0.007	0.18	0.015	0.38	0.280	7.11	52.5	94.6

16 AWG CONDUCTORS

C3068	2	16	19/.0117 BC	0.008	0.20	0.015	0.38	0.187	4.75	75.0	134.0
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*A - Capacitance between conductors

*B - Capacitance between one conductor and other conductors connected to shield

Color Code Chart

NO. OF COND.	COLOR
1	Black
2	White
3	Red
4	Green
5	Brown
6	Blue
7	Orange
8	Yellow
9	Violet
10	Gray
11	Pink
12	Tan

Product Construction:

Conductor:

- 22 thru 16 AWG fully annealed stranded tinned or bare copper per ASTM B3, B8 or B33

Insulation:

- Premium-grade, color-coded Flexguard® PVC
- Color Code: See chart below

Shield:

- 100% Flexfoil® aluminum/polyester foil with 25% overlap, minimum
- Stranded tinned copper drain wire

Jacket:

- Flexguard® PVC, natural
- Temperature Range: 0°C to +75°C
- Sequential footage marked to facilitate installation
- Ripcord available—consult Customer Service for details

Applications:

- Intercom systems
- Background music
- Audio systems
- Power-limited control circuits
- Suggested voltage rating: 150 volts

Compliances:

- NEC Article 725 (UL: 75°C, 150V)
- NEC Article 800 (UL: 75°C, 300V)
- Designed to Meet NFPA 262 Flame Test

Features:

- Flexible
- Easy to terminate

Packaging:

- Please contact Customer Service for packaging and color options

CAROL BRAND

Designed to Meet UL 910
Test For Flame Propagation
& Smoke Density
Underwriters Laboratories Inc.



General Cable

Multi-Conductor, Foil Shield

NEC Type CMP (UL) c(UL) and/or CL2P

Product Construction:

Conductor:

- 22 thru 16 AWG fully annealed stranded tinned or bare copper per ASTM B3, B8 or B33
- Class B stranding per ASTM B-8

Insulation:

- Premium-grade, color-coded Flexguard®
- Color Code: See chart below

Shield:

- 100% Flexfoil® aluminum/polyester foil, with 25% overlap
- Stranded tinned copper drain wire

Jacket:

- Fluoropolymer, natural
- Temperature Range: -20°C to +75°C
- Sequential footage marked to facilitate installations
- Stranded tinned copper drain wire
- Ripcord available—consult Customer Service for details

Applications:

- Intercom systems
- Background music
- Audio systems
- Power-limited control circuits
- Suggested voltage rating: 150 volts

Compliances:

- NEC Article 725 (UL: 75°C, 150V)
- NEC Article 800 (UL: 75°C, 300V)
- Designed to Meet NFPA 262 Flame Test

Features:

- Abrasion-, chemical- and water-resistant jacket

Packaging:

- Please contact Customer Service for packaging and color options



CATALOG NUMBER	NO. OF COND.	AWG SIZE	COND. STRAND.	NOM. INSULATION THICKNESS		NOM. JACKET THICKNESS		NOMINAL O.D.		NOMINAL CAP** pF/ft	
				INCHES	mm	INCHES	mm	INCHES	mm	A	B
22 AWG CONDUCTORS											
C3154*	2	22	7/30 TC	0.006	0.15	0.010	0.25	0.103	2.62	51.0	92.0
C3310*	3	22	7/30 TC	0.006	0.15	0.010	0.25	0.116	2.95	45.0	81.0
C3155*	4	22	7/30 TC	0.006	0.15	0.010	0.25	0.130	3.30	45.0	81.0
C3311*	6	22	7/30 TC	0.006	0.15	0.010	0.25	0.152	3.86	40.0	73.0
20 AWG CONDUCTORS											
C3320*	2	20	7/28 TC	0.007	0.18	0.010	0.25	0.120	3.05	53.0	96.0
C3321*	3	20	7/28 TC	0.007	0.18	0.010	0.25	0.136	3.45	46.0	84.0
C3322*	4	20	7/28 TC	0.007	0.18	0.010	0.25	0.153	3.89	46.0	84.0
18 AWG CONDUCTORS											
C3162	2	18	7/26 BC	0.008	0.20	0.010	0.25	0.152	3.86	54.0	98.0
C3164	3	18	7/26 BC	0.008	0.20	0.010	0.25	0.158	4.01	47.0	85.0
C3163	4	18	7/26 BC	0.008	0.20	0.010	0.25	0.178	4.52	47.0	85.0
C3166	6	18	7/26 BC	0.008	0.20	0.010	0.25	0.212	5.38	43.0	76.0
C3180	8	18	7/26 BC	0.008	0.20	0.010	0.25	0.229	5.82	43.0	76.0
C3181	10	18	7/26 BC	0.008	0.20	0.010	0.25	0.273	6.93	43.0	76.0
C3182	12	18	7/26 BC	0.008	0.20	0.012	0.30	0.285	7.24	43.0	76.0
16 AWG CONDUCTORS											
C3169	2	16	19/.0117 BC	0.008	0.20	0.010	0.25	0.181	4.60	62.0	112.0
C3340	3	16	7/.0192 BC	0.008	0.20	0.010	0.25	0.185	4.70	52.0	93.0
C3341	4	16	7/.0192 BC	0.008	0.20	0.010	0.25	0.203	5.16	52.0	93.0

*CL2P only

**A - Capacitance between conductors

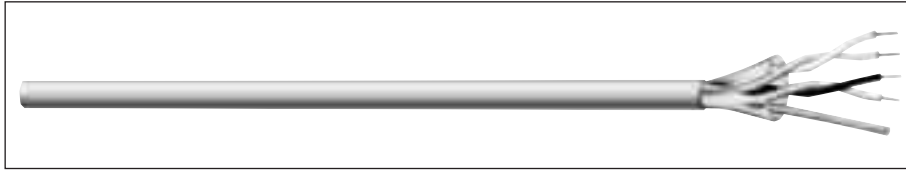
**B - Capacitance between one conductor and other conductors connected to shield

Color Code Chart

NO. OF COND.	COLOR
1	Black
2	White
3	Red
4	Green
5	Brown
6	Blue
7	Orange
8	Yellow
9	Violet
10	Gray
11	Pink
12	Tan

Multi-Paired, Foil Shield

NEC Type CMP (UL) c(UL)



CATALOG NUMBER	NO. OF PAIRS	AWG SIZE	COND. STRAND.	NOM. INSULATION THICKNESS		NOM. JACKET THICKNESS		NOMINAL O.D.		NOMINAL CAP.*	
				INCHES	mm	INCHES	mm	INCHES	mm	A	B

22 AWG CONDUCTORS

C3204	1	22	7/30 TC	0.006	0.15	0.010	0.25	0.117	2.97	31.0	55.8
C3205	2	22	7/30 TC	0.006	0.15	0.010	0.25	0.151	3.84	25.0	45.0
C3206	3	22	7/30 TC	0.006	0.15	0.010	0.25	0.177	4.50	20.0	36.0
C3207	4	22	7/30 TC	0.006	0.15	0.010	0.25	0.200	5.08	25.0	45.0
C3208	6	22	7/30 TC	0.006	0.15	0.010	0.25	0.237	6.02	18.0	32.4

24 AWG CONDUCTORS

C3150	2	24	7/32 TC	0.006	0.15	0.010	0.25	0.130	3.30	22.0	39.6
C3153	3	24	7/32 TC	0.006	0.15	0.010	0.25	0.152	3.86	18.0	32.4
C3151	4	24	7/32 TC	0.006	0.15	0.010	0.25	0.170	4.32	17.0	30.6
C3165	6	24	7/32 TC	0.006	0.15	0.010	0.25	0.200	5.08	17.0	30.6
C3152	12.5	24	7/32 TC	0.006	0.15	0.012	0.30	0.277	7.04	17.0	30.6

*A - Capacitance between conductors

*B - Capacitance between one conductor and other conductors connected to shield

Color Code Chart

NO. OF PAIRS	COLOR
1	Black & Yellow
2	Red & Violet
3	Dark Blue & Brown
4	Orange & Dark Green
5	Pink & Gray
6	Tan & White
7	Light Blue & Light Green
8	Red/White & White/Red
9	Orange/White & White/Orange
10	Yellow/White & White/Yellow
11	Gray/White & White/Gray
12	Blue/White & White/Blue
1C	Dark Green/Yellow

Product Construction:

Conductor:

- 22 and 24 AWG fully annealed stranded tinned copper per ASTM B33

Insulation:

- Premium-grade, color-coded fluoropolymer
- Color Code: See chart below

Shield:

- 100% Flexfoil® aluminum/polyester foil with 25% overlap, minimum
- Stranded tinned copper drain wire

Jacket:

- Fluoropolymer, natural
- Temperature Range: -40°C to +150°C
- Sequential footage marked to facilitate installation
- Ripcord available—consult Customer Service for details

Applications:

- EIA RS-232 circuits
- Remote control circuits
- Process control and instrumentation
- Power-limited control circuits
- Suggested voltage rating: 300 volts

Compliances:

- NEC Article 800 (UL: 150°C, 300V)
- Designed to Meet NFPA 262 Flame Test

Features:

- Abrasion-, chemical- and water-resistant jacket

Packaging:

- Please contact Customer Service for packaging and color options

CAROL BRAND

Designed to Meet UL 910
Test For Flame Propagation
& Smoke Density
Underwriters Laboratories Inc.



General Cable

Multi-Paired, Foil Shield

NEC Type CMP (UL) c(UL) and/or CL2P

Product Construction:

Conductor:

- 22 and 18 AWG fully annealed stranded tinned copper per ASTM B33 or stranded bare copper per ASTM B3

Insulation:

- Premium-grade, color-coded Flexguard® PVC
- Color Code: See chart below

Shield:

- 100% Flexfoil® aluminum/polyester foil with 25% overlap, minimum
- Stranded tinned copper drain wire

Jacket:

- Fluoropolymer, Natural
- Temperature Range: -20°C to +75°C
- Sequential footage marked to facilitate installation
- Ripcord available—consult Customer Service for details

Applications:

- EIA RS-232 circuits
- Remote control circuits
- Process control and instrumentation
- Power-limited control circuits
- Suggested voltage rating: 150 volts

Compliances:

- NEC Article 800 (UL: 75°C, 300V)
- NEC Article 725 (UL: 75°C, 150V)
- Designed to Meet NFPA 262 Flame Test

Features:

- Abrasion-, chemical- and water-resistant jacket

Packaging:

- Please contact Customer Service for packaging and color options



CATALOG NUMBER	NO. OF PAIRS	AWG SIZE	COND. STRAND.	NOM. INSULATION THICKNESS		NOM. JACKET THICKNESS		NOMINAL O.D.		NOMINAL CAP. pF/ft	
				INCHES	mm	INCHES	mm	INCHES	mm	A	B
22 AWG, CL2P, c(UL) 150 VOLTS											
C3352	2	22	7/30 TC	0.007	0.180	0.010	0.25	0.157	3.99	37.0	66.0
C3353	3	22	7/30 TC	0.007	0.180	0.010	0.25	0.194	4.42	30.0	53.0
C3354	4	22	7/30 TC	0.007	0.180	0.010	0.25	0.207	4.75	30.0	53.0
C3356	6	22	7/30 TC	0.007	0.180	0.010	0.25	0.246	5.74	27.0	48.0

18 AWG, CL2P/CMP, c(UL) 150 VOLTS

C3362	2	18	7/26 BC	0.008	0.020	0.010	0.25	0.205	5.21	44.0	79.0
C3364	4	18	7/26 BC	0.008	0.020	0.010	0.25	0.277	7.04	33.0	59.0

*A - Capacitance between conductors

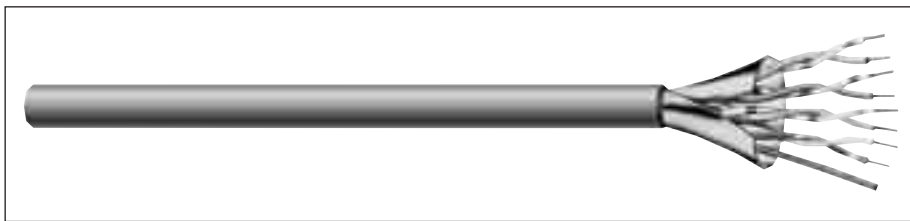
*B - Capacitance between one conductor and other conductors connected to shield

Color Code Chart

NO. OF PAIRS	COLOR
1	Black & Yellow
2	Red & Violet
3	Dark Blue & Brown
4	Orange & Dark Green
5	Pink & Gray
6	Tan & White

Multi-Paired, Foil Shield, Mid-Cap

NEC Type CMP (UL) c(UL)



CATALOG NUMBER	NO. OF PAIRS	AWG SIZE	COND. STRAND.	NOM. INSULATION THICKNESS		NOM. JACKET THICKNESS		NOMINAL O.D.		NOMINAL CAP.*	
				INCHES	mm	INCHES	mm	INCHES	mm	A	B

C3214	2	24	7/32 TC	0.010	0.25	0.010	0.25	0.150	3.81	17.0	30.0
C3215	3	24	7/32 TC	0.010	0.25	0.010	0.25	0.177	4.50	15.0	27.0
C3216	4	24	7/32 TC	0.010	0.25	0.010	0.25	0.201	5.11	15.0	27.0
C3217	4.5	24	7/32 TC	0.010	0.25	0.010	0.25	0.214	5.18	15.0	27.0
C3218	6	24	7/32 TC	0.010	0.25	0.010	0.25	0.239	6.07	14.0	25.0

*A - Capacitance between conductors

*B - Capacitance between one conductor and other conductors connected to shield

Color Code Chart

NO. OF PAIRS	COLOR
1	Black paired with Yellow
2	Red paired with Violet
3	Dark Blue paired with Brown
4	Orange paired with Dark Green
5	Pink paired with Gray
6	Tan paired with White
1C	Green with Yellow Stripe

Product Construction:

Conductor:

- 24 AWG fully annealed stranded tinned copper per ASTM B33

Insulation:

- Premium-grade, color-coded fluoropolymer
- Color Code: See chart below

Shield:

- 100% Flexfoil® aluminum/polyester foil with 25% overlap, minimum
- Stranded tinned copper drain wire

Jacket:

- Fluoropolymer, Natural
- Temperature Range: -40°C to +150°C
- Sequential footage marked to facilitate installation
- Ripcord available—consult Customer Service for details

Applications:

- EIA RS-232 and RS-422 circuits
- Remote control circuits
- Process control and instrumentation
- Power-limited control circuits
- Suggested voltage rating: 300 volts

Compliances:

- NEC Article 800 (UL: 150°C, 300V)
- Designed to Meet NFPA 262 Flame Test

Features:

- Abrasion-, chemical- and water-resistant jacket

Packaging:

- Please contact Customer Service for packaging and color options

CAROL BRAND

Designed to Meet UL 910
Test For Flame Propagation
& Smoke Density
Underwriters Laboratories Inc.



General Cable

Multi-Paired, Foil Shield, Lo-Cap®

NEC Type CMP (UL) c(UL)

Product Construction:

Conductor:

- 24 AWG fully annealed stranded tinned copper per ASTM B33

Insulation:

- Premium-grade, color-coded fluoropolymer
- Color Code: See chart below

Shield:

- 100% Flexfoil® aluminum/polyester foil with 25% overlap, minimum
- Stranded tinned copper drain wire

Jacket:

- Fluoropolymer, natural
- Temperature Range: -40°C to +150°C
- Sequential footage marked to facilitate installation
- Ripcord available—consult Customer Service for details

Applications:

- EIA RS-232 and RS-422 circuits
- Remote control circuits
- Process control and instrumentation
- Low capacitance requirements
- Suggested voltage rating: 300 volts

Compliances:

- NEC Article 800 (UL: 150°C, 300V)
- Designed to Meet NFPA 262 Flame Test

Features:

- Abrasion-, chemical- and water-resistant jacket

Packaging:

- Please contact Customer Service for packaging and color options



CATALOG NUMBER	NO. OF PAIRS	AWG SIZE	COND. STRAND.	NOM. JACKET THICKNESS		NOMINAL O.D.		NOMINAL CAP.* pF/ft		IMPED. Ω NOM
				INCHES	mm	INCHES	mm	A	B	
C3028	2	24	7/32 TC	0.010	0.25	0.159	4.04	15.0	27.00	94.0
C3029	3	24	7/32 TC	0.010	0.25	0.183	4.65	14.0	25.00	107.0
C3030	4	24	7/32 TC	0.010	0.25	0.246	6.25	14.0	25.00	107.0
C3031	6	24	7/32 TC	0.012	0.30	0.285	7.24	13.0	23.00	115.0

*A - Capacitance between conductors

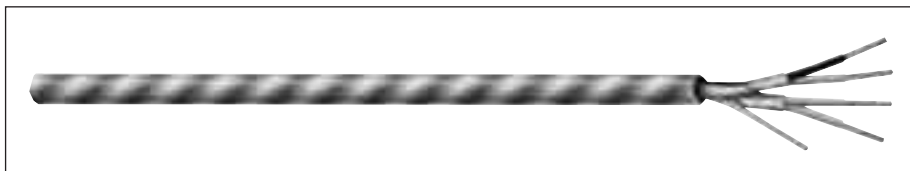
*B - Capacitance between one conductor and other conductors connected to shield

Color Code Chart

NO. OF PAIRS	COLOR
1	Black paired with Yellow
2	Red paired with Violet
3	Dark Blue paired with Brown
4	Orange paired with Dark Green
5	Pink paired with Gray
6	Tan paired with White

Multi-Paired, Individually Foil Shielded

NEC Type CMP (UL) c(UL)



CATALOG NUMBER	NO. OF PAIRS	AWG SIZE	COND. STRAND.	NOM. INSULATION THICKNESS		NOM. JACKET THICKNESS		NOMINAL O.D.		NOMINAL CAP.**	
				INCHES	mm	INCHES	mm	INCHES	mm	A	B
C3156*	2	22	7/30 TC	0.006	0.15	0.010	0.25	0.147	3.73	35.0	63.0
C3157	3	22	7/30 TC	0.006	0.15	0.010	0.25	0.184	4.67	35.0	63.0

*Cabled on common axis to reduce diameter, foil out, common drain wire

**A - Capacitance between conductors

**B - Capacitance between one conductor and other conductors connected to shield

Color Code Chart

C3156 PAIR #	COLOR
1	Black paired with Red
2	White paired with Green

C3157 PAIR #	COLOR
1	Black paired with Red
2	Black paired with White
3	Black paired with Green

Product Construction:

Conductor:

- 22 AWG fully annealed stranded tinned copper per ASTM B33

Insulation:

- Premium-grade, color-coded fluoropolymer
- Color Code: see chart below

Shield:

- 100% Flexfoil® aluminum/polyester foil, each with 25% overlap, minimum
- Stranded tinned copper drain wire

Jacket:

- Fluoropolymer, red
- Temperature Range: -20°C to +150°C
- Sequential footage marked to facilitate installation
- Ripcord available—consult Customer Service for details

Applications:

- Point of sale systems
- Remote control circuits
- Process control and instrumentation
- Power-limited control circuits
- Suggested voltage rating: 300 volts

Compliances:

- NEC Article 800 (UL: 150°C, 300V)
- Designed to Meet NFPA 262 Flame Test

Features:

- Individually shielded pairs for excellent signal isolation
- Abrasion-, chemical- and water-resistant jacket

Packaging:

- Please contact Customer Service for packaging and color options

**CAROL
BRAND**

Designed to Meet UL 910
Test For Flame Propagation
& Smoke Density
Underwriters Laboratories Inc.



General Cable

NEC Article 725, Article 800, Coaxial Cable, Plenum

UL Type CL2P, UL & C(UL) type CMP

Product Construction:

Conductor:

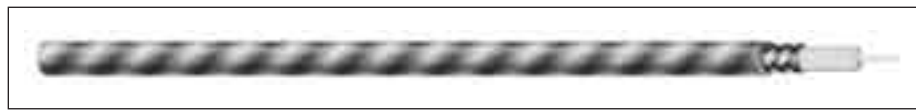
- 18 and 19 AWG fully annealed, solid bare copper per ASTM B-3; 20 AWG fully annealed, stranded, tinned copper per ASTM B-33
- 14, 18, 20 and 22 AWG solid copper-clad steel per ASTM B-869

Insulation:

- Premium-grade, cellular Fluoropolymer

Shield:

- Bare or tinned copper or aluminum braid with or without a polyester supported aluminum foil shield



Jacket:

- Flexguard® PVC, Natural
- Temperature Range: 0°C to +60°C

Applications:

- RF signal transmission
- Video Display Terminals (VDT)
- CCTV and MATV
- Local Area Networks (LANs)
- Programmable Logic Controllers (PLCs)
- Suggested voltage rating: 150 volts

Compliances:

- NEC Article 725 (UL: 60°C, 150V)
- NEC Article 800 (UL: 60°C, 300V)
- Designed to Meet NFPA 262 Flame Test

Packaging:

- Please contact Customer Service for packaging and color options

CATALOG NUMBER	AWG SIZE NOM. DCR (Ω/M) (M=1000')	INSULATION MATERIAL		SHIELD COVERAGE NOM SHLD DCR	NOMINAL O.D.		NOMINAL CAPACITANCE		VELOCITY OF PROPAGATION, %	NOMINAL IMPEDANCE, Ω	NOMINAL ATTENUATION	
		INCHES	mm		INCHES	mm	pF/ft	pF/m			MHz	dB/100'
C3523 RG 6/U Type Plenum	18 Ga. Solid BC 6.5 V/M	Cellular Fluoropolymer		100% Flexfoil® +61% TC Braid 2.3 V/M	Flexguard® PVC Natural		16.00	52.50	86	75	1	0.30
		0.170	4.318		0.226	5.74					50	0.66
C3521 RG 6/U Type Plenum	18 Ga. Solid BC 6.5 V/M	Cellular Fluoropolymer		100% Flexfoil® +95% TC Braid 2.3 V/M	Flexguard® PVC Natural		16.00	52.50	86	75	100	2.10
		0.170	4.318		0.233	5.92					200	3.10
C3524 RG 6/U Type Plenum	18 Ga. Solid CCS 28.9 V/M	Cellular Fluoropolymer		100% Flexfoil® +60% Al. Braid 9.0 V/M	Flexguard® PVC Natural		16.00	52.50	86	75	500	5.00
		0.170	4.318		0.226	5.74					1000	7.30
C3525 RG 6/U Type Quad-Shield Plenum	18 Ga. Solid CCS 28.9 V/M	Cellular Fluoropolymer		(2) 100% Flexfoil® 1st Bonded (1) 60% Al. Braid (2) 40% Al. Braid 5.3 V/M	Flexguard® PVC Natural		16.00	52.50	86	75	1	0.30
		0.170	4.318		0.264	6.71					100	0.66
C3528 RG 11/U Type Plenum	14 Ga. Solid CCS 11.4 V/M	Cellular Fluoropolymer		100% Flexfoil® Bonded +60% Al. Braid 4.6 V/M	PVDF		16.00	52.50	82	75	10	0.15
		0.280	7.11		0.351	8.92					50	0.47
C3529 RG 11/U Type Quad-Shield Plenum	14 Ga. Solid CCS 11.4 V/M	Cellular Fluoropolymer		(2) 100% Flexfoil® 1st Bonded (1) 60% Al. Braid (2) 40% Al. Braid 3.4 V/M	PVDF		16.00	52.50	82	75	100	1.09
		0.280	7.11		0.372	9.45					200	1.59
C3519 RG 58/U Type Plenum	19 Ga. Solid BC 8.1 V/M	Cellular Fluoropolymer		+95% TC Braid 2.9 V/M	Flexguard® PVC Natural		25.00	82.00	82	50	200	2.35
		0.102	2.59		0.161	4.09					500	3.94
C3579 RG 58/U Type Thinnet Plenum	20 Ga. (19 x 32) Stranded TC 9.5 V/M	Cellular Fluoropolymer		100% Flexfoil® +95% TC Braid 3.1 V/M	Flexguard® PVC Natural		26.00	85.31	78	50	1000	6.19
		0.100	2.54		0.165	4.19					1450	7.45
C3526 RG 59/U Type Plenum	20 Ga. Solid CCS 45.9 V/M	Cellular Fluoropolymer		100% Flexfoil® +65% Al. Braid 10.7 V/M	Flexguard® PVC Natural		16.00	52.50	84	75	1800	8.30
		0.135	3.429		0.202	5.13					2200	9.18
C3527 RG 59/U Type Quad-Shield Plenum	20 Ga. Solid CCS 45.9 V/M	Cellular Fluoropolymer		(2) 100% Flexfoil® 1st Bonded (1) 60% Al. Braid (2) 40% Al. Braid 6.3 V/M	Flexguard® PVC Natural		16.00	52.50	84	75	1	0.40
		0.135	3.429		0.235	5.97					10	1.30
C3500 RG 59/U Type Plenum	20 Ga. Solid CCS 45.9 V/M	Cellular Fluoropolymer		+95% BC Braid 1.9 V/M	Flexguard® PVC Natural		16.50	54.14	82	75	50	2.80
		0.145	3.68		0.201	5.11					100	3.90
C3520 RG 62/U Type Plenum	22 Ga. Solid CCS 54.7 V/M	Cellular Fluoropolymer		+95% BC Braid 1.9 V/M	Flexguard® PVC Natural		13.00	42.65	84	93	200	6.00
		0.145	3.56		0.201	5.11					500	9.50



General Cable offers a variety of Carol® Brand and Helix/HiTemp™ Brand wire and cable for audio/video, broadcast, traffic control and direct burial applications. From field production cable, precision video coax and camera cable to microphone, snake, guitar and speaker cable, General Cable supports the increasingly demanding entertainment industry.

For extreme hard service, General Cable's rubber microphone cables offer the ultimate in performance and service life. The rubber designs are highly flexible and designed to lie flat on studio floors, as well as provide high impact and abrasion resistance.

For outdoor and cold weather applications, microphone cable jacketed with Carolprene® provides the ultimate protection against ozone, oil and ultraviolet radiation.

These technically sophisticated cables are required to contain sources of interference and to protect against difficulties where they are unavoidable. In addition to providing the needed electrical characteristics, the cables are properly designed to handle demanding conditions, such as microphone hum, handling noise, crosstalk, electrostatic hum, SCR noise and common ground noise—either on stage, in a studio or at a remote venue.

For more information on these cables or for other special applications, please contact your General Cable sales representative.

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SMPTE-311 Hybrid Fiber Optic/Copper Camera Cable

Product Construction:

Conductor:

- **Element #1:** 4 Auxiliary Conductors (used as two)
 - Size:** 20 AWG; Stranded Tinned Annealed Copper
 - Insulation:** High-density Polyethylene OD: 0.060" Nom. (1.53mm)
- **Element #2:** 2 Single Conductors
 - Size:** 24 AWG; Stranded Tinned Annealed Copper
 - Insulation:** High-density Polyethylene: 0.045" Nom. (1.12mm)
- **Element #3:** Single Mode Fiber Optic
- **Element #4:** Strength Member in Core
 - Size:** 16 AWG; Stranded Insulated Galvanized Steel Cable
 - Color:** White
 - OD:** 0.083" Nom. (2.1mm)

Fillers:

- Fibrillated Polypropylene as needed for roundness

Binder:

- Paper Tape 25% overlap

Braid Shield:

- Flexibly designed Braid Shield with 85% Nom. Coverage

Jacket:

- Flexible PVC (HQA)
 - Temperature Range: -40°C to +75°C
 - Humidity 0 to 95%
- TPR Ruggedized Outdoor Version

Jacket Marking:

- HELIX/HITEMP P/N XXXXXX* SINGLE-MODE FIBER OPTIC/ELECTRICAL HD CAMERA CABLE (RU) AWM STYLE 21059 80C 300V VW-1

Cable Weight:

- 87.6 Lbs/Mft Nom. (130.8Kg/KM)

Performance:

- Meets/exceeds SMPTE-311 M-1998

Connector:

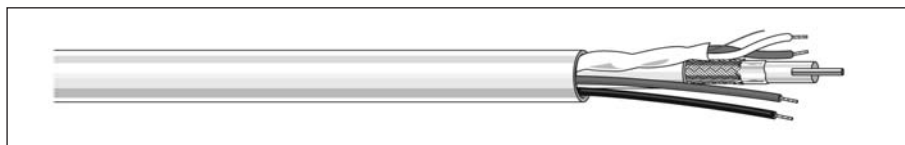
- LEMO Connector (call LEMO for more information at 800.444.5366)
- SMPTE Standard 304 Video Connector

Compliances:

- UL Subject 758
- AWM Style 21059

Packaging:

- Please consult Customer Service for packaging and color options



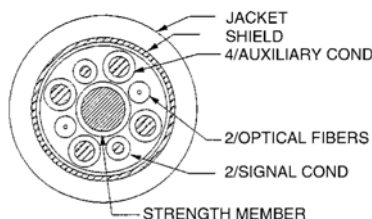
CATALOG NUMBER	AUXILIARY CONDUCTOR	SIGNAL COND.	OPTICAL FIBER	STRENGTH MEMBER	SHIELD	JACKET
742608	(4) 20 AWG 26/34 Strand Tinned Cu High-density Polyethylene Insul. O.D. 0.060"	(2) 25 AWG 7/33 Strand Tinned Cu High-density Polyethylene Insul. O.D. 0.045"	(2) 9.5 Micron Single-Mode	14 AWG 19/27 Strand Galvanized Steel	95% Braid Tinned Cu	Flexible PVC (HQA) Black 0.362" O.D. 9.20 mm
574608	(4) 20 AWG 26/34 Strand Tinned Cu High-density Polyethylene Insul. O.D. 0.060"	(2) 25 AWG 7/33 Strand Tinned Cu High-density Polyethylene Insul. O.D. 0.045"	(2) 9.5 Micron Single-Mode	14 AWG 19/27 Strand Galvanized Steel	95% Braid Tinned Cu	Ruggedized Outdoor TPR Black 0.362" O.D. 9.20 mm

NOTE: General Cable manufactures the above cables in a wide range of alternate AWG sizes, pair counts and jacket colors. Please consult Customer Service for details.

Cable Characteristics

Element Number	(1) Auxiliary Conductors	(2) Signal Conductors	(3) Single Mode Fiber Optic	
Conductor DCR	35.29Ω/Km max @20°C	97.5Ω/Km max@20°C	Mode Field Data	9.5+/-1 Micron
DC loop Resistance	43Ω/Km max @20°C	184Ω/Km max@20°C	Cladding Data	125+/-1 Micron
Insulation Resistance	10,000MΩ/Km max @20°C	10,000MΩ/Km max@20°C	Buffer Material	Thermoplastic
Dielectric Strength	1750V RMS@20°C, 60Hz for 1 min	1750V RMS@20°C, 60Hz for 1 min		
Voltage Rating	300V Max	300V Max		
Color	C1, C3-Black C2, C4-White	C1-Red C2-Gray		C1-Blue C2-Yellow

TYPICAL CROSS SECTION



*XXXXXX - indicates part number

Electronic News Gathering/Field Production Camera Cable



CATALOG NUMBER	COAXIAL COMPONENT	SIGNAL PAIR	POWER PAIR	JACKET
742605	1/C 25 AWG Stranded 7/33 Bare Copper High-density Polyethylene Insulation 90% Bare Copper Braid PVC Jacket O.D. 0.175" Nom.	1/PR 24 AWG Stranded 19/36 Bare Copper Polyethylene Insulation + Foil 24 AWG Drain O.D. 0.140" Nom.	1/PR 22 AWG Stranded 26/36 Bare Copper PVC Insulation O.D. 0.100" Nom.	Matte Black "HQA" PVC O.D. .495" Nom.

NOTE: General Cable manufactures the above cables in a wide range of alternate AWG sizes, pair counts and jacket colors. Please consult Customer Service for details.

Product Construction:

Applications:

- Ideal for TV broadcast and CCTV applications
- Suited for controlling, powering and transmitting audio and video signals for TV cameras
- Additional uses include remote control, monitor and cue line systems

Features:

- Provides excellent circuit isolation
- Superior durability characteristics in a variety of environmental conditions

Packaging and Jacket Colors:

- Please consult Customer Service for packaging and color options

RG 6/U Multi-Channel Digital/Precision Cable

75 Ohm High-End Coaxial Cables for Exacting Video, Analog, Digital & Monitor Applications

	Part No. & Safety Ratings	Cond. Size/Type & DCR	Insulation Type Nom. O.D. in/mm	Shield Type & DCR/KFt	Jacket & Nom. Dia. in/mm	Nominal Capacitance		Nom. Imp. Ohm	Nom. Vel. of Prop.	Nominal Attenuation		
						pF/ft	pF/m			MHz	dB/ 100FT	dB/ 100m
	RG 6/U MULTI-CHANNEL DIGITAL/PRECISION, RISER RATED											
	395011-3 UL CMR c(UL) CMG 75°C/300V	18 3/Cond. Solid BC (6.5 Ohm)	Foam PE Gas Injection 0.180 / 4.57	Dual Foil + 95% Tinned Copper Braid Shield (2.8 Ohm)	Inner: Flame-Retardant PVC Outer: TPE matte 0.685 / 17.40	16.2	53.2	75	83%	1	0.24	0.79
										3.6	0.45	1.48
										71.5	1.60	5.25
										88.5	1.75	5.74
										135	2.10	6.89
										180	2.42	7.94
										270	2.97	9.84
										360	3.43	11.15
										540	4.25	14.10
										750	5.00	16.40
										1500	7.33	24.04
										2250	9.14	29.98
3000	10.67	34.99										
	395011-4 UL CMR c(UL) CMG 75°C/300V	18 4/Cond. Solid BC (6.5 Ohm)	Foam PE Gas Injection 0.180 / 4.57	Dual Foil + 95% Tinned Copper Braid Shield (2.8 Ohm)	Inner: Flame-Retardant PVC Outer: TPE matte 0.755 / 19.18	16.2	53.2	75	83%	1	0.24	0.79
										3.6	0.45	1.48
										71.5	1.60	5.25
										88.5	1.75	5.74
										135	2.10	6.89
										180	2.42	7.94
										270	2.97	9.84
										360	3.43	11.15
										540	4.25	14.10
										750	5.00	16.40
										1500	7.33	24.04
										2250	9.14	29.98
	3000	10.67	34.99									
	395011-5 UL CMR c(UL) CMG 75°C/300V	18 5/Cond. Solid BC (6.5 Ohm)	Foam PE Gas Injection 0.180 / 4.57	Dual Foil + 95% Tinned Copper Braid Shield (2.8 Ohm)	Inner: Flame-Retardant PVC Outer: TPE matte 0.860 / 21.85	16.2	53.2	75	83%	1	0.24	0.79
										3.6	0.45	1.48
										71.5	1.60	5.25
										88.5	1.75	5.74
										135	2.10	6.89
										180	2.42	7.94
										270	2.97	9.84
										360	3.43	11.15
										540	4.25	14.10
										750	5.00	16.40
										1500	7.33	24.04
										2250	9.14	29.98
	3000	10.67	34.99									
	RG 6/U PRECISION, CM RATED											
	395056 UL CM c(UL) CMG 75°C/300V	18 Solid BC (6.7 Ohm)	Foam PE Gas Injection 0.180 / 4.57	Foam PE Gas Injected. 0.180 / 4.57	Flame-Retardant PVC 0.272 / 6.91	16.3	53.4	75	83%	1	0.19	0.62
										3.6	0.36	1.18
										10	0.65	2.13
										50	1.46	4.79
										71.5	1.75	5.73
										88.5	2.03	6.67
										100	2.16	7.09
										135	2.51	8.23
										180	2.68	8.81
										200	2.83	9.29
										270	3.29	10.79
										360	4.32	14.16
										400	4.55	14.93
										540	5.29	17.35
										700	6.02	19.75
										750	6.23	20.44
										900	6.83	22.39
										1000	7.19	23.60
										1500	8.81	28.91
										2250	10.79	35.41
3000	12.46	40.88										

RG 6/U Multi-Channel Digital/Precision Cable

75 Ohm High-End Coaxial Cables for Exacting Video, Analog, Digital & Monitor Applications

	Part No. & Safety Ratings	Cond. Size/Type & DCR	Insulation Type Nom. O.D. in/mm	Shield Type & DCR/Kft	Jacket & Nom. Dia. in/mm	Nominal Capacitance		Nom. Imp. Ohm	Nom. Vel. of Prop.	Nominal Attenuation		
						pF/ft	pF/m			MHz	dB/ 100FT	dB/ 100m
	495035 UL CMP c(UL) CMG 75°C/300V	18 Solid BC (6.7 Ohm)	Foam FEP 0.170 / 4.32	+ 95% Bare Copper Braid (2.0 Ohm)	Plenum PVC 0.237 / 6.02	16.2	52.5	75	84%	1	0.21	0.69
										3.6	0.40	1.31
										10	0.65	2.13
										50	1.46	4.79
										71.5	1.75	5.73
										88.5	1.92	6.30
										100	2.04	6.69
										135	2.37	7.78
										180	2.83	9.28
										200	2.98	9.78
										270	3.46	11.36
										360	4.23	13.88
										400	4.46	14.63
										540	5.18	17.00
										700	5.90	19.36
										750	6.11	20.04
										900	6.69	21.95
										1000	7.05	23.14
										1500	8.64	28.34
										2250	10.58	34.71
										3000	12.21	40.07
	495036 UL CMP c(UL) CMG 150°C/300V	18 Solid BC (6.7 Ohm)	Foam FEP 0.170 / 4.32	+ 95% Bare Copper Braid (2.0 Ohm)	PVDF 0.237 / 6.02	16.1	53.0	75	84%	1	0.21	0.69
										3.6	0.40	1.31
										10	0.65	2.13
										50	1.46	4.79
										71.5	1.75	5.73
										88.5	1.92	6.30
										100	2.04	6.69
										135	2.37	7.78
										180	2.83	9.28
										200	2.98	9.78
										270	3.46	11.36
										360	4.23	13.88
										400	4.46	14.63
										540	5.18	17.00
										700	5.90	19.36
										750	6.11	20.04
										900	6.69	21.95
										1000	7.05	23.14
										1500	8.64	28.34
										2250	10.58	34.71
										3000	12.21	40.07

RG 6 & RG 7 Serial Digital Interface/Precision Cable

75 Ohm High-End Coaxial Cables for Exacting Video, Analog & Digital Applications

	Part No. & Safety Ratings	Cond. Size/Type & DCR	Insulation Type Nom. O.D. in/mm	Shield Type & DCR/KFt	Jacket & Nom. Dia. in/mm	Nominal Capacitance		Nom. Imp. Ohm	Nom. Vel. of Prop.	Nominal Attenuation		
						pF/ft	pF/m			MHz	dB/ 100FT	dB/ 100m
	RG 6/U SERIAL DIGITAL INTERFACE (SDI)/PRECISION, RISER RATED											
	395011 UL CMR c(UL) CMG 75°C/300V	18 Solid BC (6.5 Ohm)	Foam PE Gas Injection 0.180 / 4.57	Dual Foil + 95% Tinned Copper Braid Shield (2.8 Ohm)	Flame-Retardant PVC 0.272 / 6.91	16.2	53.1	75	83%	1	0.24	0.79
										3.6	0.45	1.48
										71.5	1.60	5.25
										88.5	1.75	5.74
										135	2.10	6.89
										180	2.42	7.94
										270	2.97	9.84
										360	3.43	11.15
										540	4.25	14.10
										750	5.00	16.40
										1500	7.33	24.04
										2250	9.14	29.98
										3000	10.67	34.99
	RG 6/U SERIAL DIGITAL INTERFACE (SDI)/PRECISION, PLENUM RATED											
	495025 UL CMP c(UL) CMP 75°C/300V	18 Solid BC (6.5 Ohm)	Foam FEP 0.170 / 4.32	Dual Foil + 95% Tinned Copper Braid Shield (2.8 Ohm)	Plenum-PVC 0.237 / 6.02	16.1	53.0	75	84%	1	0.24	0.79
										3.6	0.45	1.48
										71.5	1.78	5.84
										88.5	1.95	6.40
										135	2.40	7.87
										180	2.45	8.04
										270	2.75	9.02
										360	3.40	11.15
										540	4.00	13.12
										750	5.20	17.06
										1500	6.36	20.86
										2250	11.60	38.05
										3000	13.70	44.94
	RG 7/U LOW LOSS, SERIAL DIGITAL INTERFACE (SDI)/PRECISION, CMR RATED											
	395047 UL CMR c(UL) CMG 75°C/300V	16 Solid BC (4.1 Ohm)	Foam PE Gas Injection 0.224 / 5.69	Dual Foil + 95% Tinned Copper Braid (2.24 Ohm)	Flame-Retardant PVC 0.320 / 8.13	16.2	53.1	75	83%	1	0.18	0.59
										3.6	0.36	1.18
										71.5	1.35	4.43
										88.5	1.49	4.89
										135	1.78	5.84
										180	2.06	6.76
										270	2.52	8.26
										360	2.87	9.41
										540	3.61	11.84
										750	4.28	14.03
										1500	6.16	20.21
										2250	7.65	25.09
										3000	8.94	29.32

RG 11 Serial Digital Interface (SDI) Precision Cable

Extended-Distance, 75 Ohm High-End Coaxial Cables for Exacting Video, Analog & Digital Applications

	Part No. & Safety Ratings	Cond. Size/Type & DCR	Insulation Type Nom. O.D. in/mm	Shield Type & DCR/KFt	Jacket & Nom. Dia. in/mm	Nominal Capacitance		Nom. Imp. Ohm	Nom. Vel. of Prop.	Nominal Attenuation		
						pF/ft	pF/m			MHz	dB/ 100FT	dB/ 100m
	RG 11/U SERIAL DIGITAL INTERFACE (SDI), EXTENDED DISTANCE, RISER RATED											
	395029 UL CMR c(UL) CMG 75°C/300V	14 Solid BC (2.6 Ohm)	Foam PE Gas Injection 0.280 / 7.11	Dual Foil + 95% Tinned Copper Braid (1.5 Ohm)	Flame-Retardant PVC 0.405 / 10.29	16.2	53.1	75	83%	1	0.15	0.49
										3.6	0.28	0.92
										71.5	1.17	3.84
										88.5	1.31	4.29
										135	1.62	5.31
										180	1.87	6.13
										270	2.31	7.58
										360	2.67	8.76
										540	3.29	10.79
										750	3.89	12.76
										1500	5.60	18.37
										2250	6.94	22.76
										3000	8.10	26.57
	RG 11/U SERIAL DIGITAL INTERFACE (SDI), EXTENDED DISTANCE, PLENUM RATED											
	495027 UL CMP c(UL) CMP 125°C/300V	14 Solid BC (2.6 Ohm)	Foam FEP 0.280 / 7.11	Dual Foil + 95% Tinned Copper Braid Shield (1.5 Ohm)	PVDF 0.348 / 8.84	16.2	53.1	75	84%	1	0.12	0.39
										3.6	0.24	0.79
										71.5	1.12	3.68
										88.5	1.27	4.17
										135	1.63	5.35
										180	1.94	6.36
										270	2.49	8.17
										360	3.01	9.87
										540	3.89	12.76
										750	4.85	15.91
										1500	7.88	25.45
										2250	10.61	34.80
										3000	12.35	40.51
	RG 11/U SERIAL DIGITAL INTERFACE (SDI), EXTENDED DISTANCE, OUTDOOR RATED											
	395057 Outdoor -65°C to +80°C 300V	14 Solid BC (2.6 Ohm)	Foam PE Gas Injection 0.285 / 7.24	+ 95% Bare Copper Braid (1.2 Ohm)	PE 0.405 / 10.29	16.2	52.5	75	84%	1	0.17	0.56
										3.6	0.32	1.06
										10	0.35	1.15
										50	0.90	2.95
										71.5	1.08	3.53
										88.5	1.22	4.01
										100	1.30	4.27
										135	1.51	4.96
										180	1.80	5.91
										200	1.90	6.23
										270	2.21	7.24
										360	2.75	9.03
										400	2.90	9.51
										540	3.37	11.06
										700	3.84	12.59
										750	3.97	13.03
										900	4.35	14.27
										1000	4.59	15.04
										1500	5.62	18.43
										2250	6.88	22.57
										3000	7.94	26.06
	RG-11/U SERIAL DIGITAL INTERFACE (SDI), EXTENDED DISTANCE, CM RATED											
	395058 UL CM c(UL) CMG 75°C / 300V	14 Solid BC (2.6 Ohm)	Foam PE Gas Injection 0.285 / 7.24	+ 95% Bare Copper Braid (1.2 Ohm)	Flame-Retardant PVC 0.405 / 10.29	16.2	52.5	75	84%	1	0.17	0.56
										3.6	0.32	1.06
										10	0.35	1.15
										50	0.90	2.95
										71.5	1.08	3.53
										88.5	1.22	4.01
										100	1.30	4.27
										135	1.51	4.96
										180	1.80	5.91
										200	1.90	6.23
										270	2.21	7.24
										360	2.75	9.03
										400	2.90	9.51
										540	3.37	11.06
										700	3.84	12.59
										750	3.97	13.03
										900	4.35	14.27
										1000	4.59	15.04
										1500	5.62	18.43
										2250	6.88	22.57
										3000	7.94	26.06

RG 11 Serial Digital Interface (SDI) Precision Cable

Extended-Distance, 75 Ohm High-End Coaxial Cables for Exacting Video, Analog & Digital Applications

	Part No. & Safety Ratings	Cond. Size/Type & DCR	Insulation Type Nom. O.D. in/mm	Shield Type & DCR/Kft	Jacket & Nom. Dia. in/mm	Nominal Capacitance		Nom. Imp. Ohm	Nom. Vel. of Prop.	Nominal Attenuation			
						pF/ft	pF/m			MHz	dB/ 100FT	dB/ 100m	
	RG 11/U SERIAL DIGITAL INTERFACE (SDI), EXTENDED DISTANCE, PLENUM RATED												
	495015 UL CMP c(UL) CMP 125°C / 300V	14 Solid BC (2.6 Ohm)	Foam FEP 0.280 / 7.11	+ 95% Bare Copper Braid (1.2 Ohm)	PVDF 0.351 / 8.92	16.2	52.5	75	84%	1	0.17	0.56	
										3.6	0.32	1.06	
										10	0.35	1.15	
										50	0.90	2.95	
										71.5	1.08	3.53	
										88.5	1.22	4.01	
										100	1.30	4.27	
										135	1.51	4.96	
										180	1.80	5.91	
										200	1.90	6.23	
										270	2.21	7.24	
										360	2.75	9.03	
										400	2.90	9.51	
										540	3.37	11.06	
										700	3.84	12.59	
										750	3.97	13.03	
										900	4.35	14.27	
										1000	4.59	15.04	
										1500	5.62	18.43	
										2250	6.88	22.57	
3000										7.94	26.06		
	495016 UL CMP c(UL) CMP 125°C / 300V	14 Solid BC (2.6 Ohm)	Foam FEP 0.280 / 7.11	Dual Foil + 60% AL Braid (3.0 Ohm)	PVDF 0.351 / 8.92	16.2	53.1	75	84%	1	0.15	0.49	
										3.6	0.28	0.93	
										10	0.40	1.31	
										50	1.00	3.28	
										71.5	1.20	3.92	
										88.5	1.41	4.63	
										100	1.50	4.92	
										135	1.74	5.72	
										180	2.09	6.85	
										200	2.20	7.22	
										270	2.56	8.39	
										360	3.13	10.27	
										400	3.30	10.83	
										540	3.83	12.58	
										700	4.37	14.32	
										750	4.52	14.83	
										900	4.95	16.24	
										1000	5.22	17.12	
										1500	6.39	20.97	
										2250	7.83	25.68	
										3000	9.04	29.65	

75 Ohm High-End Coaxial Cables for Exacting Video, Analog Digital & Monitor Applications

Helix/HiTemp™  **General Cable**

RG 59 & RG 11 Camera Cable

75 Ohm High-End Triaxial Cables for Powered Video Applications

	Part No. & Safety Ratings	Cond. Size/Type & DCR	Insulation Type Nom. O.D. in/mm	Shield Type & DCR/Kft	Jacket & Nom. Dia. in/mm	Nominal Capacitance		Nom. Imp. Ohm	Nom. Vel. of Prop.	Nominal Attenuation		
						pF/ft	pF/m			MHz	dB/ 100FT	dB/ 100m
	RG 59/U FLEXIBLE ALL-WEATHER RATED											
	395007 Outdoor -35°C to +80°C 300V	20 Solid BC (10.2 Ohm)	Foam PE Gas Injection 0.146 / 3.71	Inner: 95% BC Braid (2.6 Ohm) Outer: 95% BC Braid (2.6 Ohm)	Inner: PE Outer: TPE 0.360 / 9.15	16.2	53.1	75	83%	1	0.29	0.95
										3.6	0.55	1.81
										10	0.93	3.05
										50	1.73	5.68
										71.5	2.07	6.79
										88.5	2.30	7.56
										100	2.45	8.04
										135	2.85	9.34
										180	3.28	10.77
										200	3.46	11.35
										270	4.02	13.19
										360	4.65	15.25
										400	4.90	16.08
										540	5.69	18.68
										700	6.99	22.93
										750	7.24	23.74
										900	7.92	25.99
										1000	8.35	27.40
										1500	10.23	33.55
										2250	12.53	41.09
										3000	14.46	47.45
	RG 59/U CM RATED											
	395040 UL CM c(UL) CMG 75°C / 300V	20 Solid BC (10.2 Ohm)	Foam PE Gas Injection 0.146 / 3.71	Inner: 95% BC Braid (2.6 Ohm) Outer: 95% BC Braid (2.6 Ohm)	Inner: PVC Outer: Flame-Retardant PVC 0.360 / 9.15	16.2	53.1	75	83%	1	0.29	0.95
										3.6	0.55	1.81
										10	0.93	3.05
										50	1.73	5.68
										71.5	2.07	6.79
										88.5	2.30	7.56
										100	2.45	8.04
										135	2.85	9.34
										180	3.28	10.77
										200	3.46	11.35
										270	4.02	13.19
										360	4.65	15.25
										400	4.90	16.08
										540	5.69	18.68
										700	6.99	22.93
										750	7.24	23.74
										900	7.92	25.99
										1000	8.35	27.40
										1500	10.23	33.55
										2250	12.53	41.09
										3000	14.46	47.45
	RG 59/U ULTRA FLEX ALL-WEATHER RATED											
	395006 Outdoor -35°C to +80°C 300V	21 Stranded (19/33) BC (12.0 Ohm)	Foam PE 0.146 / 3.71	Inner: 95% BC Braid (2.6 Ohm) Outer: 95% BC Braid (2.6 Ohm)	Inner: PE Outer: TPE 0.360 / 9.15	17.0	55.7	75	78%	1	0.35	1.15
										3.6	0.66	2.18
										10	1.10	3.61
										50	1.77	5.81
										71.5	2.12	6.94
										88.5	2.35	7.72
										100	2.50	8.20
										135	2.90	9.53
										180	3.36	11.02
										200	3.54	11.61
										270	4.11	13.50
										360	4.74	15.56
										400	5.00	16.41
										540	5.81	19.06
										700	7.36	24.15
										750	7.62	25.00
										900	8.35	27.40
										1000	8.80	28.87
										1500	10.78	35.36
										2250	13.20	43.31
										3000	15.24	50.01
	RG 11/U OUTDOOR EXTENDED DISTANCE, OUTDOOR RATED											
	395041 Outdoor -65°C to +80°C 300V	14 Solid BC (10.2 Ohm)	Foam PE Gas Injection 0.285 / 7.24	Inner: 95% BC Braid (1.6 Ohm) Outer: 95% BC Braid (1.6 Ohm)	Inner: LD-PE Outer: PE 0.475 / 12.07	16.0	52.5	75	83%	1	0.14	0.46
										3.6	0.27	0.87
										10	0.45	1.48
										50	0.92	3.02
										71.5	1.10	3.61
										88.5	1.22	4.01
										100	1.30	4.27
										135	1.51	4.96
										180	1.75	5.73
										200	1.84	6.04
										270	2.14	7.01
										360	2.47	8.09
										400	2.60	8.53
										540	3.02	9.91
										700	3.76	12.34
										750	3.89	12.77
										900	4.27	14.01
										1000	4.50	14.76
										1500	5.51	18.08
										2250	6.75	22.15
										3000	7.79	25.57

RG 59 & RG 11 Camera Cable

75 Ohm High-End Triaxial Cables for Powered Video Applications

	Part No. & Safety Ratings	Cond. Size/Type & DCR	Insulation Type Nom. O.D. in/mm	Shield Type & DCR/Kft	Jacket & Nom. Dia. in/mm	Nominal Capacitance		Nom. Imp. Ohm	Nom. Vel. of Prop.	Nominal Attenuation		
						pF/ft	pF/m			MHz	dB/ 100ft	dB/ 100m
	395028 UL CM c(UL) CMG 75°C / 300V	14 Solid BC (2.6 Ohm)	Foam PE Gas Injection 0.285 / 7.24	Inner: 95% BC Braid (1.6 Ohm) Outer: 95% BC Braid (1.6 Ohm)	Inner: PVC Outer: Flame-Retardant PVC 0.475 / 12.07	16.0	52.5	75	83%	RG 11/U EXTENDED DISTANCE, CM RATED		
										1	0.14	0.46
										3.6	0.27	0.87
										10	0.45	1.48
										50	0.92	3.02
										71.5	1.10	3.61
										88.5	1.22	4.01
										100	1.30	4.27
										135	1.51	4.96
										180	1.75	5.73
										200	1.84	6.04
										270	2.14	7.01
										360	2.47	8.09
										400	2.60	8.53
										540	3.02	9.91
										700	3.76	12.34
										750	3.89	12.77
										900	4.27	14.01
										1000	4.50	14.76
										1500	5.51	18.08
										2250	6.75	22.15
										3000	7.79	25.57
	395042 UL CM c(UL) CMG 75°C / 300V	14 Stranded (19/27) BC (3.0 Ohm)	Foam PE 0.314 / 7.98	Inner: 95% BC Braid (1.6 Ohm) Outer: 95% BC Braid (1.6 Ohm)	Inner: TPE Outer: Flame-Retardant PVC 0.520 / 13.21	16.5	54.1	75	78%	RG 11/U FLEXIBLE ALL-WEATHER RATED		
										1	0.14	0.46
										3.6	0.27	0.87
										10	0.45	1.48
										50	1.00	3.28
										71.5	1.20	3.92
										88.5	1.35	4.44
										100	1.44	4.72
										135	1.67	5.49
										180	2.00	6.57
										200	2.11	6.92
										270	2.45	8.04
										360	2.91	9.56
										400	3.07	10.07
										540	3.57	11.70
										700	4.25	13.94
										750	4.40	14.43
										900	4.95	16.24
										1000	5.27	17.29
										1500	6.45	21.18
										2250	7.91	25.94
										3000	9.13	29.95
	395024 Outdoor -35°C to +80°C 300V	14 Stranded (19/27) BC (3.0 Ohm)	Foam PE 0.314 / 7.98	Inner: 95% BC Braid (1.6 Ohm) Outer: 95% BC Braid (1.6 Ohm)	Inner: LD-PE Outer: TPE 0.520 / 13.21	17.5	57.4	75	78%	RG 11/U FLEXIBLE ALL-WEATHER RATED		
										1	0.14	0.46
										3.6	0.27	0.87
										10	0.45	1.48
										50	1.00	3.28
										71.5	1.20	3.92
										88.5	1.35	4.44
										100	1.44	4.72
										135	1.67	5.49
										180	2.00	6.57
										200	2.11	6.92
										270	2.45	8.04
										360	2.91	9.56
										400	3.07	10.07
										540	3.57	11.70
										700	4.25	13.94
										750	4.40	14.43
										900	4.95	16.24
										1000	5.27	17.29
										1500	6.45	21.18
										2250	7.91	25.94
										3000	9.13	29.95

