PRODUCT NEWS

Correction Reissue

Product Discontinuation Notices

Timers

OMRON

Issue Date
February 3, 2020

No. 2018029CE(2)

Discontinuation Notice of Mechatronic Analog Timer Model H3AM series

<< REQUEST >>

There was modification in portion of Product Discontinuation notices of Product News No. 2018029CE of March 2018 issue. What we have changed is as follows; Addition of using an accessories together with recommended model in case of the exchanging by maintenance.
Please abolish old edition, replace the latest No. 2018029CE(2).

Product Discontinuation		Recommended Replacement
Mechatronic Analog Timer **Model H3AM-NS-[]**		Digital Timer **Model H5CX-L8E-N** **+Model P3G-08 (Socket) or** Solid-state Timer **Model H3CR-A8E** **+Model P3G-08 (Socket)**
Model H3AM-NSR-[]	➡	Digital Timer **Model H5CX-L8-N** **+Model P3G-08 (Socket) or** Solid-state Timer **Model H3CR-A** **+Model P3GA-11(Socket)**

[Final order entry date]

The end of March, 2020

[Date of the last shipping]

The end of June, 2020

[Caution on recommended replacement]

- ●Model H3AM is Motor timer operating by the motor drive. There is no recommended replacement taking the motor drive method. The recommended replacement is Solid-state timer and Digital timer and the output status during the power interruption may differ.
- ●The recommended replacement does not have the elapsed-time display with moving pointer.
  In the case of Model H3CR, it is predictable to a certain extent because flashing of the operating and energizing indicator (in green) becomes faster when the remaining time becomes less than 10% of the setting time.
  In the case of Model H5CX, the elapsed time and the setting time in digit are displayed simultaneously.
- ●There are differences between Model H3AM series and the recommended replacement in dimensions, shapes, and method and dimensions for mounting. In case of the exchanging by maintenance; Please use the Y92F-38 (Order Separately) (*1.) when it's reused the mounting holes of H3AM (81-dia. hole) by the maintenance. (Please see page7 “Mounting dimensions”.)
  *Y92F-38 (Release date: April, 2020)
- ●Reset input of Model H3AM-NSR-[] is equivalent to the one of Model H5CX-L8-N/H3CR-A.
  However, Model H5CX-L8-N/H3CR-A is destructed if the same power source as well as H3AM-NSR-[] is added directly at the reset terminal of Model H5CX-L8-N/H3CR-A because the reset input of Model H5CX-L8-N/H3CR-A is no-voltage input. It is necessary to convert for the input at the no-voltage level through a relay etc.
- ●Model H3CR-A does not have the specification on holding operation in power interruption. It is reset during the power interruption and does not hold the elapsed-time value.
- ●The number of output contacts and the specification between Model H3AM and the recommended replacement differ in some cases.
  Please be sure to read the details described from the next page.

[Difference from discontinued product]

Recommended replacement Model	Body Color	Dimen-sions	Wire connection	Mounting Dimensions	Charac-teristics	Operation ratings	Operation methods
Model H5CX-L8E-N	**	--	--	--	--	--	--
Model H3CR-A8E	--	--	--	--	--	--	--
Model H5CX-L8-N	**	--	--	--	--	--	--
Model H3CR-A	--	--	--	--	--	--	--

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

[Product discontinuation and recommended replacement]

