

Product change notification (PCN)

Title / short description	Change of M12 A-coded 3-/4-/5-pos. to Advanced Shielding Technology
Affected article category	Sensor/actuator cabling
Change category	Form and appearance
Change number	CBF240010-0
Reason for PCN/PDN Revision	

Purpose/objective of the change

Change of M12 A-coded 3-/4-/5-pos. to Advanced Shielding Technology

Detailed description of the change

The previously used shielding sleeves will be replaced by Advanced Shielding Technology (metal molding). As a result, the molding will be somewhat thinner and the item will be technically improved. Furthermore, the M12 SPEEDCON thread (if applicable) will be replaced by the M12 standard full thread. In addition, the color of the grip will be changed from green (where applicable) to black.

Identifying characteristics

See attachment

Start of Production (SOP)	-	Last Time Delivery (LTD)	-
Effective date (EOP)	2024-08-15	End of Service (EOSR)	-
End of Sales (EOS)	-		

Short-term change (< 6 months) or discontinuation (< 12 months), due to:

- | | | |
|---|--|--|
| ☐ Software / Firmware Bugfix | ☐ Short-term delivery stop by supplier | ☐ Short-term recall by supplier |
| ☐ Force majeure | ☒ Product improvement with customer benefits | |
| ☐ Others | | |

Attachments

- CBF240010-Future product changes.pptx
- CBF240010-Description change_M12 A-coded.xlsx
- Material_list.csv
- PCN-CBF240010-0_DE
- PCN-CBF240010-0_EN

Material list

Item no.	Item Type	Hardware old	Firmware new	Item no.	Substitute item Type
1403596	SAC-5P-MR/0,3-4PPUR/FR SH SCH	2	3		
1070625	SAC-4P-M12MS/0,2-PUR/5PFSSH 24	0	1		
1162186	SAC-5PM12MS/2-PUR/8PNCM12FS SH	2	3		
1045408	SAC-5P-MS/10,0-PUR SH SCO SK	1	2		
1402815	SAC-4P- 5,0-PUR/M12FS SH BE	3	4		
1529661	SAC-5P-M12MS/10,0-PUR/M12FS SH	4	5		
1693092	SAC-5P-M12MS/ 5,0-PUR/M12FS SH	4	5		
1513910	SAC-5P-M12MS/ 2,0-PUR/M12FS SH	4	5		
1445059	SAC-5P-M12MS/7,5-PUR/M12FSSH BK	1	2		
1445046	SAC-5P-M12MS/ 5-PUR/M12FS SHBK	1	2		
1530854	SAC-5P-M12MS/25,0-PUR/M12FS SH	4	5		
1445017	SAC-5P-M12MS/ 1-PUR/M12FS SHBK	1	2		
1530841	SAC-5P-M12MS/15,0-PUR/M12FS SH	4	5		
1525814	SAC-5P-M12MS/ 2,0-PUR SH	4	5		
1527757	SAC-5P-10,0-PVC/M12FR SH BK	2	3		
1535668	SAC-5P-M12MS/20,0-PUR/M12FS SH	4	5		
1284172	SAC-5P-M12MR/0,17-PUR/M12FR SH	1	2		
1012320	SAC-5P-M12MS/ 7,5-PUR/M12FS SH	1	2		
1445020	SAC-5P-M12MS/ 2-PUR/M12FS SHBK	1	2		
1012022	SAC-5P- 0,6-PUR/M12FR SH	1	2		
1511569	SAC-5P-M12MS/ 4,0-PUR/M12FS SH	4	5		
1527744	SAC-5P-10,0-PVC/M12FS SH BK	2	3		
1006687	SAC-4P-45,0-500/M12FS SH	0	1		
1565696	SAC-4P- 5,0-100/M12FR SH	1	2		
1424080	SAC-5P-M12MS/30,0-PUR SH	1	2		
1424081	SAC-5P-M12MS/20,0-PUR SH	1	2		
1426507	SAC-5P-M12MS/ 5,0-PVC SH	0	1		
1513415	SAC-5P-30,0-PUR/M12FR SH	3	4		
1422611	SAC-5P-50,0-PUR/M12FS SH	2	3		
1530809	SAC-5P-M12MS/30,0-PUR/M12FS SH	4	5		
1189996	SAC-5P-7,15-PUR/M12FS SH	0	1		
1576708	SAC-5P-12,0-PUR/M12FS SH BK	2	3		
1553402	SAC-5P-60,0-PUR/M12FS SH	0	1		
1107409	SAC-5P-M12MS/45,0-PUR/M12FS SH	0	1		
1565706	SAC-4P-10,0-100/M12FR SH	1	2		
1530838	SAC-5P-M12MS/ 8,0-PUR/M12FS SH	4	5		
1353906	SAC-5P- 20,0-PVC/M12FS SH	0	1		