RG 59/U Precision & Miniature Cable

75 Ohm High-End Coaxial Cables for Video, Analog and Digital Applications

	Part No. & Safety Ratings	Cond. Size/Type & DCR	Insulation Type Nom. O.D. in/mm	Shield Type & DCR/Kft	Jacket & Nom. Dia. in/mm	Nominal Capacitance		Nom. Imp. Ohm	Nom. Vel. of Prop.	Nominal Attenuation												
						pF/ft	pF/m			MHz	dB/ 100FT	dB/ 100m										
	RG 59/U MINIATURE, RISER RATED																					
	395035 UL CM c(UL) CMG 75°C / 300V	26 Stranded BC (7/34) (39.7 Ohm)	Foam PE 0.089 / 2.26	Dual Foil 95% Tinned Copper Braid Shield (8.6 Ohm)	Flame-Retardant PVC .146 / 3.71	17.3	56.74	75	78%	1	0.56	1.84										
										10	1.48	4.85										
										50	3.20	10.49										
										100	5.18	16.99										
										200	6.95	22.79										
										400	9.36	30.70										
										700	13.10	42.97										
										900	14.98	49.13										
										1000	15.79	51.79										
	RG 59/U FLEXIBLE MINIATURE, RISER RATED																					
	395032 UL CMR c(UL) CMG 75°C / 300V	25 Stranded BC (7/33) (30.0 Ohm)	Foam PE 0.099 / 2.51	95% Tinned Copper Braid Shield (6.0 Ohm)	Flame-Retardant PVC .150 / 3.81	17.2	56.4	75	78%	1	0.41	1.35										
										10	1.31	4.30										
										50	2.94	9.64										
										100	4.18	13.71										
										200	5.97	19.58										
										400	8.56	28.10										
										700	11.50	37.72										
										900	13.14	43.10										
										1000	13.91	45.62										
	RG 59/U OUTDOOR RATED																					
	395021 Outdoor -65°C/+80°C 300V	23 Stranded BC (7/31) (20.1 Ohm)	Solid PE 0.146 / 3.71	95% Tinned Copper Braid Shield (4.2 Ohm)	Polyethylene 0.220 / 5.59	19.5	63.96	75	66%	1	0.35	1.15										
										3.6	0.60	1.97										
										71.5	3.30	10.82										
										88.5	3.75	12.30										
										135	4.65	15.25										
										270	6.68	21.91										
										360	7.77	25.48										
										750	11.50	37.72										
										1000	13.43	44.05										
	RG 59/U CM RATED																					
	395030 UL CM c(UL) CMH 75°C / 300V	20 Solid BC (10.5 Ohm)	Foam PE Gas Injection 0.146 / 3.71	95% Bare Copper Braid Shield (2.7 Ohm)	Flame-Retardant PVC 0.242 / 6.15	16.2	53.2	75	83%	1	0.17	0.55										
										10	0.76	2.49										
										50	1.80	5.90										
										100	2.60	8.53										
										200	3.80	12.46										
										400	5.37	17.61										
											RG 59/U PLENUM RATED											
											495028 UL CMP c(UL) CMP 75°C / 300V	20 Solid BC (10.5 Ohm)	Foam PE 0.135 / 3.43	95% Bare Copper Braid Shield (2.7 Ohm)	Plenum-PVC 0.193 / 5.0	16.0	52.5	75	84%	1	0.24	0.82
																				10	1.41	2.63
50	1.83	6.02																				
100	2.64	8.68																				
200	3.84	12.61																				
400	5.64	18.49																				
	495044 UL CMP c(UL) CMP 150°C / 300V	20 Solid BC (10.5 Ohm)	Foam FEP 0.135 / 3.43	95% Bare Copper Braid Shield (2.7 Ohm)	PVDF 0.193 / 5.00	16.0	52.5	75	84%											1	0.24	0.82
																				10	1.41	2.63
																				50	1.83	6.02
										100	2.64	8.68										
										200	3.84	12.61										
										400	5.64	18.49										

RG 59/U (RGB) Miniature Multi-Channel Precision Cable

75 Ohm High-End Coaxial Cables for Video, Analog & Monitor Applications

	Part No. & Safety Ratings	Cond. Size/Type & DCR	Insulation Type Nom. O.D. in/mm	Shield Type & DCR/Kft	Jacket & Nom. Dia. in/mm	Nominal Capacitance		Nom. Imp. Ohm	Nom. Vel. of Prop.	Nominal Attenuation			
						pF/ft	pF/m			MHz	dB/ 100FT	dB/ 100m	
	RG 59/U (RGB) CM/CMR RATED												
	395035-3 c(UL) CMG UL CMR 75°C / 300V	26 3/Cond. Stranded BC (7/34) (39.7 Ohm)	Foam PE 0.089 / 2.26	Dual Foil + 95% Tinned Copper Braid Shield (8.6 Ohm)	Inner: Flame-Retardant PVC Outer: TPE matte 0.480 / 12.19	17.3	56.74	75	78%	1	0.56	1.84	
										3.6	1.06	3.49	
										10	1.48	4.86	
										50	3.20	10.50	
										71.5	3.95	12.95	
										88.5	4.87	15.99	
										100	5.18	17.00	
										135	6.02	19.75	
										180	6.59	21.63	
										200	6.95	22.80	
										270	8.08	26.49	
										360	8.88	29.13	
										400	9.36	30.71	
										540	10.88	35.68	
										700	13.10	42.98	
										750	13.56	44.49	
										900	14.98	49.15	
										1000	15.79	51.81	
										1500	19.34	63.45	
										2250	23.69	77.71	
3000										27.35	89.73		
	395035-4 UL CM c(UL) CMG 75°C / 300V	26 4/Cond. Stranded BC (7/34) (39.7 Ohm)	Foam PE 0.089 / 2.26	Dual Foil + 95% Tinned Copper Braid Shield (8.6 Ohm)	Inner: Flame-Retardant PVC Outer: TPE matte	17.3	56.74	75	78%	1	0.56	1.84	
										3.6	1.06	3.49	
										10	1.48	4.86	
										50	3.20	10.50	
										71.5	3.95	12.95	
										88.5	4.87	15.99	
										100	5.18	17.00	
										135	6.02	19.75	
										180	6.59	21.63	
										200	6.95	22.80	
										270	8.08	26.49	
										360	8.88	29.13	
										400	9.36	30.71	
										540	10.88	35.68	
										700	13.10	42.98	
										750	13.56	44.49	
										900	14.98	49.15	
										1000	15.79	51.81	
										1500	19.34	63.45	
										2250	23.69	77.71	
										3000	27.35	89.73	
	395035-5 UL CM c(UL) CMG 75°C / 300V	26 5/Cond. Stranded BC (7/34) (39.7 Ohm)	Foam PE 0.089 / 2.26	Dual Foil + 95% Tinned Copper Braid Shield (8.6 Ohm)	Inner: Flame-Retardant PVC Outer: TPE matte	17.3	56.74	75	78%	1	0.56	1.84	
										3.6	1.06	3.49	
										10	1.48	4.86	
										50	3.20	10.50	
										71.5	3.95	12.95	
										88.5	4.87	15.99	
										100	5.18	17.00	
										135	6.02	19.75	
										180	6.59	21.63	
										200	6.95	22.80	
										270	8.08	26.49	
										360	8.88	29.13	
										400	9.36	30.71	
										540	10.88	35.68	
										700	13.10	42.98	
										750	13.56	44.49	
										900	14.98	49.15	
										1000	15.79	51.81	
										1500	19.34	63.45	
										2250	23.69	77.71	
										3000	27.35	89.73	

RG 59/U (RGB) Miniature Multi-Channel Precision Cable

75 Ohm High-End Coaxial Cables for Video, Analog & Monitor Applications

	Part No. & Safety Ratings	Cond. Size/Type & DCR	Insulation Type Nom. O.D. in/mm	Shield Type & DCR/Kft	Jacket & Nom. Dia. in/mm	Nominal Capacitance		Nom. Imp. Ohm	Nom. Vel. of Prop.	Nominal Attenuation			
						pF/ft	pF/m			MHz	dB/ 100FT	dB/ 100m	
	RG 59/U (RGB) FLEXIBLE CM/CMR RATED												
	395032-3 UL CMR C(UL) CMG 75°C / 300V	25 3/Cond. Stranded BC (7/33) (30.0 Ohm)	Foam PE 0.099 / 2.51	95% Tinned Copper Braid Shield (6.0 Ohm)	Inner: Flame-Retardant PVC Outer: TPE matte 0.435 / 11.05	17.3	56.74	75	78%	1	0.41	1.35	
										3.6	0.78	2.55	
										10	1.31	4.30	
										50	2.94	9.65	
										71.5	3.52	11.54	
										88.5	3.93	12.90	
										100	4.18	13.71	
										135	4.86	15.93	
										180	5.66	18.58	
										200	5.97	19.59	
										270	6.94	22.76	
										360	8.12	26.64	
										400	8.56	28.09	
										540	9.95	32.63	
										700	11.50	37.73	
										750	11.90	39.06	
										900	13.14	43.11	
										1000	13.91	45.64	
										1500	17.04	55.90	
										2250	20.87	68.46	
3000										24.09	79.05		
	395032-4 UL CMR c(UL) CMG 75°C / 300V	25 4/Cond. Stranded BC (7/33) (30.0 Ohm)	Foam PE 0.099 / 2.51	95% Tinned Copper Braid Shield (6.0 Ohm)	Inner: Flame-Retardant PVC Outer: TPE matte 0.480 / 12.19	17.3	56.74	75	78%	1	0.41	1.35	
										3.6	0.78	2.55	
										10	1.31	4.30	
										50	2.94	9.65	
										71.5	3.52	11.54	
										88.5	3.93	12.90	
										100	4.18	13.71	
										135	4.86	15.93	
										180	5.66	18.58	
										200	5.97	19.59	
										270	6.94	22.76	
										360	8.12	26.64	
										400	8.56	28.09	
										540	9.95	32.63	
										700	11.50	37.73	
										750	11.90	39.06	
										900	13.14	43.11	
										1000	13.91	45.64	
										1500	17.04	55.90	
										2250	20.87	68.46	
										3000	24.09	79.05	
	395032-5 UL CMR c(UL) CMG 75°C / 300V	25 5/Cond. Stranded BC (7/33) (30.0 Ohm)	Foam PE 0.099 / 2.51	95% Tinned Copper Braid Shield (6.0 Ohm)	Inner: Flame-Retardant PVC Outer: TPE matte 0.480 / 12.19	17.3	56.74	75	78%	1	0.41	1.35	
										3.6	0.78	2.55	
										10	1.31	4.30	
										50	2.94	9.65	
										71.5	3.52	11.54	
										88.5	3.93	12.90	
										100	4.18	13.71	
										135	4.86	15.93	
										180	5.66	18.58	
										200	5.97	19.59	
										270	6.94	22.76	
										360	8.12	26.64	
										400	8.56	28.09	
										540	9.95	32.63	
										700	11.50	37.73	
										750	11.90	39.06	
										900	13.14	43.11	
										1000	13.91	45.64	
										1500	17.04	55.90	
										2250	20.87	68.46	
										3000	24.09	79.05	

RG 59 Serial Digital Interface Cable

75 Ohm High-End Coaxial Cables for Video, Analog & Digital Applications

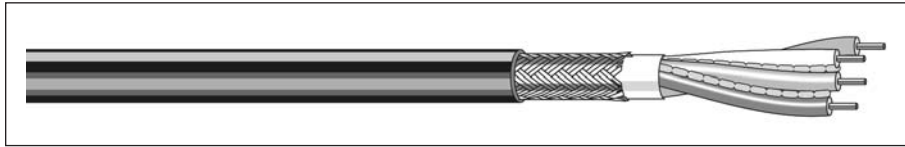
	Part No. & Safety Ratings	Cond. Size/Type & DCR	Insulation Type Nom. O.D. in/mm	Shield Type & DCR/Kft	Jacket & Nom. Dia. in/mm	Nominal Capacitance		Nom. Imp. Ohm	Nom. Vel. of Prop.	Nominal Attenuation		
						pF/ft	pF/m			MHz	dB/ 100FT	dB/ 100m
	RG 59/U MINI SERIAL DIGITAL INTERFACE (SDI)/PRECISION COAX, RISER RATED											
	395036 UL CMR c(UL) CMG 75°C / 300V	25 (19/37) BC (27.4 Ohm)	Foam PE Gas Injection 0.094 / 2.38	Dual Foil + 95% Tinned Copper Braid Shield (5.4 Ohm)	Flame-Retardant PVC 0.150 / 3.81	16.5	54.1	75	82%	1	0.43	1.41
										3.6	0.95	3.12
										71.5	3.96	12.99
										88.5	4.10	13.45
										135	5.00	16.40
										180	5.80	19.02
										270	7.10	23.29
										360	8.20	26.90
										540	10.10	33.13
										750	11.98	39.29
										1500	16.28	53.39
										2250	20.73	67.99
										3000	23.48	77.01
	RG 59/U SERIAL DIGITAL INTERFACE (SDI)/PRECISION COAX, RISER RATED											
	395031 UL CMR c(UL) CMG 75°C / 300V	23 Solid BC (20.1 Ohm)	Foam PE Gas Injection 0.102 / 2.59	Dual Foil + 95% Tinned Copper Braid Shield (7.6 Ohm)	Flame-Retardant PVC 0.159 / 4.04	16.5	54.1	75	83%	1	0.39	1.28
										3.6	0.78	2.56
										71.5	3.06	10.04
										88.5	3.16	10.36
										135	3.81	12.50
										180	4.38	14.37
										270	5.40	17.71
										360	6.20	20.34
										540	7.70	25.26
										750	9.59	31.45
										1500	13.0	42.64
										2250	16.0	52.48
										3000	18.50	60.68
	395025 UL CMR c(UL) CMG 75°C / 300V	20 Solid BC (10.5 Ohm)	Foam PE Gas Injection 0.146 / 3.71	Dual Foil + 95% Tinned Copper Braid Shield (3.5 Ohm)	Flame-Retardant PVC 0.242 / 6.15	16.3	53.4	75	83%	1	0.29	0.95
										3.6	0.55	1.81
										71.5	2.10	6.89
										88.5	2.20	7.22
										135	2.70	8.86
										180	3.10	10.17
										270	3.80	12.46
										360	4.40	14.50
										540	5.47	17.94
										750	6.50	21.32
										1500	9.30	30.50
										2250	11.51	37.75
										3000	13.31	43.66
		395010 UL CMR c(UL) CMG 75°C / 300V	20 Solid BC (10.5 Ohm)	Solid PE 0.198 / 5.03	Dual Braid + 98% Tinned Copper Braid Shield (1.1 Ohm)	Flame-Retardant PVC 0.305 / 7.75	20.5	67.24	75	66%	1	0.24
3.6											0.46	1.51
10											0.77	2.52
50											1.76	5.79
71.5											2.11	6.92
88.5											2.35	7.71
100											2.50	8.20
135											2.94	9.65
180											3.42	11.22
200											3.60	11.83
270											4.23	13.88
360											4.94	16.21
400											5.21	17.08
540		6.16	20.21									
	395013 Outdoor -65°C to +80°C / 300V	20 Solid BC (10.5 Ohm)	Solid PE 0.198 / 5.03	Dual Braid + 98% Tinned Copper Braid Shield (1.1 Ohm)	Polyethylene 0.305 / 7.75	20.5	67.24	75	66%	3.6	0.46	1.51
										10	0.77	2.52
										50	1.76	5.79
										71.5	2.11	6.92
										88.5	2.35	7.71
										100	2.50	8.20
										135	2.94	9.65
										180	3.42	11.22
										200	3.60	11.83
										270	4.23	13.88
										360	4.94	16.21
										400	5.21	17.08
										540	6.16	20.21
	700	7.12	23.36									
750	7.37	24.18										
900	9.15	30.04										
1000	9.65	31.66										
1500	11.82	38.78										
2250	14.48	47.49										
3000	16.71	54.84										

RG 59 Serial Digital Interface Cable

75 Ohm High-End Coaxial Cables for Video, Analog & Digital Applications

	Part No. & Safety Ratings	Cond. Size/Type & DCR	Insulation Type Nom. O.D. in/mm	Shield Type & DCR/Kft	Jacket & Nom. Dia. in/mm	Nominal Capacitance		Nom. Imp. Ohm	Nom. Vel. of Prop.	Nominal Attenuation			
						pF/ft	pF/m			MHz	dB/ 100FT	dB/ 100m	
	RG 59/U SERIAL DIGITAL INTERFACE (SDI)/PRECISION COAX, PLENUM RATED												
	495023 UL CMP C(UL) CMP 75°C / 300V	20 Solid BC (10.5 Ohm)	Foam FEP 0.135 / 3.43	Dual Foil + 95% Tinned Copper Braid Shield (3.2 Ohm)	Plenum - PVC 0.199 / 5.05	16.1	53.0	75	84%	1	0.29	0.95	
										3.6	0.62	2.03	
										10	1.03	3.39	
										50	1.88	6.17	
										71.5	2.25	7.38	
										88.5	2.35	7.71	
										100	2.50	8.20	
										135	3.20	10.50	
										180	3.65	11.98	
										200	3.85	12.62	
										270	4.55	14.93	
										360	5.25	17.23	
										400	5.53	18.16	
										540	6.40	21.00	
										700	7.16	23.49	
										750	7.41	24.31	
										900	8.12	26.63	
										1000	8.56	28.07	
										1500	12.80	42.00	
										2250	17.50	57.42	
3000										21.90	71.85		
	495010 UL CMP C(UL) CMP 150°C / 300V	20 Solid BC (10.5 Ohm)	Solid FEP 0.188 / 4.78	Dual Braid + 98% Tinned Copper Braid Shield (0.93 Ohm)	PVDF 0.276 / 7.01	19.0	62.32	75	69%	1	0.25	0.82	
										3.6	0.48	1.57	
										10	0.80	2.62	
										50	2.08	6.83	
										71.5	2.49	8.17	
										88.5	2.81	9.22	
										100	2.99	9.80	
										135	3.63	11.91	
										180	4.46	14.63	
										200	4.70	15.42	
										270	5.64	18.50	
										360	6.84	22.44	
										400	7.21	23.66	
										540	8.97	29.43	
										700	10.91	35.79	
										750	11.29	37.04	
										900	13.18	43.23	
										1000	13.89	45.57	
										1500	17.01	55.82	
										2250	20.84	68.36	
										3000	24.06	78.93	

Ultra Flexible, Low Impedance 4-Conductor "Star-Quad" Microphone Cable



CATALOG NUMBER	CONDUCTOR	INSULATION & O.D.	SHIELD (COV)	JACKET & O.D.	WT. #/M'	IMPED OHMS	CAPAC pF/ft
743722	4/C 22 AWG Stranded 26/36 Bare Copper	Polyethylene 0.062"	Braid 95% Tinned Copper	"HQA" PVC 0.255" Nom. Black	43	44	46
743702	4/C 24 AWG Stranded 40/40 Bare Copper	Polyethylene 0.056"	Braid 95% Tinned Copper	"HQA" PVC 0.237" Nom. Black	35	48	39
743703	4/C 24 AWG Stranded 40/40 Bare Copper	Polyethylene 0.056"	Braid & Drain 95% Tinned Copper	"HQA" PVC 0.237" Nom. Black	37	48	39
743731 "mini"	4/C 24 AWG Stranded 30/40 Bare Cu	Polyethylene 0.043"	Braid 95% Tinned Copper	"HQA" PVC 0.193" Nom. Black	24	48	39

Product Construction:

Conductor:

- 22 or 24 AWG stranded bare copper
- 4-conductor, double-balanced pairing

Insulation:

- Polyethylene

Shield:

- 95% flexible braid, tinned copper

Jacket:

- High Quality Audio (HQA) PVC, matte black
- Superior flexibility

Applications:

- Digital audio interfaces
- High-end microphones
- All line-level signals

Features:

- Offers high conductor flexibility
- "Star Quad" XLR connection* provides common mode rejection at each pin, greatly reducing induced noise levels and interference

Packaging and Jacket Colors:

- Please consult Customer Service for packaging and color options

* Star Quad XLR connection is accomplished by connecting the two white conductors to one XLR pin and the two blue conductors to the other XLR pin.

Ultra Flexible, Low Impedance 2-Conductor Microphone Cable

Product Construction:

Conductor:

- 20 - 24 AWG stranded bare copper
- Twisted pairs

Insulation:

- PVC or Polyethylene

Shield:

- Braid or Spiral, Bare or Tinned Copper (choice of shielding configurations)

Jacket:

- High Quality Audio (HQA) PVC, matte black
- Superior flexibility

Applications:

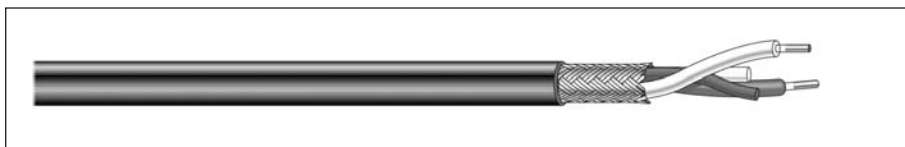
- General-purpose audio applications
- Home entertainment
- Musical instruments

Features:

- Twisted conductor construction minimizes effects of EMI
- Precise application of filler maintains mechanical durability to resist annoying handling noise
- Braid shield guards against crosstalk and EMI while minimizing capacitive reactance, which causes hum and buzz
- High strand conductor plus HQA jacket results in ultimate flexibility

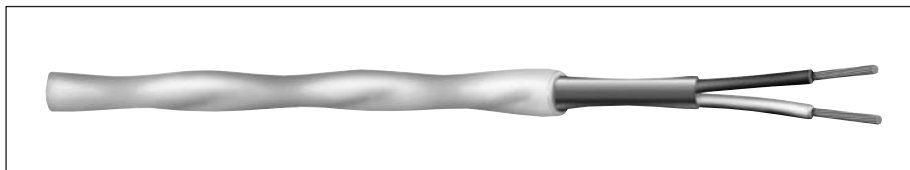
Packaging and Jacket Colors:

- Please consult Customer Service for packaging and color options



CATALOG NUMBER	CONDUCTOR	INSULATION & O.D.	SHIELD (COV.)	JACKET & O.D.	WT. #/M'	IMPED OHMS	CAPAC pF/ft
743701	2/C 24 AWG Stranded 105/44 Bare Copper	PVC 0.045" Nom.	80% Nom. Bare Copper Braid	"HQA" PVC 0.176" Nom. Black	22	65	30
743704	2/C 24 AWG Stranded 41/40 Bare Copper	Polyethylene 0.050" Nom.	95% Tinned Copper Braid	"HQA" PVC 0.194" Nom. Black	23	80	20
743705	2/C 24 AWG Stranded 16/36 Bare Copper	Polyethylene 0.050" Nom.	95% Bare Copper Spiral	"HQA" PVC 0.225" Nom. Black	29	80	20
743706	2/C 22 AWG Stranded 26/36 Bare Copper	Polyethylene 0.062" Nom.	85% Bare Copper Braid	"HQA" PVC 0.232" Nom. Black	34	85	18
743707	2/C 20 AWG Stranded 41/36 Bare Copper	Polyethylene 0.074" Nom.	85% Bare Copper Braid	"HQA" PVC 0.262" Nom. Black	40	80	20

Multi-Conductor, Spiral Shield



CATALOG NUMBER	NO. OF COND.	AWG SIZE	COND. STRAND.	NOM. INSULATION THICKNESS		NOM. JACKET THICKNESS		NOMINAL O.D.		NOMINAL CAP.* pF/ft	
				INCHES	mm	INCHES	mm	INCHES	mm	A	B
C1226	2	24	105/44	0.012	0.30	0.029	0.74	0.176	4.47	43.0	77.0

*A - Capacitance between conductors

*B - Capacitance between one conductor and other conductor connected to shield

Color Code Chart

NO. OF CONDUCTORS	COLOR
1	White
2	Green

Product Construction:

Conductor:

- 24 AWG annealed stranded bare copper per ASTM B-3

Insulation:

- Premium-grade, color-coded PVC
- Color Code: See chart below

Shield:

- 85% spiral-tinned copper

Jacket:

- PVC, black
- Temperature range: -20°C to +90°C

Applications:

- Electronic circuits where RF shielding is required
- Radio transmitters
- Sound systems
- Recording studios
- Suggested voltage rating: 300 volts

Features:

- Spiral shield provides extra flexibility
- Excellent shielding to reduce noise

Packaging:

- Please contact Customer Service for packaging and color options

Multi-Conductor, Flexfoil® Shield

Product Construction:

Conductor:

- 24 AWG fully annealed stranded tinned copper per ASTM B-33

Insulation:

- Premium-grade, color-coded polypropylene
- Color Code: See chart below

Shield:

- Conductive tape applied over the core
- 100% Flexfoil® aluminum/polyester, 25% overlap, minimum, foil facing in
- Stranded tinned copper drain wire

Jacket:

- PVC, black
- Temperature range: -20°C to +75°C

Applications:

- Electronic circuits where RF shielding is required
- Radio transmitters
- Sound systems
- Recording studios
- Suggested voltage rating: 300 volts

Features:

- Excellent shielding to reduce noise

Packaging:

- Please contact Customer Service for packaging and color options



CATALOG NUMBER	NO. OF COND.	AWG SIZE	COND. STRAND.	NOM. INSULATION THICKNESS		NOM. JACKET THICKNESS		NOMINAL O.D.		NOMINAL CAP.*	
				INCHES	mm	INCHES	mm	INCHES	mm	A	B
C1228	2	24	19/36	0.008	0.20	0.020	0.51	0.135	3.43	27.0	48.5

*A - Capacitance between conductors

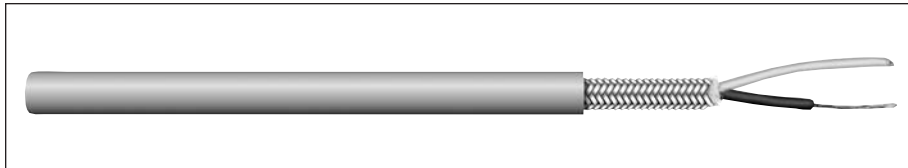
*B - Capacitance between one conductor and other conductor connected to shield

Color Code Chart

NO. OF CONDUCTORS	COLOR
1	Black
2	Red

Multi-Conductor, Braid Shield

Low Impedance



CATALOG NUMBER	TYPE	NO. OF COND.	AWG SIZE	COND. STRAND.	NOM. INSULATION THICKNESS		NOM. JACKET THICKNESS		NOMINAL O.D.		NOM. CAP.* pF/ft
					INCHES	mm	INCHES	mm	INCHES	mm	
C1322	Low Imped.	2	22	16/34	0.025	0.64	0.025	0.64	0.239	6.07	31.0

* Capacitance between one conductor and other conductor connected to shield

Color Code Chart

NO. OF CONDUCTORS	COLOR
1	White
2	Black

Product Construction:

Conductor:

- 22 AWG fully annealed stranded tinned copper per ASTM B-33

Insulation:

- Premium-grade, color-coded polyethylene
- Fillers where required
- Color code: See chart below

Shield:

- 80% tinned copper braid

Jacket:

- PVC, gray
- Temperature range: -20°C to +75°C

Applications:

- Low-impedance microphones
- Suggested voltage rating: 1000 volts

Features:

- Flexlife® jacket provides extreme flexibility
- High abrasion resistance
- Outstanding appearance

Packaging:

- Please contact Customer Service for packaging and color options

Multi-Conductor, Rubber, Braid Shield

High and Low Impedance



Product Construction:

Conductor:

- 18 and 20 AWG fully annealed stranded tinned copper per ASTM B-33

Insulation:

- Premium-grade, color-coded rubber insulation
- Color Code: See chart below

Shield:

- Clear mylar® wrap
- 80% tinned copper braid
- Cotton wrap

Jacket:

- Rubber, black
- Temperature range: -20°C to +60°C

Applications:

C1300, C1301:

- High-impedance microphones
- Broadcast and studio use
- Communication and audio system
- Shielded power supplies
- Suggested voltage rating: 300 volts

C1302:

- Low-impedance microphones
- Studio use
- Control circuits
- Video and audio interconnecting cables
- Shielded power supplies
- Suggested voltage rating: 300 volts

Features:

- Precision engineered to transmit clear, noise-free signals
- Minimizes electrical "hum"
- Braid shield provides extra flexibility

Compliances:

- RoHS Compliant Directive 2002/95/EC

Packaging:

- Please contact Customer Service for packaging and color options



CATALOG NUMBER	NO. OF COND.	AWG SIZE	COND. STRAND.	NOM. INSULATION THICKNESS		NOM. JACKET THICKNESS		NOMINAL O.D.		NOMINAL CAP.* pF/ft
				INCHES	mm	INCHES	mm	INCHES	mm	
C1300	1	20	26/34	0.042	1.07	0.035	0.89	0.230	5.84	42.0
C1301	1	18	41/34	0.040	1.02	0.035	0.89	0.240	6.10	46.0
C1302	2	20	26/34	0.020	0.51	0.035	0.89	0.270	6.86	50.0

* Capacitance between one conductor and other conductor connected to shield

Color Code Chart

NO. OF CONDUCTORS	COLOR
1	White
2	Black

Multi-Conductor, Carolprene[®], Braid Shield

High and Low Impedance



CATALOG NUMBER	NO. OF COND.	AWG SIZE	COND. STRAND.	NOM. INSULATION THICKNESS		NOM. JACKET THICKNESS		NOMINAL O.D.		NOMINAL CAP.* pF/ft
				INCHES	mm	INCHES	mm	INCHES	mm	
C1201	1	18	41/34	0.040	1.02	0.035	0.89	0.240	6.10	46.0
C1202	2	18	41/34	0.020	0.51	0.035	0.89	0.295	7.49	61.0
C1602	2	16	65/34	0.025	0.64	0.035	0.89	0.335	8.51	55.0

* Capacitance between one conductor and other conductor connected to shield

Color Code Chart

NO. OF CONDUCTORS	COLOR
1	White
2	Black

Product Construction:

Conductor:

- 18 and 16 AWG fully annealed stranded tinned copper per ASTM B-33

Insulation:

- Premium grade color coded rubber
- Color Code: See chart below

Shield:

- Clear Mylar[®] wrap
- 80% braid tinned copper
- Cotton wrap

Jacket:

- Carolprene[®], black
- Temperature range: -20°C to +60°C

Applications:

C1201:

- High-impedance microphones
- Broadcast and studio use
- Communication and audio systems
- Suggested voltage rating: 300 volts

C1202, C1602:

- Low-impedance microphones
- Studio use
- Control circuits
- Video and interconnecting cables
- Shielded power supplies
- Suggested voltage rating: 300 volts

Features:

- Precision engineered to transmit clear, noise-free signals
- Minimizes electrical "hum"
- Resistant to oil, acid, sunlight, abrasion and aging
- Excellent noise rejection

Compliances:

- RoHS Compliant Directive 2002/95/EC

Packaging:

- Please contact Customer Service for packaging and color options

Special Audio, Communication & Instrumentation

UL 2095, 2093

Product Construction:

Conductor:

- 24 thru 20 AWG fully annealed stranded tinned copper per ASTM B-33

Insulation:

- Premium-grade, color-coded polyethylene (C1333) or PVC (C1345)
- Color Code: See chart below

Shield:

- 100% Flexfoil® aluminum/polyester foil with 25% overlap, minimum, foil facing out
- Stranded tinned copper drain wire

Jacket:

- PVC, gray
- Temperature Range: -20°C to +80°C

Applications:

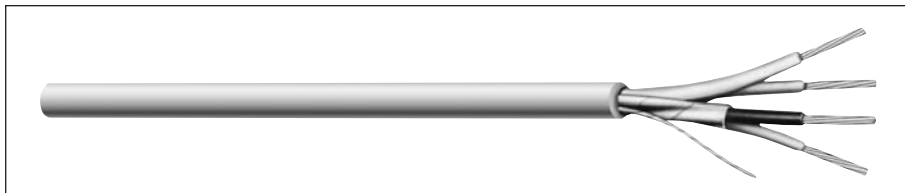
- Audio
- Communications
- EMI isolated circuits for instrumentation
- Suggested voltage rating: 300 volts

Compliances:

- UL Style 2093 (UL: 60°C, 300V)
- UL Style 2095 (UL: 80°C, 300V)

Packaging:

- Please contact Customer Service for packaging and color options



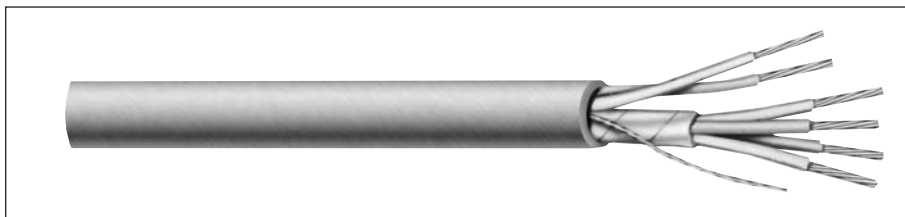
CATALOG NUMBER	NO. OF COND.	AWG SIZE	COND. STRAND.	NOM. INSULATION THICKNESS		NOM. JACKET THICKNESS		NOMINAL O.D.		NOM CAP.* pF/ft	
				INCHES	mm	INCHES	mm	INCHES	mm	A	B
UL Style 2093, 300 VOLT											
C1333	3	2-20 Shielded 1-20 Unshielded	10/30	0.015	0.38	0.028	0.71	0.206	5.23	26.0	47.0

*A - Capacitance between conductors

*B - Capacitance between one conductor and other conductors connected to shield

Color Code Chart

NO. OF COND.	COLOR
Shielded	
1	Black
2	Red
Unshielded	
1	Natural



CATALOG NUMBER	NO. OF COND.	AWG SIZE	COND. STRAND.	NOM. INSULATION THICKNESS		NOM. JACKET THICKNESS		NOMINAL O.D.		NOM CAP.* pF/ft	
				INCHES	mm	INCHES	mm	INCHES	mm	A	B
UL Style 2095, 300 VOLT											
C1345	6	4-24 Shielded	7/32	0.015	0.38	0.025	0.64	0.230	5.84	32.0	57.0
		2-22 Unshielded	7/30								

*A - Capacitance between conductors

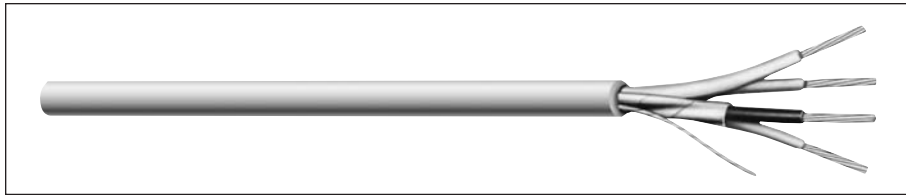
*B - Capacitance between one conductor and other conductors connected to shield

Color Code Chart

NO. OF COND.	COLOR
Shielded	
1	Black
2	Red
3	Green
4	Yellow
Unshielded	
1	Blue
2	White

Special Audio, Communication & Instrumentation

UL 2095, UL 2835, UL 2094, NEC Type CL2



CATALOG NUMBER	NO. OF COND.	AWG SIZE	COND. STRAND.	NOM. INSULATION THICKNESS		NOM. JACKET THICKNESS		NOMINAL O.D.		NOM CAP.* pF/ft	
				INCHES	mm	INCHES	mm	INCHES	mm	A	B

UL Style 2095, 300 VOLT, NEC Type CL2

C1331	4	2-20 Shielded	7/28	0.016	0.41	0.032	0.81	0.230	5.84	41	74
		2-20 Unshielded									

UL Style 2835, 30 VOLT

C1340	4	2-22 Shielded	7/30	0.008	0.20	0.017	0.43	0.161	4.09	29	52
		2-22 Unshielded									

UL Style 2094, 300 VOLT

C1343	4	2-20 Shielded	7/28	0.018	0.46	0.032	0.81	0.259	6.58	27	49
		2-18 Unshielded	16/30	0.018	0.46						

*A - Capacitance between conductors

*B - Capacitance between one conductor and other conductors connected to shield

Color Code Chart

NO. OF COND.	COLOR
Shielded	
1	Black
2	Red
Unshielded	
1	Green
2	White

Product Construction:

Conductor:

- 22 thru 18 AWG fully annealed stranded tinned copper per ASTM B-33

Insulation:

- C1331 - Premium-grade, color-coded PVC
- C1340 - Premium-grade, color-coded polypropylene
- C1343 - Premium-grade, color-coded polyethylene
- Color Code: See chart below

Shield:

- 100% Flexfoil® aluminum/polyester over two conductors, 25% overlap, minimum, foil facing out
- Stranded tinned copper drain wire

Jacket:

- PVC, gray
- Temperature Range: -20°C to +80°C

Applications:

- Audio
- Communications
- EMI isolated circuits for instrumentation

Compliances:

- NEC Article 725 Type CL2 (UL: 75°C, 150V)
- C1331 - UL Style 2095 (UL: 80°C, 300V)
- C1340 - UL Style 2835 (UL: 60°C, 30V)
- C1343 - UL Style 2094 (UL: 60°C, 300V)
- Designed to Meet UL 70,000 BTU Vertical Tray Flame Test

Packaging:

- Please contact Customer Service for packaging and color options

CAROL BRAND



Designed to Meet
UL Vertical Tray
Flame Test

Underwriters Laboratories Inc.



Special Audio, Communication & Instrumentation

UL 2094

Product Construction:

Conductor:

- 22 AWG fully annealed stranded tinned copper per ASTM B-33

Insulation:

- Premium-grade, color-coded polyethylene
- Color Code: See chart below

Shield:

- 64% tinned copper braid over one pair

Jacket:

- PVC, gray
- Temperature Range: -20°C to +60°C

Applications:

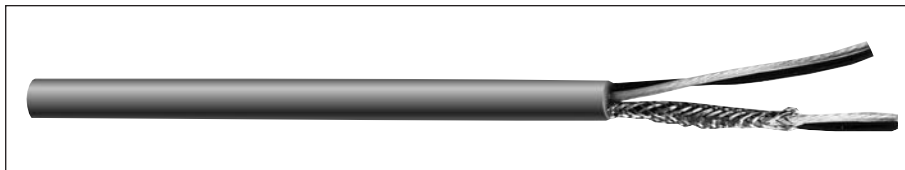
- Special audio
- Communication and control
- Instrumentation
- Applications where total isolation of signal is required
- Suggested voltage rating: 300 volts

Compliances:

- UL Style 2094 (UL: 60°C, 300V)
- Designed to Meet UL VW-1 Vertical Wire Flame Test

Packaging:

- Please contact Customer Service for packaging and color options



CATALOG NUMBER	NO. OF PAIRS	AWG SIZE	COND. STRAND.	NOM. INSULATION THICKNESS		NOM. JACKET THICKNESS		NOMINAL O.D.		NOM CAP.* pF/ft	
				INCHES	mm	INCHES	mm	INCHES	mm	A	B
C1338	2	1-22 Shielded	7/30	0.015	0.38	0.030	0.76	0.295	7.49	24	43
		1-22 Unshielded									

*A - Capacitance between conductors

*B - Capacitance between one conductor and other conductors connected to shield

Color Code Chart

NO. OF PAIRS	COLOR
1	Black/Natural
2	Black/Natural

CCTV Coaxial, TV Camera & Video Surveillance

UL Type CL2, CATV, CM or CMP; C(UL) Type CM or CMP

Product Construction:

Conductors:

- Copper per ASTM B-3
- Twisted Pair Color Code: black and red

Insulation/Core:

- Cellular polyethylene, FE, or Halar

Shield:

- Bare copper or tinned copper or aluminum braid
- Flexfoil® shield available

Jacket:

- Premium PVC or Plenum PVC

Packaging:

- Please contact Customer Service for packaging and color options

Applications:

- Suitable for RF signal transmission
- CATV
- DBS
- Drop cable
- Digital video

CATALOG NUMBER	AWG SIZE NOM. DCR	INSULATION MATERIAL		SHIELD COVERAGE NOM SHLD DCR	NOMINAL O.D.		NOMINAL CAPACITANCE		VELOCITY OF PROPAGATION, %	NOMINAL IMPEDANCE, Ω	NOMINAL ATTENUATION					
		INCHES	mm		INCHES	mm	pF/ft	pF/m			MHz	dB/100'				
C8029 RG 6/U Type +18 AWG Unshielded Pair UL CL2, CATV, CM C(UL) CM AWM 20006 	18 Ga. Solid BC Coax 18 AWG 7/26 Unshielded Pair	Cellular Polyethylene		100% Flexfoil® +95% Tinned Copper Braid Unshielded Pair	Black PVC		16.20	53.15	85	75	1	0.20				
		0.177	4.50		0.270 X 0.493	6.86 X 12.52					10	0.72				
											50	1.48				
											100	2.01				
C8031 RG 6/U Type +18 AWG Unshielded Pair UL CMP C(UL) CMP 	18 AWG 7/26 Unshielded Pair	Cellular FEP		95% Bare Copper Braid Unshielded Pair	Natural PVC		16.30	53.48	86	75	1	0.30				
		0.170	0.432		0.232 X 0.416	5.89 X 10.57					10	0.66				
											50	1.50				
											100	2.10				
C1103 RG 59/U Type CCTV UL CL2, CATV, CM CSA CMG ® 1354 	22 Ga. (7X30) Bare Copper 14.8 Ω/M	Cellular Polyethylene		95% Bare Copper Braid 2.6 Ω/M	Black PVC		17.00	55.78	78	76	1	0.26				
		0.146	3.71		0.242	6.15					10	0.91				
											50	2.09				
											100	3.00				
C8025 RG 59/U Type +22 AWG Shielded Pair UL CL2, CATV, CM C(UL) CM 	22 AWG 7/30 BC Coax 22 AWG 7/30 Shielded Pair	Cellular Polyethylene		95% Bare Copper Braid 25% Overlap Flexfoil® Al/PP Shielded	Black PVC		17.00	55.78	78	76	1	0.26				
		0.144	3.66		0.242 X 0.445	6.147 X 11.30					10	0.91				
											50	2.90				
											100	3.00				
C8027 RG 59/U Type +18 AWG Shielded Pair UL CL2, CATV, CM C(UL) CM AWM 20006 	22 AWG 7/30 BC Coax 18 AWG 16/30 Shielded Pair	Cellular Polyethylene		95% Bare Copper Braid 25% Overlap Flexfoil® Al/PP Shielded	Black PVC		17.00	55.78	78	76	1	0.26				
		0.144	3.66		0.242 X 0.480	6.15 X 12.19					10	0.91				
											50	2.09				
											100	3.00				
C8028 RG 59/U Type +18 AWG Unshielded Pair UL CL2, CATV, CM C(UL) CM AWM 20006 	20 AWG Solid BC Coax 18 AWG 7/26 Unshielded Pair	Cellular Polyethylene		95% Bare Copper Braid Unshielded Pair	Black PVC		16.20	53.15	78	71	1	0.25				
		0.144	3.66		0.238 X 0.440	6.05 X 11.18					10	0.78				
											50	1.97				
											100	2.70				
C8030 RG 59/U Type +18 AWG Unshielded Pair UL CMP C(UL) CMP 	20 AWG Solid BC Coax 18 AWG 7/26 Unshielded Pair	Premium PVC		95% Bare Copper Braid Unshielded Pair	Natural PVC		16.30	53.48	83	75	1	0.78				
		0.010	0.25		0.200 X 0.383	5.08 X 9.73					10	1.90				
											50	1.98				
											100	2.80				
		Halar									200	4.10				
		0.006	0.15								500	6.82				
											1000	9.64				

**CAROL
BRAND**



General Cable

Direct Burial, Audio & Communication

Product Construction:

Conductor:

- 20 AWG fully annealed solid tinned copper per ASTM B-33

Insulation:

- Premium-grade, color-coded polypropylene
- Color Code: See chart below

Shield:

- 100% Flexfoil® aluminum/polyester with 25% overlap, minimum, foil facing out
- Solid tinned copper drain wire

Jacket:

- Permaline® high-density polyethylene, black
- Temperature Range: -20°C to +80°C

Applications:

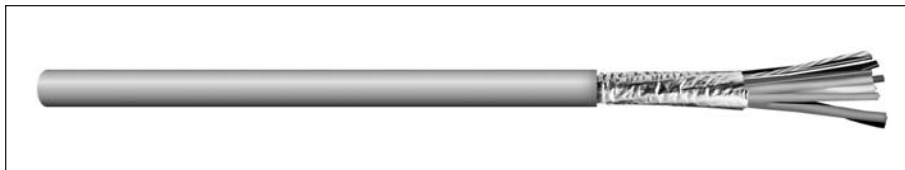
- Suitable for direct burial
- Outdoor uses
- 100% shielded cable where RF shielding is required
- Suggested voltage rating: 350 volts

Features:

- Permaline® jackets resist deterioration
- Sunlight-resistant
- Highly durable jacket

Packaging:

- Please contact Customer Service for packaging and color options



CATALOG NUMBER	NO. OF COND.	AWG SIZE	COND. STRAND.	NOM. INSULATION THICKNESS		NOM. JACKET THICKNESS		NOMINAL O.D.		NOM CAP.* pF/ft	
				INCHES	mm	INCHES	mm	INCHES	mm	A	B
C2509	2	20	Solid	0.013	0.33	0.037	0.94	0.190	4.83	25.0	44.0
C2510	3	20	Solid	0.013	0.33	0.039	0.99	0.205	5.21	22.0	40.0
C2511	10	20	Solid	0.013	0.33	0.039	0.99	0.310	7.87	20.5	37.0

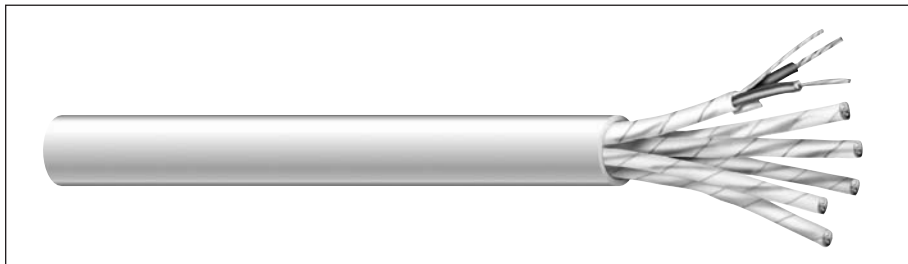
*A - Capacitance between conductors

*B - Capacitance between one conductor and other conductors connected to shield

Color Code Chart

NO. OF COND.	COLOR
1	Black
2	White
3	Red
4	Green
5	Brown
6	Blue
7	Orange
8	Yellow
9	Violet
10	Gray

Direct Burial, Audio & Communication



CATALOG NUMBER	NO. OF PAIRS	AWG SIZE	COND. STRAND.	NOM. INSULATION THICKNESS		NOM. JACKET THICKNESS		NOMINAL O.D.		NOM CAP.* pF/ft	
				INCHES	mm	INCHES	mm	INCHES	mm	A	B
C6061	3	20	10/30	0.013	0.33	0.047	1.19	0.340	8.64	22.0	39.0
C6062	6	20	10/30	0.013	0.33	0.047	1.19	0.442	11.23	22.0	39.0

*A - Capacitance between conductors

*B - Capacitance between one conductor and other conductors connected to shield

Color Code Chart

NO. OF PAIRS	COLORS
1	Black paired with Red
2	Black paired with White
3	Black paired with Green
4	Black paired with Blue
5	Black paired with Yellow
6	Black paired with Brown

Product Construction:

Conductor:

- 20 AWG fully annealed stranded tinned copper per ASTM B-33
- Twisted pairs

Insulation:

- Premium-grade, color-coded polypropylene
- Color Code: See chart below

Shield:

- 100% Flexfoil® aluminum/polyester with 25% overlap, minimum, foil facing in
- Stranded tinned copper drain wire each pair
- Individually shielded pairs

Jacket:

- Permaline® high-density polyethylene, black
- Temperature Range: -20°C to +80°C

Applications:

- Suitable for direct burial
- Outdoor uses
- Applications where total isolation of signal is required
- Suggested voltage rating: 350 volts

Features:

- Permaline® jackets resist deterioration
- Sunlight-resistant

Packaging:

- Please contact Customer Service for packaging and color options

Analog Audio Snake Cable

70 Ohm Low Capacitance Multi-Pair Individually Shielded & Jacketed

Product Construction:

Conductor:

- 24 AWG stranded tinned copper
- Twisted pairs

Insulation:

- Polyolefin

Shield:

- Individually shielded pairs with 24 AWG drain wire
- Overall foil shield 24 AWG drain wire

Jacket:

- PVC, matte black
- High-flex, flame-retardant

Applications:

- Analog audio
- Line level microphone
- Interconnection and audio components for console board equipment used in recording studios, radio and television stations, and post-production facilities
- Sound system installations

Features:

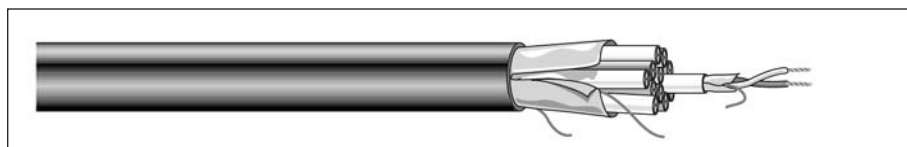
- PVC jacketing compound for superior cosmetics, durability and flexibility
- Individually shielded and jacketed pairs with an overall shield
- Individual pair jackets alpha numerically numbered for easy identification

Compliances:

- NEC Type CM/CL2

Packaging and Jacket Colors:

- Please consult Customer Service for packaging and color options

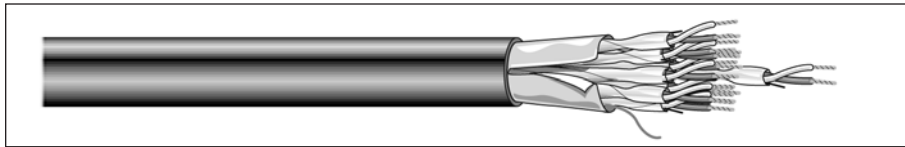


CATALOG NUMBER	CONDUCTOR	INSULATION & O.D.	SHIELD (COV.)	JACKET & O.D.	WT. #/M'	IMPED OHMS	CAPAC pF/ft
740501	1/PR 24 AWG Stranded 7/32 Tinned Copper	Polyolefin 0.024" Nom.	Individual Foil 100% w/ 24 AWG Drain Overall Foil w/ 18 AWG Drain	FR-PVC Matte Finish 0.137" Nom.	11	65	24
740504	4/PR 24 AWG Stranded 7/32 Tinned Copper	Polyolefin 0.024" Nom.	Individual Foil 100% w/ 24 AWG Drain Overall Foil w/ 18 AWG Drain	FR-PVC Matte Finish 0.385" Nom.	64	65	24
740508	8/PR 24 AWG Stranded 7/32 Tinned Copper	Polyolefin 0.024" Nom.	Individual Foil 100% w/ 24 AWG Drain Overall Foil w/ 18 AWG Drain	FR-PVC Matte Finish 0.490" Nom.	107	65	24
740512	12/PR 24 AWG Stranded 7/32 Tinned Copper	Polyolefin 0.024" Nom.	Individual Foil 100% w/ 24 AWG Drain Overall Foil w/ 18 AWG Drain	FR-PVC Matte Finish 0.610" Nom.	160	65	24
740516	16/PR 24 AWG Stranded 7/32 Tinned Copper	Polyolefin 0.024" Nom.	Individual Foil 100% w/ 24 AWG Drain Overall Foil w/ 18 AWG Drain	FR-PVC Matte Finish 0.680" Nom.	205	65	24
740520	20/PR 24 AWG Stranded 7/32 Tinned Copper	Polyolefin 0.024" Nom.	Individual Foil 100% w/ 24 AWG Drain Overall Foil w/ 18 AWG Drain	FR-PVC Matte Finish 0.700" Nom.	248	65	24
740528	28/PR 24 AWG Stranded 7/32 Tinned Copper	Polyolefin 0.024" Nom.	Individual Foil 100% w/ 24 AWG Drain Overall Foil w/ 18 AWG Drain	FR-PVC Matte Finish 0.820" Nom.	340	65	24
740542	42/PR 24 AWG Stranded 7/32 Tinned Copper	Polyolefin 0.024" Nom.	Individual Foil 100% w/ 24 AWG Drain Overall Foil w/ 18 AWG Drain	FR-PVC Matte Finish 1.050" Nom.	485	65	24
740552	52/PR 24 AWG Stranded 7/32 Tinned Copper	Polyolefin 0.024" Nom.	Individual Foil 100% w/ 24 AWG Drain Overall Foil w/ 18 AWG Drain	FR-PVC Matte Finish 1.150" Nom.	595	65	24

NOTE: General Cable manufactures the above cables in a wide range of alternate AWG sizes, pair counts and jacket colors. Please consult Customer Service for details.