Product discontinuation	Recommended replacement
Model H3AM-NS-A	Model H5CX-L8E-N
	Model H3CR-A8E AC100-240/DC100-125
Model H3AM-NS-B	Model H5CX-L8E-N
	Model H3CR-A8E AC100-240/DC100-125
Model H3AM-NS-C	Model H5CX-L8E-N
	Model H3CR-A8E AC100-240/DC100-125
Model H3AM-NSR-A	Model H5CX-L8-N
	Model H3CR-A AC100-240/DC100-125
Model H3AM-NSR-B	Model H5CX-L8-N
	Model H3CR-A AC100-240/DC100-125
Model H3AM-NSR-C	Model H5CX-L8-N
	Model H3CR-A AC100-240/DC100-125
Model H3AM-NS-A-300	Model H5CX-L8E-N
	Model H3CR-A8E AC100-240/DC100-125
Model H3AM-NS-B-300	Model H5CX-L8E-N
	Model H3CR-A8E AC100-240/DC100-125
Model H3AM-NS-C-300	Model H5CX-L8E-N
	Model H3CR-A8E AC100-240/DC100-125
Model H3AM-NSR-A-300	Model H5CX-L8-N
	Model H3CR-A AC100-240/DC100-125
Model H3AM-NSR-B-300	Model H5CX-L8-N
	Model H3CR-A AC100-240/DC100-125
Model H3AM-NSR-C-300	Model H5CX-L8-N
	Model H3CR-A AC100-240/DC100-125

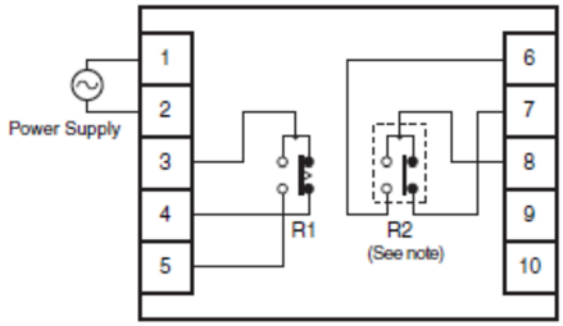
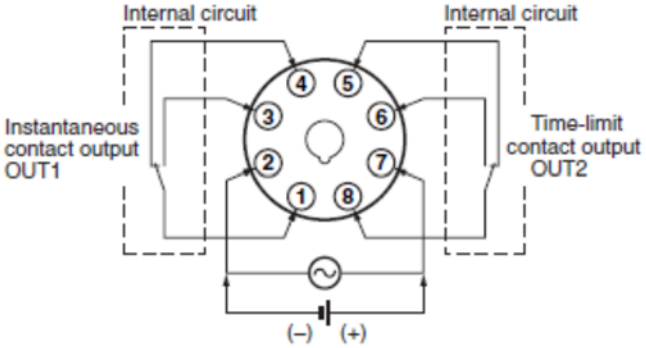
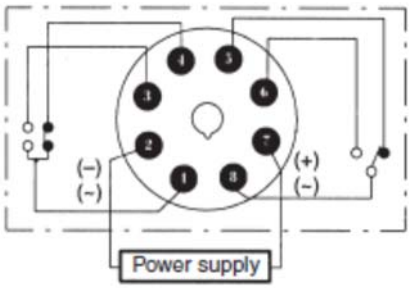
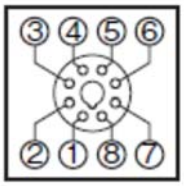
Socket for wiring is necessary for the recommended replacement.

Product discontinuation	Compatible socket
Model H5CX-L8E-N	Model P3G-08
Model H3CR-A8E AC100-240/DC100-125	
Model H5CX-L8-N	
Model H3CR-A AC100-240/DC100-125	Model P3GA-11