Item no.	Item Type	Hardware old	Firmware new	Item no.	Substitute item Type
1529959	SAC-5P-M12MS/ 0,5-PUR SH	5	6		
1045556	SAC-5P-MR/ 0,8-PUR/FR SH SCO	1	2		
1402338	SAC-4P-10,0-PVC/M12FS SH	1	2		
1457585	SAC-5P-M12MS/0,2-PUR SH BK	0	1		
1045558	SAC-5P-MR/ 1,1-PUR/FR SH SCO	1	2		
1527760	SAC-5P-20,0-PVC/M12FR SH BK	2	3		
1440384	SAC-5P-MS/ 5,0-PURSH/FS BK PHN	2	3		
1440371	SAC-5P-MS/ 2,0-PURSH/FS BK PHN	2	3		
1440397	SAC-5P-MS/10,0-PURSH/FS BK PHN	2	3		
1226661	SAC-5P-M12MS/0,25PUR/FSSH DE-V	0	1		
1006700	SAC-4P-45,0-500/M12FR SH	0	1		
1409685	SAC-5P-M12MS/ 0,8-PUR SH 0,16	1	2		
1058963	SAC-5P-M12MS/60,0-PUR/M12FS SH	1	2		
1068777	SAC-3P-M12MS/0,15-PUR/FRSH SMW	1	2		
1287212	SACC-5P-P12MS/1,5-PUR/M12FS SH	2	3		
1287362	SACC-5P-P12MS/4,1-PUR/M12FS SH	3	4		
1435545	SAC-4P-M12MS/0,15-PUR/FS 5P SH	0	1		
1070401	SAC-4P-M12MS/0,2-PUR/5PFSSH 34	0	1		
1682935	SAC-5P- 1,5-PUR/M12FS SH	4	5		
1061820	SAC-4P- 7,0-500/FR SH SCO J-MB	1	2		
1550834	SAC-5P- 5,0-100/M12FS SH RE	2	3		
1682964	SAC-5P- 1,5-PUR/M12FR SH	3	4		
1420314	SAC-5P-M12MS/ 5,0-PUR/FS SH UK	1	2		
1403563	SAC-4P-M12FS/10-PUR/FSSH BK OC	1	2		
1550847	SAC-5P-10,0-100/M12FS SH RE	2	3		
1682980	SAC-5P- 5,0-PUR/M12FR SH	4	5		
1081800	SAC-3P-M12MR/ 0,3-PUR SH D-MS	1	2		
1404585	SAC-5P-M12MS/ 3,0-PUR/M12MS SH	1	2		
1520518	SAC-4P- 5,0-PUR/M12FS SH LUE	3	4		
1682948	SAC-5P- 3,0-PUR/M12FS SH	5	6		
1682977	SAC-5P- 3,0-PUR/M12FR SH	4	5		
1045481	SAC-5P-MS/10,0-PUR/FS SH SK	1	2		
1682951	SAC-5P- 5,0-PUR/M12FS SH	4	5		
1344241	SAC-5P- 2,0-PUR/M12FS SH F	0	1		
1500758	SAC-5P-10,0-PUR/M12FS SH	5	6		
1500761	SAC-5P-10,0-PUR/M12FR SH	5	6		
1528701	SAC-5P-20,0-PUR/M12FS SH	3	4		
1422612	SAC-5P-30,0-PUR/M12FS SH	2	3		

Item no.	Item Type	Hardware / Firmware		Item no.	Substitute item Type
old	new				
1682744	SAC-5P-M12MS/ 3,0-PUR SH	6	7		
1501003	SAC-5P-M12MS/ 0,3-PUR/M12FR SH	4	5		
1500732	SAC-5P-M12MS/10,0-PUR SH	6	7		
1501058	SAC-5P-M12MS/ 3,0-PUR/M12FR SH	5	6		
1500910	SAC-5P-M12MS/ 3,0-PUR/M12FS SH	6	7		
1682731	SAC-5P-M12MS/ 5,0-PUR SH	5	6		
1404326	SAC-5P-M12FS/ 1,5-PUR/M12FS SH	1	2		
1500884	SAC-5P-M12MS/ 0,3-PUR/M12FS SH	3	4		
1095299	SAC-5P-M12MS/1,0-PUR/M12MS SH	0	1		
1501029	SAC-5P-M12MS/ 0,6-PUR/M12FR SH	4	5		
1682728	SAC-5P-M12MS/ 1,5-PUR SH	6	7		
1402998	SAC-5P-15,0-PUR/M12FS SH	1	2		
1500897	SAC-5P-M12MS/ 0,6-PUR/M12FS SH	5	6		
1501045	SAC-5P-M12MS/ 1,5-PUR/M12FR SH	5	6		
1500907	SAC-5P-M12MS/ 1,5-PUR/M12FS SH	5	6		
1413223	SAC-5P-M12MS/0,3-PUR/MS SH BK	1	2		
1408156	SAC-5P-M12MS/0,6-PUR/M12MS SH	1	2		
1430342	SAC-4P-M12FR/50,0-PVC/M12FR SH	0	1		
1403564	SAC-4P- M12FS/5-PUR/FSSH BK OC	1	2		
1536049	SAC-3P-M12MS-M12FS SH/.../...	2	3		
1536052	SAC-3P-M12MS-M12FR SH/.../...	2	3		
1536065	SAC-3P-M12MR-M12FS SH/.../...	2	3		
1536078	SAC-3P-M12MR-M12FR SH/.../...	2	3		
1697425	SAC-3P-M12MS SH/.../...	2	3		
1697441	SAC-3P-M12FS SH/.../...	2	3		
1697454	SAC-3P-M12FR SH/.../...	2	3		
1536081	SAC-4P-M12MS-M12FS SH/.../...	3	4		
1536094	SAC-4P-M12MS-M12FR SH/.../...	3	4		
1536104	SAC-4P-M12MR-M12FS SH/.../...	4	5		
1536117	SAC-4P-M12MR-M12FR SH/.../...	4	5		
1697467	SAC-4P-M12MS SH/.../...	3	4		
1697483	SAC-4P-M12FS SH/.../...	3	4		
1697496	SAC-4P-M12FR SH/.../...	3	4		
1536120	SAC-5P-M12MS-M12FS SH/.../...	3	4		
1536133	SAC-5P-M12MS-M12FR SH/.../...	3	4		
1536146	SAC-5P-M12MR-M12FS SH/.../...	3	4		
1536159	SAC-5P-M12MR-M12FR SH/.../...	3	4		
1697506	SAC-5P-M12MS SH/.../...	4	5		
1697522	SAC-5P-M12FS SH/.../...	3	4		

