PRODUCT NEWS

OMRON

Product Discontinuation Notices

Counters

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Discontinuation Notice of Total Counter/Time Counter H7HP Series and Accessories Y92S-33 and Y92F-33

Product Discontinuation	Recommended Replacement
Total Counter/Time Counter Total Counter/Time Counter **Model H7HP Series**	Self-powered Total Counter/Time Counter/Tachometer Self-powered Total Counter/Time Counter **Model H7E□-N Series** Digital Counter/Tachometer **Model H7CC Series**
Accessory (Waterproof Packing) **Model Y92S-33**	**No recommended replacement**
Accessory (Flush Mounting Adaptor) **Model Y92F-33**	**No recommended replacement**

[Final order entry date]

The end of March, 2023

[Date of The Last Shipping]

The end of June, 2023

[Caution on recommended replacement]

・Note that H7E□-N/H7CC Series have different terminal arrangement, outline dimensions and mounting dimensions.

・For the power supply voltage, H7E□-N Series operates using its built-in battery and does not require an external source.

・The H7E□-N series does not have an external power supply.

・The protection degree of H7HP Series is IP66 with oil resistance, while the protection degree of H7E□-N/H7CC Series is IP66 with water resistance.

・There are different values for the no-voltage input (short-circuit impedance, short-circuit residual voltage and open impedance) and the voltage input (ON and OFF voltages). The H7E□-N Series has separate no-voltage input type and voltage input type for each product.

・On H7HP-A□ Series, the total counter function or the time counter function can be selected by DIP switch, H7E□-N Series has separate total counter function and time counter function for each product, while H7CC Series does not have the time counter function but the total counter function (total preset counter).

・The input mode of the total counter for H7HP Series is the "up/down" type, while only the “up” type (no count 2 input) is available for H7EC-N Series. The H7ET-N Series (time counter) does not have the gate function (gate input) .
・The H7E□-N Series includes a backlight type. Select the specific model and prepare the power supply for the backlight.
・The H7E□-N/H7CC Series is not key-protected by an external input, but by a switch.
・Only 8-digit display is available for H7EC-N Series with the total counter function, while only 6-digit display is available for H7CC Series. The max. counting speed of H7EC-N is 1 kHz.
・Only 7-digit display is available for H7ET-N Series (time counter). The time specification differs depending on the model.
・The response speed of reset input for H7E□-N Series is a constant 20 ms.

[Difference from discontinued product]

Recommended replacement Model	Body Color	Dimen-sions	Wire connection	Mounting Dimensions	Charac-teristics	Operation ratings	Operation methods
H7E□-N Series	*	--	--	--	*	*	**
H7CC Series	*	--	--	--	*	*	*

** : Compatible
* : The change is a little/Almost compatible
-- : Not compatible
- : No corresponding specification

[Product Discontinuation and recommended replacement]

Product discontinuation	Recommended replacement
H7HP-A 100 to 240 VAC	H7EC-N (no-voltage input) H7EC-NV (voltage input) H7EC-NV-H (voltage input + backlight) H7ET-N (no-voltage input) H7ET-N1 (no-voltage input) H7ET-NV (voltage input) H7ET-NV1 (voltage input) H7ET-NV-H (voltage input + backlight) H7ET-NV1-H (voltage input + backlight) H7CC-A
H7HP-AD 12 to 24 VDC	H7EC-N (no-voltage input) H7EC-NV (voltage input) H7EC-NV-H (voltage input + backlight) H7ET-N (no-voltage input) H7ET-N1 (no-voltage input) H7ET-NV (voltage input) H7ET-NV1 (voltage input) H7ET-NV-H (voltage input + backlight) H7ET-NV1-H (voltage input + backlight) H7CC-AD