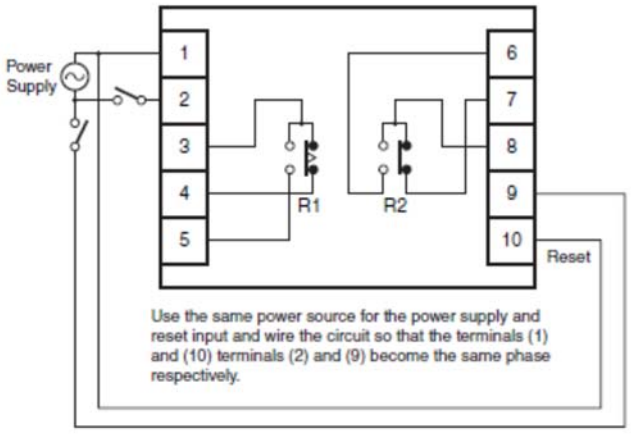
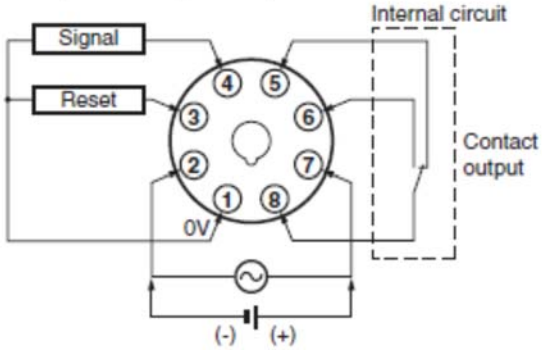
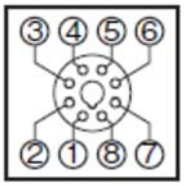
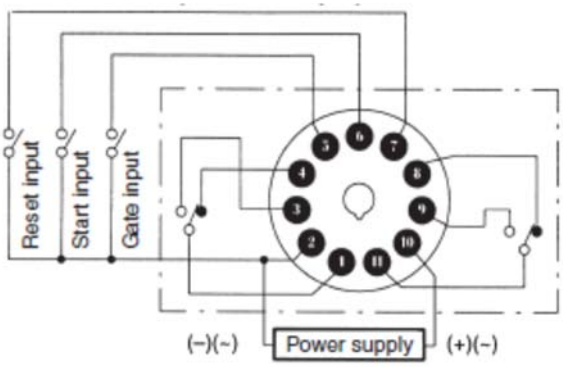
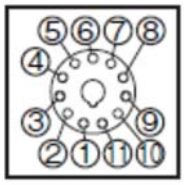
[Body color]

Product discontinuation Model H3AM-NS-[], Model H3AM-NSR-[]	Recommendable replacement Model H5CX-L8E-N, Model H5CX-L8, Model H3CR-A8E, Model H3CR-A
Black (Munsell N1.5) 	**Model H5CX-L8E-N, Model H5CX-L8-N** Black (Munsell N1.5) 
	Model H3CR-A8E, Model H3CR-A Light gray (Munsell 5Y7/1) 

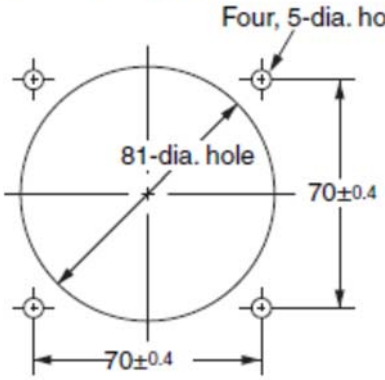
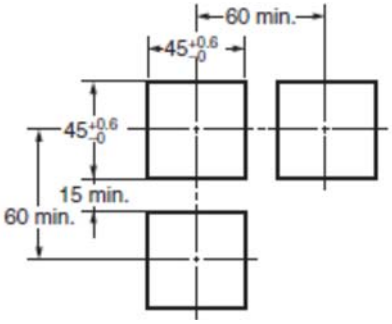
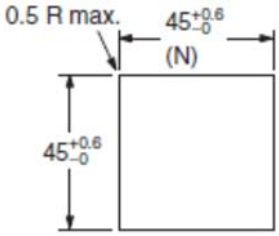
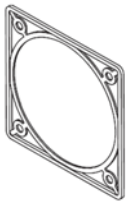
[Wire connection]

Product discontinuation Model H3AM-NS-[]	Recommended replacement Model H5CX-L8E-N, Model H3CR-A8E
Model H3AM-NS-[]  * 2. Contact symbol is shown as  because it is possible to change relay R2 between time-limit contact and instantaneous contact. Please check with Instantaneous or Time-limit Output Selector on the bottom surface of the body. (Refer to **[Operation methods]**)	**Model H5CX-L8E-N** **(Octal-pin arrangement)**  Recommended socket Model P3G-08 (sold separately) is needed. **Model H3CR-A8E** **(Octal-pin arrangement)**  Recommended socket Model P3G-08 (sold separately) is needed. **Pin arrangement for Model P3G-08** 