Item no.	Item Type	Hardware old	Firmware new	Item no.	Substitute item Type
1697535	SAC-5P-M12FR SH/.../...	3	4		
1697438	SAC-3P-M12MR SH/.../...	2	3		
1697470	SAC-4P-M12MR SH/.../...	4	5		
1697519	SAC-5P-M12MR SH/.../...	4	5		
1403804	SAC-5P-75,0-PUR/M12FS SH	1	2		
1178628	SAC-5P-M12MS/50,0-PUR SH	0	1		
1404964	SAC-5P-M12MS/50,0-PUR/M12FS SH	1	2		
1402818	SAC-5P- 5,0-PUR/M12FS SH BE	4	5		
1402819	SAC-5P-10,0-PUR/M12FS SH BE	3	4		
1226564	SAC-5P-M12MS/1,0-PUR/FSSH DE-V	0	1		
1045480	SAC-5P-MS/ 5,0-PUR/FS SH SK	1	2		
1520547	SAC-5P- 5,0-PUR/M12FS SH LUE	3	4		
1420316	SAC-5P-M12MS/ 5,0-PUR/FR SH UK	1	2		
1226608	SAC-5P-M12MS/2,0-PUR/FSSH DE-V	0	1		
1420308	SAC-5P-M12MR/ 5,0-PUR/FR SH UK	2	3		
1410699	SAC-4P-10,0PUR/M12FR SH S	1	2		
1420315	SAC-5P-M12MR/ 5,0-PUR/FS SH UK	3	4		
1408193	SAC-4P-10,0-PUR/M12FS SMK BR	3	4		
1402824	SAC-4P- 2,0-PUR/M12FR SH BE	3	4		
1520550	SAC-5P-10,0-PUR/M12FS SH LUE	3	4		
1423606	SAC-4P-M12MS/0,152-PURSH DK-KK	3	4		
1402825	SAC-4P- 5,0-PUR/M12FR SH BE	3	4		
1036979	SAC-5P- 0,4-PUR/M12FS SO SH SK	1	2		
1520521	SAC-4P-10,0-PUR/M12FS SH LUE	3	4		
1520631	SAC-5P- 5,0-PUR/M12FR SH LUE	3	4		
1404244	SAC-4P-10,0-PUR/M12FR SH BE	2	3		
1459246	SAC-5P-M12MS/1,5-PUR/FSSH DE-V	0	1		
1408194	SAC-4P-15,0-PUR/M12FS SMK BR	3	4		
1414216	SAC-5P-10,0-PUR/M12FS SH FE	5	6		
1402826	SAC-5P- 5,0-PUR/M12FR SH BE	3	4		
1520615	SAC-4P-10,0-PUR/M12FR SH LUE	3	4		
1414209	SAC-5P- 5,0-PUR/M12FS SH FE	6	7		
1520505	SAC-4P- 2,0-PUR/M12FS SH LUE	3	4		
1090014	SAC-5P-15,0-PUR/M12FS SH FE	2	3		
1404884	SAC-5P-M12MS/10,0-PVC SH OBS	0	1		
1519914	SAC-4P- 5,0-PUR/M12FR SH LUE	3	4		
1520644	SAC-5P-10,0-PUR/M12FR SH LUE	3	4		
1402817	SAC-5P- 2,0-PUR/M12FS SH BE	3	4		
1520534	SAC-5P- 2,0-PUR/M12FS SH LUE	4	5		