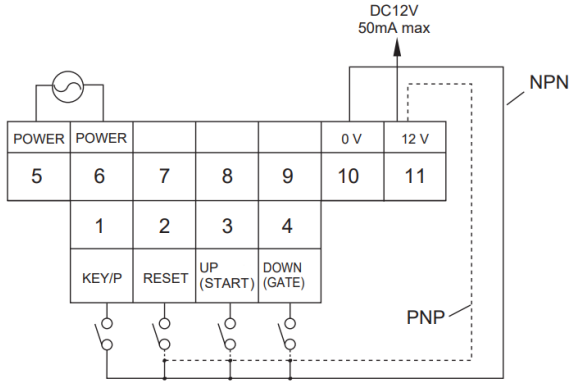
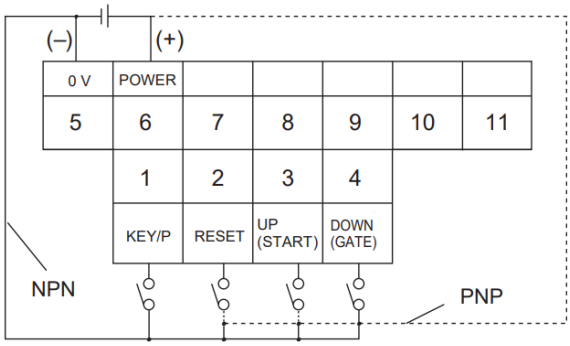
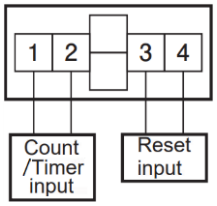
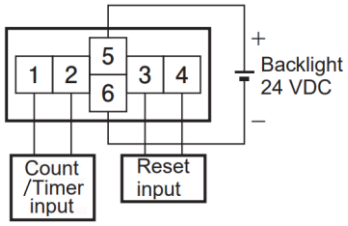
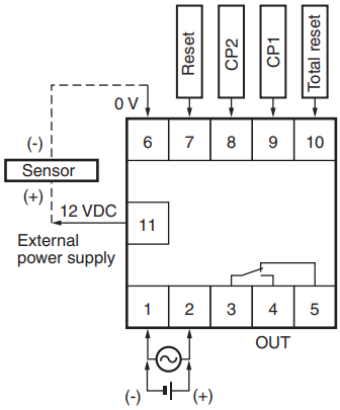
[Product Discontinuation and recommended replacement]

Product discontinuation	Recommended replacement
H7HP-AB 100 to 240 VAC	H7EC-N-B (no-voltage input) H7EC-NV-B (voltage input) H7EC-NV-BH (voltage input + backlight) H7ET-N-B (no-voltage input) H7ET-N1-B (no-voltage input) H7ET-NV-B (voltage input) H7ET-NV1-B (voltage input) H7ET-NV-BH (voltage input + backlight) H7ET-NV1-BH (voltage input + backlight) H7CC-A
H7HP-ADB 12 to 24 VDC	H7EC-N-B (no-voltage input) H7EC-NV-B (voltage input) H7EC-NV-BH (voltage input + backlight) H7ET-N-B (no-voltage input) H7ET-N1-B (no-voltage input) H7ET-NV-B (voltage input) H7ET-NV1-B (voltage input) H7ET-NV-BH (voltage input + backlight) H7ET-NV1-BH (voltage input + backlight) H7CC-AD
H7HP-C8 100 to 240 VAC	H7EC-N (no-voltage input) H7EC-NV (voltage input) H7EC-NV-H (voltage input + backlight) H7CC-A
H7HP-C8D 12 to 24 VDC	H7EC-N (no-voltage input) H7EC-NV (voltage input) H7EC-NV-H (voltage input + backlight) H7CC-AD
H7HP-C8B 100 to 240 VAC	H7EC-N-B (no-voltage input) H7EC-NV-B (voltage input) H7EC-NV-BH (voltage input + backlight) H7CC-A
H7HP-C8DB 12 to 24 VDC	H7EC-N-B (no-voltage input) H7EC-NV-B (voltage input) H7EC-NV-BH (voltage input + backlight) H7CC-AD
Y92S-33	No recommended replacement
Y92F-33	

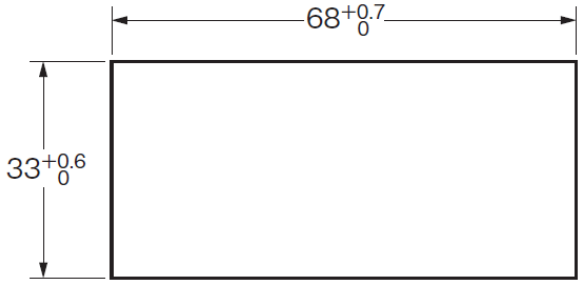
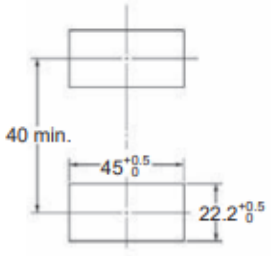
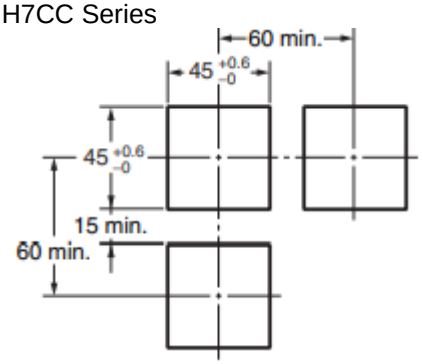
[Body color]