[Wire connection]

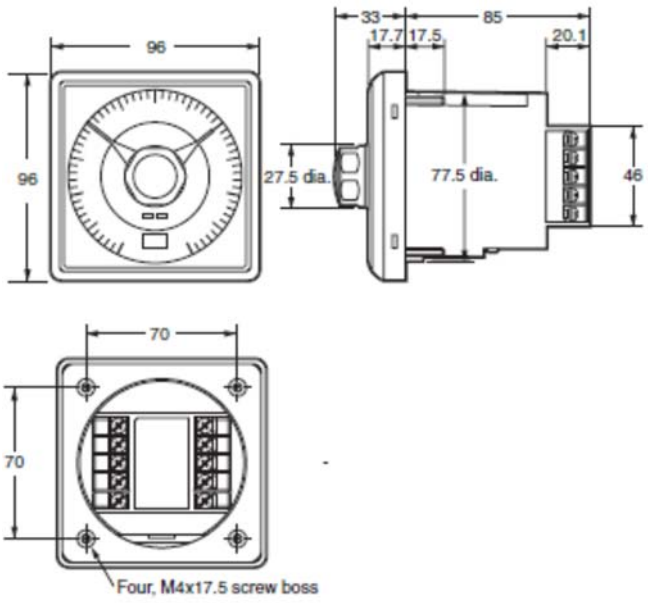
Product discontinuation Model H3AM-NSR-[]	Recommendable replacement Model H5CX-L8-N, Model H3CR-A
Model H3AM-NSR-[]  	**Model H5CX-L8-N** **(Octal-pin arrangement)**  Recommended socket Model P3G-08 (sold separately) is needed. **Pin arrangement for Model P3G-08**  **NOTE:** Model H5CX-L8-N is destructed if the same power source as well as H3AM-NSR-[] is added directly at the reset terminal of Model H5CX-L8-N because the reset input of Model H5CX-L8-N is no-voltage input. It is necessary to convert for the input at the no-voltage level through a relay etc.
	Model H3CR-A **(Octal-pin arrangement)**  Recommended socket Model P3G-08 (sold separately) is needed. **Pin arrangement for Model P3G-08**  **NOTE:** Model H3CR-A is destructed if the same power source as well as H3AM-NSR-[] is added directly at the reset terminal of Model H3CR-A because the reset input of Model H3CR-A is no-voltage input. It is necessary to convert for the input at the no-voltage level through a relay etc.

[Mounting dimensions]

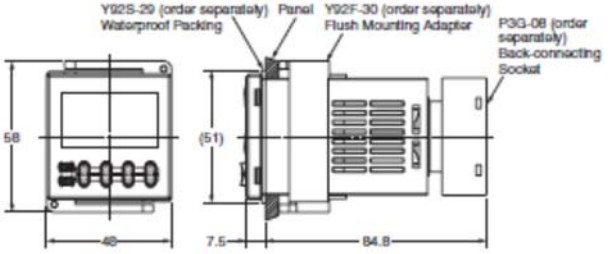
Product discontinuation Model H3AM-NS-[], Model H3AM-NSR-[]	Recommendable replacement Model H5CX-L8E-N, Model H5CX-L8-N, Model H3CR-A8E, Model H3CR-A
Mounting Holes  	**Model H5CX-L8E-N, Model H5CX-L8-N** (Processing diagram in the case of newly designing) (According to DIN43700) 
	Model H3CR-A8E, Model H3CR-A (Processing diagram in the case of newly designing) (According to DIN43700) 
	Model H5CX, Model H3CR <In case of the exchanging by maintenance> Please use the Y92F-38 (Order Separately) (*1.) when it's reused the mounting holes of H3AM (81-dia. hole) by the maintenance. *1. Y92F-38 (Release date: April, 2020)  Mounted H3CR Surface side Back side Please use H5CX together with waterproof packing Y92S-35 (Order Separately) (*2.) when it's needed the waterproof function. *2. Y92S-35 