Analog Audio Snake Cable

70 Ohm Low Capacitance Multi-Pair Individually Shielded



CATALOG NUMBER	CONDUCTOR	INSULATION & O.D.	SHIELD (COV.)	JACKET & O.D.	WT. #/M'	IMPED OHMS	CAPAC pF/ft
740701	1/PR 24 AWG Stranded 7/32 Tinned Copper	Polyolefin 0.024" Nom.	Individual Foil 100% w/ 24 AWG Drain Overall Foil w/ 18 AWG Drain	FR-PVC Matte Finish 0.137" Nom.	11	65	24
740704	4/PR 24 AWG Stranded 7/32 Tinned Copper	Polyolefin 0.024" Nom.	Individual Foil 100% w/ 24 AWG Drain Overall Foil w/ 18 AWG Drain	FR-PVC Matte Finish 0.280" Nom.	39	65	24
740706	6/PR 24 AWG Stranded 7/32 Tinned Copper	Polyolefin 0.024" Nom.	Individual Foil 100% w/ 24 AWG Drain Overall Foil w/ 18 AWG Drain	FR-PVC Matte Finish 0.330" Nom.	55	65	24
740708	8/PR 24 AWG Stranded 7/32 Tinned Copper	Polyolefin 0.024" Nom.	Individual Foil 100% w/ 24 AWG Drain Overall Foil w/ 18 AWG Drain	FR-PVC Matte Finish 0.350" Nom.	69	65	24
740709	9/PR 24 AWG Stranded 7/32 Tinned Copper	Polyolefin 0.024" Nom.	Individual Foil 100% w/ 24 AWG Drain Overall Foil w/ 18 AWG Drain	FR-PVC Matte Finish 0.380" Nom.	76	65	24
740712	12/PR 24 AWG Stranded 7/32 Tinned Copper	Polyolefin 0.024" Nom.	Individual Foil 100% w/ 24 AWG Drain Overall Foil w/ 18 AWG Drain	FR-PVC Matte Finish 0.425" Nom.	96	65	24
740716	16/PR 24 AWG Stranded 7/32 Tinned Copper	Polyolefin 0.024" Nom.	Individual Foil 100% w/ 24 AWG Drain Overall Foil w/ 18 AWG Drain	FR-PVC Matte Finish 0.490" Nom.	130	65	24
740720	20/PR 24 AWG Stranded 7/32 Tinned Copper	Polyolefin 0.024" Nom.	Individual Foil 100% w/ 24 AWG Drain Overall Foil w/ 18 AWG Drain	FR-PVC Matte Finish 0.540" Nom.	158	65	24
740728	28/PR 24 AWG Stranded 7/32 Tinned Copper	Polyolefin 0.024" Nom.	Individual Foil 100% w/ 24 AWG Drain Overall Foil w/ 18 AWG Drain	FR-PVC Matte Finish 0.655" Nom.	221	65	24
740742	42/PR 24 AWG Stranded 7/32 Tinned Copper	Polyolefin 0.024" Nom.	Individual Foil 100% w/ 24 AWG Drain Overall Foil w/ 18 AWG Drain	FR-PVC Matte Finish 0.775" Nom.	327	65	24
740752	52/PR 24 AWG Stranded 7/32 Tinned Copper	Polyolefin 0.024" Nom.	Individual Foil 100% w/ 24 AWG Drain Overall Foil w/ 18 AWG Drain	FR-PVC Matte Finish 0.845" Nom.	391	65	24

NOTE: General Cable manufactures the above cables in a wide range of alternate AWG sizes, pair counts and jacket colors. Please consult Customer Service for details.

Product Construction:

Conductor:

- 24 AWG stranded tinned copper
- Twisted pairs

Insulation:

- Polyolefin

Shield:

- Individually shielded pairs with 24 AWG drain wire
- Overall foil shield 24 AWG drain wire

Jacket:

- PVC, matte black
- High-flex, flame-retardant

Applications:

- Line level microphone
- Interconnection and audio components for console board equipment used in recording studios, radio and television stations, and post-production facilities
- Sound system installations

Features:

- PVC jacketing compound for superior cosmetics, durability and flexibility
- Individually shielded pairs are color-coded for easy identification

Compliances:

- NEC Type CM/CL2

Packaging and Jacket Colors:

- Please consult Customer Service for packaging and color options

Digital Audio Snake Cable

AES/EBU 110 Ohm Multi-Pair Individually Shielded & Jacketed

Product Construction:

Conductor:

- 24 AWG stranded tinned copper
- Twisted pairs

Insulation:

- High-density foamed Polyethylene

Shield:

- Individually shielded pairs with 24 AWG drain wire
- Overall foil shield with 18 AWG drain wire

Jacket:

- PVC, matte black
- High-flex, flame-retardant

Applications:

- Digital/audio
- Interconnection and audio components for console board equipment used in recording studios, radio and television stations, and post-production facilities
- Sound system installations

Features:

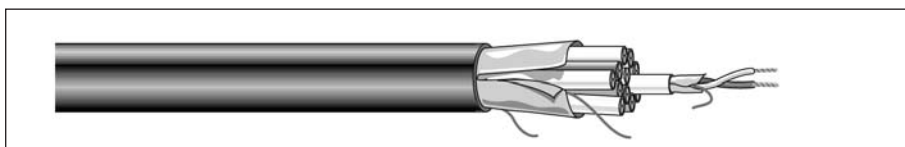
- High impedance, 78% velocity and low capacitance providing error-free transmissions over extended distances
- PVC jacketing compound for ultimate cosmetics, durability and flexibility
- Jacketed pairs can be split out of overall jacket for any length without use of heat-shrink tubing
- Individual pair jackets are color-coded and number printed for easy identification

Compliances:

- NEC Type CM/CL2
- Meets/exceeds requirements of Audio Engineering Society (AES) and European Broadcast Union (EBU)

Packaging and Jacket Colors:

- Please consult Customer Service for packaging and color options

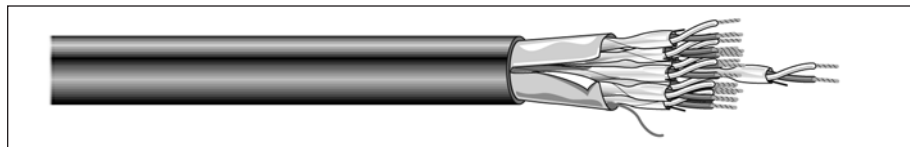


CATALOG NUMBER	CONDUCTOR	INSULATION & O.D.	SHIELD (COV.)	JACKET & O.D.	WT. #/M'	IMPED OHMS	CAPAC pF/ft
740601	1/PR 24 AWG Stranded 7/32 Tinned Copper	HD-Cellular PE 0.066" Nom.	Indiv. Foil w/ 24 AWG Drain Overall Foil w/ 18 AWG Drain	FR-PVC Matte Finish 0.176" Nom.	13.5	110	12.5
740604	4/PR 24 AWG Stranded 7/32 Tinned Copper	HD-Cellular PE 0.066" Nom.	Indiv. Foil w/ 24 AWG Drain Overall Foil w/ 18 AWG Drain	FR-PVC Matte Finish 0.525" Nom.	100	110	12.5
740608	8/PR 24 AWG Stranded 7/32 Tinned Copper	HD-Cellular PE 0.066" Nom.	Indiv. Foil w/ 24 AWG Drain Overall Foil w/ 18 AWG Drain	FR-PVC Matte Finish 0.700" Nom.	183	110	12.5
740612	12/PR 24 AWG Stranded 7/32 Tinned Copper	HD-Cellular PE 0.066" Nom.	Indiv. Foil w/ 24 AWG Drain Overall Foil w/ 18 AWG Drain	FR-PVC Matte Finish 0.850" Nom.	250	110	12.5
740616	16/PR 24 AWG Stranded 7/32 Tinned Copper	HD-Cellular PE 0.066" Nom.	Indiv. Foil w/ 24 AWG Drain Overall Foil w/ 18 AWG Drain	FR-PVC Matte Finish 1.000" Nom.	370	110	12.5
740620	20/PR 24 AWG Stranded 7/32 Tinned Copper	HD-Cellular PE 0.066" Nom.	Indiv. Foil w/ 24 AWG Drain Overall Foil w/ 18 AWG Drain	FR-PVC Matte Finish 1.100" Nom.	425	110	12.5

NOTE: General Cable manufactures the above cables in a wide range of alternate AWG sizes, pair counts and jacket colors. Please consult Customer Service for details.

Digital Audio Snake Cable

AES/EBU 110 Ohm Multi-Pair Individually Shielded



CATALOG NUMBER	CONDUCTOR	INSULATION & O.D.	SHIELD (COV.)	JACKET & O.D.	WT. #/M'	IMPED OHMS	CAPAC pF/ft
740801	1/PR 24 AWG Stranded 7/32 Tinned Copper	HD-Cellular PE 0.066" Nom.	Indiv. Foil w/ 24 AWG Drain Overall Foil w/ 18 AWG Drain	FR-PVC Matte Finish 0.176" Nom.	13.5	110	12.5
740804	4/PR 24 AWG Stranded 7/32 Tinned Copper	HD-Cellular PE 0.066" Nom.	Indiv. Foil w/ 24 AWG Drain Overall Foil w/ 18 AWG Drain	FR-PVC Matte Finish 0.375" Nom.	47	110	12.5
740806	6/PR 24 AWG Stranded 7/32 Tinned Copper	HD-Cellular PE 0.066" Nom.	Indiv. Foil w/ 24 AWG Drain Overall Foil w/ 18 AWG Drain	FR-PVC Matte Finish 0.447" Nom.	67	110	12.5
740808	8/PR 24 AWG Stranded 7/32 Tinned Copper	HD-Cellular PE 0.066" Nom.	Indiv. Foil w/ 24 AWG Drain Overall Foil w/ 18 AWG Drain	FR-PVC Matte Finish 0.506" Nom.	91	110	12.5
740809	9/PR 24 AWG Stranded 7/32 Tinned Copper	HD-Cellular PE 0.066" Nom.	Indiv. Foil w/ 24 AWG Drain Overall Foil w/ 18 AWG Drain	FR-PVC Matte Finish 0.543" Nom.	100	110	12.5
740812	12/PR 24 AWG Stranded 7/32 Tinned Copper	HD-Cellular PE 0.066" Nom.	Indiv. Foil w/ 24 AWG Drain Overall Foil w/ 18 AWG Drain	FR-PVC Matte Finish 0.610" Nom.	125	110	12.5
740816	16/PR 24 AWG Stranded 7/32 Tinned Copper	HD-Cellular PE 0.066" Nom.	Indiv. Foil w/ 24 AWG Drain Overall Foil w/ 18 AWG Drain	FR-PVC Matte Finish 0.700" Nom.	168	110	12.5
740820	20/PR 24 AWG Stranded 7/32 Tinned Copper	HD-Cellular PE 0.066" Nom.	Indiv. Foil w/ 24 AWG Drain Overall Foil w/ 18 AWG Drain	FR-PVC Matte Finish 0.800" Nom.	215	110	12.5
740827	27/PR 24 AWG Stranded 7/32 Tinned Copper	HD-Cellular PE 0.066" Nom.	Indiv. Foil w/ 24 AWG Drain Overall Foil w/ 18 AWG Drain	FR-PVC Matte Finish 0.895" Nom.	271	110	12.5

NOTE: General Cable manufactures the above cables in a wide range of alternate AWG sizes, pair counts and jacket colors. Please consult Customer Service for details.

Product Construction:

Conductor:

- 24 AWG stranded tinned copper
- Twisted pairs

Insulation:

- High-density foamed Polyethylene

Shield:

- Individually shielded pairs with 24 AWG drain wire

Jacket:

- PVC, matte black
- High-flex, flame-retardant

Applications:

- Console board equipment for recording studios, radio and television stations, and post-production facilities
- Sound system installations

Features:

- High impedance, 78% velocity and low capacitance providing error-free transmissions over extended distances
- PVC jacketing compound for ultimate cosmetics, durability and flexibility
- Individual pair jackets are color-coded and number printed for easy identification

Compliances:

- NEC Type CM/CL2
- Meets/exceeds requirements of Audio Engineering Society (AES) and European Broadcast Union (EBU)

Packaging and Jacket Colors:

- Please consult Customer Service for packaging and color options

Speaker Wire

Product Construction:

Conductor:

- 12 - 18 AWG stranded bare copper
- Twisted pairs

Insulation:

- PVC

Jacket:

- PVC, matte black
- High flexibility

Applications:

- Recording studios
- Commercial broadcast facilities

Features:

- High durability and long-lasting service

Packaging and Jacket Colors:

- Please consult Customer Service for packaging and color options



CATALOG NUMBER	CONDUCTOR & O.D.	INSULATION & O.D.	JACKET & O.D.	WEIGHT Lbs/Mft
740002	2/C 12 AWG Stranded 65/30 Bare Copper	PVC 0.136" Nom.	PVC 0.365" Nom.	100
740102	2/C 14 AWG Stranded 41/30 Bare Copper	PVC 0.118" Nom.	PVC 0.295" Nom.	75
740202	2/C 16 AWG Stranded 26/30 Bare Copper	PVC 0.102" Nom.	PVC 0.295" Nom.	60
740302	2/C 18 AWG Stranded 41/34 Bare Copper	PVC 0.079" Nom.	PVC 0.235" Nom.	38

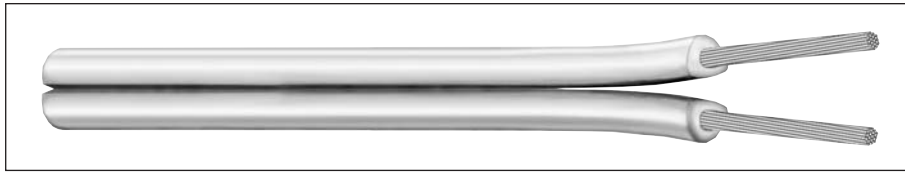


CATALOG NUMBER	CONDUCTOR & O.D.	INSULATION & O.D.	JACKET & O.D.	WEIGHT Lbs/Mft
740004	4/C 12 AWG Stranded 65/30 Bare Copper	PVC 0.136" Nom.	PVC 0.463" Nom.	165
740104	4/C 14 AWG Stranded 41/30 Bare Copper	PVC 0.118" Nom.	PVC 0.397" Nom.	107
740204	4/C 16 AWG Stranded 26/30 Bare Copper	PVC 0.102" Nom.	PVC 0.338" Nom.	75
740304	4/C 18 AWG Stranded 41/34 Bare Copper	PVC 0.079" Nom.	PVC 0.283" Nom.	53

NOTE: Cabled with jute fillers and paper tape under jacket.

Speaker Wire

UL Listed (Wires, Misc.) 120V max.



CATALOG NUMBER	NUMBER OF COND.	AWG SIZE	COND. STRAND.	NOM. INSULATION THICKNESS		NOMINAL O.D.	
				INCHES	mm	INCHES	mm
C1356	2	24	7/32	0.016	0.41	0.058x0.117	1.47x2.79
C1362	2	22	7/30	0.020	0.51	0.070x0.145	1.77x3.68
C1360	2	20	10/30	0.020	0.51	0.085x0.160	2.16x4.06
C1357	2	18	16/30	0.025	0.64	0.083x0.181	2.11x4.60
C1358	2	16	26/30	0.025	0.64	0.105x0.210	2.67x5.33
C1361	2	14	41/30	0.025	0.64	0.125x0.235	3.18x5.69
C1363	2	12	65/30	0.030	0.76	0.154x0.323	3.91x8.20

Color Code Chart

ORDERING SUFFIX	COLORS
01	Black
02	White
08	Brown
10	Gray
90	Clear

Product Construction:

Conductor:

- 24 thru 12 AWG fully annealed one bare, one tin stranded copper per ASTM B-174

Insulation/Jacket:

- Premium-grade PVC
- Color Code: See chart below

Applications:

- Digital audio
- Hi-fi and stereo speaker wire
- Lamps
- Radios
- Juke boxes
- Suggested voltage rating: 120 volts
- Not for in-wall use

Compliances:

- UL Wires Misc. (UL: 120V)

Packaging:

- Please contact Customer Service for packaging and color options

Superflex® Speaker Wire

Product Construction:

Conductor:

- 12 AWG fully annealed stranded bare copper conductor per ASTM B-3

Insulation/Jacket:

- Premium-grade clear Superflex® PVC
- Temperature Range: -20°C to +60°C
- Color Code: See chart below

Applications:

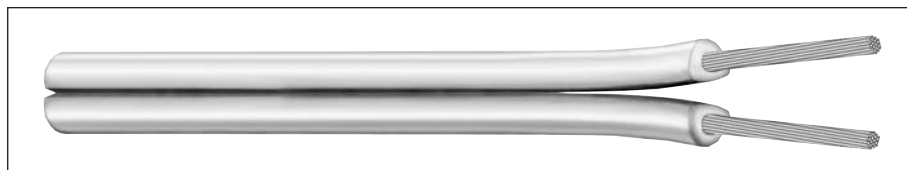
- Digital audio
- Hi-fi and stereo speaker wire
- Lamps
- Radios
- Juke boxes
- Suggested voltage rating: 120 volts
- Not for in-wall use

Compliances:

- UL Misc. (UL: 120V)

Packaging:

- Please contact Customer Service for packaging and color options



CATALOG NUMBER	NO. OF COND.	AWG SIZE	COND. STRAND.	NOM. INSULATION THICKNESS		NOMINAL O.D.	
				INCHES	mm	INCHES	mm
C1364	2	12	7x37/36	0.060	1.52	0.220 x 0.456	5.59 x 11.58

Color Code Chart

ORDERING SUFFIX	STOCK COLOR
90	Clear

Product Construction:

Conductor:

- 18 AWG, 1 tinned and 1 bare copper conductor per ASTM B-174

Insulation:

- Premium-grade, clear PVC

Jacket:

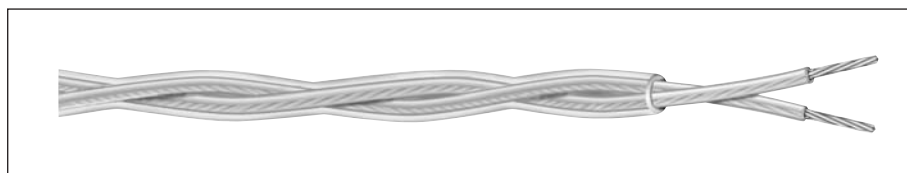
- PVC, clear
- Temperature Range: -20°C to +60°C

Applications:

- Digital audio
- Hi-fi and stereo speaker wire
- Lamps
- Radios
- Juke boxes

Packaging:

- Please contact Customer Service for packaging and color options



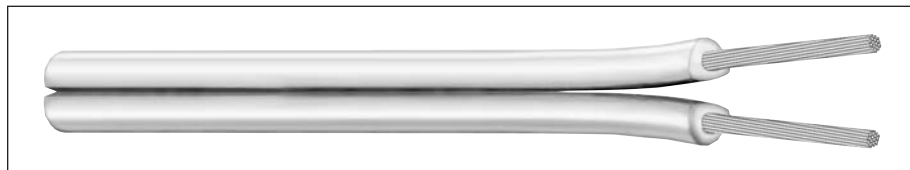
CATALOG NUMBER	NO. OF COND.	AWG SIZE	COND. STRAND.	NOM. INSULATION THICKNESS		NOM. JACKET THICKNESS		NOMINAL O.D.	
				INCHES	mm	INCHES	mm	INCHES	mm
C6367	2	18	16/30	0.016	0.41	0.025	0.64	0.210	5.33

Color Code Chart

ORDERING SUFFIX	STOCK COLOR
90	Clear

Command Series® Studio Grade Speaker Cable

NEC Type CL2



Product Description:

Command Series® Studio Grade Speaker Cable brings sounds to life. It is engineered to deliver the true fidelity of a music signal from the source to the speaker—maintaining the highest signal integrity for ultimate clarity. It is the perfect speaker cable for the discriminating audiophile.

Product Construction:

Conductor:

- 16 through 12 AWG fully annealed stranded silver-plated conductor per ASTM B-3

Insulation:

- Premium-grade, clear blue PVC
- Temperature Range: 0°C to +60°C

Applications:

- Digital audio
- Stereo systems
- In-wall speakers

Features:

- Silver-plated conductor lowers electrical resistance for superior signal rendition
- High-strand, rope-lay conductors give the cable extra flexibility
- Convenient footage and polarity markers, at one foot intervals to make installation easy
- Paintable to match any décor

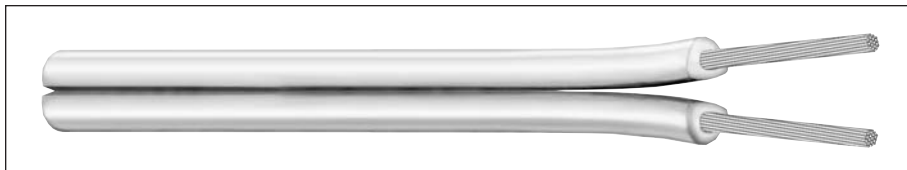
Compliances:

- NEC Article 725 Type CL2

CATALOG NUMBER	NO. OF COND.	AWG SIZE	COND. STRAND.	LENGTH	COLOR OF JACKET	PACKAGE TYPE	PKG PER CARTON	CARTON WEIGHT (LBS)	CARTON DIMENSIONS (H x W x D)	CARTON CUBE	UPC NUMBER
16 AWG CONDUCTORS											
C1558.15.92	2	16	105/36	250'	Clear Blue	Spool	1	8.5	6.6 x 6.6 x 6.3	0.159	0 79407 76276 7
14 AWG CONDUCTORS											
C1561.15.92	2	14	168/36	250'	Clear Blue	Spool	1	11.5	6.6 x 6.6 x 6.3	0.159	0 79407 76280 4
12 AWG CONDUCTORS											
C1563.15.92	2	12	259/36	250'	Clear Blue	Spool	1	17.5	13.0 x 6.5 x 9.5	0.464	0 79407 76280 4

Command Series® Premium Grade Speaker Cable

NEC Type CL2



Product Description:

Command Series® Premium Grade Speaker Cable was designed to offer outstanding performance at an affordable price. The cables are highly flexible and can be used for in-wall installations, making them ideal for use in home theater systems.

The Premium Grade Speaker Cable is available in 250' spools for custom-cut lengths, and in 25-, 50- and 100-foot clamshells. The packaged cables are ideal for display on pegboard, gondolas or H-frame shelves.

Product Construction:

Conductor:

- 16 through 12 AWG fully annealed stranded bare copper conductor per ASTM B-3

Insulation:

- Premium-grade, clear PVC
- Temperature Range: -20°C to +60°C

Applications:

- Digital audio
- Stereo systems
- In-wall speakers

Features:

- High-strand, rope-lay conductors give the cable extra flexibility
- Convenient footage and polarity markers, at one foot intervals to make installation easy
- Paintable to match any décor

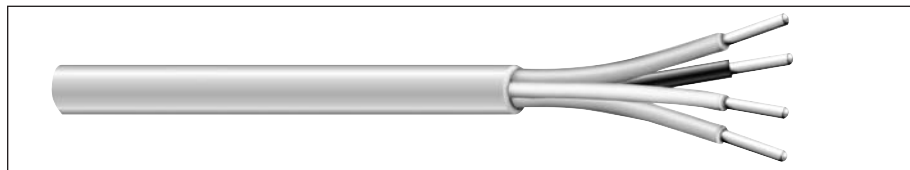
Compliances:

- NEC Article 725 Type CL2

CATALOG NUMBER	NO. OF COND.	AWG SIZE	COND. STRAND.	LENGTH	COLOR OF JACKET	PACKAGE TYPE	PKG PER CARTON	CARTON WEIGHT (LBS)	CARTON DIMENSIONS (H x W x D)	CARTON CUBE	UPC NUMBER
16 AWG CONDUCTORS											
C1458.55.90	2	16	105/36	25'	Clear	Coil	6	6.4	12.5 x 8.1 x 10.0	0.586	0 79407 76307 8
C1458.56.90	2	16	105/36	50'	Clear	Coil	6	10.4	12.5 x 8.1 x 10.0	0.586	0 79407 76308 5
C1458.57.90	2	16	105/36	100'	Clear	Coil	6	18.6	15.5 x 8.1 x 10.0	0.727	0 79407 76309 2
C1458.15.90	2	16	105/36	250'	Clear	Spool	1	8.5	6.6 x 6.6 x 6.3	0.159	0 79407 76273 6
14 AWG CONDUCTORS											
C1461.55.90	2	14	105/34	25'	Clear	Coil	6	8.5	12.5 x 8.1 x 10.0	0.586	0 79407 76310 8
C1461.56.90	2	14	105/34	50'	Clear	Coil	6	14.5	12.5 x 8.1 x 10.0	0.586	0 79407 76311 5
C1461.57.90	2	14	105/34	100'	Clear	Coil	6	27.0	15.5 x 8.1 x 10.0	0.727	0 79407 76312 2
C1461.15.90	2	14	105/34	250'	Clear	Spool	1	11.5	6.6 x 6.6 x 6.3	0.159	0 79407 76274 3
12 AWG CONDUCTORS											
C1463.55.90	2	12	259/36	25'	Clear	Coil	6	11.8	12.5 x 8.1 x 10.0	0.586	0 79407 76313 9
C1463.56.90	2	12	259/36	50'	Clear	Coil	6	21.4	15.5 x 8.1 x 10.0	0.727	0 79407 76314 6
C1463.15.90	2	12	259/36	250'	Clear	Spool	1	17.5	13.0 x 6.5 x 9.5	0.464	0 79407 76275 0

Command Series® Home Entertainment Speaker Cable

NEC Type CL3



Product Construction:

Conductor:

- 12, 14, 16, or 18 AWG fully annealed, stranded bare copper per ASTM B-8

Insulation:

- Premium-grade, color-coded polypropylene
- Color Code: See chart below

Jacket:

- PVC, command blue
- Temperature Range: -20°C to +60°C

Applications:

- Digital audio
- Stereo systems
- In-wall speakers
- Home theater
- Remote control circuits
- Security systems
- Suggested voltage rating: 300 volts
- Bi-amp speakers

Features:

- Flexible

Compliances:

- NEC Article 725 Type CL3 (UL: 60C, 300V)
- Designed to meet UL 70,000 BTU Vertical Tray Flame Test

Packaging:

- Please contact Customer Service for packaging and color options

CATALOG NUMBER	NO. OF COND.	AWG SIZE	COND. STRAND.	NOM. INSULATION THICKNESS		NOM. JACKET WALL		NOMINAL O.D.	
				INCHES	mm	INCHES	mm	INCHES	mm
C1700	2	12	65/30	0.009	0.15	0.021	0.53	0.262	6.65
C1701	4	12	65/30	0.009	0.15	0.021	0.53	0.308	7.82
C1702	2	14	41/30	0.009	0.15	0.021	0.53	0.232	5.89
C1703	4	14	41/30	0.009	0.15	0.021	0.53	0.272	6.91
C1704	2	16	26/30	0.009	0.15	0.021	0.53	0.198	5.03
C1705	4	16	26/30	0.009	0.15	0.021	0.53	0.231	5.87

Color Code Chart

NO. OF COND.	COLOR
1	Black
2	Red
3	White
4	Green

Guitar/Instrument Cable

Product Construction:

Conductor:

- 20 or 24 AWG stranded bare copper

Insulation:

-

Shield:

- 36 AWG Bare Copper Braid or Spiral

Jacket:

- High Quality Audio (HQA) PVC, matte black
- Superior flexibility

Applications:

- Guitars
- Basses
- Keyboards and other instruments to amplifiers, mixers and effects pedals
- All outdoor signal processing gear

Features:

- Low capacitance to provide excellent structural return loss characteristics
- Specially formulated vinyl sleeving reduces triboelectric charges which cause microphonic handling noise in high-gain amplification applications

Packaging and Jacket Colors:

- Please consult Customer Service for packaging and color options



CATALOG NUMBER	CONDUCTOR	INSULATION & O.D.	SHIELD (COV.)	JACKET & O.D.	WT. #/M'	IMPED OHMS	CAPAC pF/ft
743601	1/C 20 AWG Stranded 41/36 Bare Copper	0.038" Poly 0.010" Semi Conductive Vinyl	36 AWG 95% Nom. Bare Copper Braid	"HQA" PVC 0.240 Nom. Black	34	47	33
743602	1/C 20 AWG Stranded 41/36 Bare Copper	0.038" Poly 0.010" Semi Conductive Vinyl	36 AWG 65% Nom. Bare Copper Spiral	"HQA" PVC 0.240 Nom. Black	34	47	33
743603	1/C 20 AWG Stranded 41/36 Bare Copper	0.038" Poly 0.010" Semi Conductive Vinyl	36 AWG 95% Nom. Bare Copper Braid	"HQA" PVC 0.240 Nom. Black	34	47	33
743604	1/C 20 AWG Stranded 22/34 Bare Copper	0.025" Poly 0.010" Semi Conductive Vinyl	36 AWG 65% Nom. Bare Copper Spiral	"HQA" PVC 0.235 Nom. Black	36	47	33
743605	1/C 24 AWG Stranded 7/32 Bare Copper	0.040" Poly 0.010" Semi Conductive Vinyl	36 AWG 95% Nom. Bare Copper Spiral	"HQA" PVC 0.235 Nom. Black	30	47	33

Industrial Ethernet Cable

10



General Cable manufactures a comprehensive line of industrial Ethernet cables. These cables are specifically designed to stand up against the rigors of the harsh environments found on the factory floor and in other industrial environments.

The Helix/HiTemp™ Brand industrial Ethernet cables are available in a multitude of riser and plenum constructions supporting aerial, duct or buried applications, both indoors and out.

To find the industrial Ethernet cable suited for your next installation, please contact your General Cable sales representative today.

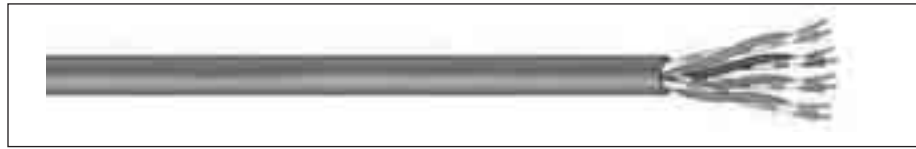
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ToughCAT™ 100E Category 5e UTP Data Cable

For Industrial & Harsh Environments / TIA/EIA 4-Pair 24 AWG / Plenum, Riser & Patchcord

Applications

- ToughCAT™ 100E horizontal and patch cables are specifically designed to stand up to the rigors of the harsh environments found on the factory floor and in other industrial environments outside the automation island. The cables are constructed with four balanced twisted pairs, each consisting of 24 AWG insulated conductors
- ToughCAT™ 100E cables support Gigabit Ethernet, utilizing all four pairs for simultaneous, bi-direction data transmission (full duplex)
- Four pairs are enclosed with flexible jackets chosen for their adaptability to harsh environments going beyond those typically found in an office environment. These cables are suitable for 10, 100 and 1000 Mb/s data rates



CATALOG NUMBER	NUMBER OF PAIRS	CONDUCTOR SIZE	CONDUCTOR TYPE	RATING	CABLE O.D.	APPROXIMATE CABLE WEIGHT
					INCHES	LBS/MFT
1103308	4	24 AWG	Solid Bare Copper	CMP	.180	22.0
1003408	4	24 AWG	Solid Bare Copper	CMR	.223	24.5
1001308	4	24 AWG	Solid Bare Copper	CM	.230	25.3

Information is subject to change without notice. Consult Customer Service for a variety of alternate constructions for specific applications.

Product Construction:

Conductor:

- Solid bare 24 AWG copper, except for the patch, which is stranded 24 AWG tinned copper

Insulation:

- Plenum-rated versions utilize FEP insulation
- Riser-rated and patch versions use Polyethylene (PE)

Circuit Identification:

- Standard orange/blue/green/brown color code with band marks to identify paired conductors

Overall Jacket:

- Plenum-rated version utilizes UV- and oil-resistant fluoropolymer jacket that also provides superior abrasion resistance
- Riser-rated version utilizes specially formulated UV- and oil-resistant PVC jacket ideal for use in industrial environments

Jacket Marking:

- The cable is printed TIA/EIA-568-B.2
- Sequential footage marking every two feet to 1000'

Compliances:

- Meets/exceeds TIA/EIA-568-B.2, ISO/IEC 11801
- ETL verified to TIA/EIA-568-B.2
- Plenum meets CMP, FT-6
- Riser meets CMR, FT-4

Packaging:

- Please contact Customer Service for packaging and color options

DATA TRANSMISSION PERFORMANCE FOR TOUGHCAT™ UTP CAT 5e OUTDOOR CABLES

Frequency (MHz)	Insertion Loss typical • max* (dB/100m)	NEXT typical • min* (dB)	PSNEXT typical • min* (dB)	ACR typical • min* (dB/100m)	PSACR typical • min* (dB/100m)	ELFEXT typical • min* (dB/100m)	PSELFEXT typical • min* (dB/100m)	RL min* (dB)
0.772	1.6 • 1.8	89.0 • 67.0	87.3 • 64.0	87.4 • 65.2	85.7 • 62.2	89.1 • 66.0	82.2 • 63.0	—
1	1.9 • 2.0	85.0 • 65.3	83.1 • 62.3	83.1 • 63.3	81.2 • 60.3	84.9 • 63.8	78.8 • 60.8	20.0
4	3.9 • 4.1	79.2 • 56.3	75.3 • 53.3	75.3 • 52.2	71.4 • 49.2	74.3 • 51.7	67.8 • 48.7	23.0
8	5.5 • 5.8	73.6 • 51.8	68.1 • 48.8	68.1 • 51.0	62.6 • 43.0	68.1 • 45.7	61.6 • 42.7	24.5
10	6.2 • 6.5	68.4 • 50.3	62.2 • 47.3	62.2 • 43.8	56.0 • 40.8	66.5 • 43.8	60.0 • 40.8	25.0
16	7.9 • 8.2	66.5 • 47.3	58.6 • 44.3	58.6 • 39.1	50.7 • 36.1	62.5 • 39.7	55.8 • 36.7	25.0
20	8.9 • 9.3	65.9 • 45.8	58.3 • 42.8	57.0 • 36.5	49.4 • 33.5	61.6 • 37.7	53.7 • 34.7	25.0
25	10.0 • 10.4	65.0 • 44.3	54.9 • 41.3	55.0 • 33.9	44.9 • 30.9	60.4 • 35.8	52.3 • 32.8	24.3
31.25	11.3 • 11.7	61.7 • 42.9	50.4 • 39.9	50.4 • 31.2	39.1 • 28.2	57.0 • 33.9	49.7 • 30.9	23.6
62.5	16.3 • 17.0	58.8 • 38.4	45.4 • 35.4	42.5 • 21.4	29.1 • 18.4	50.6 • 27.8	43.6 • 24.8	21.5
100	21.2 • 22.0	51.7 • 35.3	40.2 • 32.3	30.5 • 13.3	19.0 • 10.3	44.9 • 23.8	39.1 • 20.8	20.1

*Maximum and minimum performance standards match TIA 568-B.2 standards

ToughCAT™ 100E Dual Jacket Category 5e UTP Data Cable

For Industrial & Harsh Environments / TIA/EIA 4-Pair 24 AWG / Riser



CATALOG NUMBER	TYPE	NO. OF PAIRS	CONDUCTOR SIZE	CONDUCTOR TYPE	RATING	INNER JACKET O.D.		CABLE O.D.		APPROXIMATE CABLE WEIGHT	
						INCHES	MM	INCHES	MM	LBS/MFT	KG/KM
1004408	Riser	4	24 AWG	Solid Bare Copper	CMR	0.20	5.1	0.27	6.9	37	55

Information is subject to change without notice. Consult Customer Service for a variety of alternate constructions for specific applications.

DATA TRANSMISSION PERFORMANCE FOR TOUGHCAT™ 100E UTP CAT 5e RISER DUAL JACKETED CABLES								
Frequency (MHz)	Insertion Loss max* (dB/100m)	NEXT min* (dB)	PSNEXT min* (dB)	ACR min* (dB/100m)	PSACR min* (dB/100m)	ELFEXT min* (dB/100m)	PSELFEXT min* (dB/100m)	RL min* (dB)
0.772	1.8	67.0	64.0	65.2	62.2	66.0	63.0	—
1	2.0	65.3	62.3	63.3	60.3	63.8	60.8	20.0
4	4.1	56.3	53.3	52.2	49.2	51.7	48.7	23.0
8	5.8	51.8	48.8	51.0	43.0	45.7	42.7	24.5
10	6.5	50.3	47.3	43.8	40.8	43.8	40.8	25.0
16	8.2	47.3	44.3	39.1	36.1	39.7	36.7	25.0
20	9.3	45.8	42.8	36.5	33.5	37.7	34.7	25.0
25	10.4	44.3	41.3	33.9	30.9	35.8	32.8	24.3
31.25	11.7	42.9	39.9	31.2	28.2	33.9	30.9	23.6
62.5	17.0	38.4	35.4	21.4	18.4	27.8	24.8	21.5
100	22.0	35.3	32.3	13.3	10.3	23.8	20.8	20.1

*Maximum and minimum performance standards match TIA 568-B.2 standards

Applications

- Dual-jacketed ToughCAT™ 100E horizontal cable is designed to provide superior protection in the harshest environments found on the factory floor and in other industrial applications. The cables are constructed with four balanced twisted pairs, each consisting of 24 AWG insulated conductors
- ToughCAT™ 100E cables support Gigabit Ethernet, utilizing all four pairs for simultaneous, bi-direction data transmission (full duplex)
- Four pairs are enclosed with two flexible jackets chosen for their adaptability to harsh environments. These cables are suitable for 10, 100 and 1000 Mb/s data rates

Product Construction:

Conductors:

- Solid bare 24 AWG copper

Insulation:

- Solid Polyethylene (PE) for superior electrical performance

Circuit Identification:

- Standard orange/blue/green/brown color code with band marks to identify paired conductors

Dual Jacket:

- Inner and outer jackets use a specially formulated UV- and oil-resistant PVC jacket ideal for use in an industrial environment
- Superior abrasion resistance is a hallmark of this design
- Paper tape separator between the two jackets facilitates cable prep

Jacket Marking:

- The cable is printed TIA/EIA-568-B.2
- Sequential footage marking every two feet to 1000'

Compliances

- Meets/exceeds TIA/EIA-568-B.2, ISO/IEC 11801
- ETL verified to TIA/EIA-568-B.2
- Riser meets CMR, FT-4

Packaging:

- Please contact Customer Service for packaging and color options

ToughCAT™ 100E Shielded Category 5e ScTP Data Cable

For Industrial & Harsh Environments / TIA/EIA 4-Pair 24 AWG / Plenum & Riser (26 AWG Patchcord)

Applications

- ToughCAT™ 100E ScTP overall foil-shielded horizontal data cables are specifically designed to stand up to the rigors of the harsh environments found on the factory floor and in other industrial environments outside of the automation island. The foil shielding system with drain wire protects the signals from electromagnetic interference (EMI)
- The cables are constructed with four balanced twisted pairs of 24 AWG insulated conductors (patch cables have 26 AWG conductors)
- ToughCAT™ 100E ScTP cables support Gigabit Ethernet, utilizing all four pairs for simultaneous, bi-direction data transmission (full duplex)
- Four pairs are enclosed with flexible jackets chosen for their resistance to harsh environments. These cables are suitable for 10, 100 and 1000 Mb/s data rates

Product Construction:

Conductors:

- Solid bare 24 AWG copper except for the patch, which is stranded 26 AWG bare copper

Insulation:

- Plenum-rated version utilizes FEP insulation
- Riser-rated and patch versions use Polyethylene (PE)

Circuit Identification:

- Standard orange/blue/green/brown color code with band marks to identify paired conductors

Shield:

- Overall aluminum/Mylar® tape with stranded tinned copper drain wire

Jacket

- Plenum-rated version utilizes a UV- and oil-resistant fluoropolymer jacket that also provides superior abrasion resistance
- Riser-rated version utilizes a specially formulated UV- and oil-resistant PVC jacket ideal for use in industrial environments

Jacket Marking:

- The cable is printed TIA/EIA-568-B.2
- Sequential footage marking every two feet to 1000'

Compliances

- Meets/exceeds TIA/EIA-568-B.2, ISO/IEC 11801
- Plenum meets CMP, FT-6
- Riser meets CMR, FT-4

Packaging:

- Please contact Customer Service for packaging and color options



CATALOG NUMBER	TYPE	NO. OF PAIRS	CONDUCTOR SIZE	CONDUCTOR TYPE	RATING	CABLE O.D.		APPROXIMATE CABLE WEIGHT	
						INCHES	MM	LBS/MFT	KG/KM
1153408	Plenum	4	24 AWG	Solid Bare Copper	CMP	0.23	5.8	32	48
1053408	Riser	4	24 AWG	Solid Bare Copper	CMR	0.27	6.8	32	48
1051408	Patch	4	24 AWG	Stranded Bare Copper	CM	0.23	5.8	29	42

Information is subject to change without notice. Consult Customer Service for a variety of alternate constructions for specific applications.

DATA TRANSMISSION PERFORMANCE FOR TOUGHCAT™ 100E FTP CAT 5e RISER AND PLENUM CABLES								
Frequency (MHz)	Insertion Loss max* (dB/100m)	NEXT min* (dB)	PSNEXT min* (dB)	ACR min* (dB/100m)	PSACR min* (dB/100m)	ELFEXT min* (dB/100m)	PSSELFEXT min* (dB/100m)	RL min* (dB)
0.772	1.8	67.0	64.0	65.2	62.2	66.0	63.0	—
1	2.0	65.3	62.3	63.3	60.3	63.8	60.8	20.0
4	4.1	56.3	53.3	52.2	49.2	51.7	48.7	23.0
8	5.8	51.8	48.8	51.0	43.0	45.7	42.7	24.5
10	6.5	50.3	47.3	43.8	40.8	43.8	40.8	25.0
16	8.2	47.3	44.3	39.1	36.1	39.7	36.7	25.0
20	9.3	45.8	42.8	36.5	33.5	37.7	34.7	25.0
25	10.4	44.3	41.3	33.9	30.9	35.8	32.8	24.3
31.25	11.7	42.9	39.9	31.2	28.2	33.9	30.9	23.6
62.5	17.0	38.4	35.4	21.4	18.4	27.8	24.8	21.5
100	22.0	35.3	32.3	13.3	10.3	23.8	20.8	20.1

*Maximum and minimum performance standards match TIA 568-B.2 standards

DATA TRANSMISSION PERFORMANCE FOR TOUGHCAT™ 100E FTP (ScTP) CAT 5e PATCH CABLES								
Frequency (MHz)	Insertion Loss max* (dB/100m)	NEXT min* (dB)	PSNEXT min* (dB)	ACR min* (dB/100m)	PSACR min* (dB/100m)	ELFEXT min* (dB/100m)	PSSELFEXT min* (dB/100m)	RL min* (dB)
0.772	2.7	67.0	64.0	64.3	61.3	66.0	63.0	—
1	3.0	65.3	62.3	62.3	59.3	63.8	60.8	20.0
4	6.2	56.3	53.3	50.2	47.2	51.7	48.7	23.0
8	8.7	51.8	48.8	43.1	40.1	45.7	42.7	24.5
10	9.8	50.3	47.3	40.6	37.6	43.8	40.8	25.0
16	12.3	47.3	44.3	35.0	32.0	39.7	36.7	25.0
20	14.0	45.8	42.8	31.9	28.9	37.7	34.7	25.0
25	15.6	44.3	41.3	28.7	25.7	35.8	32.8	24.2
31.25	17.6	42.9	39.9	25.4	22.4	33.9	30.9	23.3
62.5	25.5	38.4	35.4	12.9	9.9	27.8	24.8	20.7
100	33.0	35.3	32.3	2.3	-0.7	23.8	20.8	19.0

*Maximum and minimum performance standards match TIA 568-B.2 standards

ToughCAT™ 100E Dual Shielded Category 5e S/FTP Data Cable

For Industrial & Harsh Environments / EIA/TIA 4-Pair 24 AWG Overall Foil Shield Plus Braid / Riser & Plenum



CATALOG NUMBER	TYPE	NUMBER OF PAIRS	CONDUCTOR SIZE	CONDUCTOR TYPE	RATING	CABLE O.D.		APPROXIMATE CABLE WEIGHT	
						INCHES	MM	LBS/MFT	KG/KM
1163408	Plenum	4	24 AWG	Solid Bare Copper	CMP	0.22	5.6	39	58
1063408	Riser	4	24 AWG	Solid Bare Copper	CMR	0.26	6.6	39	58

Information is subject to change without notice. Consult Customer Service for a variety of alternate constructions for specific applications.

DATA TRANSMISSION PERFORMANCE FOR TOUGHCAT™ 100E S/FTP PLENUM AND RISER CABLES								
Frequency (MHz)	Insertion Loss max* (dB/100m)	NEXT min* (dB)	PSNEXT min* (dB)	ACR min* (dB/100m)	PSACR min* (dB/100m)	ELFEXT min* (dB/100m)	PSELFEXT min* (dB/100m)	RL min* (dB)
0.772	1.8	67.0	64.0	65.2	62.2	66.0	63.0	—
1	2.0	65.3	62.3	63.3	60.3	63.8	60.8	20.0
4	4.1	56.3	53.3	52.2	49.2	51.7	48.7	23.0
8	5.8	51.8	48.8	51.0	43.0	45.7	42.7	24.5
10	6.5	50.3	47.3	43.8	40.8	43.8	40.8	25.0
16	8.2	47.3	44.3	39.1	36.1	39.7	36.7	25.0
20	9.3	45.8	42.8	36.5	33.5	37.7	34.7	25.0
25	10.4	44.3	41.3	33.9	30.9	35.8	32.8	24.3
31.25	11.7	42.9	39.9	31.2	28.2	33.9	30.9	23.6
62.5	17.0	38.4	35.4	21.4	18.4	27.8	24.8	21.5
100	22.0	35.3	32.3	13.3	10.3	23.8	20.8	20.1

*Maximum and minimum performance standards match TIA 568-B.2 standards

Applications

- ToughCAT™ 100E S/FTP (overall foil and braid shielded horizontal data cables) are specifically designed to stand up to the rigors of the harsh environments found on the factory floor and in other industrial environments outside of the automation island. The dual shielding system with drain wire protects the signals from electro-magnetic (EMI) and radio frequency interference (RFI)
- Constructed with four balanced twisted pairs, each consisting of 24 AWG insulated conductors. ToughCAT100E™ S/FTP cables support Gigabit Ethernet, utilizing all four pairs for simultaneous, bi-direction data transmission (full duplex)
- Four pairs are enclosed with flexible jacketing chosen for their adaptability to harsh environments. These cables are suitable for 10, 100 and 1000 Mb/s data rates

Product Construction:

Conductors:

- Solid bare 24 AWG copper

Insulation:

- Plenum-rated version utilizes FEP insulation
- Riser-rated version uses Polyethylene (PE)

Circuit Identification:

- Standard orange/blue/green/brown color code with band marks to identify paired conductors (specially formulated insulation makes these colors especially vivid for easier identification)

Aluminum/Mylar Tape Shield:

- Overlapped 25% to maintain 100% coverage

Braid Shield:

- Tinned copper braid providing a minimum of 85% coverage. This foil/braid combination provides superior protection from radio frequency (RFI) and electro-magnetic interference (EMI)

Jacket:

- Plenum-rated version has a UV- and oil-resistant fluoropolymer jacket that also provides superior abrasion resistance
- Riser-rated version has a specially formulated UV- and oil-resistant PVC jacket ideal for use in industrial environments outside of the automation island

Jacket Marking:

- The cable is printed TIA/EIA-568-B.2
- Sequential footage marking every two feet to 1000'

Compliances

- Meets/exceeds TIA/EIA-568-B.2, ISO/IEC 11801
- Plenum meets CMP, FT-6
- Riser meets CMR, FT-4

Packaging:

- Please contact Customer Service for packaging and color options

ToughCAT™ 1000 Category 6 UTP Data Cable

For Industrial & Harsh Environments / TIA/EIA Category 6 UTP 4-Pair 23 AWG Plenum & Riser / 24 AWG Patchcord

Applications

- ToughCAT™ 1000 horizontal cables were developed to support current- and next-generation applications utilizing a 25 MHz bandwidth. They are designed to provide superior protection in the harshest environments found on the factory floor and in other industrial applications
- Typically exhibit 27 dB better PSACR @ 100 MHz compared to Category 5e requirements. Lower insertion loss, crosstalk and return loss performance ensures an improved signal-to-noise ratio at the far-end, resulting in cleaner signals, fewer errors and less downtime
- Fully backward compatible with Cat 5e cables/connectors and are perfect for supporting today's systems operating at 10 Mb/s, 100 Mb/s and 1000 Mb/s, thus allowing future growth
- Four highly balanced pairs are locked in position by a central spacer to insure performance and are enclosed with flexible jackets chosen for their adaptability to harsh environments outside of the automation island

Production Construction:

Conductors:

- 23 AWG solid bare copper (plenum and riser), stranded 24 AWG tinned copper patchcord

Insulation:

- Plenum-rated version utilizes FEP insulation
- Riser and patch versions use Polyethylene (PE)

Circuit Identification:

- Standard orange/blue/green/brown color code with band marks to identify paired conductors

Spacer:

- Improves cable electrical performance

Jacket:

- Plenum-rated version has a UV- and oil-resistant fluoropolymer jacket that also provides superior abrasion resistance
- Riser-rated version has a specially formulated UV- and oil-resistant PVC jacket ideal for use in industrial environments outside of the automation island

Jacket Marking:

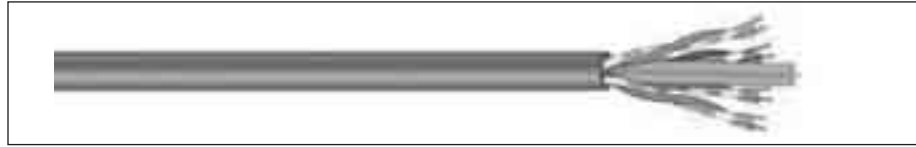
- The cable is printed TIA/EIA-568-B.2
- Sequential footage marking every two feet to 1000'

Compliances

- ETL Verified to meet/exceed TIA/EIA-568-B.2-1 (Category 6) ISO/IEC 11801
- Plenum meets CMP, FT-6
- Riser meets CMR, FT-4

Packaging:

- Please contact Customer Service for packaging and color options



CATALOG NUMBER	TYPE	NUMBER OF PAIRS	CONDUCTOR SIZE	CONDUCTOR TYPE	RATING	CABLE O.D.		APPROXIMATE CABLE WEIGHT	
						INCHES	MM	LBS/MFT	KG/KM
1105508	Plenum	4	23 AWG	Solid Bare Copper	CMP	0.22	5.6	31	46
1005508	Riser	4	23 AWG	Solid Bare Copper	CMR	0.24	6.1	33	49
1005708	Patch	4	24 AWG	Stranded Tinned Copper	CM	0.23	5.8	28	42

Information is subject to change without notice. Consult Customer Service for a variety of alternate constructions for specific applications.

DATA TRANSMISSION PERFORMANCE FOR TOUGHCAT™ 1000 UTP CAT 6 PLENUM AND RISER CABLES

Frequency (MHz)	Insertion Loss max* (dB/100m)	NEXT min* (dB)	PSNEXT min* (dB)	ACR min* (dB/100m)	PSACR min* (dB/100m)	ELFEXT min* (dB/100m)	PSSELFEXT min* (dB/100m)	RL min* (dB)
0.772	1.8	76.0	74.0	74.2	72.2	70.0	67.0	—
1	2.0	74.3	72.3	72.3	70.3	67.8	64.8	20.0
4	3.8	65.3	63.3	61.5	59.5	55.7	52.7	23.0
8	5.3	60.8	58.8	55.5	53.5	49.7	46.7	24.5
10	6.0	59.3	57.3	53.3	51.3	47.8	44.8	25.0
16	7.6	56.3	54.3	48.7	46.7	43.7	40.7	25.0
20	8.5	54.8	52.8	46.3	44.3	41.7	38.7	25.0
25	9.5	53.3	51.3	43.8	41.8	39.8	36.8	24.3
31.25	10.7	51.9	49.9	41.2	39.2	37.9	34.9	23.6
62.5	15.4	47.4	45.4	32.0	30.0	31.8	28.8	21.5
100	19.8	44.3	42.3	24.5	22.5	27.8	24.8	20.1
155	25.2	41.5	39.5	16.3	14.3	23.9	20.9	18.8
200	29.0	39.8	37.8	10.8	8.8	21.7	18.7	18.0
250	32.8	38.3	36.3	5.5	3.5	19.8	16.8	17.3

*Maximum and minimum performance standards match TIA 568-B.2 standards

DATA TRANSMISSION PERFORMANCE FOR TOUGHCAT™ 1000 UTP CAT 6 PATCH CABLES

Frequency (MHz)	Insertion Loss max* (dB/100m)	NEXT min* (dB)	PSNEXT min* (dB)	ACR min* (dB/100m)	PSACR min* (dB/100m)	ELFEXT min* (dB/100m)	PSSELFEXT min* (dB/100m)	RL min* (dB)
0.772	2.2	76.0	74.0	73.8	71.8	70.0	67.0	—
1	2.4	74.3	72.3	71.9	69.9	67.8	64.8	20.0
4	4.6	65.3	63.3	60.7	58.7	55.7	52.7	23.0
8	6.4	60.8	58.8	54.4	52.4	49.7	46.7	24.5
10	7.2	59.3	57.3	52.1	50.1	47.8	44.8	25.0
16	9.1	56.3	54.3	47.1	45.1	43.7	40.7	25.0
20	10.2	54.8	52.8	44.6	42.6	41.7	38.7	25.0
25	11.4	53.3	51.3	41.9	39.9	39.8	36.8	24.2
31.25	12.8	51.9	49.9	39.1	37.1	37.9	34.9	23.3
62.5	18.5	47.4	45.4	28.9	26.9	31.8	28.8	20.7
100	23.8	44.3	42.3	20.6	18.6	27.8	24.8	19.0
155	30.2	41.5	39.5	11.2	9.2	23.9	20.9	17.4
200	34.8	39.8	37.8	5.0	3.0	21.7	18.7	16.4
250	39.4	38.3	36.3	-1.0	-3.0	19.8	16.8	15.6

*Maximum and minimum performance standards match TIA 568-B.2 standards

ToughCAT™ 1000 Dual Jacket Category 6 UTP Data Cable

For Industrial & Harsh Environments / TIA/EIA Category 6 UTP 4-Pair 23 AWG / Riser-Rated



CATALOG NUMBER	TYPE	NO. OF PAIRS	CONDUCTOR SIZE	CONDUCTOR TYPE	RATING	INNER JACKET O.D.		CABLE O.D.		APPROXIMATE CABLE WEIGHT	
						INCHES	MM	INCHES	MM	LBS/MFT	KG/KM
1015508	Riser	4	23 AWG	Solid Bare Copper	CMR	0.25	6.4	0.32	8.1	46	69

Information is subject to change without notice. Consult Customer Service for a variety of alternate constructions for specific applications.