Product discontinuation H7HP Series	Recommended replacement H7E□-N Series/H7CC Series
H7HP Series Light gray (5Y7/1) (see photo below) Black (N1.5) 	H7EC-N Series Light gray (5Y7/1) (see photo below) Black (N1.5)  H7ET-N Series Light gray (5Y7/1) (see photo below) Black (N1.5)  H7CC Series Black (N1.5) 

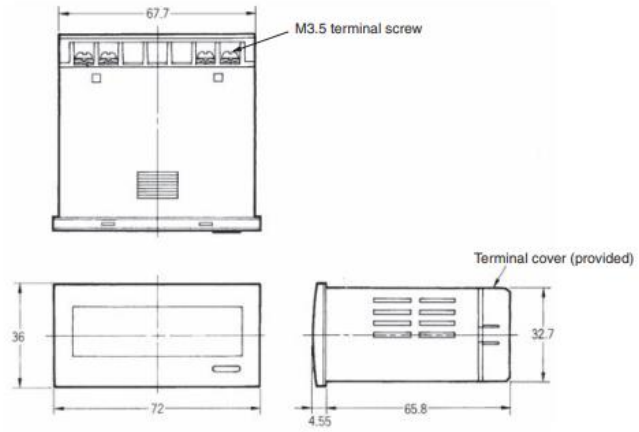
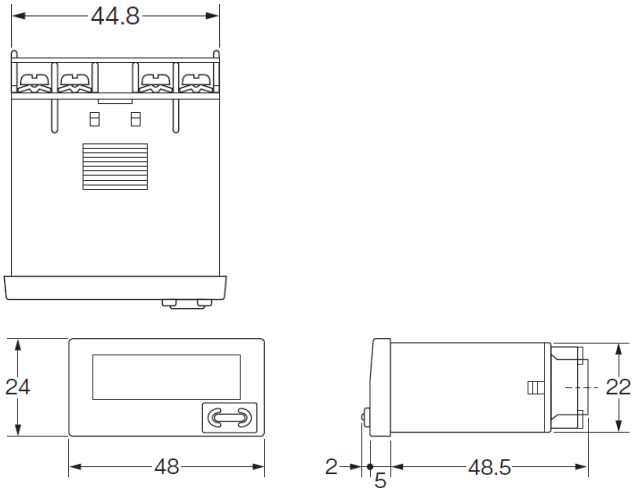
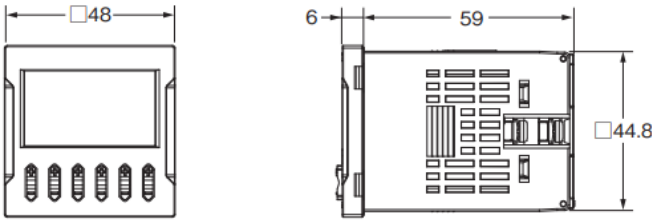
[Terminal arrangement and wire connection]

Product discontinuation H7HP Series	Recommended replacement H7E□-N Series/H7CC Series
Model H7HP-A/-AB/-C8/-C8B  Model H7HP-AD/-ADB/-C8D/-C8DB  	Model H7E□-N□/-N□-B  Model H7E□-NV□-□H  Model H7CC-A□ Total preset counter is selected. 