Item no.	Item Type	Hardware old	Firmware new	Item no.	Substitute item Type
1408192	SAC-4P-5,0-PUR/M12FS SMK BR	3	4		
1405173	SAC-5P-M12MS/1-PUR/M12FRSH LUE	2	3		
1445169	SAC-4P- 1,5-PUR/M12FS SH LUE	2	3		
1420303	SAC-5P- 5,0-PUR/FR SH UK	1	2		
1550821	SAC-5P- 2,0-100/M12FS SH RE	2	3		
1520440	SAC-5P-M12MS/ 2,0-PUR SH LUE	4	5		
1572087	SAC-5P-20,0-PUR/M12FS SH HBM	3	4		
1074995	SAC-5P-M12MS/6,0-PUR/ M12FSSHUK	0	1		
1410585	SAC-5P-M12MS/10,0-PUR SH P+F	1	2		
1272899	SAC-5P-M12MS/0,265-PURSH TA SN	0	1		
1520453	SAC-5P-M12MS/ 5,0-PUR SH LUE	4	5		
1409018	SAC-5P-1,85-PUR/M12FR SH D-HT	2	3		
1408496	SAC-5P-15,0-PUR/M12FR SH LUE	3	4		
1420309	SAC-5P-M12MS/ 2,0-PUR/FS SH UK	1	2		
1425248	SAC-5P-10,13-PUR/M12FS SH EU	3	4		
1404329	SAC-5P-M12MS/5-PUR/M12FSSH LUE	2	3		
1404913	SAC-4P-15,0-PUR/M12FR SH BE	2	3		
1422721	SAC-5P-M12MS/ 2,0-PUR SH OBS	1	2		
1514466	SAC-5P-M12MS/4-PUR/M12FSSH LUE	0	1		
1514457	SAC-5P-M12MS/3-PUR/M12FSSH LUE	0	1		
1520411	SAC-4P-M12MS/ 2,0-PUR SH LUE	4	5		
1425468	SAC-5P-0,62-PUR/M12FRAE X21 NX	1	2		
1519541	SAC-5P-M12MS/ 6,0-PUR SH LUE	0	1		
1425466	SAC-5P-0,62-PUR/M12FRAE X11 NX	1	2		
1520466	SAC-5P-M12MS/10,0-PUR SH LUE	5	6		
1407933	SAC-5P- 2,5-PUR/M12FR SH W3 NX	2	3		
1422722	SAC-5P-M12MS/ 3,0-PUR SH OBS	1	2		
1520592	SAC-4P- 2,0-PUR/M12FR SH LUE	3	4		
1520628	SAC-5P- 2,0-PUR/M12FR SH LUE	3	4		
1407930	SAC-5P- 2,5-PUR/M12FR SH W5 NX	2	3		
1572029	SAC-5P- 0,7-PUR/M12FS SH KE	3	4		
1056379	SAC-5P-0,23-PUR/M12FS SH LUE	2	3		
1425464	SAC-5P-0,62-PUR/M12FRAE X31 NX	1	2		
1407931	SAC-5P- 2,5-PUR/M12FR SH W4 NX	3	4		
1401155	SAC-5P- 5,0-PUR/FS SH SCO SIS	2	3		
1405723	SAC-5P-1,5-PUR/M12FR SCO SH SK	1	2		

Item no.	Item Type	Hardware / Firmware		Item no.	Substitute item Type
old	new				
1405719	SAC-5P-1,5-PUR/M12FS SCO SH SK	1	2		
1404963	SAC-5P-12,0-PUR/M12FS SH BE	2	3		
1423935	SAC-5P-25,11-PUR/M12FS SH EU	4	5		
1019327	SAC-5P-M12MS/ 3,0-PUR SH BR	2	3		
1420313	SAC-5P-M12MS/ 4,0-PUR/FS SH UK	1	2		
1488180	SAC-5P-M12MS/3,0-PUR/FS SH FI-VS	0	1		
1402068	SAC-5P-M12MS/4,5-PUR/ M12MSSHMI	1	2		
1375650	SAC-5P-M12MS/1PUR/M12FS FSNCSH	1	2		
1402586	SAC-5P-M12MS/2,4-PUR/ M12MSSHMI	1	2		
1075002	SAC-5P-M12MS/ 5,0-PUR SH UK	0	1		
1412392	SAC-5P-M12MS/0,3-PUR/FR SH LUE	2	3		
1075630	SAC-5P-15,0-PUR/M12FS SH S-AP	1	2		
1422307	SAC-5P-2,0-PVC/M12FS SH SK	0	1		
1370926	SAC-4P-M12MS/1,0-PUR/FR SH IFM	0	1		
1370477	SAC-4P-M12MR/5-PUR/FS SH NCIFM	0	1		
1402816	SAC-4P-10,0-PUR/M12FS SH BE	4	5		
1402303	SAC-4P- 2,0-PUR/M12FS SH BE	4	5		
1539127	SAC-4P-M12FR20,0PVC/M12FR SH SO	1	2		
1520424	SAC-4P-M12MS/ 5,0-PUR SH LUE	4	5		
1422998	SAC-3P-11,0-PUR/M12FS SH LUE	1	2		
1410096	SAC-4P-50,0-PUR/M12FS SMK BR	1	2		
1419487	SAC-3P-M12MS/5,0-PUR/FR SH S-L	1	2		
1408763	SAC-4P-20,0-PUR/M12FS SMK BR	2	3		
1520479	SAC-3P- 2,0-PUR/M12FS SH LUE	4	5		
1520482	SAC-3P- 5,0-PUR/M12FS SH LUE	4	5		
1520563	SAC-3P- 2,0-PUR/M12FR SH LUE	3	4		
1412429	SAC-3P-M12MS/ 2,0-PUR SH LUE	2	3		

Advanced Shielding Technology[®]

Designed by PHOENIX CONTACT

**The new dimension of shielding
for assembled M8 and M12
circular connectors**



Change of A-coded cable assemblies to Advanced Shielding Technology

Advanced Shielding Technology from Phoenix Contact is the innovative shielding concept for sensor/actuator cabling. The large-area, material-bonding 360° shield connection is unique on the market and optimizes the current design of M8 and M12 connectors.