DATA TRANSMISSION PERFORMANCE FOR TOUGHCAT™ 1000 UTP CAT 6 PLENUM AND RISER CABLES									
Frequency (MHz)	Insertion Loss typical • max* (dB/100m)	NEXT typical • min* (dB)	PSNEXT typical • min* (dB)	ACR typical • min* (dB/100m)	PSACR typical • min* (dB/100m)	ELFEXT typical • min* (dB/100m)	PSSELFEXT typical • min* (dB/100m)	RL min* (dB)	
0.772	1.5 • 1.8	97.7 • 76.0	91.5 • 74.0	96.2 • 74.2	90.0 • 72.2	87.8 • 70.0	81.3 • 67.0	—	
1	1.7 • 2.0	94.5 • 74.3	88.5 • 72.3	92.8 • 72.3	86.8 • 70.3	81.6 • 67.8	80.8 • 64.8	20.0	
4	3.4 • 3.8	86.1 • 65.3	78.3 • 63.3	82.7 • 61.5	74.9 • 59.5	76.8 • 55.7	69.1 • 52.7	23.0	
8	4.9 • 5.3	80.9 • 60.8	73.6 • 58.8	76.0 • 55.5	68.7 • 53.5	73.0 • 49.7	63.5 • 46.7	24.5	
10	5.5 • 6.0	76.2 • 59.3	70.7 • 57.3	70.7 • 53.3	65.2 • 51.3	70.0 • 47.8	61.5 • 44.8	25.0	
16	7.0 • 7.6	75.5 • 56.3	69.1 • 54.3	68.5 • 48.7	62.1 • 46.7	66.0 • 43.7	57.9 • 40.7	25.0	
20	7.9 • 8.5	74.7 • 54.8	68.4 • 52.8	66.8 • 46.3	60.5 • 44.3	64.8 • 41.7	56.0 • 38.7	25.0	
25	9.0 • 9.5	74.0 • 53.3	64.5 • 51.3	65.0 • 43.8	55.5 • 41.8	63.9 • 39.8	54.7 • 36.8	24.3	
31.25	10.1 • 10.7	72.8 • 51.9	63.0 • 49.9	62.7 • 41.2	52.9 • 39.2	61.9 • 37.9	52.6 • 34.9	23.6	
62.5	14.7 • 15.4	68.1 • 47.4	62.2 • 45.4	53.4 • 32.0	47.5 • 30.0	55.2 • 31.8	47.8 • 28.8	21.5	
100	19.0 • 19.8	62.6 • 44.3	55.4 • 42.3	43.6 • 24.5	36.4 • 22.5	51.6 • 27.8	44.9 • 24.8	20.1	
155	24.1 • 25.2	61.0 • 41.5	53.1 • 39.5	36.9 • 16.3	29.0 • 14.3	48.4 • 23.9	42.0 • 20.9	18.8	
200	27.8 • 29.0	58.5 • 39.8	50.9 • 37.8	30.7 • 10.8	23.1 • 8.8	46.4 • 21.7	39.5 • 18.7	18.0	
250	31.4 • 32.8	58.0 • 38.3	49.7 • 36.3	26.6 • 5.5	18.3 • 3.5	45.5 • 19.8	37.9 • 16.8	17.3	

*Maximum and minimum performance standards match TIA 568-B.2 standards

Applications

- This dual jacketed ToughCAT™ 1000 horizontal cable, developed to support current and next-generation applications utilizing 250 MHz bandwidth, is designed to provide superior protection in the harshest environments found on the factory floor and in other industrial environments outside the automation island
- Typically exhibit 27 dB better PSACR @ 1000 MHz compared to Category 5e requirements. Lower insertion loss, crosstalk and return loss performance ensures an improved SNR at the far-end, resulting in cleaner signals, fewer errors and less downtime
- Fully backward compatible with Cat 5e cables and connectors and are perfect for supporting today's systems operating at 10 Mb/s, 100 Mb/s and 1000 Mb/s, thus allowing future growth
- Four highly balanced pairs are locked in position by a central spacer, to insure performance and are enclosed with two flexible jackets chosen for their adaptability to harsh environments going beyond those typically found in an office environment

Product Construction:

Conductors:

- 23 AWG solid bare copper

Insulation:

- Solid Polyethylene (PE) for superior electrical performance

Circuit Identification:

- Standard orange/blue/green/brown color code with band marks to identify paired conductors

Spacer:

- Improves cable electrical performance

Dual Jackets:

- Inner and outer jackets use a specially formulated UV- and oil-resistant PVC jacket ideal for use in an industrial environment outside of the automation island

Jacket Marking:

- The cable is printed TIA/EIA-568-B.2
- Sequential footage marking every two feet to 1000'

Compliances

- Riser meets CMR, FT-4

Packaging:

- Please contact Customer Service for packaging and color options

ToughCAT™ 7000 Shielded Category 7 (Draft) S/STP Data Cable

For Industrial & Harsh Environments / TIA/EIA 4-Pair 22 AWG / Plenum & Riser

Applications

- ToughCAT™ 7000 is a Category 7, four-pair shielded twisted pair data cable with an extremely high bandwidth of 600 MHz, far exceeding the bandwidths of Category 5e and 6
- Fully backward compatible with Cat 5e and Cat 6 and is recommended for installations where very high bit rates (2.4 Gb/s or more) and/or a very high degree of shielding is required
- Constructed with four highly balanced pairs. Each pair is individually shielded and cabled together to form the cable core. The cable core is covered with a tin copper braid and a thermoplastic jacket. A drain wire is included to enable easy shield termination
- Available in plenum and non-plenum versions and a great variety of jacket colors

Product Construction:

Conductors:

- Solid bare 22 AWG copper

Insulation:

- Plenum-rated version utilizes FEP insulation
- Riser-rated version utilizes Polyethylene (PE)

Circuit Identification:

- Standard orange/blue/green/brown color code with band marks to identify paired conductors

Aluminum/Mylar® Tape Shield:

- Individual pairs are aluminum foil/tape shielded; tinned copper braid and a 24 AWG drain wire is used over the cabled pairs

Braid Shield:

- Tinned copper braid with a drain wire providing a minimum of 85% coverage increases the ability of these cables to effectively guard against EMI and RFI

Jacket:

- Plenum-rated version has a UV- and oil-resistant fluoropolymer jacket that also provides superior abrasion resistance
- Riser-rated version has a specially formulated UV- and oil-resistant PVC jacket ideal for use in industrial environments outside of the automation island

Jacket Marking:

- The cable is printed TIA/EIA-568-B.2
- Sequential footage marking every two feet to 1000'

Compliances

- Meets/exceeds draft requirements of IEC 11801 for 600 MHz Category 7
- Exceeds TIA/EIA-568 requirements (Category 5e and 6)
- Plenum meets CMP, FT-6
- Riser meets CMR, FT-4

Packaging:

- Please contact Customer Service for packaging and color options



CATALOG NUMBER	TYPE	NUMBER OF PAIRS	CONDUCTOR SIZE	CONDUCTOR TYPE	RATING	CABLE O.D.		APPROXIMATE CABLE WEIGHT	
						INCHES	MM	LBS/MFT	KG/KM
1106508	Plenum	4	22 AWG	Solid Bare Copper	CMP	0.32	8.1	60	89
1006508	Riser	4	22 AWG	Solid Bare Copper	CMR	0.32	8.1	54	80

Information is subject to change without notice. Consult Customer Service for a variety of alternate constructions for specific applications.

DATA TRANSMISSION PERFORMANCE FOR TOUGHCAT™ 7000 SHIELDED (S/STP) CAT 7 PLENUM AND RISER CABLES							
Frequency (MHz)	Attenuation max (dB/100m)	NEXT min (dB)	PSNEXT min (dB)	ELFEXT min (dB/100m)	PSELFEXT min (dB/100m)	RL min (dB/100m)	PROP. DELAY max (dB/100m)
0.772	1.8	78.0	75.0	—	—	19.4	575.0
1	2.0	78.0	75.0	83.0	80.0	20.0	570.0
4	3.7	78.0	75.0	71.0	68.0	23.0	552.0
8	5.2	78.0	75.0	64.9	61.9	24.5	546.7
10	5.9	78.0	75.0	63.0	60.0	25.0	545.4
16	7.4	78.0	75.0	58.9	55.9	25.0	543.0
20	8.3	78.0	75.0	57.0	54.0	25.0	542.0
25	9.3	78.0	75.0	55.0	52.0	24.3	541.2
31.25	10.4	78.0	75.0	53.1	50.1	23.6	540.4
62.5	14.9	75.5	72.5	47.1	44.1	21.5	538.6
77.5	16.6	74.1	71.1	45.2	42.2	20.9	538.1
80	16.9	73.9	70.9	44.9	41.9	20.8	538.0
100	19.0	72.4	69.4	43.0	40.0	20.1	537.6
125	21.4	70.9	67.9	41.1	38.1	19.4	537.2
130	21.8	70.7	67.7	40.7	37.7	19.3	537.2
150	23.6	69.8	66.8	39.5	36.5	18.9	536.9
155.52	24.0	69.5	66.5	39.2	36.2	18.8	536.9
160	24.4	69.3	66.3	38.9	35.9	18.7	536.8
165	24.8	69.1	66.1	38.7	35.7	18.6	536.8
175	25.6	68.8	65.8	38.1	35.1	18.4	536.7
200	27.5	67.9	64.9	37.0	34.0	18.0	536.5
230	29.6	67.0	64.0	35.8	32.8	17.6	536.4
250	31.0	66.4	63.4	35.0	32.0	17.3	536.3
255	31.3	66.3	63.3	34.9	31.9	17.3	536.3
300	34.2	65.2	62.2	33.5	30.5	16.8	536.1
310	34.8	65.0	62.0	33.2	30.2	16.7	536.0
350	37.2	64.2	61.2	32.1	29.1	16.3	535.9
360	37.8	64.1	61.1	31.9	28.9	16.2	535.9
400	40.0	63.4	60.4	31.0	28.0	15.9	535.8
550	47.7	61.3	58.3	28.2	25.2	14.9	535.5
600	50.1	60.7	57.7	27.4	24.4	14.7	535.5

Specialty Cable

11



General Cable has a variety of Helix/HiTemp™ Brand wire and cable available for special applications. This section includes an array of products from our SmartWrap™ bundled cable and Fluorobus flat bus ground/power distribution cable to high-speed serial interface cable, known as Fire Wire, and computer cables.

For more information on these cables or for other special applications, please contact your General Cable sales representative.

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SmartWrap™ Bundled Cable

Multiple Cable Types Depending On Application Up to 6 Cables / Jacketed and Unjacketed

Applications:

SmartWrap™ cables are several different cables available with either helical binding or overall jacketing to allow simultaneous pulling of multiple cables. Configurations include combinations of Cat 5e UTP or ScTP, RG6 video/data quad shield coax and optical fiber cables. Plenum and riser versions available

Product Construction

Fiber:

- Multimode or singlemode fibers with easily strippable 900µm tight buffering colored per TIA/EIA 598
- Cabled with aramid yarn strength member and jacketed to meet appropriate standards

Coax:

- Quad shield RG6 coax with copper-clad steel center conductor, either foamed PE (riser) or FEP (plenum) dielectric and overall PVC jacket

Twisted Pair:

- Unshielded or shielded twisted pair that meets or exceeds all 568B.2 standards for Category 5e SuperCat 100E

Binder:

- Helically wound polyester binder

Overall Jacket (Optional):

- Riser-rated versions use a flame-retardant PVC

Features:

- Many cables can be pulled at once—faster installation
- TIA/EIA 568B.2 Crosstalk-compliant
- Simplifies cable management
- Excellent for residential applications

Compliances:

- CMR, CSA FT-4 riser
- CMP, CSA FT-6 plenum

Packaging:

- Please contact Customer Service for packaging and color options



CATALOG NUMBER	SAFETY RATING	BINDING OR JACKET	CONSTRUCTION
710021	Riser	Binding	4 SuperCat™ 100E Cat 5e UTP
810021	Plenum	Binding	4 SuperCat™ 100E Cat 5e UTP
710022	Riser	Binding	6 SuperCat™ 100E Cat 5e UTP
810022	Plenum	Binding	6 SuperCat™ 100E Cat 5e UTP
710023	Riser	Binding	4 SuperCat™ 100E Cat 5e ScTP
810023	Plenum	Binding	4 SuperCat™ 100E Cat 5e ScTP
710024	Riser	Binding	6 SuperCat™ 100E Cat 5e ScTP
810024	Plenum	Binding	6 SuperCat™ 100E Cat 5e ScTP
710010	Riser	Jacket	2 SuperCat™ 100E Cat 5e UTP and 2 RG6 Quad Smart Home coax
710011	Plenum	Jacket	2 SuperCat™ 100E Cat 5e UTP, 2 RG6 Quad Smart Home coax and 2 simplex multimode fiber cables
710017	Riser	Binding	2 SuperCat™ 100E Cat 5e UTP and 2 RG6 Quad Smart Home coax
710018	Plenum	Binding	2 SuperCat™ 100E Cat 5e UTP, 2 RG6 Quad Smart Home coax and 2 simplex multimode fiber cables

The above listings are for stock cables. Custom configurations are available. Information is subject to change without notice. Consult Customer Service for a variety of alternate constructions for specific applications.

DATA TRANSMISSION PERFORMANCE FOR CAT 5E CABLES

Frequency (MHz)	Insertion Loss typical • max* (dB/100m)	NEXT typical • min* (dB)	PSNEXT typical • min* (dB)	ACR typical • min* (dB/100m)	PSACR typical • min* (dB/100m)	ELFEXT typical • min* (dB/100m)	PSELFEXT typical • min* (dB/100m)	Return Loss min (dB)
1	19.3 • 22.0	51.9 • 35.3	43.8 • 32.3	32.6 • 13.3	24.5 • 10.3	43.7 • 23.8	38.8 • 20.8	20.1

NOTE: max/min measurements match TIA/EIA 568B-2 standards

ELECTRICAL CHARACTERISTICS FOR CAT 5E CABLES

DC Resistance	9.38 $\sqrt{f}$ Ohms / 100 Meters • 28.6 Ohms / 1000 Feet	Input Impedance	100 $\sqrt{f}$ Ohms $\pm$ 15% @ 1 - 100 MHz
DCR Unbalanced	5%	Propagation Delay (Skew)	45 nanoseconds/100 meters max
Mutual Capacitance	55.8 pF/m • 17 pF/ft	Velocity of Propagation	72% plenum / 69% riser

ELECTRICAL CHARACTERISTICS FOR RG6 CABLES

Capacitance	53.2 pF/m • 16.2 pF/ft	Attenuation (dB/100 ft)	0.21 @ 1 MHz • 6.04 dB @ 1000MHz
Characteristic Impedance	75 $\sqrt{f}$ Ohms	Velocity of Propagation	83% riser

Fluorobus Cable

Flat Bus Ground / Power Distribution Cable

CATALOG NUMBER	CONDUCTOR	INSULATION	FINISHED DIMENSIONS	DCR	POWER RATING
SP00C0011010	Flat Solid BC 0.010" x 0.987"	Tefzel® (ETFE)	0.028 x 1.022	0.82 Ohms per 1000 ft. @ 25°C	32 Amps Nom. 100 Amps Max.
SP00C0012010	Flat Solid BC 0.020" x 0.987"	Tefzel® (ETFE)	0.037 x 1.022	0.41 Ohms per 1000 ft. @ 25°C	64 Amps Nom. 100 Amps Max.

Information is subject to change without notice.

Applications:

Ideally suited for low-voltage primary and secondary power distribution in electronic and data processing equipment. High-speed, solid-state circuits require relatively high currents with low voltage. For this reason, it is essential that DC power distribution lines have low inductance, low resistance and high capacitance. More important, tightly bundled or laminated flat cable source-and-return circuits deliver lower impedance and higher capacitance by one to two orders of magnitude, compared to round wire circuits with equal resistance.

This system can serve as a low-cost flexible alternative to laminated bus bars. The Fluorobus low-profile routing capability is a useful packaging feature and its large surface area (relative to round wire conductor of equal resistance) provides improved heat dissipation, minimizes voltage drop and results in a higher current rating.

This flat conductor circuit delivers superior EMI/RFI performance, both as a source and as a receiver.

Features

Low Profile:

Flexible:

Large Surface Area:

Benefits

Conserves space

Ease of routing

Improved heat dissipation
minimizes voltage drop
high current rating

Temperature Rating:

- -50°C to +150°C

Voltage Rating:

- 300 Volts and 600 Volts (AWM) available
(Consult Customer Service)

Dielectric Constant:

- 2.6

Dielectric Strength:

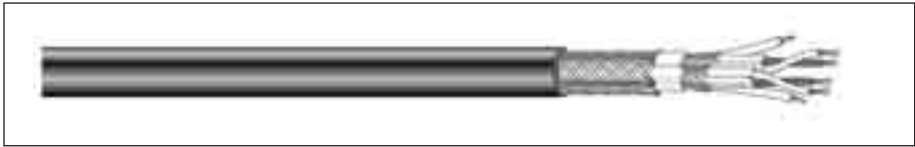
- 900 VRMS

Packaging and Color:

- Please consult Customer Service for packaging and color options

Fire Wire

IEEE 1394 High-Speed Serial Interface



- Applications:**
- Transport digital data for computers and for professional and consumer electronic products
 - Personal computers
 - Audio/image/video products
 - Printers/scanners
 - Disc arrays
 - Digital video cameras/displays/recorders

Compliances:

- UL: AWM 20276
- 80°C 30V VW-1
- CSA: PCC FT1

Packaging and Jacket Colors:

- Please consult Customer Service for packaging and color options

CATALOG NUMBER								
Z028C0061110								
SIGNAL PAIRS	POWER CONDUCTOR	OVERALL SHIELDING	OVERALL JACKET	SIGNAL PR. IMPED.	SIGNAL PR. CAPAC	Nom. MHz	ATTENUATION	
							DB	100'
2/C #22 7/36 TC Foam Poly Insulation Individual Foil & Braid No. 1: Red, Green No. 2: Blue Orange	2/C #22 7/36 TC Polyolefin Insulation Black, White	Aluminum/Mylar® (Foil Out) + 95% Braid	Flexible PVC	110 Ohms	12.5 pF/ft	1000.0	37	55

Computer Cable

Mainframes, Data Transfer, Tape Drives, File Servers, Disc Drives, Workstations, Disc Arrays, Personal Computers, etc.

Applications:

General Cable manufactures a diverse array of multiconductor cables for computers and the inter-connection of their peripherals. Today's need for speed and signal capacity demands the most in cable materials and construction. Our state-of-the-art manufacturing allows us to control impedance, minimize signal skew and provide the proper shielding for applications from SCSI, USB and Fire Wire right up through the latest Fiber Channel protocols. Whether your applications require parallel or serial signal transmission, General Cable has the technology to fill your needs.

Packaging and Jacket Colors:

- Please consult Customer Service for packaging and color options

PART NUMBER	APPLICATION	DESCRIPTION
EO28P0131510	SCSI-2	13 Pair, 28 AWG, 107 Ohm
EO28P0251510	SCSI-2	25 Pair, 28 AWG, 105 Ohm
EO28P0252510	SCSI-2	25 Pair, 28 AWG, 123 Ohm
EO28P0253510	SCSI-2	25 Pair, 28 AWG, 132 Ohm
EO28P0341510	SCSI-2	34 Pair, 28 AWG, 105 Ohm
EO28P0342510	SCSI-2	34 Pair, 28 AWG, 123 Ohm
EO28P0343510	SCSI-2	34 Pair, 28 AWG, 132 Ohm
EO28P0253520	Ultra SCSI-3 (Fast 20)	25 Pair, 28 AWG, 135 Ohm
EO28P0343520	Ultra SCSI-3 (Fast 20)	34 Pair, 28 AWG, 135 Ohm
EO28P0252540	Ultra SCSI-3 (LVD Fast 40)	25 Pair, 28 AWG, 123 Ohm
EO28P0342540	Ultra SCSI-3 (LVD Fast 40)	34 Pair, 28 AWG, 123 Ohm
EO30P0253520	0.8mm SCSI-3 (Fast 20)	25 Pair, 30 AWG, 135 Ohm
EO30P0343520	0.8mm SCSI-3 (Fast 20)	34 Pair, 30 AWG, 135 Ohm
EO30P0252540	0.8mm SCSI-3 (LVD Fast 40)	25 Pair, 30 AWG, 123 Ohm
EO30P0342540	0.8mm SCSI-3 (LVD Fast 40)	34 Pair, 30 AWG, 123 Ohm
EO28P0501510	HIPPI	50 Pair, 28 AWG, 105 Ohm
EO24C0045510	Fiber Channel	2 Pair "Quad", 24 AWG, 150 Ohm
EO26C0045510	Fiber Channel	2 Pair "Quad", 26 AWG, 150 Ohm
EO28C0045510	Fiber Channel	2 Pair "Quad", 28 AWG, 150 Ohm
EO30C0045510	Fiber Channel	2 Pair "Quad", 30 AWG, 150 Ohm
EO28P0181510	IEEE-1284	18 Pair, 28 AWG, O/A Foil + Braid

Test & Measurement, Data Transfer, Electronic Publishing, Video Conferencing, Sound Synthesizers, PC Workstations, Multi-Media, Consumer Electronics, Cable TV, Digital Cameras/Camcorders, etc.

PART NUMBER	APPLICATION	DESCRIPTION
ZO28C0066110	IEEE-1394 (Fire Wire)	2 Pair, 28 AWG, 2/C 22 AWG

ISDN, CD-Rom Drives, Modems, Scanners, Printers, Audio I/O Devices, Keyboards, Telephone ISDN, etc.

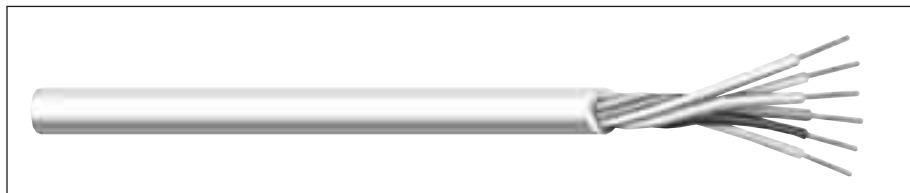
PART NUMBER	APPLICATION	DESCRIPTION
ZO28C0042010	Universal Serial Bus	1 Pair, 28 AWG, 2/C 20 AWG
ZO28C0042210	Universal Serial Bus	1 Pair, 28 AWG, 2/C 22 AWG
ZO28C0042410	Universal Serial Bus	1 Pair, 28 AWG, 2/C 24 AWG
ZO28C0042610	Universal Serial Bus	1 Pair, 28 AWG, 2/C 26 AWG
ZO28C0042810	Universal Serial Bus	1 Pair, 28 AWG, 2/C 28 AWG

Video Monitors, CRT's, Workstations

PART NUMBER	APPLICATION	DESCRIPTION
ZO30C0105510	VESA-EVC Basic	10/C Composite, 30/28 AWG
ZO30C0145510	VESA-EVC Multimedia	14/C Composite, 30/28 AWG
ZO30C0165510	VESA-EVC Multimedia/USB	16/C Composite, 30/28 AWG
ZO30C0285510	VESA-EVC Full	28/C Composite, 30/28 AWG
ZO28C0101120	Monitor 10/C	3/Coax 28 AWG, 7/C 28 AWG
ZO30C0111110	Monitor 11/C	7/Coax 30 AWG, 2 Pair 26 AWG
ZO28C0130532	Monitor 13/C	3/Coax 30 AWG, 5 Pair 28 AWG
ZF28C0130532	Monitor 13/C Plenum	3/Coax 30 AWG, 5 Pair 28 AWG

CSA Approved Cable

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General Cable offers a variety of cost-effective Canadian electronic wire and cable products including sound, security, alarm, instrumentation and control, broadcast, shielded and unshielded cables.

These products are specifically designed for Canadian applications and meet or exceed CSA Certification requirements.

For more information on our line of CSA Certified cables or for other special applications, please contact your General Cable sales representative.

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Multi-Conductor, Unshielded

AWM Style 2464, CSA Type AWM, NEC/CEC Type CMG (CSA C/US)



Product Construction:

Conductor:

- 22 AWG fully annealed, stranded tinned copper per ASTM B-33

Insulation:

- Premium-grade, color-coded PVC
- Color Code: See charts below

Jacket:

- PVC, gray
- Temperature Range: -20°C to +105°C

Applications:

- Public address systems
- Intercoms
- Internal telephones
- Remote control circuits
- Suitable for EIA RS-232 applications
- Suggested voltage rating: 300 or 600 volts

Features:

- Easy to terminate
- Excellent electrical properties
- Tinned conductors provide excellent corrosion resistance
- Assists soldering applications

Compliances:

- AWM Style 2464 (CSA: 80°C, 300V)
- CSA Type AWM (105°C, 600V)
- CSA Certified CMG to harmonized standard UL444 and CSA 22.2 No. 214
- NEC/CEC Type CMG (CSA: 105°C, 300V)
- Designed to Meet CSA 70,000 BTU Vertical Tray Flame Test
- Passes CSA FT4 vertical flame test

Packaging:

- Please contact Customer Service for packaging and color options

CATALOG NUMBER	NO. OF COND.	AWG SIZE	COND. STRAND.	NOM. INSULATION THICKNESS		NOM. JACKET THICKNESS		NOMINAL O.D.		COLOR CODE	NOM. C-C CAP.* pF/ft
				INCHES	mm	INCHES	mm	INCHES	mm		
C4100	2	22	7/30	0.010	0.25	0.032	0.81	0.150	3.81	Black/Red	27.5
C4101	3	22	7/30	0.010	0.25	0.032	0.81	0.176	4.47	Black/Red/Green	27.5
C4102	4	22	7/30	0.010	0.25	0.032	0.81	0.189	4.80	1	27.5
C4103	5	22	7/30	0.010	0.25	0.032	0.81	0.203	5.16	1	27.5
C4104	6	22	7/30	0.010	0.25	0.032	0.81	0.208	5.28	1	27.5
C4105	7	22	7/30	0.010	0.25	0.032	0.81	0.218	5.54	1	27.5
C4106	8	22	7/30	0.010	0.25	0.032	0.81	0.234	5.94	1	27.5
C4107	9	22	7/30	0.010	0.25	0.032	0.81	0.249	6.32	1	27.5
C4108	10	22	7/30	0.010	0.25	0.032	0.81	0.268	6.81	1	27.5
C4109	12	22	7/30	0.010	0.25	0.032	0.81	0.276	7.01	1	27.5
C4110	15	22	7/30	0.010	0.25	0.032	0.81	0.303	7.70	2	27.5
C4111	18	22	7/30	0.010	0.25	0.032	0.81	0.318	8.08	2	27.5
C4112	20	22	7/30	0.010	0.25	0.032	0.81	0.334	8.48	2	27.5
C4113	25	22	7/30	0.010	0.25	0.032	0.81	0.368	9.35	2	27.5
C4114	30	22	7/30	0.010	0.25	0.032	0.81	0.389	9.88	2	27.5
C4115	40	22	7/30	0.010	0.25	0.032	0.81	0.434	11.02	2	27.5
C4116	50	22	7/30	0.010	0.25	0.032	0.81	0.489	12.42	2	27.5

*Capacitance between conductors

Color Code Chart 1 - For cables up to and including 12 conductors

NO. OF COND.	COLOR	NO. OF COND.	COLOR
1	Black	7	Orange
2	White	8	Yellow
3	Red	9	Violet
4	Green	10	Gray
5	Brown	11	Pink
6	Blue	12	Tan

Color Code Chart 2 Per ICEA - For cables of 15 thru 50 conductors

NO. OF COND.	COLOR	NO. OF COND.	COLOR	NO. OF COND.	COLOR
1	Black	18	Orange/Red	35	White/Red/Orange
2	White	19	Blue/Red	36	Orange/White/Blue
3	Red	20	Red/Green	37	White/Red/Blue
4	Green	21	Orange/Green	38	Black/White/Green
5	Orange	22	Black/White/Red	39	White/Black/Green
6	Blue	23	White/Black/Red	40	Red/White/Green
7	White/Black	24	Red/Black/White	41	Green/White/Blue
8	Red/Black	25	Green/Black/White	42	Orange/Red/Green
9	Green/Black	26	Orange/Black/White	43	Blue/Red/Green
10	Orange/Black	27	Blue/Black/White	44	Black/White/Blue
11	Blue/Black	28	Black/Red/Green	45	White/Black/Blue
12	Black/White	29	White/Red/Green	46	Red/White/Blue
13	Red/White	30	Red/Black/Green	47	Green/Orange/Red
14	Green/White	31	Green/Black/Orange	48	Orange/Red/Blue
15	Blue/White	32	Orange/Black/Green	49	Blue/Red/Orange
16	Black/Red	33	Blue/White/Orange	50	Black/Orange/Red
17	White/Red	34	Black/White/Orange		

Multi-Conductor, Unshielded

AWM Style 2464, CSA Type AWM, NEC/CEC Type CMG (CSA C/US)

Product Construction:

Conductor:

- 20 or 18 AWG fully annealed, stranded tinned copper per ASTM B-33

Insulation:

- Premium-grade, color-coded PVC
- Color Code: See charts below

Jacket:

- PVC, gray
- Temperature Range: -20°C to +105°C

Applications:

- Public address systems
- Intercoms
- Internal telephones
- Remote control circuits
- Suitable for EIA RS-232 applications
- Suggested voltage rating: 300 or 600 volts

Features:

- Easy to terminate
- Excellent electrical properties
- Tinned conductors provide excellent corrosion resistance
- Assists soldering applications

Compliances:

- AWM Style 2464 (CSA: 80°C, 300V)
- CSA Type AWM (105°C, 600V)
- CSA Certified CMG to harmonized standard UL444 and CSA 22.2 No. 214
- NEC/CEC Type CMG (CSA: 105°C, 300V)
- Designed to Meet CSA 70,000 BTU Vertical Tray Flame Test
- Passes CSA FT4 vertical flame test

Packaging:

- Please contact Customer Service for packaging and color options



CATALOG NUMBER	NO. OF COND.	AWG SIZE	COND. STRAND.	NOM. INSULATION THICKNESS		NOM. JACKET THICKNESS		NOMINAL O.D.		COLOR CODE	NOM. C-C CAP* pF/ft
				INCHES	mm	INCHES	mm	INCHES	mm		
C4117	2	20	7/28	0.016	0.41	0.025	0.64	0.192	4.88	Black/Red	25.0
C4118	3	20	7/28	0.016	0.41	0.032	0.81	0.216	5.49	1	25.0
C4119	4	20	7/28	0.016	0.41	0.032	0.81	0.235	5.97	1	25.0
C4120	5	20	7/28	0.016	0.41	0.032	0.81	0.254	6.45	1	25.0
C4121	7	20	7/28	0.016	0.41	0.032	0.81	0.275	6.99	1	25.0
C4122	9	20	7/28	0.016	0.41	0.032	0.81	0.317	8.05	1	25.0
C4123	12	20	7/28	0.016	0.41	0.032	0.81	0.354	8.99	2	25.0
C4124	15	20	7/28	0.016	0.41	0.032	0.81	0.392	9.96	2	25.0
C4125	2	18	16/30	0.016	0.41	0.032	0.81	0.210	5.33	Black/Red	27.5
C4214	2	18	16/30	0.016	0.41	0.032	0.81	0.210	5.33	1	27.5
C4126	3	18	16/30	0.016	0.41	0.032	0.81	0.236	5.99	1	27.5
C4127	4	18	16/30	0.016	0.41	0.032	0.81	0.258	6.55	1	27.5
C4128	5	18	16/30	0.016	0.41	0.032	0.81	0.280	7.11	1	27.5
C4206	6	18	16/30	0.016	0.41	0.032	0.81	0.304	7.72	1	27.5
C4129	7	18	16/30	0.016	0.41	0.032	0.81	0.309	7.85	1	27.5
C4130	9	18	16/30	0.016	0.41	0.032	0.81	0.358	9.09	1	27.5
C4131	12	18	16/30	0.016	0.41	0.032	0.81	0.401	10.19	2	27.5
C4132	15	18	16/30	0.016	0.41	0.032	0.81	0.445	11.30	2	27.5
C4133	19	18	16/30	0.016	0.41	0.032	0.81	0.469	11.91	2	27.5
C4134	25	18	16/30	0.016	0.41	0.032	0.81	0.549	13.94	2	27.5

*Capacitance between conductors

Color Code Chart 1 - For cables up to and including 9 conductors

NO. OF COND.	COLOR	NO. OF COND.	COLOR
1	Black	6	Blue
2	White	7	Orange
3	Red	8	Yellow
4	Green	9	Violet
5	Brown		

Color Code Chart 2 Per ICEA - For cables of 12 thru 25 conductors

NO. OF COND.	COLOR	NO. OF COND.	COLOR	NO. OF COND.	COLOR
1	Black	10	Orange/Black	19	Blue/Red
2	White	11	Blue/Black	20	Red/Green
3	Red	12	Black/White	21	Orange/Green
4	Green	13	Red/White	22	Black/White/Red
5	Orange	14	Green/White	23	White/Black/Red
6	Blue	15	Blue/White	24	Red/Black/White
7	White/Black	16	Black/Red	25	Green/Black/White
8	Red/Black	17	White/Red		
9	Green/Black	18	Orange/Red		

Multi-Conductor, Unshielded

AWM Styles 2464, 2587, CSA Type AWM, NEC/CEC Type CMG (CSA C/US), or NEC Type CL2



Product Construction:

Conductor:

- 16 thru 12 AWG fully annealed, stranded tinned copper per ASTM B-33

Insulation:

- Premium-grade, color-coded PVC
- Color Code: See chart below

Jacket:

- PVC, gray
- Temperature Range: -20°C to +105°C

Applications:

- Public address systems
- Intercoms
- Internal telephones
- Remote control circuits
- Suitable for EIA RS-232 applications
- Suggested voltage rating: 300 or 600 volts

Features:

- Easy to terminate
- Excellent electrical properties
- Tinned conductors provide excellent corrosion resistance
- Assists soldering applications

Compliances:

- AWM Style 2464 (CSA or UL: 80°C, 300V)
- AWM Style 2587 (CSA: 90°C, 600V)
- CSA Type AWM (105°C, 600V)
- CSA Certified CMG to harmonized standard UL444 and CSA 22.2 No. 214
- NEC/CEC Type CMG (CSA: 105°C, 300V)
- Designed to Meet CSA 70,000 BTU Vertical Tray Flame Test
- Passes CSA FT4 Vertical Flame Test
- UL Certified CL2 to Standard UL13
- Designed to meet UL 70,000 BTU Vertical Tray Flame Test

Packaging:

- Please contact Customer Service for packaging and color options

CATALOG NUMBER	NO. OF COND.	AWG SIZE	COND. STRAND.	NOM. INSULATION THICKNESS		NOM. JACKET THICKNESS		NOMINAL O.D.		NOM. C-C CAP.** pF/ft
				INCHES	mm	INCHES	mm	INCHES	mm	

AWM STYLE 2464, CSA type AWM, CSA C/US Type CMG

C4135	2	16	19/.0117	0.021	0.53	0.032	0.81	0.268	6.81	27.0
C4136	3	16	19/.0117	0.021	0.53	0.032	0.81	0.283	7.19	27.0
C4137	4	16	19/.0117	0.021	0.53	0.032	0.81	0.306	7.77	27.0
C4138	5	16	19/.0117	0.021	0.53	0.032	0.81	0.334	8.48	27.0
C4139	7	16	19/.0117	0.021	0.53	0.032	0.81	0.364	9.25	27.0
C4140	8	16	19/.0117	0.021	0.53	0.032	0.81	0.395	10.03	27.0
C4141	9	16	19/.0117	0.021	0.53	0.032	0.81	0.425	10.80	27.0
C4142	12	16	19/.0117	0.021	0.53	0.032	0.81	0.479	12.17	27.0
C4143	15	16	19/.0117	0.021	0.53	0.032	0.81	0.530	13.46	27.0
C4144	19	16	19/.0117	0.021	0.53	0.032	0.81	0.564	14.33	27.0
C4145	25	16	19/.0117	0.021	0.53	0.032	0.81	0.657	16.69	27.0

AWM Style 2587, CSA Type AWM (FT4), NEC Type CL2*

C4146	2	14	19/.0147	0.032	0.81	0.032	0.81	0.326	8.28	25.0
C4147	4	14	19/.0147	0.032	0.81	0.032	0.81	0.391	9.93	25.0
C4148	5	14	19/.0147	0.032	0.81	0.032	0.81	0.428	10.87	25.0
C4149	7	14	19/.0147	0.032	0.81	0.032	0.81	0.469	11.91	25.0
C4150	2	12	19/.0185	0.032	0.81	0.032	0.81	0.370	9.40	29.4
C4151	4	12	19/.0185	0.032	0.81	0.032	0.81	0.434	11.02	29.4

** Capacitance between conductors

Color Code Chart Per ICEA

NO. OF COND.	COLOR	NO. OF COND.	COLOR	NO. OF COND.	COLOR
1	Black	10	Orange/Black	19	Blue/Red
2	White	11	Blue/Black	20	Red/Green
3	Red	12	Black/White	21	Orange/Green
4	Green	13	Red/White	22	Black/White/Red
5	Orange	14	Green/White	23	White/Black/Red
6	Blue	15	Blue/White	24	Red/Black/White
7	White/Black	16	Black/Red	25	Green/Black/White
8	Red/Black	17	White/Red		
9	Green/Black	18	Orange/Red		

Multi-Conductor, Foil Shield

Various AWM Styles, CSA Type AWM, NEC/CEC Type CMG (CSA C/US)

Product Construction:

Conductor:

- 24 thru 12 AWG fully annealed solid or stranded tinned copper per ASTM B-33

Insulation:

- Premium-grade, color-coded polypropylene
- Color Code: See charts below

Shield:

- 100% Flexfoil® aluminum/polyester, 25% overlap, foil facing out
- Stranded tinned copper drain wire

Jacket:

- PVC, gray
- Temperature Range: -20°C to +80°C

Applications:

- Recording studios and sound stages
- Broadcast and sound systems
- Computers
- Industrial equipment control
- Suggested voltage rating: 300 or 600 volts

Features:

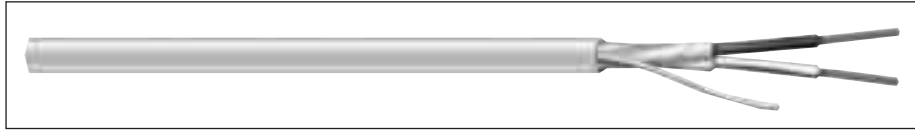
- Excellent electrical properties
- Superior shielding effectiveness
- 25% shield overlap provides excellent shielding efficiency
- Good flexibility

Compliances:

- AWM Style 20251 (CSA: 60°C, 150V, 300V peak)
- CSA Type AWM (80°C, 600V)
- CSA Certified CMG to harmonized standard UL444 and CSA 22.2 No. 214
- NEC/CEC Type CMG (CSA: 80°C, 300V)
- Designed to Meet CSA 70,000 BTU Vertical Tray Flame Test
- Passes CSA FT4 Vertical Flame Test

Packaging:

- Please contact Customer Service for packaging and color options



CATALOG NUMBER	NO. OF COND.	AWG SIZE	COND. STRAND.	NOM. INSULATION THICKNESS		NOM. JACKET THICKNESS		NOMINAL O.D.		NOM. CAP.* pF/ft	
				INCHES	mm	INCHES	mm	INCHES	mm	A	B

AWM STYLE 20251, CSA TYPE AWM, CSA C/US TYPE CMG

C4152	2	24	7/32	0.016	0.41	0.026	0.66	0.167	4.24	23.0	42.0
C4153	2	22	7/30	0.016	0.41	0.026	0.66	0.179	4.55	21.0	38.0
C4154	2	20	7/28	0.016	0.41	0.030	0.76	0.203	5.16	22.0	40.0
C4155	2	18	16/30	0.018	0.46	0.030	0.76	0.233	5.92	24.0	43.0
C4156	3	22	7/30	0.016	0.41	0.030	0.76	0.196	4.98	25.0	45.0
C4157	3	20	7/28	0.016	0.41	0.030	0.76	0.210	5.33	27.0	51.0
C4158	3	20	7/28	0.016	0.41	0.030	0.76	0.213	5.41	29.0	52.0
C4159	3	18	16/30	0.018	0.46	0.030	0.76	0.247	6.27	22.0	40.0
C4160	4	22	7/30	0.016	0.41	0.030	0.76	0.213	5.41	23.0	42.0
C4161	4	20	7/28	0.016	0.41	0.030	0.76	0.234	5.94	26.0	74.0

Color Code Chart #1

CSA TYPE AWM, CSA C/US TYPE CMG

C4162	2	16	19/.0117	0.032	0.81	0.032	0.81	0.307	7.80	27.0	49.0
C4165	3	16	19/.0117	0.032	0.81	0.032	0.81	0.326	8.28	26.0	46.0

Color Code Chart #1

AWM STYLE 2464, CSA TYPE AWM

C4163	2	14	41/30	0.020	0.51	0.032	0.81	0.295	7.49	31.0	56.0
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Color Code Chart #3

CSA TYPE AWM

C4164	2	12	19/.0185	0.032	0.81	0.040	1.02	0.376	9.55	35.0	63.0
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Color Code Chart #1

AWM STYLE 20251, CSA TYPE AWM, CSA C/US TYPE CMG

C4167	2	22	Solid	0.007	0.18	0.020	0.51	0.124	3.15	40.0	76.0
C4168	2	22	7/30	0.008	0.20	0.020	0.51	0.137	3.48	34.0	67.0
C4169	3	22	7/30	0.008	0.20	0.020	0.51	0.144	3.66	32.0	60.0

Polypropylene Insulation, Color Code Chart #2

*A - Capacitance between conductors

*B - Capacitance between one conductor and other conductors connected to shield

Color Code Chart 1

NO. OF COND.	COLOR
1	Black
2	Natural
3	Red
4	Green

Color Code Chart 2

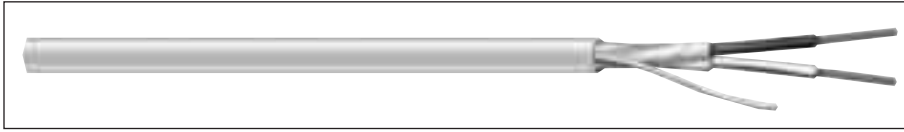
NO. OF COND.	COLOR
1	Black
2	Red
3	Clear

Color Code Chart 3

NO. OF COND.	COLOR
1	Black
2	White

Multi-Conductor, Foil Shield

AWM Styles 2464, CSA Type AWM, NEC/CEC Type CMG (CSA C/US),
or NEC Type CL2



Product Construction:

Conductor:

- 24 thru 12 AWG fully annealed solid or stranded tinned copper per ASTM B-33

Insulation:

- Premium-grade, color-coded PVC
- Color Code: See charts below

Shield:

- 100% Flexfoil® aluminum/polyester, 25% overlap, foil facing out
- Stranded tinned copper drain wire

Jacket:

- PVC, gray
- Temperature Range: -20°C to +75°C

Applications:

- Recording studios and sound stages
- Broadcast and sound systems
- Industrial equipment control
- Suitable for EIA RS-232 applications
- Suggested voltage rating: 300 or 600 volts

Features:

- Superior shielding effectiveness
- 25% shield overlap provides excellent shielding efficiency
- Good flexibility

Compliances:

- AWM Style 2464 (UL or CSA: 80°C, 300V)
- CSA Type AWM (105°C, 600V)
- CSA Certified CMG to harmonized standard UL444 and CSA 22.2 No. 214
- NEC/CEC Type CMG (CSA: 105°C, 300V)
- Designed to Meet CSA 70,000 BTU Vertical Tray Flame Test
- Passes CSA FT4 Vertical Flame Test
- UL Certified CL2 to Standard UL 13*
- Designed to Meet CSA 70,000 BTU Vertical Tray Flame Test

Packaging:

- Please contact Customer Service for packaging and color options

CATALOG NUMBER	NO. OF COND.	AWG SIZE	COND. STRAND.	NOM. INSULATION THICKNESS		NOM. JACKET THICKNESS		NOMINAL O.D.		COLOR CODE	NOM. CAP.** pF/ft	
				INCHES	mm	INCHES	mm	INCHES	mm		A	B
AWM Style 2464, CSA Type AWM, CSA C/US Type CMG												
C4192	2	22	7/30	0.009	0.23	0.030	0.76	0.165	4.19	1	47.0	85.0
C4210	2	22	7/30	0.009	0.23	0.030	0.76	0.165	4.19	2	47.0	85.0
C4193	3	22	7/30	0.009	0.23	0.030	0.76	0.173	4.39	2	43.0	76.0
C4194	4	22	7/30	0.009	0.23	0.030	0.76	0.188	4.78	2	43.0	76.0
C4207	6	22	7/30	0.009	0.23	0.030	0.76	0.204	5.18	2	43.0	76.0
C4208	8	22	7/30	0.009	0.23	0.030	0.76	0.219	5.56	2	43.0	76.0
C4166	2	20	7/28	0.012	0.30	0.030	0.76	0.180	4.57	1	46.0	83.0
C4211	2	20	7/28	0.012	0.30	0.030	0.76	0.180	4.57	2	46.0	83.0
C4195	3	20	7/28	0.012	0.30	0.030	0.76	0.200	5.08	2	42.0	75.0
C4196	4	20	7/28	0.012	0.30	0.030	0.76	0.216	5.49	2	42.0	75.0
C4197	2	18	16/30	0.012	0.30	0.030	0.76	0.209	5.31	1	51.0	92.0
C4212	2	18	16/30	0.012	0.30	0.030	0.76	0.209	5.31	2	51.0	92.0
C4198	3	18	16/30	0.012	0.30	0.030	0.76	0.223	5.66	2	46.0	83.0
C4204	4	18	16/30	0.012	0.30	0.030	0.76	0.236	5.99	2	46.0	83.0
C4205	6	18	16/30	0.012	0.30	0.030	0.76	0.267	6.78	2	46.0	83.0
C4199	2	16	19/.0117	0.010	0.25	0.030	0.76	0.218	5.54	1	62.0	112.0
C4213	2	16	19/.0117	0.010	0.25	0.030	0.76	0.218	5.54	2	62.0	112.0
C4200	3	16	19/.0117	0.010	0.25	0.030	0.76	0.230	5.84	2	58.0	104.0
AWM STYLE 2464, CSA TYPE AWM (FT4), NEC TYPE CL2*												
C4201	2	14	19/.0147	0.014	0.36	0.030	0.76	0.268	6.81	1	60.0	107.0
C4215	2	14	19/.0147	0.014	0.36	0.030	0.76	0.268	6.81	2	60.0	107.0
C4202	2	12	19/.0185	0.014	0.36	0.030	0.76	0.302	7.67	1	64.0	116.0

**A - Capacitance between conductors

**B - Capacitance between one conductor and other conductors connected to shield

Color Code Chart 1

NO. OF COND.	COLOR
1	Black
2	Red

Color Code Chart 2

NO. OF COND.	COLOR
1	Black
2	White
3	Red
4	Green
5	Brown
6	Blue
7	Orange
8	Yellow

Multi-Paired, Foil Shield

AWM Style 2464, CSA Type AWM, NEC/CEC Type CMG (CSA C/US)

Product Construction:

Conductor:

- 24 AWG fully annealed stranded tinned copper per ASTM B-33
- Twisted pairs

Insulation:

- Premium-grade, color-coded PVC
- Color Code: See chart below

Shield:

- 100% Flexfoil® aluminum/polyester, 25% overlap, foil facing out
- Stranded tinned copper drain wire

Jacket:

- PVC, gray
- Temperature Range: -20°C to +105°C

Applications:

- Computers
- Industrial equipment
- Data transmission
- Control circuits
- Suitable for EIA RS-232 applications
- Suggested voltage rating: 300 or 600 volts

Features:

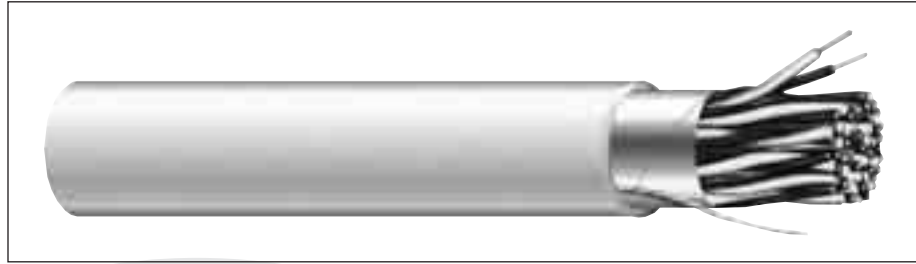
- Excellent electrical properties
- Superior shielding effectiveness
- 25% shield overlap provides excellent shielding efficiency
- Assists system designers in meeting FCC Docket 20780 demands
- Good flexibility

Compliances:

- AWM Style 2464 (CSA: 80°C, 300V)
- CSA Type AWM (105°C, 600V)
- CSA Certified CMG to harmonized standard UL444 and CSA 22.2 No. 214
- NEC/CEC Type CMG (CSA: 105°C, 300V)
- Designed to Meet CSA 70,000 BTU Vertical Tray Flame Test
- Passes CSA FT4 Vertical Flame Test

Packaging:

- Please contact Customer Service for packaging and color options



CATALOG NUMBER	NO. OF PAIRS	AWG SIZE	COND. STRAND.	NOM. INSULATION THICKNESS		NOM. JACKET THICKNESS		NOMINAL O.D.		NOMINAL DCR Ω/KFT		COLOR CODE	NOM. CAP.* pF/ft	
				INCHES	mm	INCHES	mm	INCHES	mm	COND	SHLD		A	B
C4170	1	24	7/32	0.010	0.25	0.032	0.81	0.157	3.99	26.0	18.0	1	36.4	65.5
C4209	1	24	7/32	0.010	0.25	0.032	0.81	0.157	3.99	26.0	18.0	Wht/Blk	36.4	65.5
C4191	2	24	7/32	0.009	0.23	0.030	0.76	0.153	3.89	26.0	16.5	Blk/Red	43	78
C4171	2	24	7/32	0.010	0.25	0.032	0.81	0.214	5.44	26.0	18.0	1	31.9	57.3
C4172	3	24	7/32	0.010	0.25	0.032	0.81	0.225	5.72	26.0	16.5	1	28.6	51.4
C4173	4	24	7/32	0.010	0.25	0.032	0.81	0.245	6.22	26.0	16.5	1	28.6	51.4
C4174	5	24	7/32	0.010	0.25	0.032	0.81	0.265	6.73	26.0	16.5	1	28.6	51.4
C4175	6	24	7/32	0.010	0.25	0.032	0.81	0.287	7.29	26.0	15.2	1	26.3	47.5
C4176	7	24	7/32	0.010	0.25	0.032	0.81	0.287	7.29	26.0	15.2	1	26.3	47.5
C4177	8	24	7/32	0.010	0.25	0.032	0.81	0.309	7.85	26.0	15.0	1	26.3	47.5
C4178	9	24	7/32	0.010	0.25	0.032	0.81	0.331	8.41	26.0	15.0	1	26.3	47.5
C4179	10	24	7/32	0.010	0.25	0.032	0.81	0.359	9.12	26.0	14.0	1	26.3	47.5
C4180	15	24	7/32	0.010	0.25	0.032	0.81	0.410	10.41	26.0	13.8	1	26.3	47.5
C4181	19	24	7/32	0.010	0.25	0.032	0.81	0.432	10.97	26.0	13.5	1	26.3	47.5
C4182	25	24	7/32	0.010	0.25	0.032	0.81	0.505	12.83	26.0	12.7	1	26.3	47.5

*A - Capacitance between conductors

*B - Capacitance between one conductor and other conductors connected to shield

Color Code Chart

NO. OF PAIRS	COLOR	NO. OF PAIRS	COLOR
1	Black with Red	14	Green with White
2	Black with White	15	Green with Blue
3	Black with Green	16	Green with Yellow
4	Black with Blue	17	Green with Brown
5	Black with Yellow	18	Green with Orange
6	Black with Brown	19	White with Blue
7	Black with Orange	20	White with Yellow
8	Red with White	21	White with Brown
9	Red with Green	22	White with Orange
10	Red with Blue	23	Blue with Yellow
11	Red with Yellow	24	Blue with Brown
12	Red with Brown	25	Blue with Orange
13	Red with Orange		

Multi-Paired, Foil Shield

AWM Style 2464, CSA Type AWM, NEC/CEC Type CMG (CSA C/US)

Product Construction:

Conductor:

- 22 AWG fully annealed stranded tinned copper per ASTM B-33
- Twisted pairs

Insulation:

- Premium-grade, color-coded PVC
- Color Code: See chart below

Shield:

- 100% Flexfoil® aluminum/polyester, 25% overlap, foil facing out
- Stranded tinned copper drain wire

Jacket:

- PVC, gray
- Temperature Range: -20°C to +105°C

Applications:

- Computers
- Industrial equipment
- Data transmission
- Control circuits
- Suitable for EIA RS-232 applications
- Suggested voltage ratings: 300 or 600 volts

Features:

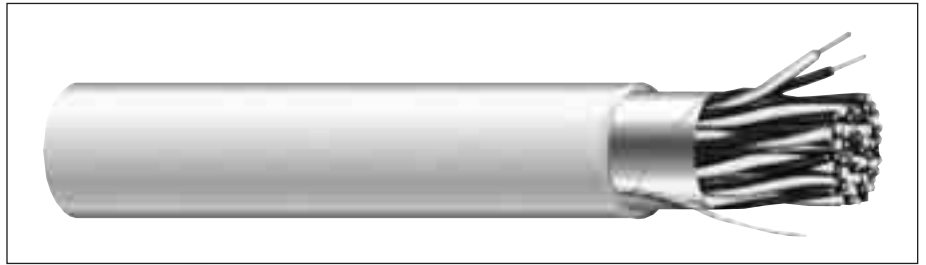
- Excellent electrical properties
- Superior shielding effectiveness
- 25% shield overlap provides excellent shielding efficiency
- Assists system designers in meeting FCC Docket 20780 demands
- Good flexibility

Compliances:

- AWM Style 2464 (CSA: 80°C, 300V)
- CSA Type AWM (105°C, 600V)
- CSA Certified CMG to harmonized standard UL444 and CSA 22.2 No. 214
- NEC/CEC Type CMG (CSA: 105°C, 300V)
- Designed to Meet CSA 70,000 BTU Vertical Tray Flame Test
- Passes CSA FT4 Vertical Flame Test

Packaging:

- Please contact Customer Service for packaging and color options



CATALOG NUMBER	NO. OF PAIRS	AWG SIZE	COND. STRAND.	NOM. INSULATION THICKNESS		NOM. JACKET THICKNESS		NOMINAL O.D.		NOMINAL DCR Ω/KFT		NOM. CAP.* pF/ft	
				INCHES	mm	INCHES	mm	INCHES	mm	COND	SHLD	A	B
C4183	1	22	7/30	0.010	0.25	0.032	0.81	0.169	4.29	15.0	18.0	44.8	80.7
C4184	2	22	7/30	0.010	0.25	0.032	0.81	0.234	5.94	15.0	16.5	35.9	64.6
C4185	3	22	7/30	0.010	0.25	0.032	0.81	0.246	6.25	15.0	16.5	30.9	55.7
C4186	4	22	7/30	0.010	0.25	0.032	0.81	0.269	6.83	15.0	16.5	30.9	55.7
C4187	5	22	7/30	0.010	0.25	0.032	0.81	0.292	7.42	15.0	16.5	30.9	55.7
C4188	6	22	7/30	0.010	0.25	0.032	0.81	0.317	8.05	15.0	16.5	28.4	51.0
C4189	9	22	7/30	0.010	0.25	0.032	0.81	0.367	9.32	15.0	16.5	28.4	51.0
C4190	15	22	7/30	0.010	0.25	0.032	0.81	0.457	11.61	15.0	16.5	28.4	51.0

*A - Capacitance between conductors

*B - Capacitance between one conductor and other conductors connected to shield

Color Code Chart

NO. OF PAIRS	COLOR	NO. OF PAIRS	COLOR
1	Black with Red	9	Red with Green
2	Black with White	10	Red with Blue
3	Black with Green	11	Red with Yellow
4	Black with Blue	12	Red with Brown
5	Black with Yellow	13	Red with Orange
6	Black with Brown	14	Green with White
7	Black with Orange	15	Green with Blue
8	Red with White		

Multi-Conductor, Foil Shield

AWM Style 2464, CSA Type AWM, NEC/CEC Type CMG (CSA C/US)

Product Construction:

Conductor:

- 24 AWG fully annealed stranded tinned copper per ASTM B-33

Insulation:

- Premium-grade, color-coded PVC
- Color Code: See charts below

Shield:

- 100% Flexfoil® aluminum/polyester with 25% overlap, foil facing out
- Stranded tinned copper drain wire

Jacket:

- PVC, gray
- Temperature Range: -20°C to +105°C

Applications:

- Computer interconnections
- Data transmission
- Control circuits
- Industrial equipment control
- Suitable for EIA RS-232 applications
- Suggested voltage rating: 300 or 600 volts

Features:

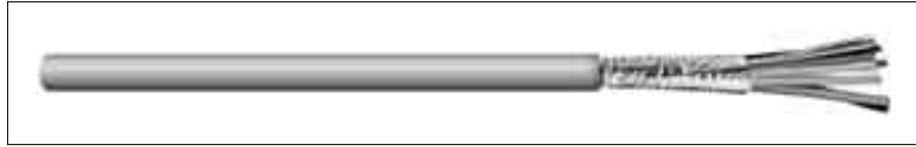
- Superior shielding effectiveness
- 25% shield overlap provides excellent shielding efficiency
- Good flexibility

Compliances:

- AWM Style 2464 (UL or CSA: 80°C, 300V)
- CSA Type AWM (105°C, 600V)
- CSA Certified CMG to harmonized standard UL444 and CSA 22.2 No. 214
- NEC/CEC Type CMG (CSA: 105°C, 300V)
- Designed to Meet CSA 70,000 BTU Vertical Tray Flame Test
- Passes CSA FT4 Vertical Flame Test

Packaging:

- Please contact Customer Service for packaging and color options



CATALOG NUMBER	NO. OF COND.	AWG SIZE	COND. STRAND.	NOM. INSULATION THICKNESS		NOM. JACKET THICKNESS		NOMINAL O.D.		NOMINAL DCR Ω/kft @ 20°C		NOMINAL CAP.* pF/ft	
				INCHES	mm	INCHES	mm	INCHES	mm	COND.	SHLD.	A	B

AWM STYLE 2464, CSA TYPE AWM, CSA C/US TYPE CMG

C4216	2	24	7/32	0.010	0.25	0.032	0.81	0.157	3.99	26.0	18.0	40.0	72.0
C4217	3	24	7/32	0.010	0.25	0.032	0.81	0.164	4.17	26.0	18.0	36.0	66.0
C4218	4	24	7/32	0.010	0.25	0.032	0.81	0.175	4.45	26.0	18.0	36.0	66.0
C4219	5	24	7/32	0.010	0.25	0.032	0.81	0.188	4.78	26.0	16.0	36.0	66.0
C4220	6	24	7/32	0.010	0.25	0.032	0.81	0.201	5.11	26.0	16.0	34.0	61.0
C4221	7	24	7/32	0.010	0.25	0.032	0.81	0.201	5.11	26.0	16.0	34.0	61.0
C4222	8	24	7/32	0.010	0.25	0.032	0.81	0.215	5.46	26.0	16.0	34.0	61.0
C4223	9	24	7/32	0.010	0.25	0.032	0.81	0.228	5.79	26.0	16.0	34.0	61.0
C4224	10	24	7/32	0.010	0.25	0.032	0.81	0.245	6.22	26.0	14.0	34.0	61.0

Color code chart #1

C4225	15	24	7/32	0.010	0.25	0.032	0.81	0.276	7.01	26.0	14.0	34.0	61.0
C4226	20	24	7/32	0.010	0.25	0.032	0.81	0.303	7.70	26.0	14.0	34.0	61.0
C4227	25	24	7/32	0.010	0.25	0.032	0.81	0.333	8.46	26.0	12.0	34.0	61.0
C4228	30	24	7/32	0.010	0.25	0.032	0.81	0.351	8.92	26.0	12.0	34.0	61.0
C4229	40	24	7/32	0.010	0.25	0.032	0.81	0.391	9.93	26.0	12.0	34.0	61.0
C4230	50	24	7/32	0.010	0.25	0.032	0.81	0.439	11.15	26.0	10.0	34.0	61.0

Color code chart #2

*A - Capacitance between conductors

*B - Capacitance between one conductor and other conductors connected to shield

Color Code Chart 1 - For cables up to and including 10 conductors

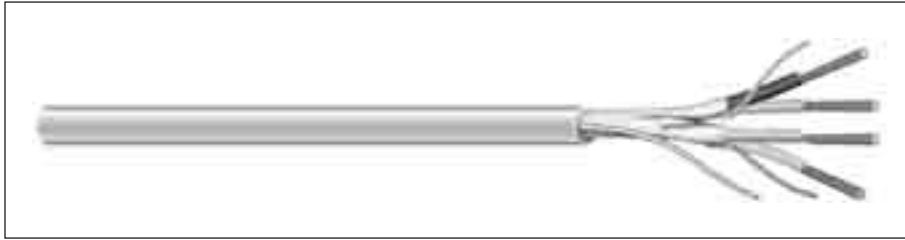
NO. OF COND.	COLOR	NO. OF COND.	COLOR
1	Black	6	Blue
2	White	7	Orange
3	Red	8	Yellow
4	Green	9	Violet
5	Brown	10	Gray

Color Code Chart 2 Per ICEA - For cables of 15 to 50 conductors

NO. OF COND.	COLOR	NO. OF COND.	COLOR	NO. OF COND.	COLOR
1	Black	18	Orange/Red	35	White/Red/Orange
2	White	19	Blue/Red	36	Orange/White/Blue
3	Red	20	Red/Green	37	White/Red/Blue
4	Green	21	Orange/Green	38	Black/White/Green
5	Orange	22	Black/White/Red	39	White/Black/Green
6	Blue	23	White/Black/Red	40	Red/White/Green
7	White/Black	24	Red/Black/White	41	Green/White/Blue
8	Red/Black	25	Green/Black/White	42	Orange/Red/Green
9	Green/Black	26	Orange/Black/White	43	Blue/Red/Green
10	Orange/Black	27	Blue/Black/White	44	Black/White/Blue
11	Blue/Black	28	Black/Red/Green	45	White/Black/Blue
12	Black/White	29	White/Red/Green	46	Red/White/Blue
13	Red/White	30	Red/Black/Green	47	Green/Orange/Red
14	Green/White	31	Green/Black/Orange	48	Orange/Red/Blue
15	Blue/White	32	Orange/Black/Green	49	Blue/Red/Orange
16	Black/Red	33	Blue/White/Orange	50	Black/Orange/Red
17	White/Red	34	Black/White/Orange		

Multi-Paired, Individually Shielded

CSA Type AWM I/II A/B, NEC/CEC Type CMG (CSA C/US)



CATALOG NUMBER	NO. OF PAIRS	AWG SIZE	COND. STRAND.	NOM. INSULATION THICKNESS		NOM. JACKET THICKNESS		NOMINAL O.D.		NOMINAL DCR Ω /KFT		NOM. CAP.* pF/ft	
				INCHES	mm	INCHES	mm	INCHES	mm	COND	SHLD	A	B
C4203	2	22	7/30	0.007	0.18	0.020	0.51	0.160	4.06	16.6	7.2	67.0	121.0

*A - Capacitance between conductors

*B - Capacitance between one conductor and other conductors connected to shield

Color Code Chart

NO. OF PAIRS	COLOR
1	Black with Red
2	Green with White

Product Construction:

Conductor:

- 22 AWG fully annealed stranded tinned copper per ASTM B-33
- Twisted pairs

Insulation:

- Premium-grade, color-coded PVC
- Color Code: See chart below

Shield:

- Individually shielded pairs
- 100% Flexfoil® aluminum/polyester, 25% overlap, foil facing out
- Stranded tinned copper drain wire

Jacket:

- PVC, gray
- Temperature range: -20°C to +105°C

Applications:

- Where total isolation of signal is required
- Computers
- Control circuits
- Industrial equipment
- Suggested voltage rating: 300 or 600 volts

Features:

- Excellent high-frequency properties
- Mechanical durability

Compliances:

- CSA Type AWM (105°C, 600V)
- CSA Certified CMG to harmonized standard UL444 and CSA (CSA: 105°C, 300V)
- Designed to Meet CSA 70,000 BTU Vertical Tray Flame Test
- Passes CSA FT4 Vertical Flame Test

Packaging:

- Please contact Customer Service for packaging and color options

Technical Information

13

As technology becomes more complex, specifying wire and cable products to meet system performance demands becomes more time-consuming and complex.

Today's system designer must be aware not only of the general transmission line types, but also of the myriad of materials available to meet specific environmental or electrical performance criteria.

This technical section is presented to aid in the selection of materials and designs which will best suit the combination of hardware and transmission media.

For technical questions regarding specific transmission designs or applications, please contact General Cable's Engineering Department.

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Insulation & Jacket Properties

TYPICAL PROPERTIES OF COMMON INSULATING MATERIALS

PARAMETER	PVC	PE	PP	XLPE	NYLON	FEP	TFE	BUTYL RUBBER	SILICONE RUBBER	TPR
Specific Gravity	1.37	0.92	.89	0.93-1.18	1.09	2.16	2.17	1.40	1.24	1.16-1.20
Dielectric Constant										
(a) 60 Hz	6.0	2.26	2.6	3.0	4.6	2.15	2.1	4.1	3.3	2.8
(b) 1000 Hz	5.0	2.26		3.0	4.5	2.15	2.1	4.0	3.1	2.8
Dielectric Strength, v/mil										
(a) 0.010" wall	1800	2100	850	–	1000	2000	2000	700	600	625
(b) 0.040" wall	800	1050	450	700	470	950	950	500	400	
Tensile Strength, PSI x 1000	1.5-3.8	1.4-2.4	2.9-4.5	1.8-2.5	8.8-11.9	2.3-3.1	2.0-6.0	0.5-1.5	0.6-1.2	2.3
Service Temp, Range, °C	–55/+105	–90/+90	–40/+105	–80/+75	–55/+105	–90/+200	–90/+260	–40/+90	–80/+200	–55/+90
Elongation, %	200-375	350-550	700	250-400	150-380	200-330	200-500	200-400	125-400	500
Water Absorption, % in 24 hr	<0.75	<0.02	<0.02	<0.01	2.5	<0.01	<0.01	<1.0	<1.0	<0.6
Flame Resistance	Self Extinguishing	Supports Flame	Supports Flame	Slow Flame	Self Extinguishing	Non-Flammable	Non-Flammable	Slow Burning	Slow (Non-Cond. Ash)	Flammable
Ozone Resistance	Excellent	Good	Excellent	Good	Good	Excellent	Excellent	Excellent	Excellent	Excellent
Flexibility	Good	Good	Good	Good-Fair	Good-Fair	Good	Good	Excellent	Excellent	Excellent
Abrasion Resistance	Good	Good	Fair	Excellent	Excellent	Excellent	Excellent	Poor	Poor	Good-Fair
Acid Resistance	Excellent	Excellent	Excellent	Excellent	Excellent	Poor	Excellent	Excellent	Good	Excellent
Base Resistance	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Good	Good	Excellent
Hydraulic Fluid Resistance	Good-Fair	Fair-Poor	Fair	Good-Fair	Good-Fair	Excellent	Excellent	Poor	Fair-Poor	Poor
Organic Solvent Resistance	Fair-Poor	Poor	Fair	Fair	Good-Fair	Excellent	Excellent	Good-Fair	Poor	Poor

NOTE: The above is representative of performance. For specific compound performance, consult Customer Service.

TYPICAL PROPERTIES OF COMMON JACKETING MATERIALS

PARAMETER	PVC	PE	NYLON	FEP	TFE	SILICONE RUBBER	NEOPRENE	POLY-URETHANE	TPR
Specific Gravity	1.37	0.92	1.09	2.16	2.17	1.24	1.52	1.3	1.16-1.20
Tensile Strength, PSI x 1000	1.5-3.8	1.4-2.4	8.8-11.9	2.3-3.1	2.0-6.0	0.6-1.2	2.5-4.0	>3.5	2.3
Elongation, %	200-375	350-550	150-380	200-330	200-500	125-400	300-500	540-700	500
Service Temp, Range, °C	–55/+105	–80/+75	–55/+105	–90/+200	–90/+200	–80/+200	–65/+90	–65/+75	–55/+90
Ozone Resistance	Excellent	Good	Good	Excellent	Excellent	Excellent	Excellent	Good	Excellent
Weatherability	Good-Fair	Excellent Good	Fair-Poor	Excellent	Excellent	Excellent	Good	Good	Excellent
Flame Resistance	Self Extinguishing	Supports Flame	Flammable	Non-Flammable	Non-Flammable	Slow-Burn (Non-Cond. Ash)	Self-Extinguishing	Slow Burn	Flammable
Flexibility	Good	Good	Good-Fair	Good	Good	Excellent	Excellent	Excellent	Excellent
Abrasion Resistance	Good	Good	Excellent	Excellent	Excellent	Poor	Excellent	Excellent	Good-Fair
Acid Resistance	Excellent	Excellent	Poor	Excellent	Excellent	Poor	Good	Fair	Excellent
Base Resistance	Excellent	Excellent	Excellent	Excellent	Excellent	Good	Good	Fair	Excellent
Hydraulic Fluid Resistance	Good-Fair	Fair-Poor	Good-Fair	Excellent	Excellent	Fair-Poor	Good	Poor	Good
Organic Solvent Resistance	Fair-Poor	Poor	Good-Fair	Excellent	Excellent	Poor	Good	Poor	Poor
Resistance to Tearing	Good	Good	Excellent	Good	Good	Fair	Good	Excellent	Good-Fair

NOTE: The above is representative of performance. For specific compound performance, consult Customer Service.

Decimal Conversion Factors

FRACTIONS, DECIMALS AND MILLIMETER CONVERSION CHART

FRACTIONS OF AN INCH						EQUIVALENTS	
64	32	16	8	4	2	DECIMAL	mm
1						0.016	0.40
2	1					0.031	0.79
3						0.047	1.19
4	2	1				0.063	1.59
5						0.078	1.98
6	3					0.094	2.38
7						0.109	2.78
8	4	2	1			0.125	3.18
9						0.141	3.57
10	5					0.156	3.97
11						0.172	4.37
12	6	3				0.188	4.76
13						0.203	5.16
14	7					0.219	5.56
15						0.234	5.95
16	8	4	2	1		0.250	6.35
17						0.266	6.75
18	9					0.281	7.14
19						0.297	7.54
20	10	5				0.313	7.94
21						0.328	8.33
22	11					0.344	8.73
23						0.359	9.13
24	12	6	3			0.375	9.53
25						0.391	9.92
26	13					0.406	10.32
27						0.422	10.72
28	14	7				0.438	11.11
29						0.453	11.51
30	15					0.469	11.91
31						0.484	12.30
32	16	8	4	2	1	0.500	12.70
33						0.516	13.10
34	17					0.531	13.49
35						0.547	13.89
36	18	9				0.563	14.29
37						0.578	14.68
38	19					0.594	15.08
39						0.609	15.48
40	20	10	5			0.625	15.88
41						0.641	16.27
42	21					0.656	16.67
43						0.672	17.07
44	22	11				0.688	17.46
45						0.703	17.86
46	23					0.719	18.26
47						0.734	18.65
48	24	12	6	3		0.750	19.05
49						0.766	19.45
50	25					0.781	19.84
51						0.797	20.24
52	26	13				0.813	20.64
53						0.828	21.03
54	27					0.844	21.43
55						0.859	21.83
56	28	14	7			0.875	22.23
57						0.891	22.62
58	29					0.906	23.02
59						0.922	23.42
60	30	15				0.938	23.81
61						0.953	24.21
62	31					0.969	24.61
63						0.984	25.00
64	32	16	8	4	2	1.000	25.40

Unit Conversion Factors

CONVERSION FACTORS

UNIT	X	CONSTANT	=	UNIT	UNIT	X	CONSTANT	=	UNIT
British Thermal Unit (BTU)		778.0		foot-pound (ft-lb)	gallons (gal)		3.785411		liters (l)
British Thermal Unit (BTU)		1054.35		joules (j)	gallons (gal)		0.13368		cubic foot (ft³)
British Thermal Unit (BTU)		0.293		watt-hours (w-hr)	gallons (gal)		231.0		cubic in. (in³)
centimeters (cm)		0.032808		feet (ft)	gallons (gal)		3785.411		cubic centimeter (cm³)
centimeters (cm)		0.3937		inches (in)	grams (g)		15.432		grains
centimeters (cm)		0.00001		kilometers (km)	gram/centimeter³ (gm/cm³)		0.0361275		pounds/in³ (lb/in³)
centimeters (cm)		0.010		meters (m)	horsepower (hp)		33013.26		ft-lb/min
centimeters (cm)		10.0		millimeters (mm)	horsepower (hp)		550.0		ft-lb/sec
circular mils (cmil)		0.00064516		circular millimeters	horsepower (hp)		745.7		watts (w)
circular mils (cmil)		0.0000007854		inches² (in²)	inch (in)		0.027178		yards (yd)
circular mils (cmil)		0.00050671		square millimeters (mm²)	inch (in)		0.083333		feet (ft)
circular mils (cmil)		0.7854		mils²	inch (in)		0.00002540		kilometer (km)
cubic centimeter (cm³)		0.000035314		cubic foot (ft³)	inch (in)		0.025400		meter (m)
cubic centimeter (cm³)		0.061023		cubic inch (in³)	inch (in)		2.54000514		centimeter (cm)
cubic centimeter (cm³)		0.000001		cubic meter (m³)	inch (in)		25.4000514		millimeter (mm)
cubic centimeter (cm³)		0.00026417		gallons (gal)	inch (in)		1000.0		mils
cubic foot (ft³)		1728.0		cubic in (in³)	joules (j)		0.000948		British Thermal Unit (BTU)
cubic foot (ft³)		28317.847		cubic centimeter (cm³)	joules (j)		10 ⁷		ergs
cubic inch (in³)		0.00057870		cubic feet (ft³)	liters (l)		61.02374		cubic inch (in³)
cubic inch (in³)		0.000016387		cubic meter (m³)	meters (m)		1.093611		yard (yd)
cubic inch (in³)		16.387064		cubic centimeter (cm³)	meters (m)		3.2808333		feet (ft)
cubic meter (m³)		1000000.0		centimeter (cm)	meters (m)		39.37		inch (in)
cubic meter (m³)		35.314666		cubic foot (ft³)	meters (m)		100.0		centimeter (cm)
cubic meter (m³)		264.17		gallons (gal)	miles (mi)		1760.0		yards (yd)
feet (ft)		0.00018939		miles (mi)	miles (mi)		5280.0		feet (ft)
feet (ft)		0.33333		yards (yd)	miles (mi)		1.6093		kilometer (km)
feet (ft)		12		inches (in)	millimeters (mm)		0.0032808		feet (ft)
feet (ft)		0.00030480		kilometer (km)	millimeters (mm)		0.03937		inch (in)
feet (ft)		0.30480		meters (m)	millimeters (mm)		0.001		meters (m)
feet (ft)		30.480		centimeters (cm)	millimeters (mm)		0.01		centimeters (cm)
feet (ft)		304.80		millimeters (mm)	millimeters (mm)		39.3701		mils
feet/pound (ft/lb)		0.00067197		meters/grams (m/g)	millimeters (mm)		1000.0		microns (μ)
foot-pound (ft-lb)		0.001285		British Thermal Unit (BTU)	watts (w)		44.25		ft-lb/minute
foot-pound (ft-lb)		1.356		joules (j)	watts (w)		0.737562		ft-lb/sec
foot-pound (ft-lb)		0.1383		kilogram/meter (kg/m)	watts (w)		0.001341		horsepower
					watt-hours (w-hr)		3.414462		British Thermal Unit (BTU)

Temperature Conversion Chart

To use this chart, find your known temperature (°F) in the shaded column.

°C	°F	°C	°F	°C	°F	°C	°F	°C	°F
-45.0	-49.0	-17.2	1.0	10.6	51.0	38.3	101.0	66.1	151.0
-44.4	-48.0	-16.7	2.0	11.1	52.0	38.9	102.0	66.7	152.0
-43.9	-47.0	-16.1	3.0	11.7	53.0	39.4	103.0	67.2	153.0
-43.3	-46.0	-15.6	4.0	12.2	54.0	40.0	104.0	67.8	154.0
-42.8	-45.0	-15.0	5.0	12.8	55.0	40.6	105.0	68.3	155.0
-42.2	-44.0	-14.4	6.0	13.3	56.0	41.1	106.0	68.9	156.0
-41.7	-43.0	-13.9	7.0	13.9	57.0	41.7	107.0	69.4	157.0
-41.1	-42.0	-13.3	8.0	14.4	58.0	42.2	108.0	70.0	158.0
-40.6	-41.0	-12.8	9.0	15.0	59.0	42.8	109.0	70.6	159.0
-40.0	-40.0	-12.2	10.0	15.6	60.0	43.3	110.0	71.1	160.0
-39.4	-39.0	-11.7	11.0	16.1	61.0	43.9	111.0	71.7	161.0
-38.9	-38.0	-11.1	12.0	16.7	62.0	44.4	112.0	72.2	162.0
-38.3	-37.0	-10.6	13.0	17.2	63.0	45.0	113.0	72.8	163.0
-37.8	-36.0	-10.0	14.0	17.8	64.0	45.6	114.0	73.3	164.0
-37.2	-35.0	-9.4	15.0	18.3	65.0	46.1	115.0	73.9	165.0
-36.7	-34.0	-8.9	16.0	18.9	66.0	46.7	116.0	74.4	166.0
-36.1	-33.0	-8.3	17.0	19.4	67.0	47.2	117.0	75.0	167.0
-35.6	-32.0	-7.8	18.0	20.0	68.0	47.8	118.0	75.6	168.0
-35.0	-31.0	-7.2	19.0	20.6	69.0	48.3	119.0	76.1	169.0
-34.4	-30.0	-6.7	20.0	21.1	70.0	48.9	120.0	76.7	170.0
-33.9	-29.0	-6.1	21.0	21.7	71.0	49.4	121.0	77.2	171.0
-33.3	-28.0	-5.6	22.0	22.2	72.0	50.0	122.0	77.8	172.0
-32.8	-27.0	-5.0	23.0	22.8	73.0	50.6	123.0	78.3	173.0
-32.2	-26.0	-4.4	24.0	23.3	74.0	51.1	124.0	78.9	174.0
-31.7	-25.0	-3.9	25.0	23.9	75.0	51.7	125.0	79.4	175.0
-31.1	-24.0	-3.3	26.0	24.4	76.0	52.2	126.0	80.0	176.0
-30.6	-23.0	-2.8	27.0	25.0	77.0	52.8	127.0	80.6	177.0
-30.0	-22.0	-2.2	28.0	25.6	78.0	53.3	128.0	81.1	178.0
-29.4	-21.0	-1.7	29.0	26.1	79.0	53.9	129.0	81.7	179.0
-28.9	-20.0	-1.1	30.0	26.7	80.0	54.4	130.0	82.2	180.0
-28.3	-19.0	-0.6	31.0	27.2	81.0	55.0	131.0	82.8	181.0
-27.8	-18.0	0.0	32.0	27.8	82.0	55.6	132.0	83.3	182.0
-27.2	-17.0	0.6	33.0	28.3	83.0	56.1	133.0	83.9	183.0
-26.7	-16.0	1.1	34.0	28.9	84.0	56.7	134.0	84.4	184.0
-26.1	-15.0	1.7	35.0	29.4	85.0	57.2	135.0	85.0	185.0
-25.6	-14.0	2.2	36.0	30.0	86.0	57.8	136.0	85.6	186.0
-25.0	-13.0	2.8	37.0	30.6	87.0	58.3	137.0	86.1	187.0
-24.4	-12.0	3.3	38.0	31.1	88.0	58.9	138.0	86.7	188.0
-23.9	-11.0	3.9	39.0	31.7	89.0	59.4	139.0	87.2	189.0
-23.3	-10.0	4.4	40.0	32.2	90.0	60.0	140.0	87.8	190.0
-22.8	-9.0	5.0	41.0	32.8	91.0	60.6	141.0	88.3	191.0
-22.2	-8.0	5.6	42.0	33.3	92.0	61.1	142.0	88.9	192.0
-21.7	-7.0	6.1	43.0	33.9	93.0	61.7	143.0	89.4	193.0
-21.1	-6.0	6.7	44.0	34.4	94.0	62.2	144.0	90.0	194.0
-20.6	-5.0	7.2	45.0	35.0	95.0	62.8	145.0	90.6	195.0
-20.0	-4.0	7.8	46.0	35.6	96.0	63.3	146.0	91.1	196.0
-19.4	-3.0	8.3	47.0	36.1	97.0	63.9	147.0	91.7	197.0
-18.9	-2.0	8.9	48.0	36.7	98.0	64.4	148.0	92.2	198.0
-18.3	-1.0	9.4	49.0	37.2	99.0	65.0	149.0	92.8	199.0
-17.8	0.0	10.0	50.0	37.8	100.0	65.6	150.0	93.3	200.0

TEMPERATURE CONVERSION FORMULAE

$$^{\circ}\text{C} = \frac{5}{9} (^{\circ}\text{F} - 32) \quad \quad \quad ^{\circ}\text{F} = \frac{9}{5} \text{C} + 32$$

Conduit Capacity Chart

Conduit Trade Size		1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	3-1/2	4
I.D. Inches		0.622	0.824	1.049	1.380	1.610	2.067	2.731	3.356	3.834	4.334
Internal Area, In2		0.304	0.533	0.864	1.496	2.036	3.356	5.858	8.846	11.545	14.753
1 Conductor (53% fill)		0.161	0.283	0.458	0.793	1.079	1.778	3.105	4.688	6.119	7.819
2 Conductors (31% fill)		0.094	0.165	0.268	0.464	0.631	1.040	1.816	2.742	3.579	4.573
Conductors (40% fill)		0.122	0.213	0.346	0.598	0.814	1.342	2.343	3.538	4.618	5.901
Cable OD Inches	Cable Area In2	Numbers listed below are based on the 2002 NEC (40% fill) for 3 or more non-lead covered cables.									
0.100	0.008	15	26	43	76	104	170	244	375	504	648
0.125	0.012	9	17	27	48	66	109	156	240	322	414
0.150	0.018	6	11	19	33	46	75	108	166	224	288
0.175	0.024	5	8	14	24	34	55	79	122	164	211
0.200	0.031	3	6	10	19	26	42	81	93	126	162
0.225	0.040	3	5	8	15	20	33	48	74	99	128
0.250	0.049	1	4	6	12	16	27	39	60	80	103
0.275	0.059	1	3	5	10	13	22	32	49	66	85
0.300	0.071	1	2	4	8	11	18	27	41	56	72
0.325	0.083	1	1	4	7	9	16	23	35	47	61
0.350	0.096	1	1	3	6	8	13	19	30	41	52
0.375	0.110	1	1	3	5	7	12	17	26	35	46
0.400	0.126	1	1	2	4	6	10	15	23	31	40
0.425	0.142	1	1	1	4	5	9	13	20	27	35
0.450	0.159	1	1	1	3	5	8	12	18	24	32
0.475	0.177	0	1	1	3	4	7	10	17	22	28
0.500	0.196	0	1	1	3	4	6	9	15	20	25
0.525	0.216	0	1	1	2	3	6	8	13	18	23
0.550	0.238	0	1	1	1	3	5	8	12	16	21
0.575	0.260	0	1	1	1	3	5	7	11	15	19
0.600	0.283	0	0	1	1	2	4	6	10	14	18
0.625	0.307	0	0	1	1	2	4	6	9	12	16
0.650	0.332	0	0	1	1	1	4	5	8	11	15
0.675	0.358	0	0	1	1	1	3	5	8	11	14
0.700	0.385	0	0	1	1	1	3	5	7	10	13
0.725	0.413	0	0	1	1	1	3	4	7	9	12
0.750	0.442	0	0	1	1	1	3	4	6	8	11
0.775	0.472	0	0	0	1	1	2	4	6	8	10
0.800	0.503	0	0	0	1	1	2	3	5	7	10
0.825	0.535	0	0	0	1	1	1	3	5	7	9
0.850	0.567	0	0	0	1	1	1	3	5	6	8
0.875	0.601	0	0	0	1	1	1	3	4	6	8
0.900	0.636	0	0	0	1	1	1	3	4	6	8
0.925	0.672	0	0	0	1	1	1	2	4	5	7
0.950	0.709	0	0	0	1	1	1	2	4	5	7
0.975	0.747	0	0	0	1	1	1	1	3	5	6
1.000	0.785	0	0	0	1	1	1	1	3	5	6
1.025	0.825	0	0	0	0	1	1	1	3	4	6
1.050	0.866	0	0	0	0	1	1	1	3	4	5
1.075	0.908	0	0	0	0	1	1	1	3	4	5

- Notice: 1. The reader is cautioned to consult the 2002 NEC for specific information regarding conduit fill.
 2. This Conduit Capacity Chart should only be used as a guide when attempting to estimate conduit fill.
 3. For additional information, the reader should refer to the 2002 National Electrical Code, Chapter 9.

Coax Connector Cross Reference

BNC TYPE CONNECTORS

	CAMBRIDGE	GEM	LRC	RF INDUSTRIES	TROMPETER
CATALOG NUMBER	BNC CRIMP PLUG	BNC COMPRESSION PLUG	SNAP-N-SEAL BNC	BNC CRIMP PLUG	BNC CRIMP PLUG
RG 6/U					
C3521	CPMC-68-36	--	--	RFB-1707-Q1	105-1516-9
C3523	CPMC-68-36	302-510CS	--	--	105-1516-9
C3524	CPMC-68-36	302-510CS	--	--	105-1516-9
C3525	CPMC-68-36	--	--	--	105-1516-9
C5760	CPMC-68-45	--	--	RFB-1707-Q1	105-1516-9
C5761	CPMC-68-45	302-5CSQS	SNS6BNC	--	UPL20-34
C5774	CPMC-68-45	--	SNS6BNC	--	105-1153-9
C5775	CPMC-68-45	302-5CSQS	SNS6BNC	--	105-1153-9
C5776	CPMC-68-45	--	SNS6BNC	--	105-1153-9
C5777	CPMC-68-45	--	SNS6BNC	RFB-1707-Q	105-1153-9
C5778	CPMC-68-45	--	SNS6BNC	RFB-1707-Q	105-1153-9
C5785	CPFI-UG88-3 (TWIST ON)	302-5CSQS	SNS6QSBNC	--	UPL20-41
C5802	CPMC-68-45	--	SNS6BNC	RFB-1707-Q	UPL20-41
C5804	CPMC-68-45	--	SNS6BNC	RFB-1707-Q	UPL20-41
C5810	CPMC-68-5	--	--	--	UPL20-51
C5812	CPMC-68-45	--	--	--	UPL20-41
C5814	CPMC-68-45	302-5CSQS	SNS6BNC	RFB-1707-Q	UPL20-41
C5822	CPMC-68-45	302-5CSQS	SNS6BNC	RFB-1707-Q	UPL20-41
C5824	CPMC-68-45	302-5CSQS	SNS6BNC	RFB-1707-Q	UPL20-41
C5826	CPMC-68-45	302-5CSQS	SNS6BNC	RFB-1707-Q	UPL20-41
C5886	CPMC-68-45	--	SNS6BNC	RFB-1707-Q	105-1153-9
C5888	CPMC-68-45	--	SNS6BNC	--	105-1153-9
C5889	CPFI-UG88-3 (TWIST ON)	302-5CSQS	SNS6QSBNC	--	UPL20-41
C5890	CPMC-68-45	--	SNS6BNC	RFB-1707-Q	UPL20-41
C8029	CPMC-68-45	302-5CS	SNS6BNC	RFB-1707-Q	UPL20-41
C8031	CPMC-68-36	--	--	RFB-1707-Q1	105-1516-9

	TROMPETER
CATALOG NUMBER	BNC CRIMP PLUG
RG 7/U	
C5851	PL20-48
C5853	105-1677-1
C5856	PL20-48
C5857	PL20-48

	AMP	CAMBRIDGE	GEM	KINGS ELECTRONICS	RF INDUSTRIES	TROMPETER
CATALOG NUMBER	BNC PLUG	BNC CRIMP PLUG	BNC CRIMP PLUG	BNC CRIMP PLUG	BNC PLUG	BNC CRIMP PLUG
RG 8/U						
C1108	--	CPMC-88-17	305-17	--	RFB-1107-1X	PL20-52
C1154	2-225295-1	--	--	KC-59-577 M06	RFB-1101-1EN	PL20-6A
C1180	--	--	--	KC-59-642 M06	RFB-1101-1EN	N/A
C1197	--	--	--	--	RFB-1101-1SI	PL20-6A
C1198	--	--	--	--	RFB-1101-1SI	PL20-6A

	CAMBRIDGE	GEM	RF INDUSTRIES	TROMPETER
CATALOG NUMBER	BNC CRIMP PLUG	BNC CRIMP PLUG	BNC CRIMP PLUG	BNC CRIMP PLUG
RG 11/U				
C1160	CPMC-88-26	305-26	RFB-1707-R1	UPL20-6A
C3528	CPMC-88-27	--	--	UPL20-6A
C3529	CPMC-88-28	--	--	UPL20-6A
C5011	CPMC-88-29	--	RFB-1707-R	UPL20-6A
C5025	CPMC-88-30	--	RFB-1707-R	UPL20-6A
C5027	--	--	--	--
C5029	CPMC-88-30	--	RFB-1707-R	UPL20-6A
C5033	CPMC-88-31	--	RFB-1707-R	UPL20-6A
C5034	CPMC-88-32	--	RFB-1707-R	UPL20-6A
C5039	CPMC-88-33	--	RFB-1707-R	UPL20-6A
C5041	CPMC-88-34	--	RFB-1707-R	UPL20-6A
C5043	CPMC-88-35	--	RFB-1707-R	UPL20-6A
C5044	CPMC-88-36	--	RFB-1707-R	UPL20-6A

Coax Connector Cross Reference

BNC TYPE CONNECTORS

	AMP	CAMBRIDGE	GEM	IDEAL	KINGS ELECTRONICS	RF INDUSTRIES	TROMPETER
CATALOG NUMBER	BNC PLUG	BNC CRIMP PLUG	BNC CRIMP PLUG	BNC PLUG	BNC CRIMP PLUG	BNC CRIMP PLUG	BNC CRIMP PLUG
RG 58/U							
C1117	22709-5	CPMC-88-1	305-1	IA-3620	755-115-5	RFB-1106-2	PL20-1
C1155	22709-5	CPMC-88-1	305-1	IA-3620	755-115-5	RFB-1106-2	PL20-1
C1166	22709-5	CPMC-88-1	305-1	IA-3620	755-115-5	RFB-1106-2	PL20-1
C1178	22709-5	CPMC-88-1	305-1	IA-3620	755-115-5	RFB-1106-2	PL20-1
C1188	22709-5	CPMC-88-1	305-1	IA-3620	--	RFB-1106-2	PL20-1
C3519	6-22709-8	CPMC-88-11	305-11	--	--	RFB-1707-7	PL20-4
C3579	6-22709-8	CPMC-88-11	305-11	IA-3623	--	RFB-1707-7	PL20-4
C5045	22709-5	CP-88-10 (TWIST ON)	--	IA-3620	755-114-5	RFB-1106-2	PL20-1
C5779	6-22709-8	CPMC-88-1	305-1	--	--	--	105-1598-1

	AMP	CAMBRIDGE	GEM	KINGS ELECTRONICS	LRC	RF INDUSTRIES	TROMPETER
CATALOG NUMBER	BNC PLUG	BNC CRIMP PLUG	BNC COMPRESSION PLUG	BNC CRIMP PLUG	SNAP-N-SEAL BNC	BNC CRIMP PLUG	BNC CRIMP PLUG
RG 59/U							
C1102	--	CPMC-78-2	307-2 (Crimp)	--	SNS59BNC	RFB-1707-D1	UPL20-2
C1103	--	CPMC-78-2	302-2CS	--	--	RFB-1707-D1	UPL20-2
C1104	--	CPMC-78-2	307-2 (Crimp)	--	SNS59BNC	RFB-1707-D	UPL20-2
C1106	--	CPMC-78-2	307-2 (Crimp)	--	SNS59BNC	RFB-1707-D	UPL20-2
C1107	--	CPMC-68-35	302-2CS	--	SNS59BNC	--	UPL20-2
C1110	--	CPMC-78-2	307-2 (Crimp)	--	SNS59BNC	RFB-1707-D	UPL20-2
C1112	--	CPMC-78-2	307-2 (Crimp)	--	SNS59BNC	RFB-1707-D	UPL20-2
C1135	--	CPMC-78-2	307-2 (Crimp)	--	SNS59BNC	RFB-1707-D	UPL20-2
C1142	--	CPMC-68-35	302-2CS	--	SNS59BNC	RFB-1707-W	UPL20-2A
C1158	--	CPMC-78-18	307-18 (Crimp)	--	--	--	UPL20-22
C3500	--	CPMC-68-35	302-10CS	--	--	--	105-1287-9
C3526	--	CPMC-68-50	--	--	--	--	105-1184-9
C3527	--	CPMC-68-35	--	--	--	--	UPL20-53
C5770	--	CPMC-68-35	302-2CS	--	--	RFB-1707-W	UPL20-2A
C5780	--	CPMC-68-35	302-2CS	--	SNS59BNC	RFB-1707-W	UPL20-2A
C5782	--	CPMC-68-35	302-2CS	--	SNS59BNC	RFB-1707-W	UPL20-2A
C5784	--	CP-88-4 (TWIST ON)	--	--	--	--	105-1558-9
C5816	--	CPMC-78-3	--	--	--	--	UPL20-6
C5830	--	CPMC-78-2	307-2 (Crimp)	--	SNS59BNC	RFB-1707-D1	UPL20-2
C5831	--	CPMC-78-2	307-2 (Crimp)	--	SNS59BNC	RFB-1707-D1	UPL20-2
C5832	--	CPMC-68-35	302-2CS	--	SNS59BNC	RFB-1707-D1	UPL20-2A
C5834	--	CPMC-78-2	307-2 (Crimp)	--	SNS59BNC	RFB-1707-D1	UPL20-2
C5836	--	CPMC-78-2	307-2 (Crimp)	--	SNS59BNC	RFB-1707-D	UPL20-2
C5838	22185-5	CPMC-78-3	--	2065--6--9	--	RFB-1708	UPL20-6
C5842	--	CPMC-78-2	307-2 (Crimp)	--	SNS59BNC	--	UPL20-2
C5844	--	CPMC-78-2	307-2 (Crimp)	--	SNS59BNC	RFB-1707-D	UPL20-2
C8005	--	CPMC-78-2	307-2 (Crimp)	--	SNS59BNC	RFB-1707-D	UPL20-2
C8025	--	CPMC-78-2	302-10CS	--	--	RFB-1707-D	UPL20-2
C8027	--	CPMC-78-2	302-10CS	--	--	--	UPL20-2
C8028	--	CPMC-78-2	307-2 (Crimp)	--	SNS59BNC	--	UPL20-2
C8030	--	CPMC-68-10	--	--	--	RFB-1707-D3	105-1287-9

	AMP	CAMBRIDGE	GEM	KINGS ELECTRONICS	TROMPETER
CATALOG NUMBER	BNC PLUG	BNC CRIMP PLUG	BNC CRIMP PLUG	BNC CRIMP PLUG	BNC CRIMP PLUG
RG 62/U					
C1162	22709-7	CPMC-78-2	307-2	755-155-5	UPL20-2
C1164	22709-7	CPMC-78-2	307-3	755-115-5	UPL20-2
C3520	4-22709-9	CPMC-68-2	--	--	105-1287-1

	AMP	CAMBRIDGE	GEM	KINGS ELECTRONICS	RF INDUSTRIES	TROMPETER
CATALOG NUMBER	BNC PLUG	BNC CRIMP PLUG	BNC CRIMP PLUG	BNC CRIMP PLUG	BNC CRIMP PLUG	BNC CRIMP PLUG

RG 174/U						
C1156	1-22709-6	CPMC-88-19	305-19	KC-59-557 M06	RFB-1106-5	PL20-5

	AMP	CAMBRIDGE	GEM	RF INDUSTRIES	TROMPETER
CATALOG NUMBER	BNC PLUG	BNC CRIMP PLUG	BNC CRIMP PLUG	BNC CLAMP PLUG	BNC CLAMP PLUG

RG 213/U					
C1176	2-225395-1	CPMC-88-26	305-26	RFB-1101-1SI	PL20-6A

Coax Connector Cross Reference

F-TYPE CONNECTORS

	CAMBRIDGE	GEM	GILBERT		IDEAL INDUSTRIES
CATALOG NUMBER	F-TYPE CRIMP	F-TYPE COMPRESSION	F-TYPE CRIMP	F-TYPE COMPRESSION	F-TYPE
RG 6/U					
C3521	CPF-56-ALM	0406-4 (Crimp)	GF-6-AHS/USA	Contact Gilbert	--
C3523	CPF-56-ALM	0406-610CS	NS-8101-15	Contact Gilbert	--
C3524	CPF-56-ALM	0406-610CS	Contact Gilbert	Contact Gilbert	--
C3525	CPF-56-ALM	0406-4 (Crimp)	Contact Gilbert	Contact Gilbert	--
C5760	CPF-56-ALM	0406-4 (Crimp)	GF-6-AHS/USA	GF-UR-6	--
C5761	CPF-56-ALM	0406-6CSQS	GF-6-AHS/USA	GF-UR-6	85-037
C5774	CPF-56-ALM	0406-4 (Crimp)	GF-6-AHS/USA	GF-UR-6	85-037
C5775	CPF-56-ALM	0406-6CSQS	GF-6-AHS/USA	GF-UR-6	85-037
C5776	CPF-56-ALM	0406-4 (Crimp)	GF-6-AHS/USA	GF-UR-6	85-037
C5777	CPF-56-ALM	0406-4 (Crimp)	GF-6-AHS/USA	GF-UR-6	85-037
C5778	CPF-56-ALM	0406-4 (Crimp)	GF-6-AHS/USA	GF-UR-6	--
C5785	CPF-56-ALS	0406-6CSQS	GF-6-AHS/USA	GF-UR-6	85-057
C5802	CPF-56-ALM	0406-4 (Crimp)	GF-6-AHS/USA	GF-UR-6	85-037
C5804	CPF-56-ALMWP	--	GF-6-AHS/USA	GF-UR-6	85-037
C5810	CPF-56-ALS	--	Contact Gilbert	Contact Gilbert	--
C5812	CPF-56-ALX	--	GF-6-AHS/USA	GF-UR-6	85-037
C5814	CPF-56-ALM	0406-6CSQS	GF-6-AHS/USA	GF-UR-6	85-037
C5822	CPF-56-ALM	0406-6CSQS	GF-6-AHS/USA	GF-UR-6	85-037
C5824	CPF-56-ALM	0406-6CSQS	GF-6-AHS/USA	GF-UR-6	85-037
C5826	CPF-56-ALM	0406-4 (Crimp)	GF-6-AHS/USA	GF-UR-6	85-037
C5886	CPF-56-ALM	0406-4 (Crimp)	GF-6-AHS/USA	GF-UR-6	85-037
C5888	CPF-56-ALM	0406-4 (Crimp)	GF-6-AHS/USA	GF-UR-6	85-037
C5889	CPF-56-ALS	0406-6CSQS	GF-6-AHS/USA	GF-UR-6	85-057
C5890	CPF-56-ALM	0406-4 (Crimp)	GF-6-AHS/USA	GF-UR-6	--
C8029	CPF-56-ALM	0406-6CS	Contact Gilbert	Contact Gilbert	--
C8031	CPF-56-ALM	0406-4 (Crimp)	Contact Gilbert	Contact Gilbert	--

	LRC		PPC			TROMPETER
CATALOG NUMBER	F-TYPE CRIMP	SNAP-N-SEAL	U SERIES U-INDOOR SU-OUTDOOR	UV SERIES UV-INDOOR SUV INDOOR/OUTDOOR	EX INDOOR/OUTDOOR	F-TYPE CRIMP
RG 6/U (cont.)						
C3521	--	--	CFS 6 PL	--	EX6P or EX6XLP	--
C3523	--	--	CFS 6 PL	--	EX6P or EX6XLP	--
C3524	--	--	CFS 6 PL	--	EX6P or EX6XLP	--
C3525	--	--	--	--	--	--
C5760	--	--	CFS 6 U (SU)	CFS 6 UV (SUV)	EX6 or EX6XLP	--
C5761	AMF6	SNS6	CFS 6 U (SU)	CFS 6 UV (SUV)	EX6 or EX6XLP	PL130SC-020
C5774	AMF6	SNS6	CFS 6 U (SU)	CFS 6 UV (SUV)	EX6 or EX6XLP	PL130SC-020
C5775	AMF6	SNS6	CFS 6 U (SU)	CFS 6 UV (SUV)	EX6 or EX6XLP	--
C5776	AMF6	SNS6	CFS 6 U (SU)	CFS 6 UV (SUV)	EX6 or EX6XLP	PL130SC-020
C5777	AMF6	SNS6	CFS 6 U (SU)	CFS 6 UV (SUV)	EX6 or EX6XLP	PL130SC-020
C5778	AMF6	SNS6	CFS 6 U (SU)	CFS 6 UV (SUV)	EX6 or EX6XLP	PL130SC-020
C5785	AMF6	SNS6QS	CFS 6 U (SU)	CFS 6 UV (SUV)	EX6 or EX6XLP	--
C5802	AMF6	SNS6	CFS 6 U (SU)	CFS 6 UV (SUV)	EX6 or EX6XLP	PL130SC-020
C5804	AMF6	SNS6	CFS 6 U (SU)	CFS 6 UV (SUV)	EX6 or EX6XLP	PL130SC-020
C5810	--	--	--	--	--	PL130SC-017
C5812	--	--	CFS 6 U (SU)	CFS 6 UV (SUV)	EX6 or EX6XLP	--
C5814	AMF6	SNS6	CFS 6 U (SU)	CFS 6 UV (SUV)	EX6 or EX6XLP	PL130SC-020
C5822	AMF6	SNS6	CFS 6 U (SU)	CFS 6 UV (SUV)	EX6 or EX6XLP	PL130SC-020
C5824	AMF6	SNS6	CFS 6 U (SU)	CFS 6 UV (SUV)	EX6 or EX6XLP	PL130SC-020
C5826	AMF6	SNS6	CFS 6 U (SU)	CFS 6 UV (SUV)	EX6 or EX6XLP	PL130SC-020
C5886	AMF6	SNS6	CFS 6 U (SU)	CFS 6 UV (SUV)	EX6 or EX6XLP	--
C5888	AMF6	SNS6	CFS 6 U (SU)	CFS 6 UV (SUV)	EX6 or EX6XLP	PL130SC-020
C5889	AMF6	SNS6QS	--	--	--	--
C5890	AMF6	SNS6	--	--	--	PL130SC-020
C8029	AMF6	SNS6	--	--	--	PL130SC-020
C8031	--	--	--	--	--	--

Coax Connector Cross Reference

F-TYPE CONNECTORS

CATALOG NUMBER	GILBERT		LRC		PPC		
	F-TYPE CRIMP	F-TYPE COMPRESSION	F-TYPE CRIMP	SNAP-N-SEAL	U SERIES U-INDOOR SU-OUTDOOR	PNU SERIES PNU-INDOOR PNSU INDOOR/ OUTDOOR	EX INDOOR/OUTDOOR
RG 7/U							
C5851	GAF-236/051-AHS/368	GAF-UST-7	AMF7	SNS7B	CFS 7 U (SU)	CFS 7 PNU (PNSU)	EX 7
C5853	GAF-236/051-AHS/368	GAF-UST-7	--	--	CFS 7 U (SU)	CFS 7 PNU (PNSU)	EX 7
C5856	GAF-236/051-AHS/368	GAF-UST-7	--	--	CFS 7 U (SU)	CFS 7 PNU (PNSU)	EX 7
C5857	GAF-236/051-AHS/398	GAF-UST-7Q	--	--	CFS 7 U (SU)	CFS 7 PNU (PNSU)	--

CATALOG NUMBER	CAMBRIDGE	GILBERT		LRC		PPC		
	F-TYPE CRIMP	F-TYPE CRIMP	F-TYPE COMPRESSION	F-TYPE CRIMP	SNAP-N-SEAL	U SERIES U-INDOOR SU-OUTDOOR	UV SERIES UV-INDOOR SUV INDOOR/ OUTDOOR	EX INDOOR/OUTDOOR
RG 11/U								
C1160	CPF-11-ALM	Contact Gilbert	Contact Gilbert	--	--	--	--	--
C3528	CPF-11-ALM	Contact Gilbert	Contact Gilbert	--	--	--	--	--
C3529	CPF-11-ALM	Contact Gilbert	Contact Gilbert	--	--	--	--	--
C5011	CPF-11-ALM	GF-11-AHS/460	GAF-UST-11	AMF11	SNS11AS	CFS 11 U (SU)	CFS 11 PNU (PNSU)	EX 11
C5025	CPF-11-ALM	Contact Gilbert	Contact Gilbert	--	--	CFS 11 U (SU)	CFS 11 PNU (PNSU)	EX 11
C5027	--	Contact Gilbert	Contact Gilbert	--	--	--	--	--
C5029	CPF-11-ALM	GF-11-AHS/460	GAF-UST-11	AMF11	SNS11AS	CFS 11 U (SU)	CFS 11 PNU (PNSU)	EX 11
C5033	CPF-11-ALM	GF-11-AHS/460	GAF-UST-11	AMF11	SNS11AS	CFS 11 U (SU)	CFS 11 PNU (PNSU)	EX 11
C5034	CPF-11-ALM	GF-11-AHS/460	GAF-UST-11	AMF11	SNS11AS	CFS 11 U (SU)	CFS 11 PNU (PNSU)	EX 11
C5039	CPF-11-ALM	GF-11-AHS/460	GAF-UST-11	AMF11	SNS11AS	CFS 11 U (SU)	CFS 11 PNU (PNSU)	EX 11
C5041	CPF-11-ALM	GF-11-AHS/460	GAF-UST-11	AMF11	SNS11AS	CFS 11 U (SU)	CFS 11 PNU (PNSU)	EX 11
C5043	CPF-11-ALM	GF-11-AHS/460	GAF-UST-11	AMF11	SNS11AS	CFS 11 U (SU)	CFS 11 PNU (PNSU)	EX 11
C5044	--	GF-11-AHS/480	GAF-UST-11Q	AMF11	SNS11AS	CFS 11 U (SU)	CFS 11 PNU (PNSU)	EX 11

CATALOG NUMBER	CAMBRIDGE	GEM	GILBERT		IDEAL INDUSTRIES	LRC	
	F-TYPE CRIMP	F-TYPE COMPRESSION	F-TYPE CRIMP	F-TYPE COMPRESSION	F-TYPE	F-TYPE CRIMP	SNAP-N-SEAL
RG 59/U							
C1102	CPF-59-ALM	0459-2M (Crimp)	GF-59-AHS/USA	GF-UR-59	85-036	AMF59	SNS59
C1103	CPF-59-ALM	0459-2CS	GF-59-AHS/USA	GF-UR-59	85-036	--	--
C1104	CPF-59-ALM	0459-2M (Crimp)	GF-59-AHS/USA	GF-UR-59	85-036	AMF59	SNS59
C1106	CPF-59-ALM	0459-2M (Crimp)	GF-59-AHS/USA	GF-UR-59	85-036	AMF59	SNS59
C1107	CPF-59-ALM	0459-2M (Crimp)	GF-59-AHS/USA	GF-UR-59	85-036	AMF59	SNS59
C1110	CPF-59-ALM	0459-2M (Crimp)	GF-59-AHS/USA	GF-UR-59	85-036	AMF59	SNS59
C1112	CPF-59-ALM	0459-2M (Crimp)	GF-59-AHS/USA	GF-UR-59	85-036	AMF59	SNS59
C1135	CPF-59-ALM	0459-2M (Crimp)	GF-59-AHS/USA	GF-UR-59	85-036	AMF59	SNS59
C1142	CPF-59-ALM	0459-2CS	GF-59-AHS/USA	GF-UR-59	85-036	AMF59	SNS59
C1158	--	--	GF-1097-17	Contact Gilbert	--	--	--
C3500	--	0459-10CS	Contact Gilbert	Contact Gilbert	--	--	--
C3526	--	--	Contact Gilbert	Contact Gilbert	--	--	--
C3527	CPF-59-ALM	0459-2M (Crimp)	Contact Gilbert	Contact Gilbert	--	--	--
C5770	CPF-59-ALM	0459-2CS	Contact Gilbert	Contact Gilbert	85-036	--	--
C5780	CPF-59-ALM	0459-2M (Crimp)	GF-59-AHS/USA	GF-UR-59	85-036	AMF59	SNS59
C5782	CPF-59-ALM	0459-2M (Crimp)	GF-59-AHS/USA	GF-UR-59	85-036	AMF59	SNS59
C5784	--	--	GF-59-AHS/357	Contact Gilbert	85-059	--	SNS59QS
C5816	--	--	Contact Gilbert	Contact Gilbert	--	--	--
C5830	CPF-59-ALM	0459-2M (Crimp)	GF-59-AHS/USA	GF-UR-59	85-036	AMF59	SNS59
C5831	CPF-59-ALM	0459-2M (Crimp)	GF-59-AHS/USA	GF-UR-59	85-036	AMF59	SNS59
C5832	CPF-59-ALM	0459-2M (Crimp)	GF-59-AHS/USA	GF-UR-59	85-036	AMF59	SNS59
C5834	CPF-59-ALM	0459-2M (Crimp)	GF-59-AHS/USA	GF-UR-59	85-036	AMF59	SNS59
C5836	CPF-59-ALM	0459-2M (Crimp)	GF-59-AHS/USA	GF-UR-59	85-036	AMF59	SNS59
C5838	--	--	Contact Gilbert	Contact Gilbert	--	--	--
C5842	CPF-59-ALM	0459-2M (Crimp)	GF-59-AHS/USA	GF-UR-59	85-036	AMF59	SNS59
C5844	CPF-59-ALM	0459-2M (Crimp)	GF-59-AHS/USA	GF-UR-59	--	AMF59	SNS59
C8005	CPF-59-ALM	0459-2M (Crimp)	Contact Gilbert	Contact Gilbert	--	AMF59	SNS59
C8025	CPF-59-ALM	0459-10CS	Contact Gilbert	Contact Gilbert	--	--	--
C8027	CPF-59-ALM	0459-10CS	Contact Gilbert	Contact Gilbert	--	--	--
C8028	CPF-59-ALM	0459-2M (Crimp)	Contact Gilbert	Contact Gilbert	--	AMF59	SNS59
C8030	CPF-59-ALM	0459-2M (Crimp)	Contact Gilbert	Contact Gilbert	--	--	--