[Mounting dimensions]

Product discontinuation H7HP Series	Recommended replacement H7E□-N Series/H7CC Series
H7HP Series  	H7E□-N Series  H7CC Series 

[Dimensions]

Product discontinuation H7HP Series	Recommended replacement H7E□-N Series
H7HP Series 	H7E□-N Series  Note: The terminal screw is M3.5. H7CC Series 

[Specifications]

Item	Product discontinuation H7HP Series	Recommended replacement H7EC-N Series	Recommended replacement H7CC Series
Rated supply voltage	H7HP-A□/-C8□ 100 to 240 VAC (50/60 Hz) H7HP-AD□/-C8D□ 12 to 24 VDC	Not required (replaceable built-in lithium battery) 7 years min. with continuous input at 25°C (ref. value)	H7CC-A 100 to 240 VAC (50/60 Hz) H7CC-AD 24 VAC (50/60Hz) /12 to 48 VDC
External power supply	H7HP-A□/-C8□ 12 VDC 50 mA H7HP-AD□/-C8D□ Not available	Not available	DC12V 100mA
Backlight power supply	Not required	H7EC-N□-□ Without backlight H7EC-NV-□H 24 VDC (±10%)	Not required
Operating voltage range	85% to 110% of rated supply voltage	—	85% to 110% of rated supply voltage (12 to 48 VDC: 90 to 110%)
Power consumption	H7HP-A□/-C8□ 6.5 VA max. H7HP-AD□/-C8D□ 0.6 W max.	—	H7CC-A Approx. 6.8 VA H7CC-AD Approx. 5.5 VA / 3.3 W
Dimensions	72 x 36x 66 mm (W x H x D)	48 x 24 x 48.5 mm (W x H x D)	48 x 48 x 59 mm (W x H x D)
Mounting method	Flush mounting	Flush mounting	Flush mounting
External connections	Screw terminals	Screw terminals	Screw terminals
Degree of protection	Panel surface: IP66 with oil resistance and NEMA Type 4 (indoors).	Front panel: IP66 and NEMA Type 4 (indoors)	IP66 for panel surface only
Display	7-segment, negative transmissive LCD (with red backlight)	7-segment, positive transmissive LCD H type has a backlight.	7-segment, negative transmissive LCD (with white backlight)
Digits	H7HP-A□ 6 digits (15-mm-high characters) H7HP-C8□ 8 digits (12-mm-high characters)	8 digits (8.6-mm-high characters)	6 digits (count value: 10-mm-high characters / set value: 6-mm-high characters
Memory backup	EEP-ROM (overwrites: 200,000 times min.) that can store data for 20 years min.	—	Non-volatile memory (overwrites: 100,000 times min.) that can store data for 10 years min.
Function	Total counter / Time counter(selectable)	H7EC-N□-□ Total counter H7ET-N□-□ Time counter	Total preset counter (No time counter)

[Specifications]

Item		Product discontinuation H7HP Series	Recommended replacement H7EC-N Series	Recommended replacement H7CC Series
Total counter	Input mode	Up/down (increment/decrement)	Up (increment)	Up/down (increment/decrement)
	Max. counting speed	30 Hz or 5 kHz (selectable)	30 Hz or 1 kHz (selectable)	30 Hz or 5 kHz (selectable)
	Counting range	H7HP-A□ -99999 to 999999 H7HP-C8□ -9999999 to 99999999	0 to 99999999	-99999 to 999999
	Input			
	Input signal	Count 1, count 2, reset and key protection	Count and reset	CP1, CP2, reset and total reset
	Input method	No-voltage input or voltage input (selectable)	H7EC-N-□ No-voltage input H7EC-NV-□ Voltage input	No-voltage input or voltage input (selectable)
	Count 1, Count 2, Reset	No-voltage input (selectable) ・Short-circuit (ON) impedance: 1 kΩ max. (Short-circuit (ON) residual voltage:2 VDC max.) ・Open (OFF) impedance: 100 kΩ min. Voltage input (selectable) ・ON voltage: 9 to 24 VDC ・OFF voltage: 5 VDC max.	No-voltage input (H7EC-N-□) ・Short-circuit (ON) impedance: 10 kΩ max. (Short-circuit residual voltage: 0.5 V max.) ・Open (OFF) impedance: 750 kΩ min. Voltage input (H7EC-NV-□) ・ON voltage: 4.5 to 30 VDC ・OFF voltage: 0 to 2 VDC	No-voltage input (selectable) ・Short-circuit (ON) impedance: 1 kΩ max. (Short-circuit (ON) residual voltage:3 VDC max.) ・Open (OFF) impedance: 100 kΩ min. Voltage input (selectable) ・ON voltage: 4.5 to 30 VDC ・OFF voltage: 0 to 2 VDC
	Key protection	No-voltage input ・Short-circuit (ON) impedance: 1 kΩ max. (Short-circuit (ON) residual voltage:0.5 VDC max.) ・Open (OFF) impedance: 100 kΩ min.	Key-protect switch	Key-protect switch
	Input response speed			
	Reset	20 or 1 ms (automatically switched according to counting speed)	20 ms	20 ms or 1 ms (selectable)
	Key protection	Approx. 1 s	Not available	Not available