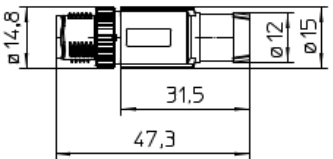
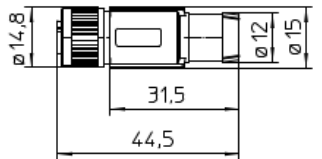
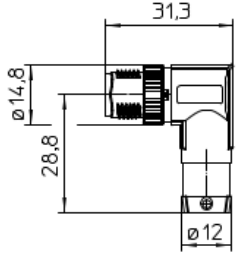
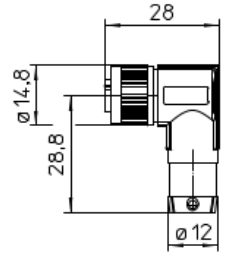
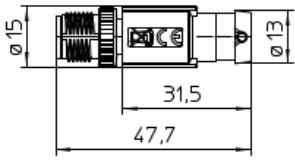
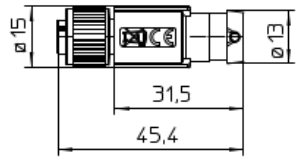
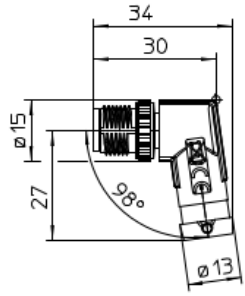
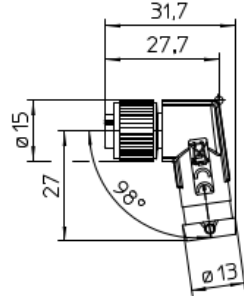
With Advanced Shielding Technology you are investing in reliable data, signal, and power transmission for the factory automation of the future.

The next slides show you the change of the current design of M12 A-coded cable assemblies and describe the advantages of the unique Advanced Shielding Technology.

CBF240010

Change of A-coded cable assemblies to Advanced Shielding Technology

Size of the connector heads

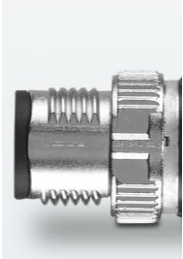
current design 			
new AST design 			

CBF240010

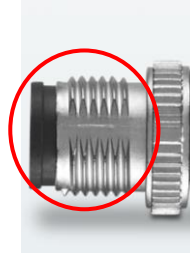
Change of A-coded cable assemblies to Advanced shielding technology

Speedcon (if applicable) to standard M12 thread

Speedcon – Current design (if applicable)



Standard full thread – New design



CBF240010

Change of A-coded cable assemblies to Advanced shielding technology

Color of connector head & CE and WEEE mark

Green handle body – Current design (if applicable)



Black handle body – New design



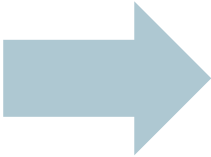
Additional to the brand logo of Phoenix Contact (marked red), the grip body gets the CE mark and the WEEE logo on the other side to be compliant with the european regulations.

Change of A-coded cable assemblies to Advanced Shielding Technology

Article description from Speedcon to Standard M12

In case of the change from Speedcon to Standard M12 knurl, the article description has to be changed.

Example:

SAC-5P-MR/ 1,1-PUR/FR SH SCO  SAC-5P-MR/ 1,1-PUR/FR SH

The new descriptions of each articles are included in the attached excel sheet.