[Dimensions]

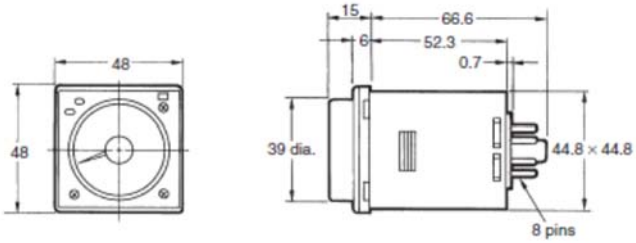
Product discontinuation Model H3AM-NS-[], Model H3AM-NSR-[]	Recommendable replacement Model H5CX-L8E-N, Model H5CX-L8-N, Model H3CR-A8E, Model H3CR-A



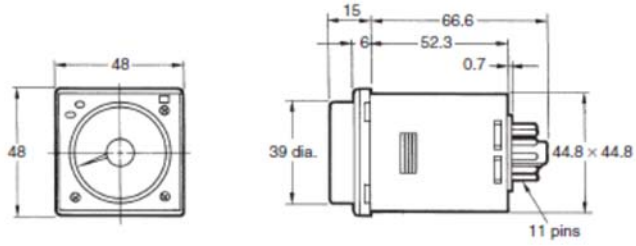
Model H5CX-L8E-N, Model H5CX-L8-N

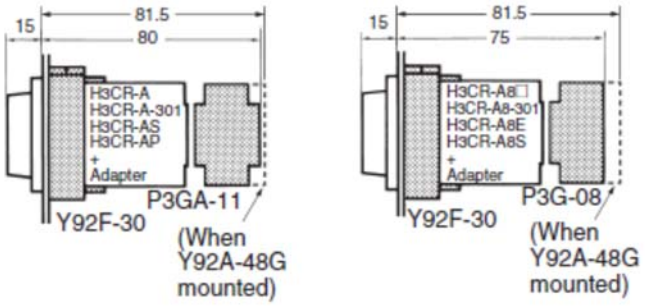


Model H3CR-A8E



Model H3CR-A





Following adaptors and sockets (All are separately sold.) are needed for mounting the bracket.

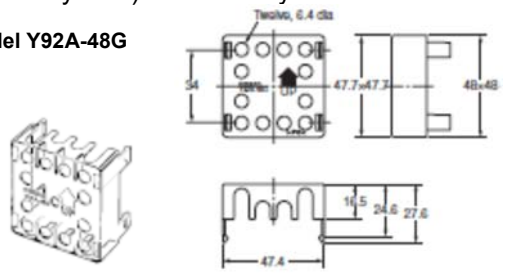
Adaptor Model Y92F-30 (H5CX-L8E-N, H5CX-L8-N, H3CR-A8E, H3CR-A)

Socket Model P3G-08 (H5CX-L8E-N, H5CX-L8-N, H3CR-A8E)

Model P3GA-11 (H3CR-A)

* Please use terminal cover Model Y92A-48G (separately sold) If necessary.

Model Y92A-48G



[Characteristics]