[Specifications]

Item		Product discontinuation H7HP Series	Recommended replacement H7EC-N Series	Recommended replacement H7CC Series
Time counter	Input mode	Accumulative	Accumulative	—
	Timing accuracy	±100 ppm (-10°C to 55°C)	±100 ppm (25°C)	—
	Time specification	0.1 to 99999.9 h / 1 s to 99 h 59 min 59 s (switchable)	Model H7ET-N□-□ 0.0 h to 999999.9 h / 0.0 h to 3999 d 23.9 h (switchable) Model H7ET-N1□-□ 0 s to 999 h 59 min 59 s / 0.0 min to 9999 h 59.9 min (switchable)	—
	Input			
	Input signal	Start, gate, reset and key protection	Count and reset	—
	Input method	No-voltage input / Voltage input (switchable)	Model H7ET-N□ No-voltage input Model H7ET-NV□ Voltage input	—
	Start, gate, reset	No-voltage input (selectable) ・Short-circuit (ON) impedance: 1 kΩ max. (Short-circuit (ON) residual voltage:2 VDC max.) ・Open (OFF) impedance: 100 kΩ min. ・Voltage input (selectable) ・ON voltage: 9 to 24 VDC OFF voltage: 5 VDC max.	No-voltage input (H7EC-N-□) ・Short-circuit (ON) impedance: 10 kΩ max. (Short-circuit residual voltage: 0.5 VDC max.) ・Open (OFF) impedance: 750 kΩ min. Voltage input (H7EC-NV-□) ・ON voltage: 4.5 to 30 VDC ・OFF voltage: 0 to 2 VDC	— —
	Key protection	No-voltage input ・Short-circuit (ON) impedance: 1 kΩ max. (Short-circuit (ON) residual voltage:0.5 VDC max.) ・Open (OFF) impedance: 100 kΩ min.	Key-protect switch	—
	Input response speed			
	Start	20 ms	20 ms	—
	Reset	20 ms	1 s	—
	Key protection	Approx. 1 s	Not available	—

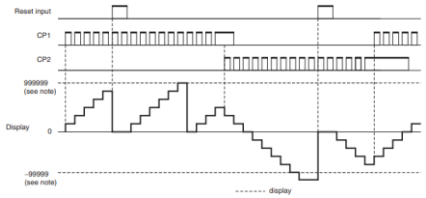
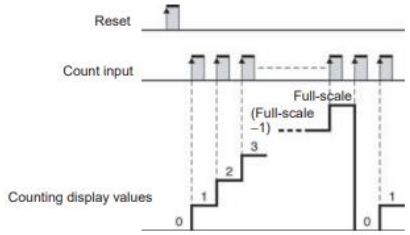
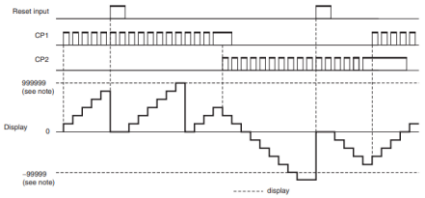
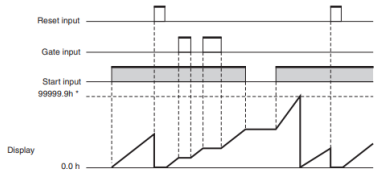
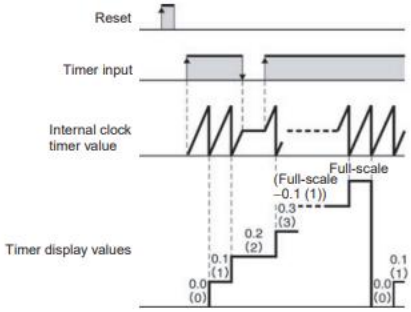
[Specifications]