- Notice: Not all articles are affected by a change in description

How it all started

Current shielding concept

Cut cable



Brush shield



Push it over the cable jacket



Paste a foil on the cable



Cut the shield



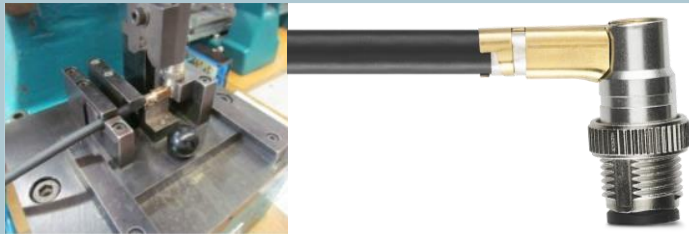
Fit the shield sleeve on the cable



Prepare hand press

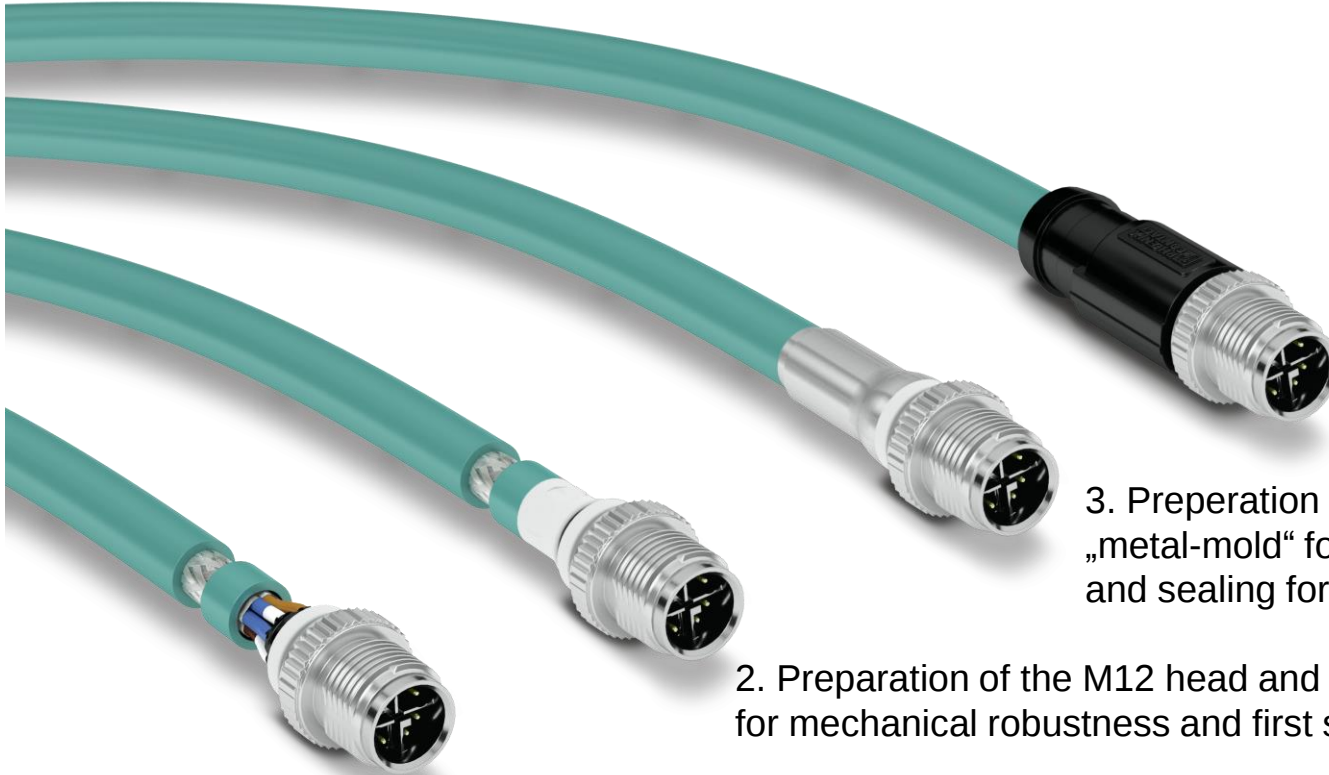


Crimp the lid



Presentation of the new shielding concept

Realization



1. Assembling of the M12 head with standard crimp contacts

2. Preparation of the M12 head and wires with the special „pre-mold“ for mechanical robustness and first sealing for IP protection

3. Preparation of the M12 head and cables shield with the special „metal-mold“ for 360° shielding connection, mechanical robustness and sealing for IP protection

4. Preparation of the M12 handle body with standard overmolding

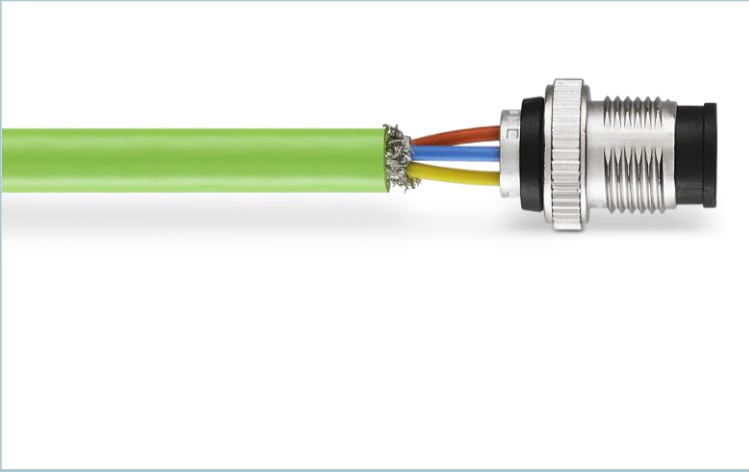
*Please note that the realization regarding the coding is the same even M12 x-coded is shown in the illustrations