Item	Product discontinuation Model H3AM-NS-[]	Recommendable replacement Model H5CX-L8E-N, Model H3CR-A8E
Operating mode	Power On-delay	**Model H5CX-L8E-N** A-2: Power On-delay **Model H3CR-A8E** A: On-delay (Power-ON start)
Output method	Contact output (Time-limit contact 2c or Time-limit contact 1c + Instantaneous contact 1c) Switchable	**Model H5CX-L8E-N** Contact output (Time-limit contact 1c + Instantaneous contact 1c) **Model H3CR-A8E** Contact output (Time-limit contact 1c + Instantaneous contact 1c) * Please use Model H3CR-A8 in the case that the output of Time-limit contact 2c is necessary.
Time range	**Model H3AM-NS-A** 30 s (0.5 s min.) 3 min (0.05 min min.) 30 min (0.5 min min.) 3 h (0.05 h min.), 30 h (0.5 h min.) **Model H3AM-NS-B** 60 s (1 s min.) 6 min (0.1 min min.) 60 min (1 min min.) 6 h (0.1 h min.), 60 h (1 h min.) **Model H3AM-NS-C** 12 s (0.2 s min.), 120 s (2 s min.) 12 min (0.2 min min.) 120 min (2 min min.) 12 h (0.2 h min.)	**Model H5CX-L8E-N** 9.999 s (0.001 s min.) 99.99 s (0.01 s min.) 999.9 s (0.1 s min.) 9999 s (1 s min.) 99 min 59 s (1 s min.) 999.9 min (0.1 min min.) 9999 min (1 min min.) 99 h 59 min(1 min min.) 999.9 h (0.1 h min.) 9999 h (1 h min.) * Please select the optimum range for the setting. (Refer to **[Operation methods]**) **Model H3CR-A8E** 1.2 s (0.05 s min.), 12 s (1.2 s min.), 120 s (12 s min.), 1.2 min (0.12 min min.) 12 min (1.2 min min.) 120 min (12 min min.) 1.2 h (0.12 h min.), 12 h (1.2 h min.) 3 s (0.3 s min.), 30 s (3 s min.) 300 s (30 s min.) 3 min (0.3 min min.) 30 min (3 min min.) 300 min (30 min min.) 3 h (0.3 h min.), 30 h (3 h min.) 300 h (30 h min.) * Please select the optimum range for the setting. (Refer to **[Operation methods]**)

[Characteristics]

Item	Product discontinuation Model H3AM-NSR-[]	Recommendable replacement Model H5CX-L8-N, Model H3CR-A
Operating mode	Power On-delay	**Model H5CX-L8-N** A-3: Power On-delay (Ⅱ) Holding operation for power supply **Model H3CR-A** A: On-delay (Power-ON start *) * Please turn on the start input before inputting the power supply (Refer to **[Operating ratings]**)
Input method	Reset input H level: 85-264 VAC L level: 0-10 VAC	**Model H5CX-L8-N** Reset input (No-voltage input) ON Impedance: 1 kΩ max. ON residual voltage: 3 V max. OFF Impedance: 100 kΩ max. * Please input the reset input used for H3AM after converting it through relays to meet the above conditions. **Model H3CR-A** Reset input (No-voltage input) ON Impedance: 1 kΩ max. ON residual voltage: 1 V max. OFF Impedance: 100 kΩ min. * Please input the reset input used for H3AM after converting it through relays to meet the above conditions.
Output method	Contact output (Time-limit contact 1c+Reset Instantaneous contact 1c) Reset Instantaneous contact is the output contact that is synchronized with reset input.	**Model H5CX-L8-N** Contact output (Time-limit contact 1c) * There is no reset instantaneous contact. Please add replay separately if necessary. **Model H3CR-A** Contact output (Time-limit contact 2c) * There is no reset instantaneous contact. Please add replay separately if necessary.

[Characteristics]

Item	Product discontinuation Model H3AM-NSR-[]	Recommendable replacement Model H5CX-L8-N, Model H3CR-A
Time range	**Model H3AM-NSR-A** 30 s (0.5 s min.) 3 min (0.05 min min.), 30 min (0.5 min min.) 3 h (0.05 h min.), 30 h (0.5 h min.) **Model H3AM-NSR-B** 60 s (1 s min.), 6 min (0.1 min min.), 60 min (1 min min.) 6 h (0.1 h min.), 60 h (1 h min.) **Model H3AM-NSR-C** 12 s (0.2 s min.), 120s (2 s min.) 12 min (0.2 min min.), 120 min (2 min min.) 12 h (0.2 h min.)	**Model H5CX-L8-N** 9.999 s (0.001 s min.) 99.99 s (0.01 s min.) 999.9 s (0.1 s min.) 9999 s (1 s min.) 99 min 59 s (1 s min.) 999.9 min (0.1 min min.) 9999 min (1 min min.) 99h59 min (1 min min.) 999.9 h (0.1 h min.) 9999 h (1 h min.) * Please select the optimum range for the setting. (Refer to **[Operation methods]**) **Model H3CR-A** 1.2 s (0.05 s min.), 12 s (1.2 s min.) 120 s (12 s min.) 1.2 min (0.12 min min.) 12 min (1.2 min min.) 120 min (12 min min.) 1.2 h (0.12 h min.), 12 h (1.2 h min.) 3 s (0.3 s min.), 30 s (3 s min.) 300 s (30 s min.) 3 min (0.3 min min.) 30 min (3 min min.) 300 min (30 min min.) 3 h (0.3 h min.), 30 h (3 h min.), 300 h (30 h min.) * Please select the optimum range for the setting. (Refer to **[Operation methods]**)