Item		Product discontinuation H7HP Series	Recommended replacement H7EC-N Series	Recommended replacement H7CC Series
Reset system		External and manual resets	External and manual resets	External and manual resets
Ambient temperature		Operating: -10°C to 55°C	Operating: -10°C to 55°C	Operating: -10°C to 55°C
		Storage: -25°C to 65°C	Storage: -25°C to 65°C	Storage: -25°C to 70°C
Ambient humidity		35% to 85%	25 to 85%	25 to 85%
Case color		・Gray smoke (Front section: 5Y7/1 (light gray) ・N1.5 (black)	・Light gray (5Y7/1) ・Black (N1.5)	・Black (N1.5)
Insulation resistance		100 MΩ min. (at 500 VDC)	100 MΩ min. (at 500 VDC)	100 MΩ min. (at 500 VDC)
Dielectric strength		・2,000 VAC for 1 min between current-carrying terminal and exposed non-current-carrying metal parts (AC model) 1,000 VAC for 1 min between current-carrying terminal and exposed non-current-carrying metal parts (DC model) ・2,000 VAC for 1 min between power terminals and input terminals (AC model)	・1,000 VAC for 1 min between current-carrying metal and exposed non-current-carrying metal parts (for backlight models, between current-carrying metal parts and exposed non-current-carrying metal parts and between the backlight power supply terminal and count input terminals/reset terminals)	・2,000 VAC for 1 min between current-carrying metal parts and non-current-carrying metal parts ・2,000 VAC for 1 min between power supply and input circuit (1,500 VAC for 24 VAC/12 to 48 VDC) ・2,000 VAC for 1 min between control output, power supply, and input circuit ・1,000 VAC for 1 min between non-continuous contacts
Impulse withstand voltage		・3 kV between power terminals (1 kV for 12-to-24-VDC models) ・4.5 kV between current-carrying terminal and exposed non-current-carrying metal parts (1.5 kV for 12-to-24-VDC models)	・4.5 kV between current-carrying terminal and exposed non-current-carrying metal parts	・6.0 kV between power terminals (1.0 kV for models with 24 VAC/12 to 48 VDC) ・6.0 kV between current-carrying terminals and exposed non-current-carrying metal parts (1.5 kV for models with 24 VAC/12 to 48 VDC)
Static immunity		Display: Malfunction:8 kV, Destruction:15 kV DIP switch: Malfunction:4 kV, Destruction:8 kV	Malfunction: 8 kV	Malfunction: 8 kV Destruction: 15 kV
Vibration resistance	Destruction	0.75-mm single amplitude at 10 to 55 Hz for 2 hours each in three directions	0.375-mm single amplitude at 10 to 55 Hz for 2 hours each in three directions	0.75-mm single amplitude at 10 to 55 Hz for 2 hours each in three directions
	Malfunction	0.5-mm single amplitude at 10 to 55 Hz for 10 minutes each in three directions	0.15-mm single amplitude at 10 to 55 Hz for 10 minutes each in three directions	0.35-mm single amplitude at 10 to 55 Hz for 10 minutes each in three directions
Shock resistance	Destruction	294 m/s^2 each in three directions	300 m/s^2 each in three directions	300 m/s^2 each in three directions
	Malfunction	196 m/s^2 each in three directions	200 m/s^2 3 times each in six directions	100 m/s^2 each in three directions
Weight		Approx. 115 g	Approx. 60 g / Approx. 65 g with backlight	Approx. 120 g

[Specifications]