Coax Connector Cross Reference

F-TYPE CONNECTORS

CATALOG NUMBER	PPC			TROMPETER
	U SERIES U-INDOOR SU-OUTDOOR	UV SERIES UV-INDOOR SUV INDOOR/ OUTDOOR	EX INDOOR/OUTDOOR	F-TYPE CRIMP
RG 59/U (cont.)				
C1102	CFS 59 U (SU)	CFS 59 UV (SUV)	EX59 or EX59XL	PL130SC-014
C1103	CFS 59 U (SU)	CFS 59 UV (SUV)	EX59 or EX59XL	PL130SC-013
C1104	CFS 59 U (SU)	CFS 59 UV (SUV)	EX59 or EX59XL	PL130SC-013
C1106	CFS 59 U (SU)	CFS 59 UV (SUV)	EX59 or EX59XL	PL130SC-013
C1107	CFS 59 U (SU)	CFS 59 UV (SUV)	EX59 or EX59XL	PL130SC-013
C1110	CFS 59 U (SU)	CFS 59 UV (SUV)	EX59 or EX59XL	PL130SC-013
C1112	CFS 59 U (SU)	CFS 59 UV (SUV)	EX59 or EX59XL	PL130SC-013
C1135	CFS 59 U (SU)	CFS 59 UV (SUV)	EX59 or EX59XL	PL130SC-013
C1142	CFS 59 U (SU)	CFS 59 UV (SUV)	EX59 or EX59XL	PL130SC-023
C1158	--	--	--	PL130SC-008
C3500	--	--	--	--
C3526	--	--	--	--
C3527	CFS 59 U (SU)	CFS 59 UV (SUV)	EX59 or EX59XL	PL130SC-023
C5770	CFS 59 U (SU)	CFS 59 UV (SUV)	EX59 or EX59XL	PL130SC-022
C5780	CFS 59 U (SU)	CFS 59 UV (SUV)	EX59 or EX59XL	PL130SC-023
C5782	CFS 59 U (SU)	CFS 59 UV (SUV)	EX59 or EX59XL	PL130SC-023
C5784	CFS 59 U (SU)	CFS 59 UV (SUV)	EX59 or EX59XL	--
C5816	CFS 6 JU (SU)	CFS 6 JUV (SUV)	EX59 or EX59XL	PL130SC-016
C5830	CFS 59 U (SU)	CFS 59 UV (SUV)	EX59 or EX59XL	PL130SC-013A
C5831	CFS 59 U (SU)	CFS 59 UV (SUV)	EX59 or EX59XL	PL130SC-013A
C5832	CFS 59 U (SU)	CFS 59 UV (SUV)	EX59 or EX59XL	PL130SC-013A
C5834	CFS 59 U (SU)	CFS 59 UV (SUV)	EX59 or EX59XL	PL130SC-013A
C5836	CFS 59 U (SU)	CFS 59 UV (SUV)	EX59 or EX59XL	PL130SC-013
C5838	--	--	--	PL130SC-016
C5842	CFS 59 U (SU)	CFS 59 UV (SUV)	EX59 or EX59XL	PL130SC-013
C5844	CFS 59 U (SU)	CFS 59 UV (SUV)	EX59 or EX59XL	PL130SC-013
C8005	CFS 59 U (SU)	CFS 59 UV (SUV)	EX59 or EX59XL	PL130SC-013
C8025	--	--	--	PL130SC-013
C8027	--	--	--	PL130SC-013
C8028	--	--	--	PL130SC-013A
C8030	--	--	--	--

TROMPETER	
CATALOG NUMBER	F-TYPE CRIMP
RG 62/U	
C1162	PL130SC-013
C1164	PL130SC-013
C3520	-

TROMPETER	
CATALOG NUMBER	F-TYPE CRIMP
RG 174/U	
C1156	PL130SC-004

Coax Connector Cross Reference

N-TYPE CONNECTORS

	TROMPETER
CATALOG NUMBER	N-TYPE CRIMP PLUG
RG 6/U	
C3521	--
C3523	--
C3524	--
C3525	--
C5760	--
C5761	UPL95-34
C5774	--
C5775	--
C5776	--
C5777	--
C5778	--
C5785	--
C5802	--
C5804	--
C5810	UPL95-51
C5812	UPL95-41
C5814	--
C5822	UPL95-41
C5824	UPL95-41
C5826	UPL95-41
C5886	--
C5888	--
C5889	UPL95-41
C5890	UPL95-41
C8029	UPL95-41
C8031	--

	TROMPETER
CATALOG NUMBER	N-TYPE CRIMP PLUG
RG 7/U	
C5851	PL95-48
C5853	N/A
C5856	PL95-48
C5857	PL95-48

	AMP	CAMBRIDGE	KINGS ELECTRONICS	LRC	RF INDUSTRIES	TROMPETER
CATALOG NUMBER	N-TYPE PLUG	N-TYPE CRIMP PLUG	N-TYPE CRIMP PLUG	N-TYPE PLUG	N-TYPE CRIMP PLUG	N-TYPE PLUG
RG 8/U						
C1108	--	--	--	--	RFN-1007-2SX	--
C1154	225661-2 (Mil)	CPN-68-8	KN-59-176	--	RFN-1006-3E	PL95-6A
	415232-6				RFN-1006-3E	
C1180	--	CPN-8/110	1205-4-9	NM8HB10	RFN-1006-3I	--
C1198	1-225661-6 (Mil)	CPN-68-8	1205-4-9	--	RFN-1006-3I	PL95-6A
	414160-4					

	CAMBRIDGE	TROMPETER
CATALOG NUMBER	N-TYPE CRIMP PLUG	N-TYPE CRIMP PLUG
RG 11/U		
C1160	CPN-8	UPL95-6A
C3528	CPN-8	UPL95-6A
C3529	CPN-8	UPL95-6A
C5011	CPN-8	UPL95-6A
C5025	CPN-68-8	UPL95-6A
C5027	--	--
C5029	CPN-8	UPL95-6A
C5033	CPN-8	UPL95-6A
C5034	CPN-8	UPL95-6A
C5039	CPN-8	UPL95-6A
C5041	CPN-8	UPL95-6A
C5043	CPN-8	UPL95-6A
C5044	CPN-68-8	UPL95-6A

Coax Connector Cross Reference

N-TYPE CONNECTORS

	AMP	CAMBRIDGE	KING ELECTRONICS	RF INDUSTRIES	TROMPETER
CATALOG NUMBER	N-TYPE PLUG	N-TYPE CRIMP PLUG	N-TYPE CRIMP PLUG	N-TYPE CRIMP PLUG	N-TYPE CRIMP PLUG
RG 58/U					
C1117	1-225661-2 (Mil)	CPN-68-1	1205-19-5	RFN-1005-3C	PL95-1
	415232-2				
C1155	1-225661-2 (Mil)	CPN-68-1	1205-19-5	RFN-1005-3C	PL95-1
	415232-2				
C1166	1-225661-2 (Mil)	CPN-68-1	1205-19-5	RFN-1005-3C	PL95-1
	415232-2				
C1178	1-225661-2 (Mil)	CPN-68-1	1205-19-5	RFN-1005-3C	PL95-1
	415232-2				
C1188	1-225661-2 (Mil)	CPN-68-1	--	RFN-1005-3C	PL95-1
	415232-2				
C3519	--	CPN-1	--	--	PL95-4
C3579	--	CPN-1	--	--	PL95-4
C5045	1-225661-2 (Mil)	CPN-68-1	--	RFN-1005-3C	PL95-1
	415232-2				
C5779	--	CPN-1	--	--	--

	AMP	CAMBRIDGE	GEM	RF INDUSTRIES	TROMPETER
CATALOG NUMBER	N-TYPE PLUG	N-TYPE CRIMP PLUG	N-TYPE CRIMP PLUG	N-TYPE CRIMP PLUG	N-TYPE CRIMP PLUG
RG 59/U					
C1102	--	--	--	RFN-1907-2S	UPL95-2
C1103	--	CPN-2	400-2	RFN-1907-2S	UPL95-2
C1104	--	CPN-2	400-2	RFN-1907-2S	UPL95-2
C1106	--	CPN-2	400-2	RFN-1907-2S	UPL95-2
C1107	--	CPN-2	400-2	--	UPL95-2
C1110	--	CPN-2	400-2	RFN-1907-2S	UPL95-2
C1112	--	CPN-2	400-2	RFN-1907-2S	UPL95-2
C1135	--	CPN-2	400-2	RFN-1907-2S	UPL95-2
C1142	--	--	--	--	UPL95-2A
C1158	--	--	--	--	UPL95-22
C3500	--	--	--	--	--
C3526	--	--	--	--	--
C3527	--	--	--	--	--
C5770	--	--	--	--	UPL95-2A
C5780	--	--	--	--	UPL95-2A
C5782	--	--	--	--	UPL95-2A
C5784	--	--	--	--	--
C5816	--	--	--	--	UPL95-6
C5830	--	--	--	RFN-1907-2S	UPL95-2
C5831	--	--	--	RFN-1907-2S	UPL95-2
C5832	--	--	--	--	UPL95-2A
C5834	--	--	--	--	UPL95-2
C5836	--	CPN-2	400-2	--	UPL95-2
C5838	--	--	--	RFN-1907-2S	UPL95-6
C5842	--	--	--	--	UPL95-2
C5844	--	--	--	RFN-1907-2S	UPL95-2
C8005	--	CPN-2	400-2	--	UPL95-2
C8025	--	CPN-2	400-2	--	UPL95-2
C8027	--	CPN-2	400-2	--	UPL95-2
C8028	--	--	--	--	UPL95-2
C8030	--	--	--	--	--

Coax Connector Cross Reference

N-TYPE CONNECTORS

	AMP	CAMBRIDGE	GEM	TROMPETER
CATALOG NUMBER	N-TYPE PLUG	N-TYPE CRIMP PLUG	N-TYPE CRIMP PLUG	N-TYPE PLUG
RG 62/U				
C1162	--	CPN-2	400-2	UPL95-2
C1164	--	CPN-2	400-2	UPL95-2
C3520	--	--	--	--

	AMP	RF INDUSTRIES	TROMPETER
CATALOG NUMBER	N-TYPE PLUG	N-TYPE PLUG	N-TYPE PLUG
RG 174/U			
C1156	--	RFN-1005-B-03	PL95-5

	AMP	CAMBRIDGE	KINGS ELECTRONICS	RF INDUSTRIES	TROMPETER
CATALOG NUMBER	N-TYPE PLUG	N-TYPE CRIMP PLUG	N-TYPE CRIMP PLUG	N-TYPE PLUG	N-TYPE PLUG
RG 213/U					
C1176	1-227086-0 (Mil)	CPN-68-8	KN-59-202	RFN-1006-3I	PL95-6A
	415232-6				

AWG Conductor Chart

COPPER CONDUCTOR DATA

The conductors used by General Cable meet the applicable requirements of ASTM specifications B-3, B-33, B-172, B-173, B-174 and B-286 and Federal Specification QQ-W-343.

The following data covers the more commonly used conductor constructions in the electrical and electronics industry. Special constructions, not shown, are available or can be designed to meet specific requirements. It is suggested that the General Cable Product Engineering Department be contacted before a specification is finalized.

AWG	STRANDING	TYPE STRANDING ⁽¹⁾	DIAMETER ⁽⁴⁾		AREA		WEIGHT		D.C. RESISTANCE 20°C ⁽²⁾				BREAK STR. LBS.
			in.	mm	circ. mils	sq. mm.	lbs/M'	kg/km.	TIN COATING ⁽³⁾		BARE OF SILVER COATING		
									Ω/M'	Ω/km.	Ω/M'	Ω/km.	
32	7/40	Co or Bu	.0096	.254	100	.051	.21	.31	176.00	577.00	164.00	538.00	1.986
30	Solid 7/38	—	.010	.254	100	.051	.30	.45	113.00	371.00	104.00	340.00	3.157
		Bu	.012	.305	112	.057	.35	.52	106.00	348.00	92.60	303.00	
28	Solid 7/36	—	.01264	.321	159	.081	.48	.72	70.80	232.00	65.30	214.00	5.020
		Co	.015	.381	175	.089	.55	.82	67.50	221.00	59.30	194.00	
27	Solid 7/35	—	.0142	.361	202	.102	.61	.91	55.60	182.00	51.40	169.00	6.331
		Co or Bu	.017	.432	220	.111	.69	1.04	53.80	176.00	—	—	
26	Solid 7/34 10/36 19/38	—	.016	.404	253	.128	.77	1.14	44.50	146.00	41.00	135.00	7.983
		Co or Bu	.019	.483	278	.141	.87	1.29	42.50	139.00	37.30	122.00	
		Bu	.0193	.490	250	.127	.78	1.15	47.30	155.00	40.40	133.00	
		Bu or Co	.021	.533	304	.154	.97	1.44	38.90	128.00	34.10	112.00	
24	Solid 7/32 16/36 19/36	—	.0201	.511	404	.205	1.22	1.82	27.20	89.20	25.70	84.20	12.690
		Co or Bu	.024	.610	448	.227	1.38	2.05	25.70	84.20	23.10	75.90	
		Bu	.024	.610	400	.201	1.25	1.64	29.50	96.80	27.50	90.20	
		Co or Bu	.025	.635	475	.241	1.48	2.20	24.90	81.70	21.80	71.60	
22	Solid 7/30 19/34	—	.025	.643	643	.324	1.94	2.89	16.70	54.80	16.20	53.20	19.430
		Co or Bu	.030	.762	700	.355	2.19	3.26	16.60	54.40	14.80	48.60	
		Bu or Eq	.0315	.800	754	.382	2.35	3.50	15.50	50.80	13.80	45.10	
20	Solid 7/28 10/30 19/32 26/34	—	.032	.813	1,020	.519	3.10	4.61	10.50	34.40	10.10	33.20	30.890
		Co or Bu	.038	.965	—	.562	3.49	5.19	10.30	33.80	9.33	30.60	
		Bu	.037	.940	1,111	.507	3.14	4.67	11.40	37.40	10.40	34.00	
		Co, Bu or Eq	.040	1.02	1,000	.616	3.84	5.71	9.48	31.10	8.53	28.00	
		Bu	.039	.940	1,216	.523	3.28	4.88	11.30	37.10	—	—	
19	Solid	—	.0359	.912	1,032	.653	3.90	5.80	—	—	8.05	26.40	38.950
18	Solid 7/26 16/30 19/30 41/34	—	.0403	1.024	1,290	.823	4.92	7.32	6.77	22.20	6.39	21.00	49.120
		Co or Bu	.048	1.22	1,620	.897	5.55	8.26	6.45	21.20	5.55	19.20	
		Bu	.0475	1.207	1,770	.810	5.01	7.45	7.15	23.40	6.48	21.30	
		Co, Bu or Eq	.050	1.27	1,600	.963	5.95	8.85	6.10	20.00	5.46	17.90	
		Bu	.049	1.244	1,900	.824	5.09	7.08	7.08	23.20	6.60	21.60	
16	Solid 19/294 19/0117 26/30 65/34	—	.0508	1.29	1,627	1.31	7.81	11.60	4.47	14.70	4.16	13.60	78.100
		Bu or Eq	.057	1.45	2,580	1.23	7.52	11.20	4.82	15.80	4.27	14.00	
		Bu	.0585	1.50	2,426	1.32	8.02	11.90	4.39	14.40	4.13	13.50	
		Bu	.0606	1.54	2,601	1.32	8.15	12.10	4.39	14.40	3.99	13.10	
		Bu	.060	1.52	2,600	1.31	8.20	11.90	4.47	14.70	4.16	13.60	
14	Solid 7/0242 19/274 19/0147 41/30	—	.0641	1.63	2,581	2.08	12.4	18.50	2.68	8.79	2.52	8.28	124.200
		Bu	.073	1.85	4,110	2.08	12.7	18.90	—	—	2.61	8.56	
		Co, Eq or Un	.071	1.80	4,100	1.94	12.1	18.00	3.05	10.00	2.71	8.88	
		Cu	.074	1.88	3,831	2.08	12.7	18.90	2.73	—	2.61	8.56	
		Bu	.077	1.96	4,106	2.08	12.9	19.20	2.81	9.22	2.53	8.30	
12	Solid 7/0305 19/254 19/0185 65/30	—	.0808	2.05	4,100	3.31	19.8	29.50	1.69	5.54	1.59	5.21	197.500
		Co	.092	2.34	6,530	3.30	20.2	30.10	—	—	1.64	5.38	
		Co, Eq or Un	.0905	2.299	6,512	3.08	19.4	28.90	1.87	6.13	1.70	5.59	
		Bu	.0925	2.35	6,088	3.30	20.2	30.10	—	—	1.64	5.25	
		Bu	.094	2.388	6,503	3.29	20.8	31.10	1.82	5.97	1.64	5.25	
10	Solid 7/0385 19/0234 37/0169 105/30	—	.1019	2.588	6,500	5.26	31.4	46.80	—	—	1.00	3.28	314.500
		Co	.116	2.95	10,380	5.25	32.0	47.60	—	—	1.00	3.28	
		Bu	.117	2.97	10,376	5.27	32.0	47.60	—	—	.98	3.21	
		Co	.112	2.84	10,404	4.74	29.2	43.40	—	—	1.25	4.10	
		Bu	.126	3.20	9,361	5.32	33.8	49.20	1.10	3.61	.99	3.24	
8	7/0486 19/0295 133/29 168/30	Co	.146	3.71	10,500	8.38	50.1	74.50	—	—	.65	2.13	
		Bu or Eq	.144	3.66	16,534	8.38	50.0	74.40	—	—	.65	2.13	
		Ro 19 ≡ 7/29	.169	4.293	16,535	8.61	54.0	80.40	.71	2.33	—	—	
		Ro 7 ≡ 24/30	.174	4.42	16,983	8.51	53.4	79.00	.70	2.30	—	—	
6	19/0374 133/27 266/30	Bu	.188	4.775	16,800	13.33	81.1	121.00	—	—	.40	1.30	
		Ro 19 ≡ 7/27	.213	5.41	26,576	13.60	84.1	125.00	.43	1.41	—	—	
		Ro 7 ≡ 38/30	.222	5.64	26,818	13.49	83.2	124.00	.44	1.44	—	—	
4	133/25 420/30	Ro 19 ≡ 7/25	.257	6.53	26,600	21.61	135	201.00	.29	.95	—	—	
		Ro 7 ≡ 60/30	.270	6.850	42,615	21.29	140	208.00	.28	.92	—	—	
2	665/30	Ro 19 ≡ 35/30	.338	8.59	42,000	33.72	213	317.00	.18	.59	—	—	

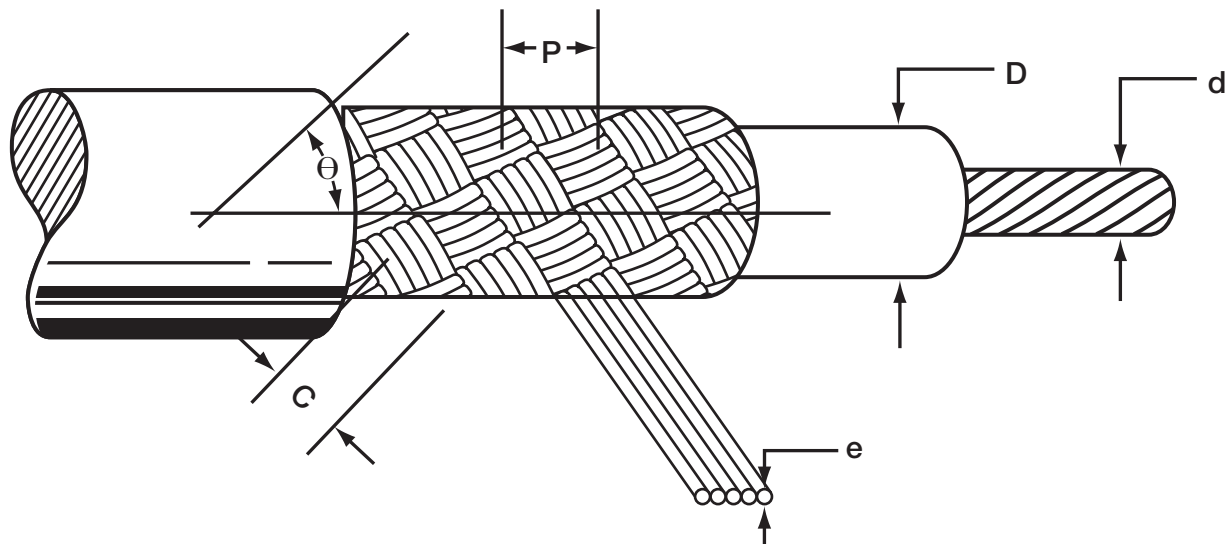
¹Bu - Bunched; Co - Concentric; Eq - Equilay; Ro - Rope; Un - Unilay

²Typical D.C. Resistance values for uninsulated wires. Multiply by 1.04 for typical values after insulation

³Values are for tinned, heavy tinned, prefused, overcoated or topcoated conductors

⁴Does not meet UL conductor stranding requirements

Cable Design Equations—Braid Shield



BRAID ANGLE:

$$\Theta = \tan^{-1} \left[\frac{2\pi (D + 2e) P}{C} \right], \text{ DEGREES}$$

BRAID PICKS PER INCH:

$$P = \frac{(C) (\tan \Theta)}{2\pi (M)}, \text{ PICKS/INCH}$$

BRAID SHIELD WEIGHT:

$$W = \frac{(n) (C) (l)}{\cos \Theta}, \text{ LBS/M FT}$$

BRAID SHIELD DC RESISTANCE:

$$R_{dc} = \cos \frac{r_{dc}}{(n) (C) (\cos \Theta)}, \Omega/\text{kft}$$

$$\% \text{ Coverage: } \%C = (2F - F^2) \times 100$$

% Coverage Factor for Common Coverage:

F	% Coverage
0.368	60
0.409	65
0.453	70
0.500	75
0.553	80
0.617	85

where:

- D = diameter under shield, inches
- d = diameter of center conductor, inches
- C = number of carriers
- e = diameter of end
- P = pick (measured in picks per linear inch)
- Θ = braid angle, degrees
- W = weight of shield, lbs/M ft
- n = number of ends in one carrier
- l = weight of one end in lbs/M ft
- M = D + build-up of braid on one shield wall, inches
- R_{dc} = dc resistance of the braid shield, Ω/M ft
- r_{dc} = dc resistance of one strand (end) of shield, Ω/M ft
- % C = percent braid coverage
- F = % coverage factor

Cable Design Equations—Coaxial Cable

COAXIAL CABLE CAPACITANCE:

$$C = \frac{7.36\varepsilon}{\text{LOG}\left(\frac{D}{fd}\right)}, \text{ pF/ft}$$

COAXIAL CABLE VELOCITY OF PROPAGATION:

$$V_p = \frac{100}{\varepsilon^{1/2}}, \%$$

COAXIAL CABLE INDUCTANCE:

$$L = 0.140 \text{ LOG}\left(\frac{D}{fd}\right), \mu\text{H/ft}$$

COAXIAL CABLE TIME DELAY:

$$t_d = 1.016 \varepsilon^{1/2}, \text{ nsec/ft}$$

COAXIAL CABLE IMPEDANCE:

$$Z_o = \frac{138}{\varepsilon^{1/2}} \text{ LOG}\left(\frac{D}{fd}\right), \Omega$$

COAXIAL CABLE CUTOFF FREQUENCY:

$$f_{co} = \frac{7.50}{\varepsilon^{1/2} (D + fd)}, \text{ GHz}$$

where:

C = capacitance, pF/ft

ε = insulation dielectric constant (see table below)

D = diameter under the shield, inches

d = diameter of the center conductor, inches

L = inductance, $\mu\text{H/ft}$

f = strand factor (see Table II page 138)

Z_o = characteristic impedance, Ω

V_p = velocity of propagation, %

t_d = time delay, nsec/ft

f_{co} = cutoff frequency, GHz

MATERIAL	ε	POWER FACTOR, PF
FEP Teflon® (Cellular)	1.40	0.0002
FEP Teflon® (Solid)	2.10	0.0003
PE (Cellular)	1.56	0.0003
PE (Solid)	2.26	0.0003
PE (Semi-Solid)	1.29	0.0003

Cable Design Equations—Balanced Pair

CAPACITANCE (UNSHIELDED TWISTED PAIR):

$$C = \frac{2.2 \epsilon}{\text{LOG} \left[\frac{1.3 (D)}{(f) (d)} \right]}, \text{ pF/ft}$$

IMPEDANCE (UNSHIELDED TWISTED PAIR):

$$Z_0 = \frac{1016 \epsilon^{1/2}}{C}, \Omega$$

CAPACITANCE (SHIELDED TWISTED PAIR):

$$C = \frac{3.7 \epsilon}{\text{LOG} \left[\frac{1.2 (D)}{(f) (d)} \right]}, \text{ pF/ft}$$

IMPEDANCE (SHIELDED TWISTED PAIR):

$$Z_0 = \frac{276}{\epsilon^{1/2}} \text{LOG} \left[\frac{1.2 (D)}{(f) (d)} \right], \Omega$$

CAPACITANCE (OVERALL SHIELDED & CABLED):

$$C = \frac{2.9 \epsilon}{\text{LOG} \left[\frac{1.5 (D)}{(f) (d)} \right]}, \text{ pF/ft}$$

IMPEDANCE (OVERALL SHIELDED & CABLED):

$$Z_0 = \frac{347}{\epsilon^{1/2}} \text{LOG} \left[\frac{1.5 (D)}{(f) (d)} \right], \Omega$$

where:

- C = mutual capacitance, pF/ft
- ϵ = insulation dielectric constant (see Table I)
- f = stranding factor (see Table II)
- d = diameter of the conductor, inches
- D = diameter over the insulation, inches
- Z_0 = characteristic impedance Ω

TABLE I

DIELECTRIC CONSTANTS & V_p OF INSULATIONS

MATERIAL	ϵ	V_p , %
ECTFE (Halar™)	2.60	63
PFA Teflon®	2.15	68
PVC	5.00	45
PVC (Semi-rigid)	3.60	53
PVDF (Kynar™, SOLEF™)	7.70	36
Polyethylene	2.29	66
Polypropylene	2.25	67
Polyurethane	6.50	39
Rubber, butyl	4.0	50
Rubber, natural	5.0	45
Rubber, SBR	4.0	50
Rubber, silicone	3.1	57
TFE Teflon®	2.1	69
TPE	5.0	45
Teflon®	2.10	69
Tefzel®	2.6	62

TABLE II

NO. OF STRANDS	f
1	1.000
7	0.939
19	0.970
37	0.980
61	0.985
91	0.988

Engineering Prefixes

PREFIX	SYMBOL	MULTIPLYING FACTOR	
		SCIENTIFIC	CONVENTIONAL
tera	T	10^{12}	1,000,000,000,000
giga	G	10^9	1,000,000,000
mega	M	10^6	1,000,000
kilo	k	10^3	1,000
hecto	h	10^2	100
deca	da	10^1	10
deci	d	10^{-1}	0.1
centi	c	10^{-2}	0.01
milli	m	10^{-3}	0.001
micro	μ	10^{-6}	0.000001
nano	<i>n</i>	10^{-9}	0.000000001
pico	<i>p</i>	10^{-12}	0.000000000001
femto	<i>f</i>	10^{-15}	0.000000000000001
atto	<i>a</i>	10^{-18}	0.000000000000000001

Glossary

Abrasion Resistance: Resistance to surface wear.

AC Alternating Current (a.c.): Current in which the charge-flow periodically reverses and is represented by: $I = I_m \cos(2\pi f + \phi)$ where, I is the current, I_m is the amplitude, f the frequency, ϕ the phase angle.

Accelerated Aging: A test that attempts to duplicate long-time environmental aging in comparatively short time spans.

Accelerator: A chemical additive which hastens a chemical reaction under specific conditions.

Accordion: (1) A retractile cable with a series of equally-spaced transverse folds. (2) A connector contact with a "Z" shaped flat spring to permit high deflection without overstress.

Adapter: A device that enables any or all of the following 1) different sizes or types of plugs to mate with one another or to fit into a telecommunications outlet/connector; 2) the rearrangement of leads; 3) large cables with numerous wires to fan out into smaller groups of wires, 4) interconnection between cables.

Adhesive Bonded: Cables bonded by adding an adhesive coating to the surface of the cable components, then joining and curing the adhesive to form a cable. See Bonded Cable.

Administration: The method for labeling, identification, documentation and usage needed to implement moves, additions and changes of the telecommunications infrastructure.

Admittance: The measure of the ease with which an alternating current flows in a circuit. The reciprocal of impedance.

Aerial Cable: A cable suspended in the air on poles or other overhead structure.

Aging: The change in properties of a material with time under specific conditions.

Air Core Cable: A cable in which the interstices in the cable core are not filled with a moisture barrier.

Air-Handling Plenum: A designated area, closed or open, used for environmental air.

Air Spaced Coaxial Cable: One in which air is essentially the dielectric material. A spirally wound synthetic filament, beads or braided filaments may be used to center the conductor.

All-Rubber Cable: A cable in which all interstices between conductors are filled with rubber compound.

Alligator Clip: A mechanical device shaped like alligator jaws used as a temporary connection on the end of interconnections wire.

Alloy: A metal formed by combining two or more different metals to obtain desirable properties.

Aluminum Conductor: An aluminum wire or group of wires not suitably insulated to carry electrical current.

Aluminum-Steel Conductor: A composite conductor made up of a combination of aluminum and steel wires.

Ambient Temperature: The temperature of a medium (gas or liquid) surrounding an object.

American Wire Gauge (AWG): The standard system used for designating wire diameter. The lower the AWG number, the larger the diameter. Also called the Brown and Sharpe (B&S) wire gauges.

Ampacity: See Current Carrying Capacity.

Ampere: The unit of current. One ampere is the current flowing through one ohm of resistance at one volt potential.

Analog: A signaling format that uses continuous physical variables such as voltage amplitude or frequency variations to transmit information.

Anneal: Relief of mechanical stress through heat and gradual cooling. Annealing copper renders it less brittle.

Annular Conductor: A number of wires stranded in three reversed concentric layers around a core.

Annunciator: A signaling device, usually electrically operated, that gives an audible or visual signal (or both) when energized.

Anti-Oxidant: A substance which prevents or slows down oxidation of material exposed to air.

Appliance Wire and Cable: A classification covering insulated wire and cable for internal wiring of appliances and equipment.

Arc Resistance: The time required for an arc to establish a conductive path in a material.

Armored Cable: A cable provided with a wrapping of metal for mechanical protection.

Attenuation: The decrease in magnitude of the power of a signal in transmission between points. Attenuation is usually measured in decibels per unit length at a specific frequency.

Attenuation to Crosstalk Ratio (ACR): The difference between attenuation and crosstalk, measured in dB, at a given frequency. Important characteristic in networking transmission to assure that signal sent down a twisted pair is stronger at the receiving end, after being attenuated, than are any interference signals imposed on that same pair by crosstalk from other pairs, represented by NEXT.

Audio Frequency: The range of frequencies audible to the human ear. Usually 20-20,000 Hz.

Backbone: A facility (e.g. pathway, cable or conductors) between telecommunications closets or floor distribution terminals, the entrance facilities and the equipment rooms within or between buildings.

Backbone Cable or Wire: Cable or wire found in the backbone, see Backbone.

Balanced Line: A cable having two identical conductors which carry voltages opposite in polarity and equal in magnitude with respect to ground.

Balun: A device for matching an unbalanced coaxial transmission line to a balanced two-wire system.

Band Marking: A continuous circumferential band applied to a conductor at regular intervals for identification.

Banded Cable: Two or more cables banded together by stainless steel strapping.

Bandwidth: A continuous range of frequencies extending between two limiting frequencies. Also referred to as a frequency band.

Barrel-Packed: Method of coiling into a fiber drum for shipment.

Baseband: In data transmission, the use of a dedicated end-to-end connection to carry a single channel only.

Beaded Coax: Coaxial cable with a dielectric consisting of beads made of various materials.

Belt: Number of layers of insulation on a conductor, or number of layers of jacket on a cable.

Belted-Type Cable: Multiple conductor cable having a layer of insulation over the assembled insulated conductors.

Bend Loss: A form of increased attenuation caused by (1) having an optical fiber curved around a restrictive radius of curvature or (2) microbends caused by minute distortions in the fiber imposed by externally induced forces.

Bend Radius: Radius of curvature that a fiber optic or metallic cable can bend without any adverse effects.

Bifilar: A winding made non-inductive by winding together (as one wire) two wires carrying current in opposite directions.

Billion Conductor Feet (BCF): A quantity derived by multiplying the number of conductors in a cable by the amount of cable. Usually used to indicate plant capacity or an annual requirement.

Bimetallic Wire: A wire formed of two different metals joined together (not alloyed). It can include wire with a steel core clad wire, or plated or coated wire.

Binder: A spirally served tape or thread used for holding assembled cable components in place awaiting subsequent manufacturing operations.

Binding Post: A device for clamping or holding electrical conductors in a rigid position.

Bit: One binary (0 or 1) digit.

Blown Jacket: Outer cable covering applied by controlled inflation of the cured jacket tube then pulling the cable through it.

Bond Strength: Amount of adhesion between bonded surfaces, e.g. in cemented ribbon cable.

Bondable Wire: An insulated wire treated to facilitate adherence to materials such as potting compounds. Also, magnet wires used in making coils when bonding the turns together is desired.

Bonded Cable: Cable consisting of pre-insulated conductors or multiconductor components laid in parallel and bonded into a flat cable. See Solvent-Bonded; Adhesive-Bonded; Film-Bonded.

Bonded Construction: An insulation construction in which the glass braid and nylon jacket are bonded together.

Bonding: The permanent joining of metallic parts to form an electrically conductive path that will assure electrical continuity and the capacity to conduct safely any current likely to be imposed on it.

Booster: A device inserted into a line (or cable) to increase the voltage.

Boot: (1) Protective covering over a cable, wire or connector in addition to the normal jacketing or insulation. (2) A form placed around wire termination of a multiple-contact connector to contain the liquid potting compound before it hardens.

Braid: A fibrous or metallic group of filaments interwoven in cylindrical form to form a covering over one or more wires.

Braid Angle: The smaller of the two angles formed by the shielding strand and in the axis of the cable being shielded.

Braid Carrier: A spool or bobbin on a braid which holds one group of strands or filaments consisting of a specific number of ends. The carrier revolves during braiding operations.

Glossary

Braid Ends: The number of strands used to make up one carrier. The strands are wound side by side on the carrier bobbin and lie parallel in the finished braid.

Braiding Machine: Machine used to apply braids to wire and cable and to produce braided sleeving and braids for tying or lacing purposes. Braiding machines are identified by the number of carriers.

Breakdown (Puncture): A disruptive discharge through the insulation.

Breakdown Voltage: The voltage at which the insulation between two conductors breaks down.

Breakout: The point at which a conductor or group of conductors breaks out from a multiconductor cable to complete circuits at various points along the main cable.

Bridge: A device used to expand a local area network by forwarding frames between data link layers.

Bridged Tap: The multiple appearances of the same cable pair at several distribution points.

British Standard Wire Gauge: A modification of the Birmingham Wire Gauge and the legal standard of Great Britain for all wires. Also known as Standard Wire Gauge (SWG), New British Standard (NBS), English Legal Standard and Imperial Wire Guide.

Broadband: In data transmission, the use of a carrier signal, rather than direct modulation, to carry several simultaneous channels.

Buffer: (fiber optic) A soft material which mechanically isolates individual fibers in a fiber optic cable or bundle from small geometrical irregularities, distortions or roughness of adjacent surfaces.

Buffing Stripper: A motorized device for removing flat cable insulation by means of buffing wheels that melt the insulation and brush it away from the conductors. Also called Abrasion Stripper.

Building Entrance Area: See Entrance Room or Space, Telecommunications.

Building Wire: Wire used for light and power, 600 volts or less, usually not exposed to outdoor environment.

Bunched Stranding: A group of strands twisted together in a random manner and the same direction without regard to geometric arrangement of specific strands.

Buncher: A machine that twists wires together in random arrangement.

Bundle: (fiber optic) A number of fibers grouped together, usually carrying a common signal.

Buried Cable: A cable installed directly in the earth without use of underground conduit. Also called "direct burial cable."

Bus: Wire used to connect two terminals inside of an electrical unit.

Bushing: A mechanical device used as a lining for an opening to prevent abrasion to wire and cable.

Butt: Joining of two conductors end-to-end, with no overlap and with the axes in line.

Butt Splice: A splice wherein two wires from opposite ends butt against each other, or against a stop, in the center of a splice.

Butt Wrap: Tape wrapped around an object or conductor in an edge-to-edge condition.

Byte: Typically a group of eight binary digits.

Cable: A stranded conductor with or without insulation and other coverings (single-conductor cable), or a combination of conductors (multiple-conductor cable). In fiber optics, a jacketed fiber or jacketed bundle in a form which can be terminated.

Cable Assembly: Typically, the cable and associated connectors; ready to install.

Cable Clamp: A device used to give mechanical support to the wire bundle or cable at the rear of a plug or receptacle.

Cable Clamp Adapter: A mechanical adapter that attaches to the rear of a plug or receptacle to allow the attachment of a cable clamp.

Cable Core: The portion of an insulated cable lying under a protective covering.

Cable Core Binder: A wrapping of tapes or cords around the conductors of a multiple-conductor cable used to hold them together.

Cable Filler: The material used in multiple-conductor cables to occupy the interslices formed by the assembly of the insulated conductors, thus forming a cable core.

Cable Rack: The vertical or horizontal open support (usually made of aluminum or steel) that is attached to a ceiling or wall.

Cable Sheath: The overall protective covering applied to cables.

Cable Tray: A ladder, trough, solid-bottom or channel raceway system intended for, but not limited to, the support of telecommunications media (e.g., cable).

Cable Vulcanizer: Compression molding machine used to repair cable jacketing that has had a part removed for splicing, for adding connectors or other devices or for replacing damaged sections.

Cabling: (1) A combination of all cables, wire, cords and connecting hardware. (2) Twisting together two or more insulated conductors by machine to form a cable. In fiber optics, a method by which a group or bundle of fibers is mechanically assembled.

Cabling Factor: Used in the formula for calculating the diameter of an unshielded, unjacketed cable. $D = Kd$, where D is the cable diameter, K is the factor and d is the diameter of one insulated conductor.

Campus: The building and grounds of a complex (e.g. a university, college, industrial park or military establishment).

Canadian Standards Association (CSA): A non-profit independent organization which operates a listing service for electrical and electronic materials and equipment. The Canadian counterpart of the Underwriter's Laboratories.

Capacitance: The ratio of the electrostatic charge on a conductor to the potential difference between the conductors required to maintain that charge.

Capacitance, Direct: The capacitance measured from one conductor to another conductor through a single insulating layer.

Capacitance, Mutual: The capacitance between two conductors (typically of a pair) with all other conductors, including shield, short circuited to ground.

Carolprene®: Proprietary rubber compound.

Carrier: The woven element of a braid consisting of one or more ends (strands) which creates the interlaced effect. Also, a spindle, spool, tube, or bobbin (on a braiding machine) containing yarn or wire, employed as a braid.

Cellular Plastics: Expanded or "foam," consists of individual closed cells of inert gas suspended in a plastic medium, resulting in a desirable reduction of the dielectric constant.

Central Office: The place where communications common carriers terminate customer lines and locate switching equipment that interconnects those lines.

Certificate of Compliance (C of C): A written statement; normally generated by a Quality Control Department, which states that the product being shipped meets customer's specifications.

Certified Test Report (CTR): A report reflecting actual test data on the cable shipped. Tests are normally conducted by the Quality Control Department, and show that the product being shipped meets the required test specifications.

Characteristic Impedance: The impedance that, when connected to the output terminals of a transmission line of any length, makes the line appear indefinitely long.

Chlorosulfonated Polyethylene (CSPE): A rubbery polymer used for insulations and jackets. Manufactured by E.I. DuPont under the trade name of Hypalon®.

Cigarette Wrap: Tape insulation wrapped longitudinally instead of spirally over a conductor.

Circuit: A complete path over which electrons can flow from the negative terminals of a voltage source through parts and wires to the positive terminals of the same voltage source.

Circuit Sizes: A popular term for building wire sizes 14 through 10 AWG.

Circular Mil: The area of a circle one mil (.001") in diameter; 7.854×10^{-7} sq. in. Used in expressing wire cross sectional area.

Cladding: Method of applying a layer of metal over another metal whereby the junction of the two metals is continuously welded. In fiber optics, a sheathing intimately in contact with the core of a higher refractive index material which serves to provide optical insulation and protection to the reflection interface.

Closed End Splice: An insulated splice in which two or more wires overlap and enter the splice from the same end of the barrel.

Closet, Telecommunications: An enclosed space for housing telecommunications equipment, cable terminations and cross-connect cabling. The closet is the recognized location of the cross-connect between the backbone and horizontal facilities.

Coaxial Cable: A cable consisting of two cylindrical conductors with a common axis, separated by a dielectric.

Coaxial Connector: A connector that has a coaxial construction and is used with coaxial cable.

Coherent Source: (fiber optic) A light source which emits a very narrow, unidirectional beam of light of one wavelength (monochromatic).

Coil Effect: The inductive effect exhibited by a spiral-wrapped shield, especially above audio frequencies.

Glossary

Cold Flow: Permanent deformation of the insulation due to mechanical force of pressure (not due to heat softening).

Color Code: A color system for wire or circuit identification by use of solid colors, tracers, braids, surface printing, etc.

Commercial Building: A building or portion thereof, that is intended for office use.

Common Axis Cabling: In multiple cable constructions, a twisting of all conductors about a "common axis" to result in smaller diameter constructions. Tends to result in greater susceptibility to electromagnetic and electrostatic interference.

Compact Conductor: Stranded conductor rolled to deform the round wires to fill the normal interstices between the wires in a strand.

Composite (Clad) Wire: A wire having a core of one metal with a fused outer shell of different metals.

Composite Conductor: Two or more strands of different metals assembled and operated in parallel.

Compound: An insulating or jacketing material made by mixing two or more ingredients.

Compression Cable: A pipe type cable in which the pressure medium is separated from the insulation by a membrane or sheath.

Concentric: A central core surrounded by one or more layers of helically wound strands in a fixed round geometric arrangement.

Concentric-Lay Cable: A concentric-lay conductor, or a multiple-conductor cable composed of a central core surrounded by one or more layers of helically laid insulated conductors.

Concentric Strand: A strand that consists of a central wire or core surrounded by one or more layers of spirally laid wires.

Concentricity: The measurement of the location of the center of the conductor with respect to the geometric center of the circular insulation.

Conductance: The ability of a conductor to carry an electric charge. The ratio of the current flow to the potential difference causing the flow. The reciprocal of resistance.

Conductivity: The capacity of a material to carry electrical current—usually expressed as a percentage of copper conductivity (copper being 100%).

Conductor: A wire (or combination of wires not insulated from one another) suitable for carrying electric current.

Conduit: A rigid or flexible metallic or nonmetallic raceway of circular cross-section through which cables can be pulled or housed.

Connecting Hardware: A device providing mechanical cable terminations.

Connector: A device used to provide rapid connect/disconnect service for electrical cable and wire terminations.

Contact: The part of a connector which actually carries the electrical current, and are touched together or separated to control the flow.

Contact Inspection Hole: A hole in the cylindrical rear portion of contact used to check the depth to which a wire has been inserted.

Contact Size: The largest size wire which can be used with the specific contact. Also, the diameter of the engagement end of the pin.

Continuity Check: A test to determine whether electrical current flows continuously throughout the length of a single wire or individual wires in a cable.

Continuous Vulcanization: Simultaneous extrusion and vulcanization of rubber-like wire coating materials.

Contrahelical: Cable spiralling in an opposite direction than the preceding layer within a wire or cable.

Control Cable: A multi-conductor cable made for operation in control of signal circuits.

Controlled Impedance Cable: Package of two or more insulated conductors where impedance measurements between respective conductors are kept essentially constant throughout the entire length.

Copolymer: A compound resulting from the polymerization of two different monomers.

Copper-Clad: Steel with a coating of copper welded to it before drawing as opposed to copper-plated. Synonymous with Copperweld.

Copperweld: The trade name of Flexo Wire Division (Copperweld Steel Corp.) for their copper-clad steel conductors.

Cord: A small, flexible insulated cable.

Cord Set: Portable cords fitted with a wiring device at one or both ends.

Cord, Telecommunications: A cable using stranded conductors for flexibility, as in distribution cords or line cords. Line cords can also use tinsel conductors.

Core: In cables, a component or assembly of components over which other materials are applied, such as additional components, shield, sheath or armor. In fiber optics, the transparent glass or plastic section with a high refractive index through which the light travels by internal reflections.

Corona: A discharge due to ionization of air around a conductor due to a potential gradient exceeding a certain critical value.

Corona Resistance: The time that the insulation will withstand a specified level of field-intensified ionization that does not result in the immediate complete breakdown of the insulation.

Corrosion: The destruction of the surface of a metal by chemical reaction.

Coupling Loss: (fiber optic) Signal losses due to small differences in numerical aperture, core diameter, core concentricity and tolerances in splicing connectors when two fibers are aligned. Also known as Splicing Loss and Transfer Loss.

Coupling Ring: A device used on cylindrical connectors to lock plug and receptacle together.

Coverage: The calculated percentage which defines the completeness with which a metal braid covers the underlying surface. The higher percentage of coverage, the greater the protection against external interference.

Covering: Textile braid or jacket of rubber, plastics or other materials applied over wire and cables to provide mechanical protection and identification.

Crazing: The minute cracks on the surface of plastic materials.

Creep: The dimensional change with time of a material under load.

Creepage: The conduction of electricity across the surface of a dielectric.

Creepage Path: The path across the surface of a dielectric between two conductors.

Creepage Surface: An insulating surface which provides physical separation as a form of insulation between two electrical conductors of different potential.

Crimp: Act of compressing a connector barrel around a cable in order to make an electrical connection.

Crimp Termination: Connection in which a metal sleeve is secured to a conductor by mechanically crimping the sleeve with pliers, presses or automated crimping machines.

Cross-Connect: A facility enabling the termination of cable elements and their interconnection, and/or cross-connection, primarily by means of a patch cord or jumper.

Cross-Linked: Inter-molecular bonds between long-chain thermoplastic polymers by chemical or electron bombardment means. The properties of the resulting thermosetting material are usually improved.

Crosstalk: Undesired electrical currents in conductors caused by electromagnetic or electrostatic coupling from other conductors or from external sources. Also, leakage of optical power from one optical conductor to another.

CSA: Canadian Standards Association.

C-SJ: Same as SJ except extra-flexible conductor.

C-SJO: Same as SJO except extra-flexible conductor.

Cure: To change the physical properties of a material by chemical reaction.

Curing Cycle: The time, temperature and pressure required for curing.

Curl: The degree to which a wire tends to form a circle after removal from a spool. An indication of the ability of the wire to be wrapped around posts in long runs.

Current: The rate of transfer of electricity. Practical unit is the ampere which represents the transfer of one coulomb per second. In a simple circuit, current (I) produced by a cell or electromotive force (E) when there is an external resistance (R) and internal resistance (r) is:

$$I = \frac{E}{R + r}$$

Current Carrying Capacity: The maximum current an insulated conductor can safely carry without exceeding its insulation and jacket temperature limitations.

Customer Premises: Building(s) with grounds and appurtenances (belongings) under the control of the customer.

Cut-Through Resistance: The ability of a material to withstand mechanical pressure, usually a sharp edge or small radius, without separation.

Cycle: The complete sequence including reversal of the flow of an alternating electric current.

Decibel (dB): A unit to express differences of power level. Used to express power gain in amplifiers or power loss in passive circuits or cables.

Delay Line: A cable made to provide very low velocity of propagation with long electrical delay for transmitted signals.

Demarcation Point: A point where the operational control or ownership changes.

Glossary

Depth of Crimp: Thickness of the crimped portion of a connector measured between two opposite points on the crimped surface.

Derating Factor: A factor used to reduce the current carrying capacity of a wire when used in environments other than that for which the value was established.

Detector: (fiber optic) A device that picks up light from fiber and converts the information into an electrical signal.

Device, As Related to a Work Station: An item such as a telephone, personal computer or graphic or video terminal.

Device, As Related to Protection: A protector, a protector mount, a protector unit or a protector module.

Dielectric: An insulating medium which intervenes between two conductors and permits electrostatic attraction and repulsion to take place across it.

Dielectric Breakdown: The voltage required to cause an electrical failure or breakthrough of the insulation.

Dielectric Constant (K): The ratio of the capacitance of a condenser with dielectric between the electrodes to the capacitance when air is between the electrodes. Also called Permittivity and Specific Inductive Capacity.

Dielectric Loss: Power dissipated in an insulating medium as the result of the friction caused by molecular motion when an AC electric field is applied.

Dielectric Strength: The voltage which an insulation can withstand before breakdown occurs. Usually expressed as a voltage gradient (such as volts per mil).

Dielectric Test: A test in which a voltage higher than the rated voltage is applied for a specified time to determine the adequacy of the insulation under normal conditions.

Digital: Transmission data representative by discrete characters.

Dip Coating: An insulating coating applied to the conductor by passing the conductor through an applicator containing liquid insulating medium.

Direct Burial Cable: A cable installed directly in the earth.

Direct Capacitance: The capacitance measured directly from conductor to conductor through a single insulating layer.

Direct Current (d.c.): An electric current which flows in only one direction.

Direct Current Resistance (DCR): The resistance offered by any circuit to the flow of direct current.

Direction of Lay: The lateral direction in which the strands of a conductor run over the top of the cable conductor as they recede from an observer looking along the axis of the conductor or cable. Also applies to twisted cable.

Discrete Wiring: Wire or wires having distinct identity and purpose.

Dispersion: (fiber optic) The variation of the refractive index of a material with wavelength, causing light of different wavelengths to travel at different velocities in the material.

Disruptive Discharge: A sudden, large increase in current through an insulation medium due to the complete failure of the medium under the electrostatic stress.

Dissipation Factor: The tangent of the loss angle of the insulating material. (Also referred to as loss tangent, $\tan \delta$, and approximate power factor.)

Distribution Cable: In telecommunications and CATV systems, the transmission cable between the distribution amplifier and the drop wire.

Distribution Frame: A structure with terminations for connecting the permanent cabling of a facility in such a manner that interconnection or cross-connections may be readily made.

Disturbed Conductor: A conductor that receives energy generated by the field of another conductor or an external source such as a transformer.

Drain Wire: In a cable, the uninsulated wire laid over the component or components and used as a ground connection.

Draw Feed Stock: Rod or wire that is subsequently drawn to a smaller size.

Drawing: In wire manufacture, pulling the metal through a die or series of dies to reduce diameter to a specified size.

Drop Ceiling: See False Ceiling.

Drop Wire: In telecommunications and CATV systems, the transmission cable from the distribution cable to a dwelling.

Dual Coaxial Cable: Two individually insulated conductors laid parallel or twisted and placed within an overall shield and sheath.

Duct: 1) A single enclosed raceway for wires or cables. See also Conduit, Raceway; 2) a single enclosed raceway for wires or cables usually used in soil or concrete, 3) an enclosure in which air is moved. Generally part of the HVAC system of a building.

Duplex: Two way data transmission on a four-wire transmission line or two fiber.

Duplex Cable: (1) A cable composed of two insulated single-conductor cables twisted together. (2) A cable composed of two fibers, typically 62.5/125 μm Multi-Mode, placed in parallel under a thermoplastic sheath.

Duplex Parallel: Typically used in the thermocouple industry to denote two parallel conductors of dissimilar metals insulated in parallel without twist and jacketed. Commonly applied to thermocouple grades and extension wires.

Eccentricity: Like concentricity, a measure of the center of a conductor's location with respect to the circular cross section of the insulation. Expressed as a percentage of displacement of one circle within the other.

Eddy Current: Circulating currents induced in conducting materials by varying magnetic fields.

Elastomer: A rubber or rubber-like material which will stretch repeatedly to 200 percent or more and return rapidly and with force to its approximate original shape.

Electro-Tinned: Electrolytic process of tinning wire using pure tin.

Electrode: A conductor through which a current enters or leaves a nonmetallic conductor.

Electromagnetic Coupling: Energy transfer by means of a varying magnetic field.

Electromagnetic Field: A rapidly moving electric field and its associated moving magnetic field.

Electromagnetic Induction: The production of a voltage in a coil due to a change in the number of magnetic lines of forces (flux linkages) passing through the coil.

Electromagnetic Interference (EMI): The interference in signal transmission or reception resulting from the radiation of electrical and magnetic fields. Synonym: Radio Frequency Interference.

Electromotive Force (e.m.f.): Pressure or voltage. The forces which cause current to flow in a circuit.