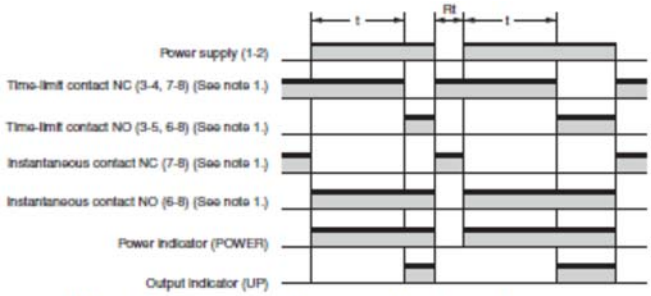
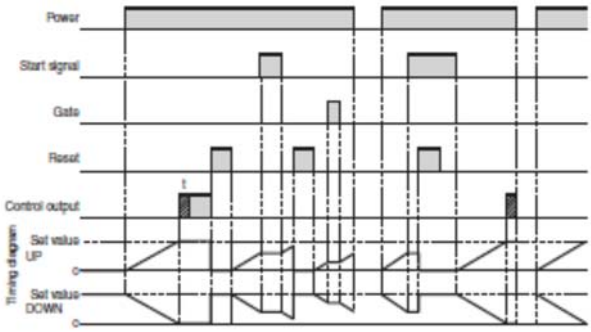
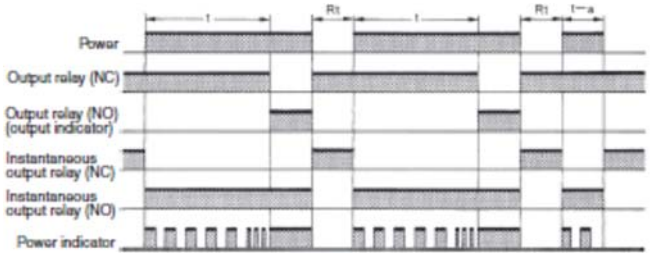
[Rating / Characteristics]