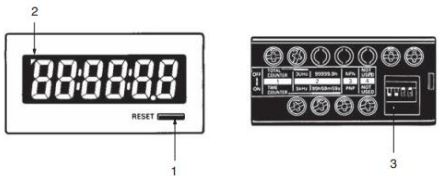
Item		Product discontinuation H7HP Series	Recommended replacement H7EC-N Series	Recommended replacement H7CC Series
Approved standards	Safety standards	UL508 CSA C22.2 No.14 Conforms to EN61010-1 (IEC61010-1): Pollution degree 2/overvoltage category II, EMC (EN61326-1) and VDE0106/P100 (finger protection)	UL863 CSA C22.2 No.14 Conforms to EN61010-1 (IEC61010-1): Pollution degree 2/overvoltage category III, EMC (EN61326-1) and VDE0106/P100(finger protection)	UL508/CSA C22.2 No. 14 Conforms to EN 61010-1 (IEC 61010-1): Pollution degree 2/overvoltage category II, EMC (EN61326-1) and VDE0106/P100(finger protection)
	EMC	(EMI) EN61326-1 Emission Enclosure: EN55011 Group 1 class A Emission AC Mains: EN55011 Group 1 class A (EMS) EN61326-1 Immunity ESD: EN61000-4-2: 4 kV contact discharge, 8 kV air discharge Immunity RF-interference from AM Radio Waves EN61000-4-3: 10 V/m (80 MHz to 1 GHz) 3 V/m (1.4 to 2.0 GHz) 1 V/m (2.0 to 2.7 GHz) Immunity Conducted Disturbance: EN61000-4-6: 10 V (0.15 to 80 MHz) Immunity Burst: EN61000-4-4: 2 kV power-line, 2 kV I/O signal-line Immunity Surge: EN61000-4-5: 1 kV line to lines; 2 kV line to ground Immunity Voltage Dip/Interruption: EN61000-4-11: 0.5 cycle, 100%	(EMI) EN61326-1 Emission Enclosure: EN55011 Group 1 class B (EMS) EN61326-1 Immunity ESD: EN61000-4-2: 4 kV contact discharge, 8 kV air discharge Immunity RF-interference from AM Radio Waves EN61000-4-3: 10 V/m (80 MHz to 1 GHz) Immunity RF-interference from Pulse-modulated Radio Waves: EN61000-4-3: 10 V/m (900 MHz ± 5 MHz) Immunity Conducted Disturbance: EN61000-4-6: 10 V (0.15 to 80 MHz) Immunity Burst: EN61000-4-4: 2 kV power-line, 2 kV I/O signal-line Immunity Surge: EN61000-4-5: 1 kV line to lines	(EMI) EN61326-1 Emission Enclosure: EN55011 Group 1 class A Emission AC Mains: EN55011 Group 1 class A (EMS) EN61326-1 Immunity ESD: EN61000-4-2: 4 kV contact discharge; 8 kV air discharge Immunity RF-interference from AM Radio Waves: EN61000-4-3: 10 V/m (80 MHz to 1 GHz) 3 V/m(1.4 to 2.0 GHz) 1 V/m(2.0 to 2.7 GHz) Immunity RF-interference from Pulse-modulated Radio Waves: 10 V/m (900 MHz ±5 MHz) Immunity Conducted Disturbance: EN61000-4-6: 10 V (0.15 to 80 MHz) Immunity Burst: EN61000-4-4: 2 kV power-line; 1 kV I/O signal-line Immunity Surge: EN61000-4-5: 1 kV line to lines; 2 kV line to ground Immunity Voltage Dip/Interruption: EN61000-4-11: 1 cycle 100% (rated voltage), 10/12 cycles 60% (rated voltage), 25/30 cycles 30% (rated voltage) and 250/300 cycles 100% (rated voltage)

[Operation ratings] H7HP Series

Product discontinuation H7HP Series	**Recommended replacement** H7E□-N Series	**Recommended replacement H7CC Series**
Total Counter Model H7HP-A☐/-C8☐  **Note:** Display values are shown for a 6-digit model. The count value will return to "0" when "999999" is exceeded. The display and output are turned OFF when the power supply turns OFF, but the count value is stored internally.	Total Counter Model H7EC-N□-□  No increment/decrement function	Total Preset Counter Model H7CC-A□  **Note:** Display values are shown for a 6-digit model. The count value will return to "0" when "999999" is exceeded. The display and output are turned OFF when the power supply turns OFF, but the count value is stored internally. Same as H7HP. Note: ・Total preset counter selected in configuration selection mode ・Input mode set to UP and output mode set to F in function setting mode
Time Counter Model H7HP-A□  * Display values are shown for full scale set to 99999.9 h. **Note:** The count value will return to "0" when "99999.9" is exceeded. The display and output are turned OFF when the power supply turns OFF, but the count value is stored internally.	Time Counter Model H7ET-N□-□  No gate function	Time Counter Not available

[Operation methods] H7HP Series

Product discontinuation H7HP Series



(The figure shows the DIP switch label stuck to the rear of the case.)

1. **Reset Key**
   Resets the count value, but will not operate while the keys are protected.
2. **Key Protection Indicator**
   Lit while the keys are protected (Reset Key is disabled.).
3. **DIP Switch**
   Use to change a setting. Refer to *DIP Switch Settings* for details.