Presentation of the new shielding concept

Realization



Cable Preparation



Pre-Mold



Metal-Mold



The ideal shield sleeve does not require a crimp



Totally reliable
at high mechanical loads



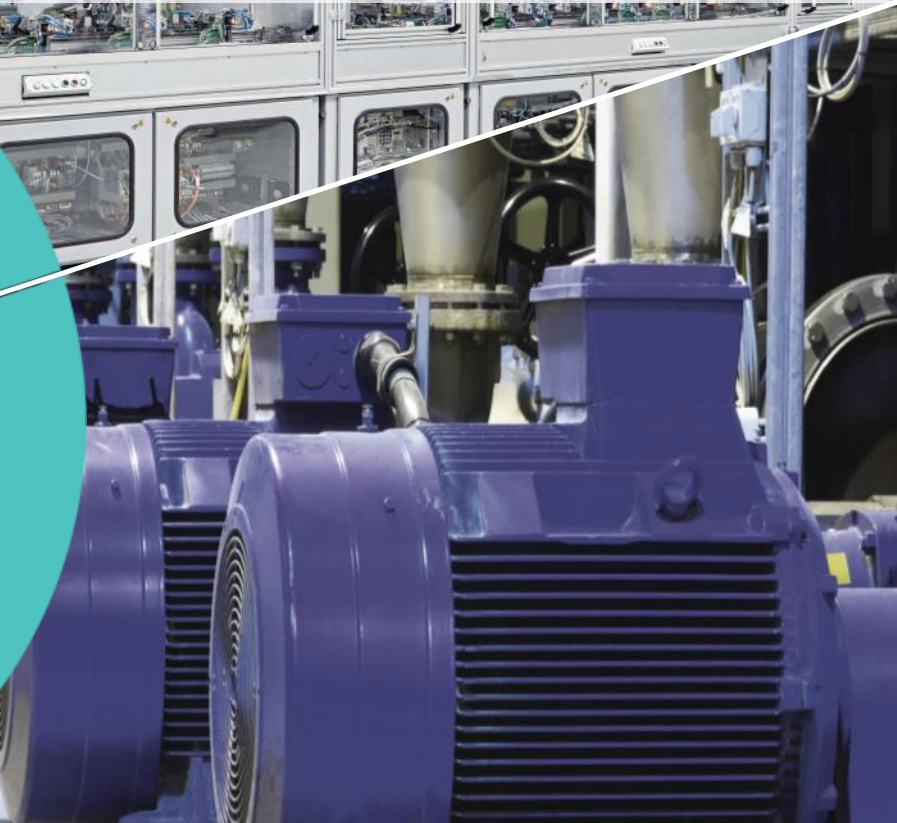
Totally protected
Optimum heat dissipation and safe current flow



Totally robust
even when exposed to extreme environmental influences



Totally Future-proof
data transmission and reliable EMC protection

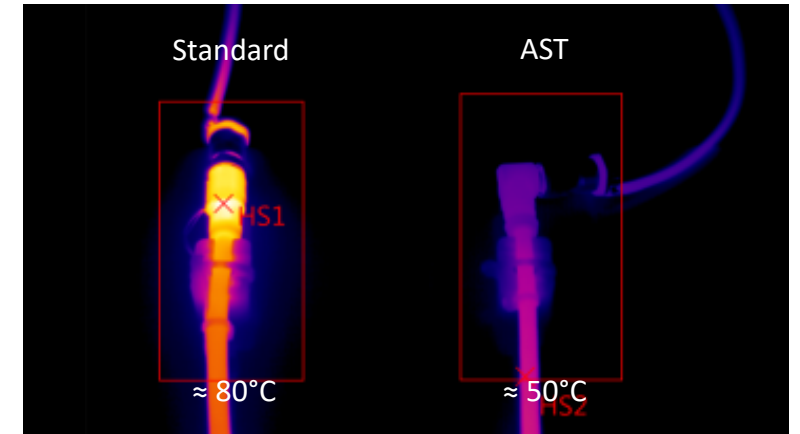


Totally resistant
to transient overvoltages



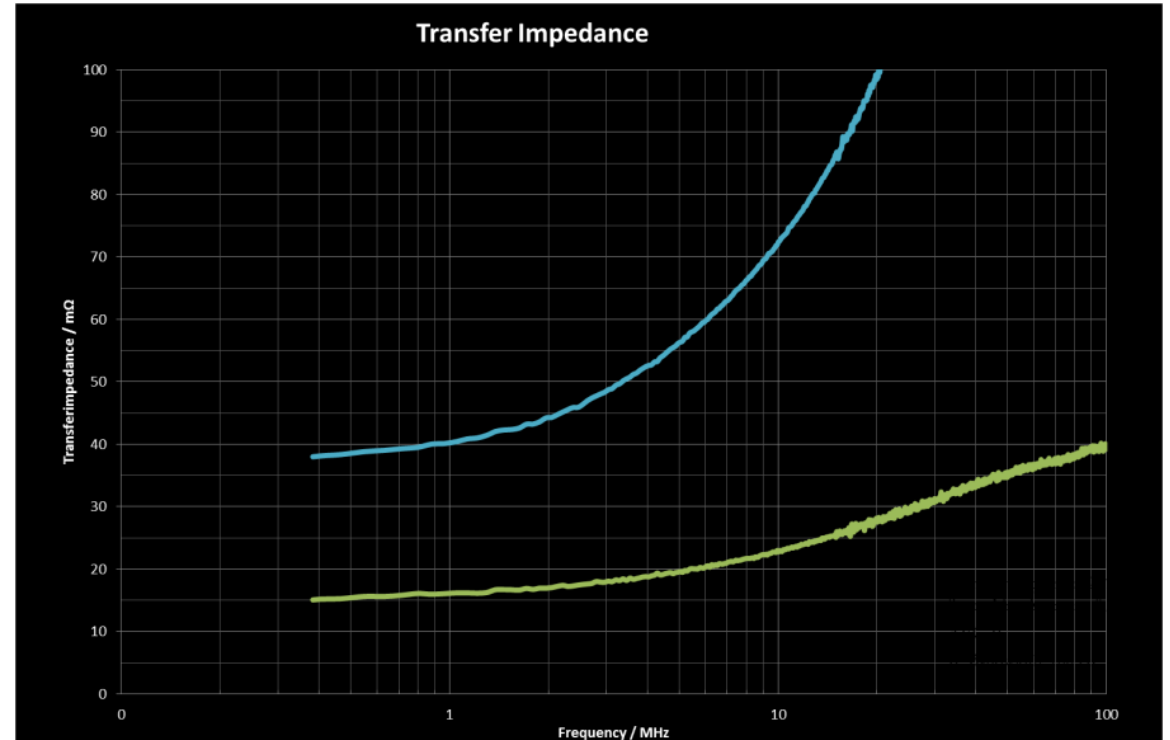
Totally protected

If there is a short circuit in the machine parts, Advanced Shielding Technology can be used to enable a current to flow via the shield until the fuses are triggered. Thanks to the minimal generation of heat, the large-area shielding ensures greater safety and reduces the risk of fire.