Electronic Wire and Cable: A length of conductive or semiconductive material used in an electronic application.

Electrostatic: Pertaining to static electricity, or electricity at rest. An electric charge, for example.

Elongation: The fractional increase in the length of a material stressed in tension.

Embossing: A marker identification by means of thermal indentation leaving raised lettering on the sheath material of cable.

Emergency Overload: Load which occurs when larger than normal currents are carried through a cable or wire over a certain period of time.

Enameled Wire: A conductor with a baked-on enamel film insulation. In addition to magnet wire, enameled insulation is used on thermocouple type wires and other wires.

Ends: In braiding, the number of essentially parallel wires of threads on a carrier.

Energize: To apply rated voltage to a circuit or device in order to activate it.

Entrance Facility, Telecommunications: An entrance to a building for both public and private network service cables (including antennae) including the entrance point at the building wall and continuing to the entrance room or space.

Entrance Point, Telecommunications: The point of emergence of telecommunications conductors through an exterior wall, a concrete floor slab or from a rigid metal conduit or intermediate metal conduit.

Entrance Room or Space, Telecommunications: A space in which the joining of inter- or intra-building telecommunications backbone facilities takes place. An entrance room may also serve as an equipment room.

Equilay: More than one layer of helically laid wires with the direction of lay reversed for successive layers, but with the length of lay the same for each layer.

Equipment Room, Telecommunications: A centralized space for telecommunications equipment that serves the occupants of the building. An equipment room is considered distinct from a telecommunications closet because of the nature of complexity or the equipment.

Etched Wire: A process applied to fluoroplastic wire in which the wire is passed through a sodium bath to create a rough surface to allow epoxy resin to bond the fluoroplastic.

Exit Angle: The angle between the output radiation vectors and the axis of the fiber or fiber bundle.

External Interference: The effects of electrical waves or fields which cause sounds other than the desired signal. Static.

Glossary

External Wiring: Electronic wiring which interconnects subsystems within the system.

Extruded Cable: Cable with conductors which are uniformly insulated and formed by applying a homogeneous insulation material in a continuous extrusion process.

Extrusion: Method of continuously forcing plastic, rubber, or elastomer material through an orifice to apply insulation or jacketing over a conductor or cable core.

False Ceiling: A ceiling that creates an area or space between the ceiling material and the structure above the material. Synonym: Drop Ceiling, Suspended Ceiling.

Farad: A unit of electrical capacity.

Fatigue Resistance: Resistance to metal crystallization which leads to conductors or wires breaking from flexing.

Feed-Through Insulators: Insulators that carry a metal conductor through the chassis while preventing the "hot" lead from shorting to the ground chassis.

Feedback: Energy that is extracted from a high-level point in a circuit and applied to a lower level. Positive feedback reduces the stability of a device and is used to increase the sensitivity or produce oscillation in a system. Negative feedback, also called inverse feedback, increases the stability of a system as the feedback improves stability and fidelity.

Feeder Cable: In telecommunication or CATV systems, the transmission cable from the head end (signal pickup) to the trunk amplifier. Also called a trunk cable.

Feedthrough: (1) A conductor that connects patterns on opposite sides of a PCB. Also called Interfacial connection. (2) A connector or terminal block, usually having double-ended terminals which permit simple distribution and bussing of electrical circuits.

Ferrous: Composed of and/or containing iron. A ferrous metal exhibits magnetic characteristics.

Ferrule: A short tube used to make solderless connections to shielded or coaxial cable.

Fiber: A thread or threadlike structure. Also, a single discrete element used to transmit optical (light wave) information.

Fiber Dispersion: (fiber optic) Pulse spreading in a fiber caused by differing transit times of various modes.

Fiber Optics: A lightwave or optical communications system in which electrical information is converted to light energy, transmitted to another location through optical fibers, and is there converted back into electrical information.

Fiber Tubing: A loose, crush-resistant cylinder applied over individual fibers to provide mechanical protection.

Field: An area of influence around a magnet or electric charge.

Field Coil: A suitable insulated winding to be mounted on a field pole to magnetize it.

Figure 8 Cable: An aerial cable configuration in which the conductors and the steel strand which supports the cable are integrally jacketed. A cross-section of the finished cable approximates the figure "eight."

Filament: Fiber characterized by extreme length.

Filled Cable: A telephone cable construction in which the cable core is filled with a material that will prevent moisture from entering or passing through the cable.

Filler: (1) A material used in multiconductor cables to occupy large interstices formed by the assembled conductors. (2) An inert substance added to a compound to improve properties or decrease cost.

Film: A thin plastic sheet.

Fine Stranded Wire: Stranded wire with component strands of 36 AWG or smaller.

Firestop: A material, device or assembly of parts installed in a cable system in a fire-rated wall or floor to prevent passage of flame, smoke or gasses through the rated barrier.

Flame Resistance: The ability of a material not to propagate flame once the heat source is removed.

Flammability: The measure of the material's ability to support combustion.

Flashover: A disruptive discharge around or over the surface of a solid or liquid insulator.

Flat Braid: A woven braid of tinned copper strands rolled flat at time of manufacture to a specified width.

Flat Cable: A cable with two smooth or corrugated but essentially flat surfaces.

Flat Conductor: A wire having a rectangular cross-section as opposed to a round or square conductor.

Flat Conductor Cable: A cable with a plurality of flat conductors.

Flexfoil®: Proprietary aluminum laminated shielding tapes.

Flex Life: The measurement of the ability of a conductor or cable to withstand repeated bending.

Flexibility: The ease with which a cable may be bent.

Flexible: That quality of a cable or cable component which allows for bending under the influence of outside force, as opposed to limppiness which is bending due to the cable's own weight.

Floating: Referring to a circuit which has no connection to ground.

Flux: (1) The lines of force which make up an electrostatic field. (2) The rate of flow of energy across or through a surface. (3) A substance used to promote or facilitate fusion.

FNC: Federal Networking Council (formerly FRICC).

Foamed Plastics: See Cellular Plastic.

Foil: A thin, continuous sheet of metal.

Free Connector: A connector for attachment to the free end of a wire or cable.

Frequency: The number of times a periodic action occurs in a unit of time. The number of cycles that an electric current completes in one second.

Frequency Response: The characteristic of a device denoting the range of frequencies over which it may be used effectively.

Funnel Entry: Flared or widened entrance to a terminal or connector wire barrel.

Fuse Wire: Wire made from an alloy that melts at a relatively low temperature.

Fused Coating: A metallic coating which has been melted and solidified, forming a metallurgical bond to the base material.

Fused Conductors: Individual strands of heavy tinned copper wire stranded together and then bonded together by induction heating.

Fused Spiral Tape: A PTFE insulated hookup wire. The spiral wrapped conductor is passed through a sintering oven where overlaps are fused together.

Gain: The increase of voltage, current or power over a standard or previous reading. Usually expressed in decibels.

Galvanometer: An instrument for detecting or measuring small electrical current.

Gas-Filled Cable: A self-contained pressure cable in which the pressure medium is an inert gas having access to the insulation.

Gauge: A term used to denote the physical size of a wire.

Giga: A numerical prefix denoting one billion (10⁹).

Gigahertz (GHz): A unit of frequency equal to one billion hertz.

Gimmick: A short length of wire soldered onto a circuit component and used as a small adjustable capacitor.

Graded-Index: A type of optical fiber in which the refractive index of the core is in the form of a parabolic curve, decreasing toward the cladding. This type of fiber provides high bandwidth capabilities.

Ground: A conducting connection, whether intentional or accidental, between an electrical circuit (e.g. telecommunications) or equipment and the earth, or to some conducting body that serves in place of the earth.

Ground Conductor: A conductor in a transmission cable or line that is grounded.

Ground Insulation: The insulation used between a winding and the magnetic core or other structural parts, usually at ground potential.

Ground Loop: The generation of undesirable current flow within a ground conductor, owing to the circulation currents which originate from a second source of voltage.

Ground Plane: Expanded copper mesh which is laminated into some flat cable constructions as a shield.

Ground Potential: Zero potential with respect to the ground or earth.

Hard Drawn Copper Wire: Copper wire that has not been annealed after drawing.

Harness: An arrangement of wires and cables usually with many breakouts, which have been tied together or pulled into a rubber or plastic sheath, used to interconnect an electric circuit.

Hash Mark Stripe: A non-continuous helical stripe applied to a conductor for identification.

Heat Distortion: Distortion of flow of a material or configuration due to the application of heat.

Heat Seal: Method of sealing a tape wrap jacket by means of thermal fusion.

Heater Cord: Flexible stranded copper conductor, cotton wrapped, with rubber insulation and asbestos roving.

Helical Stripe: A continuous, colored, spiral stripe applied to a conductor for circuit identification.

Helix: Spiral winding.

Henry: The unit of inductance.

Hertz (Hz): A term replacing cycles-per-second as an indication of frequency.

Heterogeneous Insulation: A cable insulating system composed of two or more layers of different insulating materials.

Glossary

High-Temperature Wire and Cable: Electrical wire and cables having thermal operating characteristics of 150°C and higher.

High Voltage: Generally, a wire or cable with an operating voltage of over 600 volts.

Holding Strength: Ability of a connector to remain assembled to a cable when under tension.

Homogeneous Insulation: A complete cable insulation structure whose components cannot be identified as layers of different materials.

Hook-up Wire: A wire used for low-current, low-voltage (under 1000 volts) applications within enclosed electronic equipment.

Horizontal Cabling: The wiring/cabling between the telecommunications outlet/connector and the horizontal cross-connect.

Horizontal Cross-Connect: A cross-connect of horizontal cabling to other cabling, e.g. horizontal, backbone or equipment.

Hot Stamping: Method of alpha numerical coding. Identification markings are made by pressing heated type and marking foil into softened insulation surfaces. See Surface Printing.

Hot Tin Dip: A process of passing bare wire through a bath of molten tin to provide a coating.

Hybrid Cable: An assembly of two or more cables (of the same or different types or categories) covered by one overall sheath.

Hygroscopic: Capable of absorbing moisture from the air.

Hypalon®: DuPont's trade name for their chlorosulfonated polyethylene, an ozone-resistant synthetic rubber.

Impact Tool: Device used to punch new conductor onto IDs. This tool is typically equipped with a cutting blade for either 66 or 110 blocks.

Impedance: The total opposition that a circuit offers to the flow of alternating current or any other varying current at a particular frequency. It is a combination of resistance R and reactance X, measured in Ω .

Impedance-Matching Transformer: A transformer designed to match the impedance of one circuit to that of another (BALUN).

Impulse: A surge of unidirectional polarity.

Impulse Strength: The voltage breakdown of insulation under voltage surges on the order of microseconds in duration.

Impulse Test: An insulation test in which the voltage applied is an impulse voltage of specified wave shape.

Incoherent Source: (fiber optic) A light source which emits wide, diffuse beams of light of many wave lengths.

Index-Matching Fluid: (fiber optic) Fluid with refractive index same as fiber core; used to fill air gap between fiber ends at connectors.

Index of Refraction: The ratio of light velocity in a vacuum to its velocity in a given transmitting medium.

Inductance: The property of a circuit or circuit element that opposes a change in current flow, thus causing current changes to lag behind voltage changes. It is measured in henrys.

Inductive Coupling: Crosstalk resulting from the action of the electromagnetic field of one conductor on the other.

Infrastructure, Telecommunications: A collection of those telecommunications components, excluding equipment, that together provide the basic support for the distribution of all information within a building or campus.

Insertion Loss: As measure of the attenuation of a device by determining the output of a system before and after the device is inserted into the system.

Insertion Tool: A small, hand-held tool used to insert contacts into a connector.

Insulated Wire: A conductor of electricity covered with a non-conducting material.

Insulating Joint: A device which mechanically couples and electrically insulates the sheath and armor of contiguous lengths of cable.

Insulation: A material having high resistance to the flow of electric current. Often called a dielectric in radio frequency cable.

Insulation Adhesion: The degree of tightness of the insulation over the base conductor, measured in terms of force required to remove a specified length of insulation from the wire.

Insulation Crimp: The area of a terminal, splice or contact that has been formed around the insulation of the wire.

Insulation Grip: Extended cylinders at the rear of crimp-type contacts designed to accept the bared wire and a small length of its insulation.

Insulation Piercing: A method of crimping whereby lances cut the insulation of the wires and enter into the strands to make electrical contact.

Insulation Resistance: The ratio of the applied voltage to the total current between two electrodes in contact with a specific insulation, usually expressed in meg Ω -M feet.

Insulation System: All of the insulation materials used to insulate a particular electrical or electronic product.

Integral Belt: A layer of insulation or semiconductive material applied by extrusion over two or more insulated, twisted or parallel conductors, to form a round, smooth diameter.

Interconnect: A connection scheme that provides for the direct connection of individual cables to another cable or to an equipment cable without a patch cord.

Interconnecting Cable: The wiring between modules, between units or the larger portions of a system.

Interconnecting Wire: The physical wiring between components (outside a module), between modules, between units or between larger portions of a system or systems.

Interconnection: Mechanically joining devices together to complete an electrical circuit.

Interface: The two surfaces on the contact side of both halves of a multiple-contact connector which face each other when the connector is assembled.

Intermediate Cross-Connect: A cross-connect between 1st level and 2nd level backbone cabling.

Internal Wiring: Electronic wiring which interconnects components, usually within a sealed subsystem.

Interstices: Voids or valleys between individual strands in a conductor or between insulated conductors in a multiconductor cable.

Ionization Voltage (Corona Level): The minimum value of falling rms voltage which sustains electrical discharge within the vacuum or gas-filled spaces in the cable construction or insulation.

Irradiation: In insulations, the exposure of the material to high energy emissions for the purpose of favorably altering the molecular structure.

Jack: A plug-in type terminal widely used in an electronic apparatus for temporary connections.

Jacket: An outer protective sheath over primary insulation, braids, shields, cable components or over the cable itself. In fiber optics, a covering, over a fiber, bundle of fibers or cable which protects against the environment.

JAN Specification: Joint Army-Navy specification (replaced by current Military Specifications).

Jumper: An assembly of twisted pairs without connectors, used to join telecommunications circuits/links at the cross connect.

Junction: A point in a circuit where two or more wires are connected.

Keying: The mechanical feature of a connector system that guarantees correct orientation of a connection, or prevents the connection to a jack, or to an optical fiber adapter of the same type intended for another purpose.

Kynar®: Pennwalt trade name for polyvinylidene fluoride. Typically used as insulation for wire wrap wire.

Lacing and Harnessing: A method of grouping wires by securing them in bundles of designated patterns.

Lacquer: A liquid resin or compound applied to textile braid to prevent fraying, moisture absorption, etc.

Laminated Tape: A tape consisting of two or more layers of different materials bonded together.

Laser Diode: (fiber optic) A semiconductor diode that, when pulsed, a laser diode emits coherent light.

Launch Angle: (fiber optic) The angle between the radiation vector and the axis of the fiber or fiber bundle.

Lay: The length measured along the axis of a wire or cable required for a single strand (in stranded wire) or conductor (in cable) to make one complete turn about the axis of the conductor or cable.

Layer: Consecutive turns of a coil lying in a single plane.

Leaching and Non-Leaching: In a leaching wire, the plasticizer will migrate when exposed to heat. A non-leaching wire will retain its plasticizer under extreme temperature conditions and remain flexible after baking.

Lead: A wire, with or without terminals, that connects two points in a circuit.

Lead-Cured: A cable that is cured or vulcanized in a metallic lead mold.

Lead Dress: The placement or routing of wire and component leads in an electrical circuit.

Lead-in: The conductor or conductors that connect the antenna proper to electronic equipment.

Leakage Current: The undesirable flow of current through or over the surface of an insulation.

Glossary

Life Cycle: A test to determine the length of time before failure in a controlled, usually accelerated, environment.

Light Commercial Building: A building or portion thereof that is intended for use with one to four (1-4) non-residential exchange access lines per tenant.

Light-Intensity Ratio: (fiber optic) Ratio of input light intensity to the output light intensity.

Light Source: (fiber optic) An object capable of emitting light. In fiber optics, the light source is normally an LED or a laser.

Lightguide: (fiber optic) A flexible bundle of fibers used to transmit light.

Lightwave Communications: (fiber optic) Communications using light to carry the information.

Limits of Error: The maximum deviation (in degrees of percent) of a thermocouple or thermocouple extension wire from standard emf-temperature to be measured.

Limpness: The ability of a cable to lay flat or conform to a surface.

Line Balance: The degree to which the conductors of a cable are alike in their electrical characteristics with respect to each other, to other conductors and to ground.

Line Drop: A voltage loss occurring between any two points in a transmission line, due to the resonance, reactance or leakage of the line.

Line Loss: The total of the various energy losses occurring in a transmission line.

Line Voltage: Voltage existing in a cable or circuit.

Link: An assembly of telecommunications facilities between two points, not including terminal equipment.

Listed: Equipment included in a list published by an organization, acceptable to the authority having jurisdiction, that maintains periodic inspection of production of listed equipment, and whose listing states either that the equipment or material meets appropriate standards or has been tested and found suitable for use in a specified manner.

Local Area Network (LAN): A geographically limited communications network intended for the local transport of data, video and voice.

Longitudinal Shield: A tape shield, flat or corrugated, applied longitudinally with the axis of the core being shielded.

Longitudinal Wrap: Tape applied longitudinally with the axis of the core being covered.

Loop Resistance: The total resistance of two conductors measured round-trip from one end. Commonly used term in the thermocouple industry.

Looping-in: Wiring method which avoids tee joints by carrying the conductor or cable to and from the point to be supplied.

Loss: Energy dissipated without accomplishing useful work.

Loss Factor: The product of the dissipation and dielectric constant of an insulating material.

Lossy Line: A cable having large attenuation per unit of length.

Low-Loss Dielectric: An insulating material that has a relatively low dielectric loss, such as polyethylene or Teflon®.

Low-Noise Cable: Cable configuration specially constructed to eliminate spurious electrical disturbances caused by capacitance changes or self-generated noise induced by either physical abuse or adjacent circuitry.

Low Tension: Low voltage, as applied to ignition cable.

Lug: Termination, usually crimped or soldered to the conductor, with provision for screwing on to the terminal.

m: Meter.

Magnet Wire: Insulated wire intended for use in windings on motor, transformer and other coils for electromagnetic devices.

Magnetic Field: The region within which a body or current experiences magnetic force.

Magnetic Flux: The rate of flow of magnetic energy across or through a surface (real or imaginary).

Magnetic Noise: Caused by change in current level, e.g. ac powerline (creates magnetic field around the cable) this magnetic field causes the magnetic noise.

Main Cross-Connect: A cross-connect for 1st level backbone cables, entrance cables and equipment cables.

Marker Tape: A tape laid parallel to the conductors under the sheath in a cable, imprinted with the manufacturer's name and the specification to which the cable is made.

Master Antenna Television (MATV): A combination of components providing multiple television receiver operations from one antenna or group of antennas normally on a single building.

Material Scattering Loss: (fiber optics) Loss due to fluctuations in the refractive index and to inhomogeneities in material composition and temperature.

Media, Telecommunications: Wire, cable or conductors used for telecommunications.

Megarad: A unit for measuring radiation dosage.

Messenger: Supporting member, usually a high-strength steel wire, used to suspend aerial cable. The messenger may be an integral part of the cable, or exterior to it (lashed messenger).

Microbending Loss: (fiber optic) Loss due to small geometrical irregularities along the core-clad interface of the fiber.

Microfarad: One-millionth of a farad, commonly abbreviated mF.

Micromicrofarad: One-millionth of a microfarad. (uuf, uufd, mmf, mmfd $\mu\mu\text{F}$ are common abbreviations.)

Microwave: A short (usually less than 30 cm.) electrical wave.

Mil: A unit used in measuring diameter of a wire or thickness of insulation over a conductor. One-one thousandth of an inch (.001").

Mineral-Insulated: Cable and thermocouple wire consisting of one or more conductors surrounded by magnesium oxide insulation and enclosed in a liquid- and gas-tight metallic sheathing.

Miniature Wire: Insulated conductors of approximately 20-34 AWG.

Mis-Match: A termination having a different impedance than that for which a circuit or cable is designed.

Mode: One of the components of a general configuration of a propagating wave front.

Modem: Device which places and receives data signals over a common carrier's communication facility.

Modular Jack: This term is outmoded, see Outlet/Connector, Telecommunications.

Modular Plug: A telecommunications connector for wire or cords per the Part 68 Rules. A modular plug can have 6 or 8 contact positions, but not all the positions need be equipped with contacts.

Modulation: A process whereby certain characteristics of a wave, often called the carrier, are varied or selected in accordance with a modulating function.

Modulus of Elasticity: The ratio of stress to strain in an elastic material.

Moisture Absorption: The amount of moisture, in percentage, that a material will absorb under specified conditions.

Moisture Resistance: The ability of a material to resist absorbing moisture from the air or when immersed in water.

Molded Plug: A connector molded on either end of a cord or cable.

Monomer: The basic chemical unit used in building a polymer.

Motor Lead Wire: Wire which connects to the fragile magnet wire found in coils, transformers and stator or field windings.

Multiconductor: More than one conductor within a single cable complex.

Multimode Optical Fiber: An optical fiber that will allow many bound modes to propagate. The fiber may be either a graded-index or step-index fiber. See also: Optical Fiber Cable.

Multiple Conductor Cable: A combination of two or more conductors cabled together and insulated from one another and from sheath or armor where used.

Multiple Conductor Concentric Cable: An insulated central conductor with one or more tubular stranded conductors laid over it concentrically and insulated from one another.

Multiplexing: Simultaneous transmission of two or more messages over the same cable pair.

Mutual Capacitance: Capacitance between two conductors when all other conductors are connected together to shield and ground.

Mylar®: DuPont trademark for polyester film.

Nanometer (nm): One billionth of a meter (10^{-9} meter).

Nanosecond: One billionth of a second (10^{-9} seconds).

National Electric Code (NEC): A set of regulations governing construction and installation of electrical wiring and apparatus in the United States, established by the American National Board of Fire Underwriters.

Neoprene: A synthetic rubber with good resistance to oil, chemical and flame. Also called polychloroprene.

Noise: In a cable or circuit, any extraneous signal which tends to interfere with the signal normally present in or passing through the system.

Nomex®: DuPont trademark for a temperature-resistant, flame-retardant nylon.

Non-Contaminating: Type of PVC jacket material whose plasticizer will not migrate into the dielectric of a coaxial cable and thus avoids contaminating and destroying the dielectric.

Glossary

Nylon: Thermoplastic with good chemical and abrasion resistance.

NVP: Nominal Velocity of Propagation.

Off Center: Conductor displaced within the cross-section of its insulation.

Offgassing: Percentage of a specified gas released during the combustion of insulation or jacketing material.

Ohm: A unit of electrical resistance.

Oil Aging: Cable aged in an accelerated manner by placement in an oil bath and heated to a pre-set temperature for a stated time.

Oil-Filled Cable: A self-contained pressure cable in which the pressure medium is low viscosity oil having access to the insulation.

Opaque: (fiber optic) Not permitting the passage of light.

Open Cell: Foamed or cellular material with cells which are generally interconnected.

Optical Communication Cable: (fiber optic) Fiber with a protective jacket around it.

Optical Conductors: (fiber optic) Materials which offer a low optical attenuation to transmission of light energy.

Optical Fiber Cable: An assembly consisting of one or more optical fibers.

Optical Fiber Duplex Adapter: A mechanical media termination device designed to align and join two duplex connectors.

Optical Fiber Duplex Connector: A mechanical media termination device designed to transfer optical power between two pairs of optical fibers.

Optical Waveguide: (fiber optic) A fiber used for optical communications. Analogous to a waveguide used for microwave communications.

Oscillatory Surge: A surge which includes both positive and negative polarity values.

Outgassing: The dissipation of gas from a dielectric evidencing decomposition.

Outlet Box, Telecommunications: A metallic or nonmetallic box mounted within a wall, floor or ceiling and used to hold telecommunications outlet/connectors or transition devices.

Outlet/Connector, Telecommunications: A connecting device in the work area on which horizontal cable terminates.

Overall Diameter: Finished diameter over wire or cable.

Overcoat Conductor: A stranded conductor made from individual strands of tin-coated wire stranded together, and then given an overall tin coat.

Overlap: The amount the trailing edge laps over the leading edge of a spiral tape wrap.

Oxygen Index: Percentage of oxygen necessary to support combustion in a gas mixture.

Ozone: Reactive form of oxygen, typically found around electrical discharges and present in the atmosphere in small quantities.

Packing Fraction: (fiber optic) The ratio of active cross-sectional area of fiber core, or cores, to the total end surface of the fiber, or fiber bundle.

Pair: Two insulated wires of a single circuit associated together, also known as a "balance" transmission line.

Parallel Pair: A duplex construction of two insulated conductors laid parallel and then covered overall with a braid or jacket.

Parallel Stripe: A stripe applied longitudinally on a wire or cable parallel to the axis of the conductor.

Patch Cord: A length of cable with connectors on one or both ends used to join telecommunications links/circuits at the cross-connect.

Patch Cord Cable: Bulk cable used in the manufacture of patch cords.

Patch Panel: A cross-connect system of mateable connectors that facilitates administration.

Pathway: A facility for the placement of telecommunications cable. Synonym: Raceway.

Pay-Off: The process of feeding a cable or wire from a bobbin, reel or other package.

Percent Plating: Quantity of plating on a conductor expressed as a percentage by weight.

Percentage Conductivity: Conductivity of a material expressed as a percentage of that of copper.

Periodicity: The uniformly spaced variations in the insulation diameter of a transmission cable that result in reflections of a signal, when its wavelength or a multiple thereof is equal to the distance between two diameter variations.

Permittivity: See Dielectric Constant.

Phase: An angular relationship between waves.

Phase Shift: A change in the phase relationship between two alternating quantities.

Photodetector (Receiver): Converts light energy to electrical energy.

Pick: Distance between two adjacent crossover points of braid filaments. The measurement in picks per inch indicates the degree of coverage.

Picofarad: One-millionth of one-millionth of a farad. A micromicrofarad or picofarad (abbreviation pf). (See $\mu\mu F$).

Pigtail Wire: Fine-stranded, extra-flexible, rope-lay lead wire attached to a shield for terminating purposes.

Pitch: In flat cable, the nominal distance between the index edges of two adjacent conductors.

Pitch Diameter: Diameter of a circle passing through the center of the conductors in any layer of a multiconductor cable.

Plain Conductor: A conductor consisting of only one metal.

Plain Weave: A weave used on woven cables. Threads between the wires act as binders and give the cable lateral stiffness and linear flexibility. Also called Standard and Square weave.

Planetary Cabling: A cabling capable of laying down any number of shielded, overbraided or jacketed singles, pairs, called groups, or any combination of them in sequence.

Planetary Twister: A twisting machine whose payoff spools are mounted in rotating cradles that hold the axis of the spool in a fixed direction as the spools are revolved so no twist is built up in each wire.

Plastic Deformation: Change in dimensions under load that is not recovered when the load is removed.

Plasticizer: A chemical agent added to plastics to make them softer and more pliable.

Plenum: The air return path of a central air handling system, either ductwork or open space over a suspended ceiling.

Plenum Cable: Cable approved by a recognized agency such as UL for installation in plenums without the need for conduit.

Plug: The part of the two mating halves of a connector which is moveable when not fastened to the other mating half.

Ply: The number of individual strands or filaments twisted together to form a single thread.

Point-to-Point: A type of connection established between two specific locations, as between two buildings.

Point-to-Point Wiring: An interconnecting technique wherein the connections between components are made by wires routed between connecting points.

Polarization: The orientation of a flat cable or a rectangular connector.

Polishing: (fiber optic) Act of smoothing ends of fibers to an 'optically smooth' finish, generally using abrasive.

Polyester: Polyethylene terephthalate, used extensively as a moisture-resistant cable core wrap.

Polyethylene: A thermoplastic material having excellent electrical properties.

Polyhalocarbon: A general name for polymers containing halogen atoms. The halogens are fluorine, chlorine, bromine and iodine.

Polymer: A material of high molecular weight formed by the chemical union of monomers.

Polyolefin: Any of the polymers and copolymers of the ethylene family of hydrocarbons.

Polypropylene: A thermoplastic similar to polyethylene but stiffer and having higher softening point (temperature); excellent electrical properties.

Polyurethane: Class of polymers known for good abrasion and solvent resistance (may be applied in solid or cellular form).

Porosity: Multiple voids in an insulation cross-section.

Potting: The sealing of a cable termination or other component with a liquid which thermosets into an elastomer.

Power Cables: Cables of various sizes, construction and insulation, single or multi-conductor designed to distribute primary power to various types of equipment.

Power Factor: The ratio of resistance to impedance. The ratio of the actual power of an alternating current to apparent power. Mathematically, the cosine of the angle between the voltage applied and the current resulting.

Pre-Bond: Stranded wire which has been fused, topcoat-tinned or overcoat-tinned.

Prewiring: Wiring installed

- Before walls are enclosed or finished.
- In anticipation of future use or need.

Primary: The transformer winding which receives the energy from a supply circuit.

Primary Insulation: The first layer of non-conductive material applied over a conductor, whose prime function is to act as electrical insulation.

Primary Protection: The minimum protection required on all exposed facilities to comply with NEC requirements.

Primary Wiring: A printed circuit intended to provide point-to-point electrical connections.

Programming: Ability to select various circuit patterns by interconnecting appropriate contacts on one side of a connector plug or panel.

Propagation Delay: Time delay between input and output of signal.

Glossary

Propagation Time: Time required for a wave to travel between two points on a transmission line.

Protocol: A set of rules for communicating.

Proximity Effect: Nonuniform current distribution over the cross-section of a conductor caused by the variation of the current in a neighboring conductor.

Pull Box: A device to access a raceway used to facilitate placing of wire or cables.

Pull Cord/Pull Wire: Cord or wire placed within a raceway and used to pull wire and cable through the raceway.

Pull Strength: See Pull Tension.

Pull Tension: The maximum pulling force that can be safely applied to a cable without damage.

Pulling Eye: A device used to pull cable into or from a duct.

Pulse: Energy which changes abruptly from an intensity to another. May be light energy or electrical energy.

Pulse Cable: A type of coaxial cable constructed to transmit repeated high-voltage pulses without degradation.

Polyvinyl Chloride (PVC): A general-purpose thermoplastic widely used for wire and cable insulations and jackets.

Quad: A series of four separately insulated conductors, generally twisted together in pairs. Also, a series-parallel combination of transistors with increased reliability because failure of one transistor will not disable the entire circuit.

Quadders: Three-bay machines which can twist four wires together and cable braided and shielded wires with varying lay lengths.

Raceway: Any channel designed for holding wires or cables, e.g. conduit, electrical metallic tubing, sleeves, slots, underfloor raceways, cellular floors, surface raceways, lighting fixture raceways, wireways, cable troughs, busways, auxiliary gutters and ventilated flexible cableways. Synonym: Pathway.

Rack: See: Cable Rack.

Radio Frequency: The frequencies in the electromagnetic spectrum that are used for radio communications.

Random Winding: A winding in rotating equipment wherein the wires do not lie in an even pattern.

Reactance: The opposition offered to the flow of alternating current by inductance or capacitance of a compound or circuit.

Red Plaque: A powdery, brown-red growth found on silvercoated copper conductors and shield braids.

Redraw: The consecutive drawing of wire through a series of dies to reach a desired wire size.

Reducing Joint: A joint between two lengths of cable where the conductors are not the same size.

Reel: A revolvable flanged device made of wood or metal, used for winding flexible metal wire or cable.

Reflection: (fiber optic) Change in direction of a light wave or ray.

Reflection Loss: The part of a signal which is lost due to reflection of power at a line discontinuity.

Refraction: (fiber optic) The bending of lightwaves or rays as they go from one material to another due to the difference in velocities in the materials.

Reinforced Sheath: The outermost covering of a cable that has cable sheath constructed in layers with the addition of a reinforcing material, usually a braided fiber, molded in place between layers.

Remanence: The magnetic induction that remains in a magnetic circuit after the removal of an applied magnetomotive force.

Repeater: A device which consists of a transmitter and a receiver or transmitter, used to regenerate a signal to increase the system transmission length.

Resistance: A measure of the difficulty in moving electrical current through a medium when voltage is applied. It is measured in Ω .

Resistive Conductor: A conductor with high electric resistance.

Retractable Cord: A cord having specially treated insulation or jacket so that it will retract.

Return Wire: A ground wire or the negative wire in a direct-current circuit.

Ribbon Cable: A flat cable of individually insulated conductors lying parallel and held together by means of adhesive or woven textile yarn.

Ridge Marker: One or more ridges running laterally along the outer surface of a plastic-insulated wire for purposes of identification.

Rigid Bay: Cabling equipment that maintains component sequence, and can produce cables with distinct layers.

Rigid Coaxial Cable: Nonflexible coaxial cable, usually a metal tube armored coaxial cable.

Ring Tongue: A solderless terminal that connects wire to a stud.

Ringway Out: Locating or identifying specific conductive paths by passing current through selected conductors.

Rip-Cord: 1.) Two or more insulated conductors in a parallel configuration which may be separated to leave the insulation of each conductor intact. 2.) A small filament cord used to rip through the outer cable sheath.

Rope Concentric: A group of standard conductors assembled in a concentric manner.

Rope Lay Conductor: A conductor composed of a central core surrounded by one or more layers of helically laid groups of wires.

Rope Unilay: A group of stranded conductors assembled in a unilay manner.

Round Wire Shields: Shields constructed from bare, tinned or silver-plated copper wire that include braided, spiral and reverse spiral.

Routers: A device that determines how to forward a packet toward its destination, based on tables that indicate the costs, congestion status and other factors associated with possible routes. Also called a level 3 relay or an intermediate system.

Rubber (Wire Insulation): Term used to describe wire insulations made of thermosetting elastomers; occurs naturally or may be made synthetically.

Rulan®: DuPont's trade name for their flame-retardant polyethylene insulating material.

Screen: A shield placed over the entire core.

Secondary Insulation: A nonconductive material that protects the conductor against abrasion and provides a second electrical barrier.

Segmental Conductor: A stranded conductor consisting of three or more stranded conducting elements, each element having approximately the shape of the sector of a circle, assembled to give a substantially circular cross-section.

Selenium Cure: Process used to cure neoprene and rubber jacketed wires and cables.

Self-Extinguishing: Characteristic of a material whose flame is extinguished after the igniting flame source is removed.

Semi-Conducting Jacket: A jacket having a sufficiently low resistance so that its outer surface can be kept at substantially ground potential.

Semi-Rigid: A cable containing a flexible inner core and a relatively inflexible sheathing.

Semi-Solid: An insulation cross-section having a partially open space between the conductor and the insulation perimeter.

Separator: A layer of insulating material which is placed between a conductor and its dielectric between a cable jacket and the components it covers, or between various components of a multiple-conductor cable.

Series Circuit: A circuit in which the components are arranged end to end to form a single path for current.

Serve: A filament or group of filaments such as fibers or wires, wound around a central core.

Serving: A wrapping applied over the core of a cable or over a wire.

Sheath: See Cable Sheath.

Shield: In cables, a metallic layer placed around a conductor or group of conductors to prevent electrostatic or electromagnetic interference between the enclosed wires or external fields.

Shield Coverage: Amount of outer cable covered by the shielding material.

Shield Effectiveness: The ability of a shield to screen out undesirable signals.

Shielded Line: A transmission line whose elements confine propagated radio waves to an essentially finite space inside a tubular conducting surface called the sheath, thus preventing the line from radiating radio waves.

Shielded-Type Cable: A cable in which the surface of the insulation is at ground potential.

Shunt Wire: A conductor joining two parts of an electric circuit to divert part of the current.

Signal: A current used to convey information, either digital, analog, audio or video.

Silicone: A material made from silicon and oxygen. Can be in thermosetting elastomer or liquid form. The thermosetting elastomer form is noted for high heat resistance.

Silicone Treating: A silicone liquid treatment applied to insulated conductors to allow for easy jacket stripping.

Sine Wave: A wave that can be expressed as the sine of a linear function of time, or space or both.

Single-ended: Unbalanced, such as grounding one side of a circuit or transmission line.

Single-Faced Tape: Fabric tape finished on one side with a rubber or synthetic compound.

Single Mode Fiber: A fiber wave guide in which only one mode will propagate. The fiber has a very small core diameter of approximately 8mm. It permits signal transmission at extremely high bandwidths and is generally used with laser diodes.

Glossary

Sizing: Applying a material to a surface to fill pores.

Skeleton Braid: Widely separated braid of fiber copper or steel, used to hold core together, for reinforcing jacket or for shielding.

Skew Rays: A ray that does not intersect the fiber axis. Generally, a light ray that enters the fiber core at a very high angle.

Skim Tape: Filled tape coated on one or both sides with a thin film of uncured rubber or synthetic compound to produce a coating suitable for vulcanization.

Skin Effect: The tendency of alternating current, as its frequency increases, to travel only on the surface of a conductor.

Sleeve: A braided, knitted or woven tube used over wires or components as insulation tubing. Also called Sleaving.

Solid Conductor: A conductor consisting of a single wire.

Source Coupling Loss: (fiber optic) Loss of light intensity as light from source passes into fiber.

Space, Telecommunications: An area used for housing the installation and termination of telecommunications equipment and cable, e.g. telecommunications closets, work areas and manhole/handholes.

Span: (1.) In flat conductors, distance between the reference edge of the first and the last conductor. (2.) In round conductors, distance between centers of the first and last conductors. (3.) In aerial cable, the distance between poles or support clamps.

Spark Test: A test designed to locate pin-holes in the insulation of a wire or cable by application of a voltage for a very short period of time while the wire is being drawn through the electrode field.

Specific Gravity: The ratio of the density (mass per unit volume) of a material to that of water.

Spectral Bandwidth: The difference between wavelengths at which the radiant intensity of illumination is half its peak intensity.

Spectral Response: (fiber optic) The response of a detector (or a system) over different wavelengths.

Spectrum: Frequencies that exist in a continuous range and have a common characteristic.

Speed of Light (c): 2.998×10^8 meters per second.

Spiral Shield: A metallic shield of fine-stranded wires applied spirally rather than braided.

Spiral Stripe: A color-coding stripe applied helically to the surface of an insulated wire or cable.

Spiral Wrap: The helical wrap of a tape or thread over a core.

Splice: A joining of conductors, generally from separate sheaths.

Splice Closure: A device used to protect a cable or wire splice.

Spread Spectrum: A modulation technique for multiple access, or for increasing immunity to noise and interference.

Standing Wave: The stationary pattern of waves produced by two waves of the same frequency traveling in opposite directions on the same transmission line.

Standing Wave Ratio (SWR): In a transmission line, waveguide, or analogous system, a figure of merit used to express the efficiency of the system in transmitting power.

Star Topology: A topology in which each telecommunications outlet/connector is directly cabled to the distribution device.

Stay Cord: A component of a cable used to anchor the cable ends at their points of termination and to keep any pull of the cable from being transferred to the electrical connections.

Step Index Fiber: (fiber optic) A multimode fiber consisting of a core of uniform refractive index surrounded by cladding of slightly lower refractive index.

Strand: One of the wires of any stranded conductor.

Strand Lay: The distance of advance of one strand of a spirally stranded conductor, in one turn, measured axially.

Stranded Conductor: A conductor composed of groups of wires twisted together.

Strap: Square- or rectangular-section bare conductor manufactured and used in coil form.

Strip: To remove insulation from a cable.

Structural Return Loss: Backward reflected energies from uneven parts of the cable structure causing impedance variations are termed structural return loss.

Surface Resistivity: The resistance of a material between two opposite sides of a unit square of its surface. It is usually expressed in Ω .

Surge: A temporary and relatively large increase in the voltage or current in an electric circuit or cable. Also called Transient.

Suspended Ceiling: See False Ceiling.

Sweep-test: Pertaining to cable, the frequency response is verified by generating an rf voltage whose frequency is swept repeatedly through a given frequency range at a rapid constant rate while the cable response is observed.

Take-Up: The process of accumulating wire or cable onto a reel, bobbin or some other type of pack. Also, the device for pulling wire or cable through a piece of equipment or machine.

Tank Test: A voltage dielectric test in which the test sample is submerged in water and voltage is applied between the conductor and water as ground.

Tape: A relatively narrow woven or cut strip of fabric, paper or film material.

Tape Cable: A form of multiple conductor consisting of parallel metal strips imbedded in insulating material.

Tape Wrap: A spirally applied tape over an insulated or uninsulated wire.

Taped Insulation: Insulation of helically wound tapes applied over a conductor or over an assembled group of insulated conductors.

Taping: Process of insulating continuous length, large diameter wires with tape of non-extrudable materials.

TB: Terminal Block

Tear Strength: The force required to initiate or continue a tear in a material under specified conditions.

Teflon®: DuPont company trade name for fluorocarbon resins. FEP, PFA and TFE are typical materials.

Tefzel®: DuPont trade name for a fluorocarbon material typically used as a wire wrap insulation.

Telecommunications: The communication of information over some distance, including interbuilding and intrabuilding distances.

Telecommunications Closet: See Closet, Telecommunications.

Telecommunications Entrance Facility: See Entrance Facility, Telecommunications.

Telecommunications Entrance Point: See Entrance Point, Telecommunications.

Telecommunications Entrance Room or Space: See Entrance Room or Space, Telecommunications.

Telecommunications Equipment Room: See Equipment Room, Telecommunications.

Telecommunications Grounding Busbar: A common point of connection for telecommunications system and bonding to ground, which is located in the telecommunications closet or equipment room.

Telecommunications Infrastructure: See Infrastructure, Telecommunications.

Telecommunications Outlet/Connector: See Outlet/Connector, Telecommunications.

Telemetry Cable: Cable used for transmission of information from instruments to the peripheral recording equipment.

Temperature Rating: The maximum temperature at which an insulating material may be used in continuous operation without loss of its basic properties.

Tensile Strength: The pull stress required to break a given specimen.

Tension Member: A member included in a fiber cable to add tensile strength.

Terminal: (1) A point at which information may enter or leave a communications network; (2) the input-output associated equipment; or (3) a device by means of which wires may be connected to each other.

Termination Hardware: This term is outmoded see Connecting Hardware.

Test Lead: A flexible, insulated lead wire used for making tests, connecting instruments to a circuit temporarily or for making temporary electrical connections.

Textile Braid: Any braid made from threads of cotton silk, or synthetic fibers.

Thermal Aging: Exposure to a thermal condition or programmed series of conditions for prescribed periods of time.

Thermocouple Lead Wire: An insulated pair of wires used from the couple to a junction box.

Thermoplastic: A material which softens when heated and becomes firm on cooling.

Thermoset: A material which hardens or sets when heat is applied, and which, once set, cannot be resoftened by heating. The application of heat is called "curing."

Three-Phase Current: Current delivered through three wires, with each wire serving as a return for the other two.

Three-Phase Three-Wire System: An alternating current supply system comprising three conductors over which three-phase power is sent.

Three-Wire System: A d-c or single-phase a-c system comprising three conductors, one of which is maintained at a potential midway between the potential of the other two.

Tin Overcoat (TOC): Tinned copper wire, stranded, then coated with pure tin.

Glossary

Tinsel Wire: A low-voltage stranded wire, with each strand a very thin conductor ribbon spirally wrapped around a textile yarn.

Topcoat: Bare (untinned) copper wire, stranded then coated with pure tin.

Topology: The physical or logical arrangement of a telecommunications system.

Tracer: A means of identifying polarity.

Transducer: A device for converting mechanical energy to electrical energy.

Transfer Impedance: The ratio of the source voltage of the wires inside the cable to the shield current of the cable or connectorized cable assembly.

Transition Point: A location in the horizontal cabling where flat undercarpet cable connects to round cable.

Transmission: Transfer of electric energy from one location to another through conductors or by radiation or induction fields.

Transmission Cable: Two or more transmission lines. See Transmission Line.

Transmission Line: An arrangement of two or more conductors or a wave guide used to transfer signal energy from one location to another.

Transmission Loss: The decrease or loss in power during transmission of energy from one point to another. Usually expressed in decibels.

Transmission Media: The various types of wire and optical fiber cable used for transmitting voice or data signals. Typically, wire cable includes twisted pair, coaxial and twinaxial. Optical fiber cable includes single, dual, quad, stranded and ribbon (AI).

Transmitter: The electronic package that injects an electrical signal or light signal over the transmission medium.

Transparent: (fiber optic) Transmitting rays of light so that objects can be seen through the material.

Transposition: Interchanging the relative positions of wires to neutralize the effects of induction to or from other circuits or, to minimize interference pickup by the lead-in during reception.

Tray Cable: A factory-assembled multiconductor or multipair control cable approved under the National Electrical Code for installation in trays.

Triaxial: A three-conductor cable with one conductor in the center, a second circular conductor shield concentric with the first, and third circular conductor shield insulated from and concentric with the first and second, usually with insulation, and over a braid or impervious sheath overall.

Triboelectric Noise: Noise generated in a shielded cable due to variations in capacitance between shielding and conductor as the cable is flexed.

Triple Cable: A cable composed of three insulated single conductors and one bare conductor, all twisted together. It may or may not have a common covering of binding.

True Concentric: A cable in which each successive layer has a reversed direction of lay from the preceding layer.

Trunk Cable: See Feeder Cable.

Tubing: A tube of extruded non-supported plastic material.

Twin Cable: A pair of insulated conductors twisted, sheathed or held together mechanically and not identifiable from each other in a common covering.

Twin Coaxial: A configuration containing two separate, complete coaxial cables laid parallel or twisted around each other in one complex.

Twin Line: A transmission line which has a solid insulating material, in which the two conductors are placed in parallel to each other.

Twiner: A device for twisting together two conductors.

Twisted Pairs: A cable composed of two small insulated conductors twisted together without a common covering.

Unbalanced Line: A transmission line in which voltages on the two conductors are unequal with respect to ground.

Unidirectional Concentric Stranding: A stranding where each successive layer has a different lay length, thereby retaining a circular form without migration of strands from one layer to another.

Unidirectional Stranding: A term denoting that in a stranded conductor, all layers have the same direction of lay.

Unilay Strand: A conductor constructed with a central core surrounded by more than one layer of helically-laid wires, with all layers having a common length and direction of lay.

Velocity of Propagation (VP): The speed of an electrical signal down a length of cable compared to speed in free space expressed as a percent. It is the reciprocal of the square root of the dielectric constant of the cable insulation.

Volt: A unit of electromotive force.

Voltage: The term most often used in place of electromotive force, potential difference or voltage drop to designate the electric pressure that exists between two points and is capable of producing a current when a closed circuit is connected between two points.

Voltage Drop: The voltage developed across a component or conductor by the current in the resistance or impedance of the component or conductor.

Voltage Rating: The highest voltage that may be continuously applied to a wire in conformance with standards or specifications.

Voltage Standing Wave Ratio (VSWR): The ratio of the maximum effective voltage to the minimum effective voltage measured along the length of a mis-matched radio frequency transmission line.

Volume Resistivity (Specific Insulation Resistance): The electrical resistance between opposite faces of a 1 cm. cube of insulating material, commonly expressed in Ω /centimeter.

Vulcanization: A chemical reaction in which the physical properties of an elastomer are changed by reacting it with sulfur or other cross-linking agents.

Wall Thickness: The thickness of the applied insulation or jacket.

Water Absorption: A test to determine the water absorbed by a material after a given immersion period.

Waterblocked Cable: A cable constructed with no internal voids in order to allow no longitudinal water passage under a given pressure.

Watt: A unit of electric power.

Wave Form: A graphical representation of a varying quantity. Usually, time is represented on the horizontal axis, and the current or voltage value is represented on the vertical axis.

Wave Length: The distance, measured in the direction of propagation, of a repetitive electrical pulse or waveform between two successive points that are characterized by the same phase of vibration.

Wicking: The longitudinal flow of a liquid in a wire or cable due to capillary action.

Wire: A conductor, either bare or insulated.

Wire and Cable Marker: Device for identification marking of wire and cable.

Wire and Cable Tying, Clamping, and Harnessing Devices: Tying tapes, lacing cords and flexible sleeveings which are used for wire and cable bundling, harnessing and holding. Other devices include plastic ties or clamps, spiral-cut plastic tubing and plastic U-shaped trays or ducts.

Wire and Lead Cutters: Tools for cutting that range from plier-type cutters to semiautomatic or fully automatic machines integrated with other wire processing operations such as stripping, forming and terminating.

Wire Gauge: A system of numerical designation of wire sizes.

Wire Nut: A closed-end splice that is screwed on instead of crimped.

Wire Wrapped Connection: A solderless connection made by wrapping bare wire around a square or rectangular terminal with a power or hand tool.

Wire Wrapping Tools: Portable electric tools and automatic stationary machines used to make solderless wrapped connections of wires to terminals.

Wiring Closet: See Telecommunications Closet.

Work Area (Work Station): A building space where the occupants interact with telecommunications terminal equipment.

Wrapper: An insulating barrier applied as a sheet or tape wrapped around a coil periphery.

Yield Strength: The minimum stress at which a material will start to physically deform without increase in load.

Zytel®: DuPont's trade name for nylon resins.