Total Counter
Model H7HP-A□

Pin no.	Item	OFF	ON
1	Function	Total counter	Time counter
2	Counting speed (note)	30 Hz	5 kHz
	Time range (note)	99999.9 h	99 h 59 min 59 s
3	Input mode (note)	NPN	PNP
4	Unused	---	---

Model H7HP-C8□

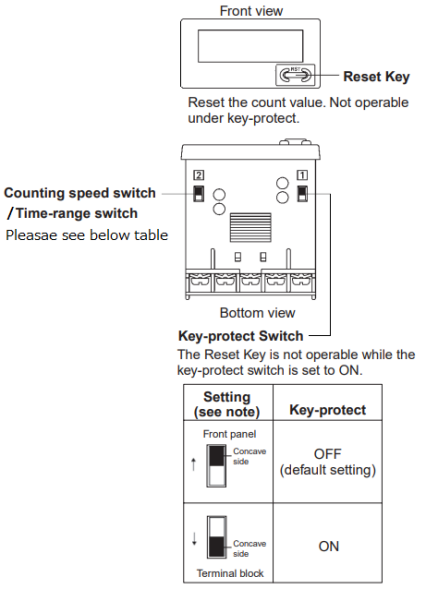
Pin no.	Item	OFF	ON
1	Unused	---	---
2	Counting speed (note)	30 Hz	5 kHz
3	Input mode (note)	NPN	PNP
4	Unused	---	---

Note: When the setting has been changed, turned power off and on to continue. The display will show "0" when the power is turned back on.

Time Counter
Model H7HP-A□

Pin no.	Item	OFF	ON
1	Function	Total counter	Time counter
2	Counting speed (note)	30 Hz	5 kHz
	Time range (note)	99999.9 h	99 h 59 min 59 s
3	Input mode (note)	NPN	PNP
4	Unused	---	---

Recommended replacement H7E□-N Series



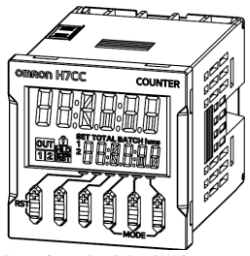
Total Counter
Model H7EC-N□
Counting speed switch

Setting (see note)	Counting speed
Front panel ↑ Concave side	30 Hz (default setting)
↓ Concave side Terminal block	1 kHz

Time Counter
Model H7ET-N□
Time-range switch

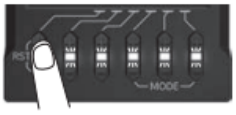
Setting (see note)	Time range	
	H7ET-N□□-□□	H7ET-N□□1-□□
Front panel ↑ Concave side	0.0h to 3999d23.9h	0s to 999h59min59s (default setting)
↓ Concave side Terminal block	0.0h to 999999.9h (default setting)	0.0min to 9999h59.9min

Recommended replacement H7CC Series



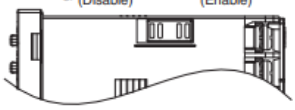
Reset Operation (UP6+DW6) ✻

1. Press RST keys (UP6+DW6) simultaneously for at least one second.
2. LED on each key starts blinking.
   Do not release the keys until the LED starts blinking. Otherwise the setting value may change. If not blink, that is because the keys are not pressed simultaneously. In this case, release the keys after pressing for at least 1 second, and restart from 1.
3. Press and hold until the LED turns off.
   If you release the keys while blinking, the reset operation will be interrupted.



Key-protect Switch

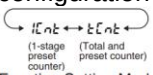
(Default setting) OFF (Disable) ⟷ ON (Enable)



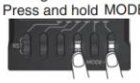
Total Preset Counter
Model H7CC-A□

Configuration Selection Mode
Change to Configuration Selection Mode
Press and hold UP1+UP6 or DW1+DW6 for 2 s

Total preset counter selected in configuration selection mode



Function Setting Mode
Change to Function Setting Mode
Press and hold MODE keys (UP1+UP3 or DW1+DW3) for 2 s



Input mode set to UP, output mode set to F and counting speed set to 30 Hz or 5 kHz in function setting mode

Time Counter
Not available

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Only main changes in specifications are described in this document. Please be sure to read the relevant catalogs, datasheets, product specifications, instructions, and manuals for precautions and necessary information when using products.