Totally future-proof

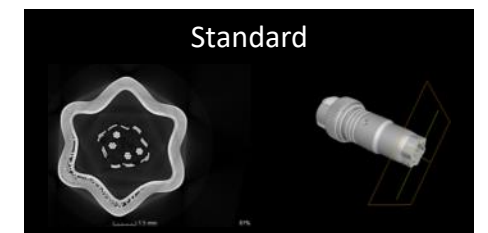
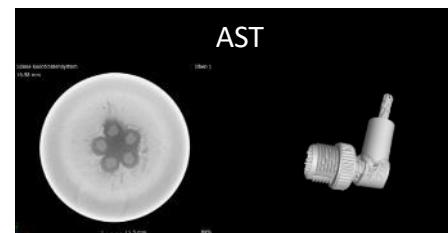
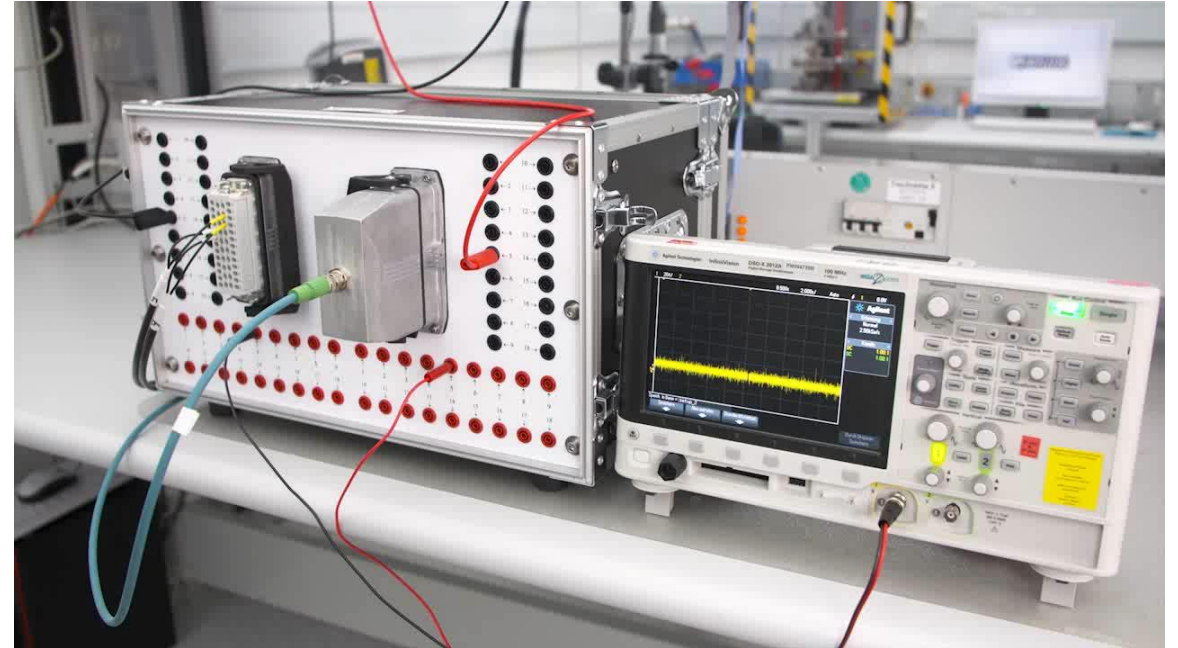
In the field of intelligent production plants and industrial networks, Advanced Shielding Technology realizes the future-proof transmission of high data volumes and continuously increasing transmission rates of up to 40 Gbps. The improved shield dissipation thus provides secure protection against electromagnetic interferences.



Advanced Shielding Technology

Totally reliable

Advanced Shielding Technology guarantees shock- and vibration-resistance at high mechanical loads in torsion, drag chain or robotic applications.



Totally resistant

High voltages are briefly generated when switching inductive loads such as motors. Thanks to the continuous connection between the shielding braid and plug, assembled connectors with Advanced Shielding Technology are resistant to transient overvoltages and guarantee a higher level of system availability.



Totally robust

Thanks to the robust connection and 360° shield cover, connectors with Advanced Shielding Technology will easily even withstand lightning strikes and current peaks up to 20 kA. They are thus particularly suitable for use in outdoor applications.



Advanced Shielding Technology

Designed by PHOENIX CONTACT

**The new dimension of shielding
for assembled M8 and M12
circular connectors**

**Further information under:
www.phoenixcontact.com/webcode/#2253**