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Abbreviations & Acronyms

A-D: Analog to digital conversion	CEN: European Committee for Standardization	DW: Distribution Wire
ac: Alternating current	CENELEC: European Committee for Electrotechnical Standardization	E: Symbol for voltage. Usually used to represent direct voltage or the effective (root-mean-square) value of an alternating voltage
AC: Armored Cable, NEC Article 333 Cable Designation	CFC: Communications Flat Cable	EFTS: Electronic funds transfer system
ACO: Analog Central Office	ckt: Circuit	EIA: Electronic Industries Association
ACR: Attenuation to Crosstalk Ratio	CLT or CLOS: Closet	EMF: Electromotive Force
ADO: Auxiliary Disconnect Outlet	CL2: Class 2 Circuit Cable, NEC Article 725 Cable Designation	EMI: Electromagnetic Interference
AER: Aerial	CL2P: Class 2 Circuit Plenum Cable, NEC Article 725 Cable Designation	EMT: Electric Metallic Tubing
AF: Audio frequency	CL2R: Class 2 Circuit Riser Cable, NEC Article 725 Cable Designation	EP: Entrance point
AIA: American Institute of Architects	CL2X: Class 2 Circuit Limited Use Cable, NEC Article 725 Cable Designation	EPDM: Ethylene-propylene-diene monomer rubber
ALPETH: An aerial telephone cable having an aluminum shield and polyethylene jacket	CL3: Class 3 Circuit Cable, NEC Article 725 Cable Designation	EPOS: Electronic Point-Of-Sale
ALS: A type of cable consisting of insulated conductors enclosed in a continuous, closely fitting aluminum tube	CL3P: Class 3 Circuit Plenum Cable, NEC Article 725 Cable Designation	EPR: Ethylene-propylene rubber
ALVYN: An indoor, riser rated telephone cable having an aluminum shield and vinyl jacket (PVC)	CL3R: Class 3 Circuit Riser Cable, NEC Article 725 Cable Designation	ER: Equipment room
AM: Amplitude Modulation	CL3X: Class 3 Circuit Limited Use Cable, NEC Article 725 Cable Designation	ESS: Electronic Switching System
ANSI: American National Standards Institute	CM: Communications Cable, NEC Article 800 Cable Designation	ESTA: Australian approval agency; Electricity Trust of South Australia
ARPANET: Advanced Research Projects Agency Network	CMA: Circular Mil Area	ETPC: Electrolytic Tough Pitch Copper
ASCII: American Standard Code for Information Interchange	CMP: Communication Cable Plenum, NEC Article 800 Cable Designation	ETV: Educational Television
ASME: American Society of Mechanical Engineers	CMR: Communications Cable Riser, NEC Article 800 Cable Designation	E/W: Equipped With
ASP: A filled, direct burial telephone cable used in areas subject to rodent attack. It consists of a filled cable core, corrugated aluminum shield, corrugated steel tape, flooding compound and polyethylene jacket.	CMX: Communications Limited Use Cable, NEC Article 800 Cable Designation	EX or EXT: Extension
ASTA: United Kingdom approval agency	CO: Central Office	EXCH: Exchange
ASTM: American Society for Testing and Materials	codec: Coder decoder	f: Frequency
AWG: American Wire Gauge	COE: Central Office Equipment	FAA: Federal Aeronautics Administration
AWM: Appliance wiring material	COS: Cooperation for Open Systems	FCC: (1) Federal Communications Commission (2) Flat Conductor Cable, NEC Article 328 Cable Designation
B & S Gauge: See American Wire Gauge (AWG)	COSINE: Cooperation for Open Systems Interconnection Network in Europe	FDDI: Fiber Distributed Data Interface
B or BUR: Buried	COT: Central Office Terminal	FDM: Frequency-Division Multiplexing
AWM: Appliance wiring material	CPC: Customer Premises Communication	FDR: Feeder
BCF: Billion Conductor Feet	CPE: (1) Chlorinated Polyethylene (2) Customer Premises Equipment or Customer Provided Equipment	FEP: Fluorinated ethylene propylene
BEF: Building Entrance Facility	CPU: Central Processing Unit	FEXT: Far End Crosstalk
BER: Bit Error Rate	CRT: Cathode Ray Tube	FI: Approval agency of Finland; Electrical Inspectorate
BIC: Building Industry Consultant	CSMA/CD: Carrier Sense Multiple Access/ Collision Detection	FIPS PUB: Federal Information Processing Standard Publication
BICSI: Building Industry Consulting Service International	CSPE: Chlorosulfonated Polyethylene	FM: Frequency modulation
BISDN: Broadband Integrated Services Digital Network	CTR: Certified Test Report	FOCIS: Fiber Optic Connector Intermateability Standard
BTU: British Thermal Unit	CV: Continuous vulcanization	FOTP: Fiber Optic Test Procedure
CA: Cable	D-A: Digital to analog conversion	FOTS: Fiber Optics Transmission System
CATV: (1) Community Antenna Television; Cable Access Television (2) CATV Cable, NEC Article 820 Cable Designation	DAF: Dedicated Access Facility	FPL: Power Limited Fire Protective Signaling Circuit Cable, NEC Article 760 Cable Designation
CATVP: CATV Plenum Cable, NEC Article 820 Cable Designation	dB: Decibel	FPLP: Power Limited Fire Protective Signaling Circuit Plenum Cable, NEC Article 760 Cable Designation
CATVR: CATV Riser Cable, NEC Article 820 Cable Designation	DBS: Direct Broadcast Satellite	FPLR: Power Limited Fire Protective Signaling Circuit Riser Cable, NEC Article 760 Cable Designation
CATVX: CATV Limited Use Cable, NEC Article 820 Cable Designation	dc: Direct current	FR-1: A flammability rating established by Underwriter's Laboratories for wires and cables that pass a specially designed vertical flame test
CB: Citizens band	DCE: Data Circuit-Terminating Equipment	freq: Frequency
C-C: Conductor to conductor capacitance	DCO: Digital Central Office	FRICC: Federal Research Internet Coordinating Committee (now FNC)
CCITT: The International Telegraph and Telephone Consultative Committee	DCR: Direct Current Resistance	FRPE: Flame Retardant Polyethylene
CCTV: Closed-circuit television	DD: Distribution Designer or Distribution Device	ft: Foot
CDDI: Copper Distributed Data Interface	DEMARC: Demarcation point	FTP: Fire Transfer Protocol
CDF: Central Distribution Frame	DEMKO: Approval agency of Denmark	ga: Gauge
CDO: Community Dial Office	DGM: Data Grade Medium	gHz: Gigahertz
CEBEC: Belgium approval agency; Commitee Electrotechnique Belge Service de la Marque	DISA: Defense Information Systems Agency (formerly DCA)	grd: Ground
CEE: European standards agency; International Commission on Rules for the Approval of Electrical Equipment	DISI: Directory Information Services Infrastructure	GTO: Gas tube sign and oil-burner ignition cable. 5,000V-15,000V.
	DIST: District	H: Designation for intensity of magnetic energy
	DRT: Plastic range and dryer cord (CSA)	hc: Handset combination (single-line telephone)
	DTE: Data Terminal Equipment	HC: Horizontal cross-connect
	DVD: Digital Versatile Disc	hck: Handset combination; key (six-button telephone)

Abbreviations & Acronyms

HDPE: High Density Polyethylene	MCM: One thousand circular mils	OC: Optical Carrier
HF: High Frequency	MDF: Main Distribution Frame	ODC: Ozone Depleting Chemical
hh: Handhole	MDPE: Medium Density Polyethylene	OP: Outside Plant
Hi-Pot: A test designed to determine the highest voltage that can be applied to a conductor without breaking through the insulation.	Meg or Mega: A numerical prefix denoting 1,000,000 (10 ⁶)	OPE: Outside Plant Engineer
HPD: Rubber- and asbestos-insulated heater cord. No braid on individual conductors but with braid overall. Also made with neoprene insulation and no asbestos or PVC/NBC.	M/G: Motor/Generator Set	OSHA: Occupational Safety and Health Administration
HPN: Two-conductor, neoprene-insulated heater cord. Parallel construction. For use in damp locations.	MH: Manhole	OSI: Open Systems Interconnection
HSJ: Same as type HS but with #18, #16 and #14 conductors and differing thickness of jacket.	Mho: The unit of conductivity. The reciprocal of an ohm.	OVE: Approval agency of West Germany; Oesterreichischer Verband fur Elektrotechnik
HVAC: Heating, ventilation and air conditioning	MHz: Megahertz	PABX: Private Automatic Branch Exchange
HZ: Hertz	MI: Mineral Insulated Cable, NEC Article 330 Cable Designation	PAM: Pulse Amplitude Modulation
i: Symbol used to designate current	Micro: A numerical prefix denoting one-millionth (10 ⁶)	PAP: A commonly used term for air core (unfilled) direct burial telephone cable with a corrugated aluminum shield
IC: Intermediate cross-connect	MIL STD: Military Standard	PBX: Private Branch Exchange
ICEA: Insulated Cable Engineers Association	MILNET: Military Network	PC: Personal Computer
IDC: Insulation Displacement Connector	MLT: Multi-Level Threshold	PCB: Printed Circuit Board
IEC: International Electrotechnical Commission	mm: Millimeter	P-FEP: General Cable proprietary dielectric material used in junction with FEP.
IEEE: Institute of Electrical and Electronics Engineers	Modem: Modulator demodulator	PCM: Pulse Code Modulation
IGS: Integrated Gas Spacer Cable, NEC Article 325 Cable Designation	MP: Multi-Purpose Cable, NEC Article 800 Cable Designation	PCP: A commonly used term for air core (unfilled) direct burial cable with a corrugated copper shield
IMSA: International Municipal Signal Association	MPOP: Minimum Point of Presence	PE: Polyethylene
in: Inch	MPP: Multi-Purpose Plenum Cable, NEC Article 800 Cable Designation	pf: Picofarad
IRSG: Internet Research Steering Group	MPR: Multi-Purpose Riser Cable, NEC Article 800 Cable Designation	PFA: Polyfluoroalkoxy
IRTF: Internet Research Task Force	MTT: Main Telephone Terminal	PIC: A general term for any type of plastic insulated telephone cable
IS: International Standard	MTW: Machine Tool Wire	Pico: A numerical prefix denoting one-millionth of one-millionth (10 ⁻¹²)
ISA: Instrument Society of America	MV: Medium Voltage Cable, NEC Article 326 Cable Designation	PL: Private Lines
ISDN: Integrated Services Digital Network	MW: Radio hookup wire with polyvinyl insulation and plain or nylon jacket or braid, or shield, 1000V	PLSJ: All-rubber, parallel-jacketed, two-conductor, light-duty cord for pendant or portable use in damp locations. 300V.
ISO: International Organization for Standardization	N: Newton	PLT: (1) Plant (2) Same as PLSJ except thermo-plastic insulation
ISOC: Internet Society	NAIC: Network Applications and Information Center	PLTC: Power Limited Tray Cable, NEC Article 725 Cable Designation
ITCO: Independent Telephone Company	NASA: National Aeronautics and Space Administration	PM: Phase Modulation
ITU-T: International Telecommunications Union - Telecommunications Standardization Section	NBR: Natural butadiene-acrylonitrile copolymer rubber	POI: Point Of Interface
IW (C): Inside Wiring (cable)	NBS: National Bureau of Standards (now NIST)	POSJ: All-rubber, parallel, light duty rip-cord for use on lamps and small appliances, 300V, 60°C
J: Joule	NEC: National Electrical Code	POT: Thermoplastic, parallel, light duty rip-cord. 300V, 60°C to 105°C.
KEMA KEUR: Approval agency of the Netherlands	NEMA: National Electrical Manufacturers Association	POTS: Plain Old Telephone Service (colloquial)
kft: An abbreviation for 1000 ft.	NEMKO: Approval agency of Norway	PP: Polypropylene
kHz: Kilohertz	NESC: National Electrical Safety Code	PR: Pair
Kilo: A numerical prefix denoting 1000 (10 ³)	NEXT: Near End Crosstalk	PTFE: Polytetrafluoroethylene
km: Kilometer	nf: Nanofarad	PTSS: Passive Transmission Sub-System
KTS: Key Telephone Service	NFPA: National Fire Protection Association	PVC: Polyvinyl Chloride
kV: Kilovolt	NI: Network Interface	PVDF: Polyvinylidene Fluoride
kVA: Kilovolt Ampere	NID: Network Interface Device	R: Symbol for resistance
kW: Kilowatt	NIST: National Institute of Standards and Technology (formerly NBS)	R-F: Radio-frequency
LAN: Local Area Network	NIU: Network Interface Unit	RCDD: Registered Communication Distribution Designer
LASER: Light Amplification by Stimulated Emission of Radiation	nm: Nanometer	REA: Rural Electrification Administration
LATA: Local Access Transport Area	NM & NMC: Non Metallic Sheathed Cable, NEC Article 336 Cable Designation	REP: Repair
lbf: Pound force	NPLF: Non Power-Limited Fire Protective Signaling Circuit Cable, NEC Article 760 Cable Designation	RFQ: Request for Quote
LBO: Line Buildout	NPLFP: Non Power-Limited Fire Protective Signaling Circuit Plenum Cable, NEC Article 760 Cable Designation	RG/U: General utility grade military coaxial cable
LDPE: Low Density Polyethylene	NPLFR: Non Power-Limited Fire Protective Signaling Circuit Plenum Cable, NEC Article 760 Cable Designation	RH: Relative humidity
LEC: Local Exchange Carrier	NRZ: Non Return to Zero	RJ-45: A specific pin-point assignment for an eight position modular telecommunications connector.
LED: Light-Emitting Diode	NRZI: Non Return to Zero Inverted	RMS: (1) rack mount space (2) Root Mean Squares
LLDPE: Linear Low Density Polyethylene		
LOCA: Loss of Coolant Accident		
locap: Low-capacitance, low-loss paired cable		
MAC: Moves, Adds and Changes		
MAP: Manufacturing Automation Protocol		
MATV: Master Antenna Television		
Mbps: Megabits per second		
MC: (1) main cross-connect (2) Metal Clad Cable, NEC Article 334 Cable Designation		

Abbreviations & Acronyms

S: Heavy-duty, rubber-insulated portable cord. Stranded copper conductors with separator and individual rubber insulation. Two or more color-coded conductors cabled with filler, wrapped with separator and rubber jacketed overall, 600 Volts.

SAE: Society of Automotive Engineers

SANZ: Standards Association of New Zealand

SBR: Styrene Butadiene Rubber

ScTP: Screened Twisted Pair

SDN: Switched Digital Network

SE: Service Entrance Cable, NEC Article 338 Cable Designation

SEMKO: Approval agency for Sweden

SFTP: Simple File Transfer Protocol

SI: System Internationale

SJ: Junior hard-service, rubber-insulated pendant or portable cord. Same construction as type S, but 300V. Jacket thickness different.

SJO: Same as SJ, but carolprene, oil-resistant compound outer jacket. Can also be made "water-resistant." 300V, 60°C.

SJT: Junior hard service thermoplastic or rubber-insulated conductors with overall thermoplastic jacket, 300V, 60°C to 105°C.

SJTO: Same as SJT but oil-resistant thermoplastic outer jacket. 60°C.

SMTP: Simple Mail Transfer Protocol

SNA: Systems Network Architecture

SNM: Shielded Non Metallic Sheathed Cable, NEC Article 337 Cable Designation

SNMP: Simple Network Management Protocol

SNR: Signal to Noise Ratio

SO: Hard-service cord, same construction as type S except oil-resistant carolprene jacket, 600V, 60° to 90°C.

SONET: Synchronous Optical Network

SP-1: All rubber, parallel-jacketed, two-conductor light-duty cord for pendant or portable use in damp locations. 300V.

SP-2: Same as SP-1, but heavier construction, with or without third conductor for grounding purposes. 300V.

SP-3: Same as SP-23, but heavier construction for refrigerators or room air conditioners. 300V.

SPC: Stored Program Control

SPG: Single Point Ground

SPT-1: Same as SP-1, except all-thermoplastic. 300V. With or without third conductor for grounding.

SPT-2: Same as SP-2, except all-thermoplastic. 300V. With or without third conductor for grounding.

SPT-3: Same as SP-3, except all-thermoplastic. 300V. With or without third conductor for grounding.

SRD: Portable range or dryer cable. Three or four rubber-insulated conductors with rubber or neoprene jacket, flat or round construction. 300V, 60°C.

SRDT: Same as SRD, except all-thermoplastic with a maximum temperature of 90°C.

SRL: Structural return loss

ST: Hard-service cord, jacketed, same as type S except all-plastic construction, 600V, 60°C to 105°C.

STA: Station

STO: Same as ST but with oil-resistant thermoplastic outer jacket. 600V, 60°C.

STP: Shielded twisted pair

SV: Vacuum cleaner cord, two or three-conductor, rubber-insulated. Overall rubber jacket. For light-duty in damp locations. 300V, 60°C.

SVO: Same as SV except carolprene jacket, 300V, 60°C.

SVT: Same as SV except all-plastic construction. With or without third conductor for grounding purposes only. 300V, 60°C to 90°C.

SW: Station Wire

SWB: Switchboard

SWR: Standing Wave Ratio

SYS: System

TC: (1) Power and Control Tray Cable, NEC Article 340 Cable Designation (2) Telecommunications Closet

TCP: Transmission Control Protocol

TDM: Time-Division Multiplexing

TEL: Telephone

TELCO: Telephone Company

TERM: Terminal or termination

TEW: Canadian Standard Association type appliance wires. Solid or stranded single conductor, plastic-insulated, 600V, 105°C.

TF: Fixture wire, thermoplastic-covered solid or seven strands. 60°C.

TFE: Tetrafluoroethylene

TFF: Same as TF but flexible stranding. 60°C.

THHN: 90°C, 600V nylon jacketed building wire

THW: Thermoplastic vinyl-insulated building wire. Flame-retardant, moisture- and heat-resistant. 75°C. Dry and wet locations.

THWN: Same as THW but with nylon jacket overall. 75°C.

TIA: Telecommunications Industry Association

TOC: Tin Overcoat

TP: Transport Protocol

TP-PMD: Twisted Pair-Physical Medium Dependent

TPDDI: Twisted Pair Distributed Data Interface

TSB: Telecommunications System Bulletin

TT: Telephone Terminal

TTB: Telephone Terminal Board

TTY: Text Telephones

TW: Thermoplastic vinyl-jacketed building wire, moisture-resistant. 60°C.

UCC: Uniform Code Council

UF: Thermoplastic underground feeder and branch circuit cable

UF: Underground Feeder and Branch Circuit Cable, NEC Article 339 Cable Designation

UG: Underground

UHF: Ultra High Frequency, 300 to 3,000 MHz

UL: Underwriter's Laboratories, Inc.

µm: Micron or micrometer

UPC: Universal Packaging Code

UPS: Uninterruptible Power Supply

USE: Underground Service Entrance Cable, NEC Article 338 Cable Designation

UTE: Approval agency for France; Union Technique de l'Electricite

UTP: Unshielded twisted-pair

V: Volt

VDE: West Germany approval agency

VHF: Very High Frequency, 30 to 300 MHz

VP: Velocity of Propagation

VSWR: Volume Standing Wave Ratio

VW-1: A flammability rating established by Underwriters Laboratories for wires and cables that pass a specially designed vertical flame test, (formerly designated FR-1)

W: Symbol for watt or wattage

WA: Work area

WP: Waterproof Outlet

X: Cross-connect

XLPE: Crosslinked polyethylene

Z: Symbol for impedance

Hook-Up Wire Product Finder

TEMP.C	VOLTAGE	UL	UL	CSA	MIL	AWG	P/N	STRAND TYPE	PAGE
60	1500*	—	—	—	—	20	C1326	STRANDED	7
60	3000*	—	—	—	—	20	C1319	STRANDED	7
60	5000*	—	—	—	—	18	C1320	STRANDED	7
60	5000*	—	—	—	—	18	C1321	STRANDED	7
60	10000*	—	—	—	—	18	C1318	STRANDED	7
80	1000	—	—	—	W-76B	24	C7600	STRANDED	4
80	1000	—	—	—	W-76B	22	C7602	STRANDED	4
80	1000	—	—	—	W-76B	20	C7604	STRANDED	4
80	1000	—	—	—	W-76B	18	C7606	STRANDED	4
80	1000	—	—	—	W-76B	16	C7608	STRANDED	4
80	1000	—	—	—	W-76B	14	C7610	STRANDED	4
80	1000	—	—	—	W-76B	12	C7611	STRANDED	4
80/105	300	1007	1569	TR-64	—	24	C2003	SOLID	2
80/105	300	1007	1569	TR-64	—	24	C2015	STRANDED	2
80/105	300	1007	1569	TR-64	—	22	C2004	SOLID	2
80/105	300	1007	1569	TR-64	—	22	C2016	STRANDED	2
80/105	300	1007	1569	TR-64	—	20	C2028	SOLID	2
80/105	300	1007	1569	TR-64	—	20	C2040	STRANDED	2
80/105	300	1007	1569	TR-64	—	18	C2052	SOLID	2
80/105	300	1007	1569	TR-64	—	18	C2064	STRANDED	2
80/105	300	1007	1569	TR-64	—	16	C2053	SOLID	2
80/105	300	1007	1569	TR-64	—	16	C2065	STRANDED	2
105	600	1015	—	TEW	—	24	C2100	STRANDED	3
105	600	1015	—	TEW	—	22	C2101	STRANDED	3
105	600	1015	—	TEW	—	22	C2117	SOLID	3
105	600	1015	—	TEW	—	20	C2102	STRANDED	3
105	600	1015	—	TEW	—	20	C2118	SOLID	3
105	600	1015	—	TEW	—	18	C2103	STRANDED	3
105	600	1015	—	TEW	—	18	C2119	SOLID	3
105	600	1015	—	TEW	—	16	C2104	STRANDED	3
105	600	1015	—	TEW	—	14	C2105	STRANDED	3
105	600	1015	—	TEW	—	12	C2106	STRANDED	3
105	600	1015	—	TEW	—	10	C2107	STRANDED	3

* For Intermittent Duty Only

Multi-Conductor Cable Product Finder

NO. COND.	STRAND TYPE	AWG 28		AWG 24		AWG 22		AWG 20		AWG 19		AWG 18		AWG 16		AWG 14		AWG 12	
		P/N	SHIELD PAGE	P/N	SHIELD PAGE	P/N	SHIELD PAGE	P/N	SHIELD PAGE	P/N	SHIELD PAGE	P/N	SHIELD PAGE	P/N	SHIELD PAGE	P/N	SHIELD PAGE	P/N	SHIELD PAGE
1	SOLID																		
	STRANDED								C1300 B,R	140			C1201 B,C	141					
												C1301 B,R	140						
2	SOLID					C2515 F	17	C2509 F	146	C2754	9	C0471 U	85, 93	C0473 U	85, 93	C0475 U	94	C0476 F	94
						C2676 B	22					C0472 F	85, 94	C0474 F	85, 94	C0491 U	93	C0492 U	93
						C4008 U	9, 30		C4311 U	9		C3060 F-P	111	C3168 F-P	85, 96	C3172 F-P	96	C3174 F-P	96
						C4167 F	176					C3110 U-P	109	C3210 U-P	91	C3220 U-P	91	C3224 U-P	91
						C4408 U	85, 103					C3167 F-P	85, 96	C3241 U-P	85, 95	C3224 U-P	91	C3246 U-P	95
						E1000S U	98					C3200 U-P	91	C3270 F-P	92	C3244 U-P	95	C3282 F-P	92
						E1002S U	97, 98					C3240 U-P	85, 95	E1512S U	87	C3280 F-P	92	C4164 F	176
						E1482S U	87					C3260 F-P	92	E2404S U	87	C4163 F	176	E1532S U	87
						E2000S F	99					E1030S U	98	E2522S F	88	E1522S U	85, 87	E2542S F	88
						E2100S F-P	101					E1502S U	87, 89	E3512S U-P	89	E2406S U	87	E3532S U-P	89
						E2482S S	88					E2030S F	99	E3612S F-P	90	E2532S F	85, 88	E3632S F-P	90
						E3000S U-P	100					E2200S F-P	101			E3522S U-P	85, 89		
						E3482S U-P	89					E2402S U	87			E3622S F-P	85, 90		
						E3542S F-P	90					E2502S F	85, 88						
												E3030S U-P	100						
												E3502S U-P	85, 89						
												E3602S F-P	85, 90						
2	STRANDED	C6500 B	24	C0740 F	39	C0431 U	15	C0433 U	15			C0435 U	15	C0437 U	15	C0439 U	15	C0441 U	15
				C1226 S	137	C0450 F	20	C0452 F	20			C0454 F	20	C0456 F	20	C0458 F	20	C0460 F	20
				C1228 F	138	C0760 F	40	C0790 F	40			C1358 U	153	C1361 U	153	C1363 U	153	C1365 U	153
				C1356 U	153	C1322 B	139	C1302 B,R	27, 140			C1357 U	85, 153	C1602 B,C	28, 141	C1612 B,C	28	C1364 U	154
				C2461 U	10	C1362 U	97, 153	C1360 U	153			C2521 F	19	C1704 U	85, 157	C1702 U	85, 157	C1700 U	157
				C2513 F	17	C2514 F	17	C1642 B	25			C2534 F	17	C2405 U	13	C2409 U	13	C2410 U	13
				C4152 F	176	C2516 F	17	C2519 F	19			C2686 B	23	C2536 F	17	C2538 F	17	C2539 F	17
				C4216 F	180	C2518 F	19	C2524 F	17			C2830 U	11	C2895 S	21	C3126 U-P	110	C3129 U	109
						C2520 F	19	C2540 F	17			C2892 S	21	C3068 F-P	111	C4146 U	175	C4150 U	175
						C2677 B	22	C2681 B	23			C3062 F-P	111	C3127 U-P	109	C4201 F	177	C4202 F	177
						C2679 B	23	C2888 S	21			C3102 U-P	110	C3169 F-P	112	C4215 F	177	E1062S U	85, 98
						C2882 S	21	C3320 F-P	112			C3112 U-P	109	C3193 U-P	110	E1052S U	85, 98	E2062S F	99
						C3105 U-P	110	C3602 U-R	16			C3162 F-P	112	C4135 U	175	E2052S F	99	E2262S F-P	101
						C3115 U-P	109	C4117 U	174			C4114 U	173	C4162 F	176	E2252S F-P	101	E3062S U-P	85, 100
						C3154 F-P	112	C4154 F	176			C4125 U	174	C4213 F	177	E3052S U-P	85, 100		
						C3158 F-P	111	C4166 F	177			C4155 F	176	E1042S U	85, 98				
						C4100 U	173	C4211 F	177			C4197 F	177	E2042S F	99				
						C4153 F	176	C6311 UJ	103			C4212 F	177	E2242S F-P	101				
						C4168 F	176	C6351 U	12			C5460 U	102	E3042S U-P	85, 100				
						C4192 F	177	E1022S U	98			O6312 UJ	103						
						C4210 F	177	E2022S F	99			O6367 U	154						
						C6310 UJ	103	E2122S F-P	101			E1032S U	89, 98						
						C6348 U	11	E3022S U-P	100			E2032S F	96, 99						
						E2002S F	85, 99					E2202S F-P	84, 101						
						E2102S F-P	84, 101					E3032S U-P	85, 100						
						E3002S U-P	85, 100												
3	SOLID					C4410 U	103	C2510 F	146			C3114 U-P	109						
												E1503S U	87						
												E2503S S	88						
												E3503S U-P	89						
												E3603S F-P	90						
	STRANDED	C0530 FB	43	C0680 FB	43	C0432 U	15	C0434 U	15			C0436 U	15	C0438 U	15	C0440 U	15		
		C0939 FB	41	C0741 F	39	C0451 F	20	C0453 F	20			C0455 F	20	C0457 F	20	C0459 F	20		
		C6501 B	24	C0761 F	40	C0781 F	40	C0781 F	40			C1203 B,C	28	C1603 B,C	28				
				C0951 FB	41	C0971 FB	42	C1304 B,R	27			C2535 F	17	C2406 U	13				
				C2462 U	10	C1335 S	21	C1332 B	23			C2787 B	23	C2537 F	17				
				C4217 F	180	C2517 F	17	C1333 F	142			C2768 S	21	C3194 U-P	110				
						C2526 F	17	C1643 B	25			C2831 U	12	C4136 U	175				
						C2678 B	23	C2525 F	17			C3064 F-P	111	C4165 F	176				
						C3310 F-P	112	C2528 F	17			C3120 U-P	109	C4200 F	177				
						C4062 U	11	C3321 F-P	112			C3164 F-P	112	E1043S U	98				
						C4101 U	173	C3603 U,R	16			C3190 U-P	110	E2043S F	99				
						C4156 F	176	C4118 U	174			C4126 U	174	E2243S F-P	101				
						C4169 F	176	C4157 F	176			C4159 F	176	E3043S U-P	100				
						C4193 F	177	C4158 F	176			C4198 F	177						
						E1003S U	98	C6352 U	12			E1033S U	98						
						E2003S F	99	E1023S U	98			E2033S F	99						
						E2103S F-P	101	E2023S F	99			E2203S F-P	101						
						E3003S U-P	100	E2123S F-P	101			E3033S U-P	100						
								E3023S U-P	100										

Multi-Conductor Cable Product Finder

NO. COND.	STRAND TYPE	AWG 28 P/N SHIELD PAGE	AWG 24 P/N SHIELD PAGE	AWG 22 P/N SHIELD PAGE	AWG 20 P/N SHIELD PAGE	AWG 19 P/N SHIELD PAGE	AWG 18 P/N SHIELD PAGE	AWG 16 P/N SHIELD PAGE	AWG 14 P/N SHIELD PAGE	AWG 12 P/N SHIELD PAGE
4	SOLID			C4412 U . . .85, 103 E1001S U . . .98 E1484S U . . .87 E2484S F . . .88 E3001S U-P . .100			C0485 U . . .85, 93 C0494 F . . .85, 94 C3061 F-P . .111 C3111 U-P . .109 C3170 F-P . .85, 96 C3201 U-P . .91 C3242 U-P . .85, 95 C3261 F-P . .92 E1504S U . . .87 E2504S F . .85, 88 E3504S U-P . .89 E3604S F-P . .85, 90	C0486 U . . .93 C3171 F-P . .96 C3211 U-P . .91 C3243 U-P . .95 C3271 F-P . .92 E1514S U . .87 E2524S F . .88 E3514S U-P . .89 E3614S F-P . .90	C0496 F . . .94 C3173 F-P . .96 C3223 U-P . .91 C3245 U-P . .95 C3284 F-P . .92 E1524S U . .85, 87 E2534S F . .85, 88 E3524S U-P . .85, 89 E3624S F-P . .85, 90	C0497 F . . .94 C3175 F-P . .96 C3225 U-P . .91 C3247 U-P . .95 C3283 F-P . .92 E1534S U . .87 E2544S F . .88 E3534S U-P . .89 E3634S F-P . .90
	STRANDED	C0531 FB . . .43 C0940 FB . . .41 C6502 B . . .24	C0681 FB . . .43 C0742 F . . .39 C0952 FB . . .41 C2463 U . . .10 C4218 F . . .180	C0762 F . . .40 C0972 FB . . .42 C1118 U . . .102 C1337 S . . .21 C1340 F . . .143 C2523 F . . .17, 84 C2680 B . . .23 C3106 U-P . .110 C3116 U-P . .109 C3155 F-P . .112 C3159 F-P . .111 C4063 U . . .11 C4102 U . . .173 C4160 F . . .176 C4194 F . . .177 C5076 U . . .102 E1004S U . .85, 98 E2004S F . .84, 99 E2104S F-P .84, 101 E3004S U-P .85, 100	C0782 F . . .40 C1119 U . . .102 C1305 B,R . .27 C1331 F . . .143 C1343 F . . .143 C1644 B . . .25 C2555 F . . .17 C2683 B . . .23 C3322 F-P . .112 C3604 U,R . .16 C4119 U . . .174 C4161 F . . .176 C4196 F . . .177 C5078 U . . .102 C6353 U . . .12 E1024S U . .98 E2024S F . .99 E2124S F-P . .101 E3024S U-P . .100		C0444 U . . .15 C1123 U . . .102 C1204 B,C . . .28 C2404 U . . .12 C2543 F . . .18 C2688 B . . .23 C3063 F-P . .111 C3103 U-P . .10 C3113 U . . .109 C3163 F-P . .112 C4127 U . . .174 C4204 F . . .177 C5084 U . . .102 E1034S U . .85, 98 E2034S F . .84, 99 E2204S F-P .84, 101 E3034S U-P .85, 100	C1604 B,C . . .28 C1705 U . .85, 157 C2425 U . . .13 C3195 U-P . .110 C3341 U . . .112 C4137 U . . .175 E1044S U . .85, 98 E2044S F-P . .101 E2244S F-P . .101 E3044S U-P .85, 100	C1614 B,C . . .28 C1703 U . .157 C2430 U . . .13 C4147 U . . .175 E1064S U . .85, 98 E2064S F . . .99 E2264S F-P . .101 E3064S U-P .97, 100	C1701 U . . .157 C2440 U . . .13 C4151 U . . .175 E1064S U . .85, 98 E2064S F . . .99 E2264S F-P . .101 E3064S U-P .97, 100
5	SOLID						C3117 U-P . .109			
	STRANDED	C0532 FB . . .43 C0941 FB . . .41	C0682 FB . . .43 C0753 F . . .39 C0953 FB . . .41 C2464 U . . .10 C4219 F . . .180	C0973 FB . . .42 C1124 U . . .102 C4064 U . . .11 C4103 U . . .173 C5086 U . . .102	C1126 U . . .102 C1308 B,R . .27 C1645 B . . .25 C3605 U,R . .16 C4120 U . . .174 C6355 U . . .12		C2420 U . . .12 C4128 U . . .174	C2434 U . . .13 C4138 U . . .175	C2437 U . . .13 C4146 U . . .175	
6	SOLID						C3118 U-P . .109 E1506S U . . .87 E2506S F . . .88 E3506S U-P . .89 E3606S F-P . .90			
	STRANDED	C0533 FB . . .43 C0942 FB . . .41 C6503 B . . .24	C0683 FB . . .43 C0743 F . . .39 C0954 FB . . .41 C1345 F . . .142 C2466 U . . .10 C4220 F . . .180	C0763 F . . .40 C0974 FB . . .42 C1341 S . . .21 C3311 F-P . .112 C4066 U . . .173 C4104 U . . .177 C4207 F . . .177 E1006S U . .85, 98 E2006S F . .84, 99 E2106S F-P .84, 101 E3006S U-P .85, 100	C0783 F . . .40 C1310 B,R . .27 C1646 B . . .25 C3606 U,R . .16		C1206 B,C . . .28 C3065 F-P . .111 C3121 U-P . .109 C3166 F-P . .112 C3192 U-P . .110 C4205 F . . .177 C4206 U . . .174 E1036S U . . .98 E2036 F . .84, 99 E2206S F-P .84, 101 E3036S U-P . .100	C1606 B,C . . .28		
7	SOLID									
	STRANDED	C0534 FB . . .43 C0943 FB . . .41	C0684 FB . . .43 C0754 F . . .39 C0955 FB . . .41 C2468 U . . .10 C4221 F . . .180	C0975 FB . . .42 C4088 U . . .11 C4105 U . . .173	C1312 B,R . .27 C3607 U,R . .16 C4121 U . . .174 C6356 U . . .12		C2421 U . . .12 C4129 U . . .174	C2426 U . . .13 C4139 U . . .175	C2431 U . . .13 C4149 U . . .175	
8	SOLID						C3119 U-P . .109 E1508S U . . .87 E2508S F . . .88			
	STRANDED	C0535 FB . . .43 C0944 FB . . .41 C6504 B . . .24	C0685 FB . . .43 C0744 F . . .39 C0956 FB . . .41 C2465 U . . .10 C4222 F . . .180	C0764 F . . .40 C0976 FB . . .42 C1130 U . . .102 C4065 U . . .11 C4080 U . . .102 C4106 U . . .173 C4208 F . . .177 C5096 U . . .102 E1008S U . .85, 98 E2008S F . .84, 99 E2108S F-P .84, 101 E3008S U-P .85, 100	C0784 F . . .40 C1313 B,R . .27 C1648 FB . . .26 C3608 U,R . .16 C4090 U . . .102		C1208 B,C . . .28 C3122 U-P . .109 C3180 F-P . .112 C3191 U-P . .110 E1038S U . . .98 E2038S F . .84, 99 E2208S F-P .84, 101 E3038S U-P . .100	C1608 B,C . . .28 C2443 U . . .13 C4140 U . . .175		
9	SOLID									
	STRANDED	C0536 FB . . .43 C0945 FB . . .41	C0686 FB . . .43 C0755 F . . .39 C0957 FB . . .41 C2470 U . . .10 C4223 F . . .180	C0977 FB . . .42 C4070 U . . .11 C4107 U . . .173	C4122 U . . .174 C6357 U . . .12		C2422 U . . .12 C4130 U . . .174	C2435 U . . .13 C4141 U . . .175		
10	SOLID					C2511 F . . .146				
	STRANDED	C0537 FB . . .43 C0946 FB . . .41 C6505 B . . .24	C0687 FB . . .43 C0745 F . . .39 C0958 FB . . .41 C2471 U . . .10	C0765 F . . .40 C0978 FB . . .42 C4071 U . . .11 C4108 U . . .173 E1010S U . . .98 E2010S F . .84, 99	C0785 F . . .40 C3610 U,R . .16 C4123 U . . .174		C1210 B,C . . .28 C3178 U-P . .110 C3181 F-P . .112 E1040S U . . .98 E2040S F . . .99			
12	SOLID									
	STRANDED	C6506 B . . .24	C2467 U . . .10	C4067 U . . .11 C4109 U . . .173 E1012S U . . .98 E2012S F . .84, 99	C6360 U . . .12		C1212 B,C . . .28 C2412 U . . .12 C3179 U-P . .110 C3182 F-P . .112 C4131 U . . .174 E1041S U . . .98 E2041S F . . .99	C2427 U . . .13 C4142 U . . .175		

**CAROL
BRAND**

B - BRAID SHIELD
C - CAROLPRENE®
F - FLEXFOIL® SHIELD
FB - FLEXFOIL®/BRAID SHIELD
I - INDIVIDUAL FLEXFOIL® SHIELD

IFB - INDIVIDUAL FLEXFOIL® + FLEXFOIL®/BRAID
P - PLENUM
R - RUBBER
S - SPIRAL SHIELD
U - NO SHIELD

UJ - UN-JACKETED

 **General Cable**

Multi-Conductor Cable Product Finder

NO. COND.	STRAND TYPE	AWG 28		AWG 24		AWG 22		AWG 20		AWG 19		AWG 18		AWG 16		AWG 14		AWG 12	
		P/N	SHIELD PAGE	P/N	SHIELD PAGE	P/N	SHIELD PAGE	P/N	SHIELD PAGE	P/N	SHIELD PAGE	P/N	SHIELD PAGE	P/N	SHIELD PAGE	P/N	SHIELD PAGE	P/N	SHIELD PAGE
15	SOLID																		
	STRANDED	C0538 FB 43 C0947 FB 41 C6507 B 24		C0688 FB 43 C0746 F 39 C0959 FB 41 C2473 U 10 C4225 F 180		C0766 F 40 C0979 FB 42 C4073 U 11 C4110 U 173		C6358 U 12 C0786 F 40 C4124 U 174				C2423 U 12 C4132 U 174		C2428 U 13 C4143 U 175					
18	SOLID																		
	STRANDED					C4111 U 173													
19	SOLID																		
	STRANDED											C2424 U 12 C4133 U 174		C2429 U 13 C4144 U 175					
20	SOLID																		
	STRANDED	C6508 B 24		C0747 F 39 C0960 FB 41 C4226 F 180		C0767 F 40 C0980 FB 42 C4075 U 11 C4112 U 173		C0787 F 40											
25	SOLID																		
	STRANDED	C0539 FB 43 C0948 FB 41		C0748 F 39 C0961 FB 41 C4227 F 180		C0768 F 40 C0981 FB 42 C4076 U 11 C4113 U 173						C2433 U 12 C4134 U 174		C2436 U 13 C4145 U 175					
30	SOLID																		
	STRANDED			C0749 F 39 C4228 F 180		C4077 U 11 C4114 U 173													
40	SOLID																		
	STRANDED			C0750 F 39 C4229 F 180		C4078 U 11 C4115 U 173													
50	SOLID																		
	STRANDED			C0751 F 39 C4230 F 180		C4079 U 11 C4116 U 173													

Multi-Paired Cable Product Finder

NO. PAIRS	STRAND TYPE	AWG 28		AWG 24		AWG 22		AWG 20		AWG 18			
		P/N	SHIELD	PAGE	P/N	SHIELD	PAGE	P/N	SHIELD	PAGE	P/N	SHIELD	PAGE
1	SOLID						C4008 U	9, 30					
	STRANDED				C0600 F	44	C3204 F-P	113			C6101 U	31	
					C0841 FB	47	C0720 F	44					
					C4841 FB	47	C4183 F	179					
					C4170 F	178	C4203 IF	181					
					C4209 F	178							
2	SOLID						C1670 F	32					
							C4010 U	30					
	STRANDED	C0804 FB	48		C0515 FB	50	C0550 F	34			C0560 F	34	
					C0601 F	44	C0570 IF	37			C0584 IF	37	
					C0620 FB	46	C0650 FB	46			C3362 F-P	114	
					C0829 FB	49	C0721 F	44			C6118 U	31	
					C0842 FB	47	C1338 B	144					
					C0890 F	45	C1350 IF	35					
					C0910 IF	54	C1352 IF	36					
					C0924 IFB	55	C1353 IF	36					
					C3028 F-P	116	C3156 IF-P	117					
					C3150 F-P	113	C3205 F-P	113					
					C3214 F-P	115	C3352 F-P	114					
					C4171 F	178	C4184 F	179					
					C4842 FB	47	C6010 U	30					
3	SOLID						C6035 IF	53					
	STRANDED	C0805 FB	48		C0516 FB	50	C0551 F	34	C6052 IF	51	C0561 F	34	
					C0602 F	44	C0571 IF	37	C6061 IF	147	C0585 IF	37	
					C0621 FB	46	C0651 FB	46			C6047 IF	51	
					C0830 FB	49	C0722 F	44			C6103 U	31	
					C0843 FB	47	C3157 IF-P	117					
					C0901 F	45	C3206 F-P	113					
					C0911 IF	54	C3353 F-P	114					
					C0925 IFB	55	C4185 F	179					
					C3029 F-P	116	C6014 U	30					
					C3153 F-P	113	C6040 IF	51					
					C3215 F-P	115							
					C4172 F	178							
					C4843 FB	47							
					C6065 IF	51							
4	SOLID						C1676 F	32					
							C4015 U	30					
	STRANDED	C0806 FB	48		C0517 FB	50	C0552 F	34	C1368 IF	52	C0562 F	34	
					C0603 F	44	C0572 IF	37			C0586 IF	37	
					C0831 FB	49	C0652 FB	46			C3364 F-P	114	
					C0844 FB	47	C0723 F	44			C6119 U	31	
					C0893 F	45	C3207 F-P	113					
					C0912 IF	54	C3354 F-P	114					
					C0926 IFB	55	C4186 F	179					
					C3030 F-P	116							
					C3151 F-P	113							
					C3216 F-P	115							
					C4173 F	178							
					C4844 FB	47							
4.5	SOLID												
	STRANDED				C3217 F-P	115							
5	SOLID										C6120 U	31	
	STRANDED	C0807 FB	48		C0518 FB	50	C0653 FB	46					
					C0604 F	44	C0724 F	44					
					C0623 FB	46	C4187 F	179					
					C0832 FB	49							
					C4174 F	178							
6	SOLID						C1671 F	32					
							C6036 IF	53					
	STRANDED				C0519 FB	50	C0553 F	34	C6053 IF	51	C0563 F	34	
					C0605 F	44	C0573 IF	37	C6062 IF	147	C0587 IF	37	
					C0624 FB	46	C0654 FB	46			C6048 IF	51	
					C0839 FB	49	C0725 F	44			C6106 U	31	
					C0899 F	45	C3208 F-P	113					
					C0913 IF	54	C3356 F-P	114					
					C3031 F-P	116	C4188 F	179					
					C3165 F-P	113	C6017 U	30					
					C3218 F-P	115	C6041 IF	51					
					C4175 F	178							
					C6066 IF	51							

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 **General Cable**

Multi-Paired Cable Product Finder

NO. PAIRS	STRAND TYPE	AWG 28			AWG 24			AWG 22			AWG 20			AWG 18		
		P/N	SHIELD	PAGE	P/N	SHIELD	PAGE	P/N	SHIELD	PAGE	P/N	SHIELD	PAGE	P/N	SHIELD	PAGE
7	SOLID															
	STRANDED	C0808 FB		.48	C0520 FB		.50	C0655 FB		.46						
					C0606 F		.44									
					C0625 FB		.46									
					C0833 FB		.49									
					C4176 F		.178									
8	SOLID															
	STRANDED				C0521 FB		.50	C0656 FB		.46				C6121 U		.31
					C0607 F		.44									
					C0626 FB		.46									
					C4177 F		.178									
9	SOLID							C1672 F		.32						
	STRANDED				C0608 F		.44	C0554 F		.34	C6054 IF		.51	C0564 F		.34
					C0914 IF		.54	C0574 IF		.37				C0588 IF		.37
					C4178 F		.178	C0726 F		.44				C6049 IF		.51
					C6067 IF		.51	C4189 F		.179				C6109 U		.31
								C6042 IF		.51						
10	SOLID															
	STRANDED	C0810 FB		.48	C0522 FB		.50	C0658 FB		.47						
					C0609 F		.44									
					C0628 FB		.46									
					C0835 FB		.49									
					C4179 F		.178									
11	SOLID															
	STRANDED				C0915 IF		.54	C6043 IF		.51						
12	SOLID															
	STRANDED	C0812 FB		.48	C0836 FB		.49	C6059 IF		.51	C6056 IF		.51	C6050 IF		.51
					C0916 IF		.54									
12.5	SOLID															
	STRANDED				C0523 FB		.50	C0660 FB		.46						
					C0630 FB		.46									
					C0897 F		.45									
					C3152 F-P		.113									
15	SOLID							C1673 F		.32						
	STRANDED				C0524 FB		.50	C0728 F		.44	C6058 IF		.51	C6051 IF		.51
					C0610 F		.44	C4190 F		.179						
					C0917 IF		.54	C6044 IF		.51						
					C4180 F		.178									
17	SOLID															
	STRANDED							C6060 IF		.51						
18	SOLID															
	STRANDED				C0525 FB		.50									
19	SOLID															
	STRANDED				C0611 F		.44	C6045 IF		.51						
					C4181 F		.178									
25	SOLID															
	STRANDED				C0526 FB		.50									
					C0612 F		.44									
					C4182 F		.178									
27	SOLID															
	STRANDED							C6046 IF		.51						
51	SOLID							C6451 F		.33						
	STRANDED															

NEC Substitution Chart

Communication wire and cable for premise installations in accordance with Article 800, and other applicable parts of the National Electrical Code (NEC), latest issue. Communication wire and cables for Canada are in accordance with the harmonized Canadian Standard Association C22.2 No. 214, Underwriters Laboratories UL 444, latest issue.

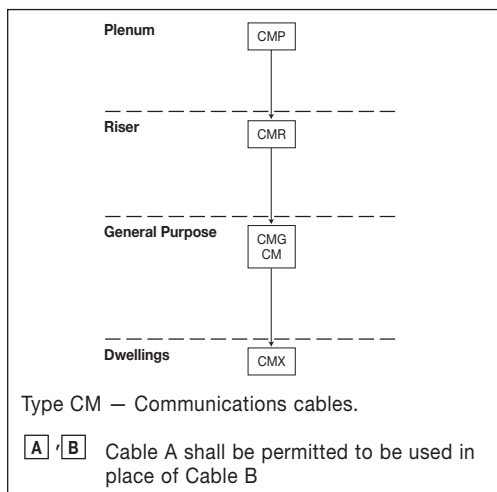
FIRE RESISTANCE LEVEL	TEST REQUIREMENT	NEC ARTICLE			
		800	725	760	820
(Highest) Plenum Cables	NFPA 262 (Steiner tunnel) CSA-CMP (Steiner tunnel)	CMP	CL3P CL2P	FPLP	CATVP
Riser Cables Multiple Floors	UL-1666 (Vertical Shaft) CSA-CMG (Vertical Tray)		CL3R CL2R	FPLR	CATVR
General-Purpose Cables	UL-1581 (Vertical Tray)	CMG	CL3	FPL	CATV
(Lowest) Residential Cables Restricted Use	CSA-CMG (Vertical Tray) UL-1581 VW-1	CMX	CL2 CL3X		CATVX

Notes: 1. Cables with a higher fire resistance level may be substituted for those with a lower fire resistance level.

2. Non-fire rated outside plant telephone cables may not run outside of a rigid metal conduit more than 50 feet from the point of entrance into a building.

3. Cables rated CMG or CM may be used in runs penetrating one floor. (NEC 800-53)

Figure 800-53, Cable Substitution Hierarchy



Article 800

Table 800-53. Cable Uses and Permitted Substitutions

CABLE TYPE	USE	REFERENCES	PERMITTED SUBSTITUTIONS
CMP	Communications plenum cable	800-53(a)	
CMR	Communications riser cable	800-53(b)	CMP
CMG, CM	Communications general purpose cable	800-53(d)	CMP, CMR, MPG, MP
CMX	Communications cable, limited use	800-53(d)	CMP, CMR, CMG, CM

Note: See Figure 800-53, Cable Substitution Hierarchy

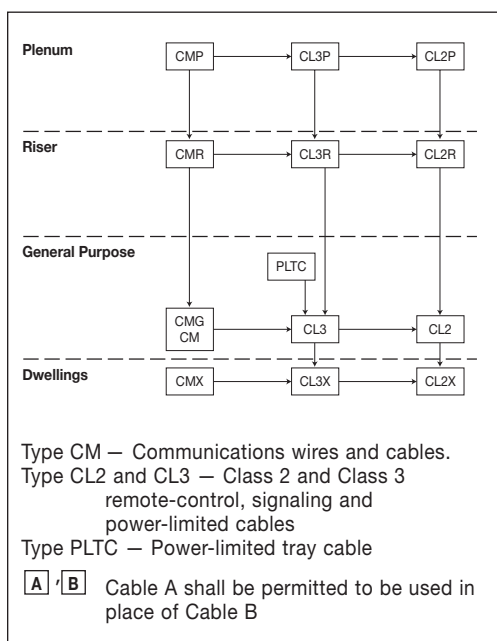
Article 725

Table 725-61. Cable Uses and Permitted Substitutions

CABLE TYPE	USE	REFERENCES	PERMITTED SUBSTITUTIONS
CL3P	Class 3 plenum cable	725-61(a)	CMP
CL2P	Class 2 plenum cable	725-61(a)	CMP, CL3P
CL3R	Class 3 riser cable	725-61(b)	CMP, CL3P, CMR
CL2R	Class 2 riser cable	725-61(b)	CMP, CL3P, CL2P, CMR, CL3R
PLTC	Power-limited tray cable	725-61(c) and (d)	
CL3	Class 3 cable	725-61(b), (e) and (f)	CMP, CL3P, CMR, CL3R, CMG, CM, PLTC
CL2	Class 2 cable	725-61(b), (c) and (f)	CMP, CL3P, CL2P, CMR, CL3R, CL2R, CMG, CM, PLTC, CL3
CL3X	Class 3 cable, limited use	725-61(b) and (e)	CMP, CL3P, CMR, CL3R, CMG, CM, PLTC, CL3, CMX
CL2X	Class 2 cable, limited use	725-61(b) and (e)	CMP, CL3P, CL2P, CMR, CL3R, CL2R, CMG, CM, PLTC, CL3, CL2, CMX, CL3X

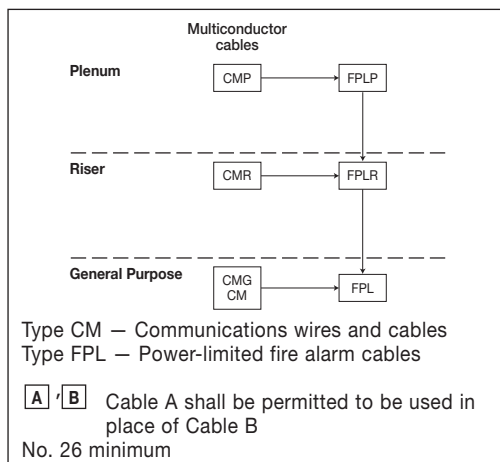
Note: See Figure 725-61, Cable Substitution Hierarchy

Figure 725-61, Cable Substitution Hierarchy



NEC Substitution Chart

Figure 760-61, Cable Substitution Hierarchy



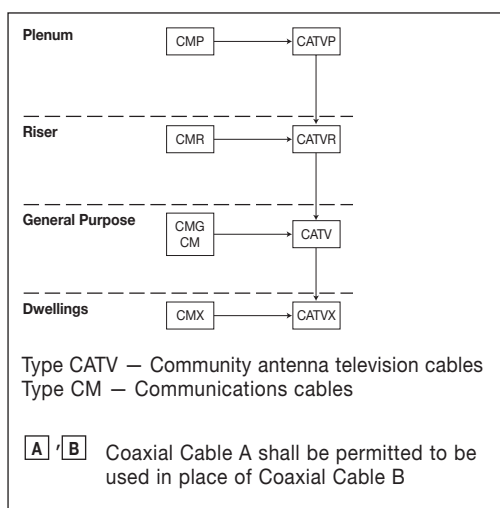
Article 760

Table 760-61. Cable Uses and Permitted Substitutions

CABLE TYPE	USE	REFERENCES	PERMITTED SUBSTITUTIONS	
			MULTICONDUCTOR	COAXIAL
FPLP	Power-limited fire alarm plenum cable	760-61(a)	CMP	MPP
FPLR	Power-limited fire alarm riser cable	760-61(b)	CMP, FPLP, CMR	MPP, MPR
FPL	Power-limited fire alarm cable	760-61(c)	CMP, FPLP, CMR, FPLR, CMG, CM	MPP, MPR, MPG, MP

Note: See Figure 760-61, Cable Substitution Hierarchy

Figure 820-53, Cable Substitution Hierarchy



Article 820

Table 820-53. Coaxial Cable Uses and Permitted Substitutions

CABLE TYPE	USE	REFERENCES	PERMITTED SUBSTITUTIONS	
			MULTICONDUCTOR	COAXIAL
CATVP	Coaxial plenum cable	820-53(a)	CMP	
CATVR	Coaxial riser cable	820-53(b)	CATVP, CMP, CMR	
CATV	Coaxial general purpose cable	820-53(c)	CATVP, CMP, CATVR, CMR, CMG, CM	
CATVX	Coaxial cable, limited use	820-53(c)	CATVP, CMP, CATVR, CMR, CATV, CMG, CM	

Note: See Figure 820-53, Cable Substitution Hierarchy

Agency Symbols

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	UL Listed Mark for the United States	 CMP Certified Canadian Standard Association	CSA CMP
	UL Listed Mark for Canada	 CMG Certified Canadian Standard Association	CSA CMG
	UL Listed Mark for Canada and the United States	 CMH Certified Canadian Standard Association	CSA CMH
	UL Recognized Component Mark for the United States	 Designed to Meet UL 910 Test For Flame Propagation & Smoke Density Underwriters Laboratories Inc.	UL 910 Steiner Flame Test
 TIA/EIA 568A Cat. 5	IA/EIA 568A Cat. 5	 Designed to Meet UL Vertical Tray Flame Test Underwriters Laboratories Inc.	UL Vertical Tray Flame Test
 TIA/EIA 568A Cat. 3	TIA/EIA 568A Cat. 3	 Designed to Meet UL 1666 Flame Test Underwriters Laboratories Inc.	UL 1666 Riser Flame Test
	California State Fire Marshal		IMSA
 RoHS Compliant Directive 2002/95/EC	RoHS Compliant Directive 2002/95/EC		

Put-Ups and Color Codes

PUT-UP CODES

Put-Up Code	Packaging	Put-Up Code	Packaging
03	3 ft Coax w/ Connector HD	70	Cord Hanked, coil w/cuff
06	6 ft Coax w/ Connector HD	73	Cord Set, long length
11	50 ft Spool	74	12' Clamshell w/ connectors
12	100 ft Spool	75	25' Clamshell w/ connectors
13	Clamshell	76	50' Clamshell w/ connectors
15	250 ft Spool	77	100' Clamshell w/ connectors
18	500 ft Spool	78	15,000 ft Reel
20	900 ft Spool	79	8,000 ft Reel
21	1000 ft Spool	80	Blister Pack w/ connectors
24	2500 ft Spool	85	250 ft Coil
25	500 ft Pull Pac	88	12' Sleeve w/o connector
26	5000 ft Spool	89	25' Sleeve w/o connector
30	1000 ft Pull Pac	90	50' Sleeve w/o connector
32	150 ft Reel	91	75' Sleeve w/o connector
33	100 ft Reel	92	100' Sleeve w/o connector
34	200 ft Coil	93	Bulk Reel
35	250 ft Reel	94	Display
36	300 ft Reel	96	Wiring Devise, Skin Pack
38	500 ft Reel	99	Factory Reel
39	500 Meter = 1,640 ft	XX	Various Lengths
40	Long Length Reel		
41	1000 ft Reel	A1	250 ft Spool Pack
42	1500 ft Reel	A2	500 ft Spool Pack
43	2000 ft Reel	A3	1000 ft Spool Pack
44	2500 ft Reel	A4	2000 ft Spool Pack
45	4000 ft Reel	R5	250 ft Spool, Retail
46	5000 ft Reel	R8	500 ft Spool, Retail
47	7500 ft Reel		
48	10,000 ft Reel		
49	1600 ft Reel		
50	1000 Meter (3280')		
51	4500 ft Reel		
52	3000 ft Reel		
53	25 ft Cuff		
54	12 ft Clamshell		
55	25 ft Clamshell		
56	50 ft Clamshell		
57	100 ft Clamshell		
58	12 ft Sleeve w/connectors		
59	25 ft Sleeve w/connectors		
60	Cord Hanked, coil w/cuff		
61	Cord Set Box		
62	Cord Set Bag		
63	Cord Set Sleeve		
64	50 ft Sleeve w/connectors		
65	100 ft Sleeve w/connectors		
66	50 ft Cuff		
67	100 ft Cuff		
68	3500 ft Reel		
69	Retail Spool Pac		

JACKET COLOR CODES

Put-Up Code	Packaging	Put-Up Code	Packaging
00	Uninsulated	69	Maple
01	Black	70	Walnut
02	White	71	Wrought Iron
03	Red	72	Copper
04	Orange	73	White/Black/Red
05	Yellow	74	White/Black/Orange
06	Green	75	White/Black/Yellow
07	Dark Blue	76	White/Black/Green
08	Brown	77	White/Black/Blue
09	Maroon	78	White/Black/Brown
10	Gray	79	White/Black/Violet
11	Antique Gold	80	White/Black/Gray
12	Ivory	81	Black/Red/White
13	Pink	82	Orange/Green/Black
14	Light Green	86	Natural
15	Clear Gold	88	Tan
16	Light Blue	90	Clear
17	Beige	91	Clear Brown
18	Light Brown	92	Clear Blue
19	Purple	93	Clear Red
20	Clear Silver	96	Twisted Cond. No Jkt
21	Light Purple	97	1 Stripe
22	Neon Green	98	2 Stripes
23	Mint Green	99	Assorted Colors
24	Raspberry		
25	Gold		
31	White/Black		
33	White/Red		
34	White/Orange		
35	White/Yellow		
36	White/Green		
37	White/Blue		
38	White/Brown		
39	White/Violet		
40	White/Gray		
41	Red/Green		
42	Green/White		
43	Blue/Red		
44	Blue/White		
45	Orange/Red		
46	Orange/Black		
47	Yellow/White		
48	Yellow/Black		
49	Blue/White		
50	Blue/Black		
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62	Silver Gray (Lt Gray)		
66	Light Green		
67	Lime Green		
68	Birch		

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