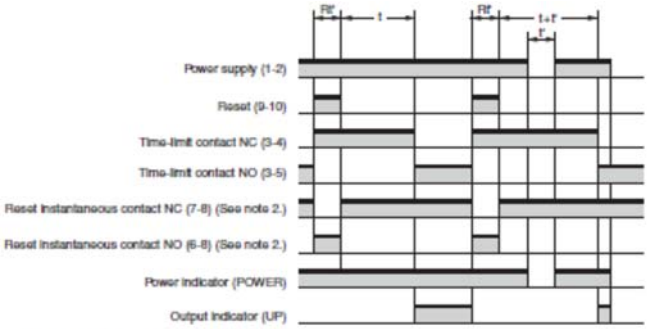
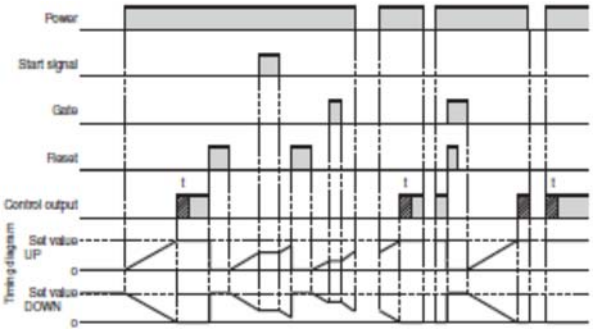
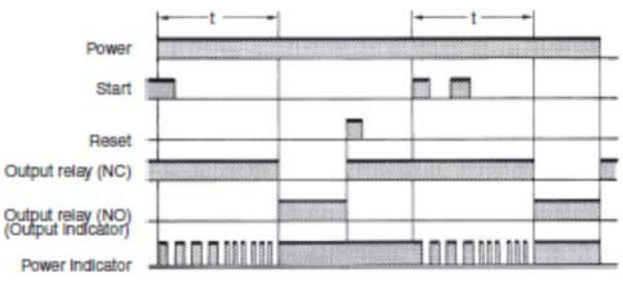
Item	Product discontinuation Model H3AM-NS-[], Model H3AM-NSR-[]	Recommendable replacement Model H5CX-L8E-N, Model H5CX-L8-N, Model H3CR-A8E, Model H3CR-A
Rated supply voltage	100 to 240 VAC 50/60 Hz	**Model H5CX-L8E-N, Model H5CX-L8-N** 100 to 240 VAC 50/60 Hz **Model H3CR-A8E** 100 to 240 VAC 50/60 Hz/100 to 125 VDC **Model H3CR-A** 100 to 240 VAC 50/60 Hz/100 to 125 VDC
Allowable voltage range	85 to 110% of rated supply voltage	**Model H5CX-L8E-N, Model H5CX-L8-N** 85 to 110% of rated supply voltage **Model H3CR-A8E, Model H3CR-A** 85 to 110% of rated supply voltage
Power consumption	Approx. 9 VA (Approx. 5W)	**Model H5CX-L8E-N, Model H5CX-L8-N** Approx. 6.2VA (100 to 240 VAC) **Model H3CR-A8E** When at 240VAC, 60 Hz Relay ON/OFF: Approx. 2 VA (0.9 W) **Model H3CR-A** When at 240 VAC, 60 Hz Relay ON: Approx. 2 VA (1.6 W) Relay OFF: Approx. 1.3 VA (1.1 W)
Power reset	**Model H3AM-NS-[]** Minimum power-opening time 0.5 s	**Model H5CX-L8E-N, Model H5CX-L8-N** Minimum power-opening time 0.5 s **Model H3CR-A8E, Model H3CR-A** Minimum power-opening time 0.1 s
Signal reset	**Model H3AM-NSR-[]** Minimum input signal width 0.5 s	**Model H5CX-L8E-N, Model H5CX-L8-N** Minimum input signal width 1 ms/20 ms (Switchable) **Model H3CR-A8E, Model H3CR-A** Minimum input signal width 0.05 s
Control output	**Relay in Model H3AM-NS (R1), (R2)** **Relay in Model H3AM-NSR (R2)** Contact output: 5 A at 250 VAC Resistive load ($\cos\phi$ =1) Minimum applicable load: 10 mA at 5 VDC (failure level: P, reference value) **Relay in Model H3AM-NSR (R1)** Contact output: 5 A at 250 VAC Resistive load ($\cos\phi$ =1) Minimum applicable load:100 mA at 5 VDC (failure level: P, reference value)	**Model H5CX-L8E-N, Model H5CX-L8-N** 5 A at 250 VAC/30 VDC Resistive load ($\cos\phi$ =1) Minimum applicable load: 10 mA at 5 VDC (failure level: P, reference value) **Model H3CR-A8E, Model H3CR-A** Contact output: 5 A at 250 VAC/30 VDC 0.15 A at 125 VDC Resistive load ($\cos\phi$ =1) Minimum applicable load:10 mA at 5 VDC (failure level: P, reference value)
Operating temperature range	-10 to 55°C (without icing)	**Model H5CX-L8E-N, Model H5CX-L8-N** -10 to 55°C (with side by side mounting: -10 to 50°C) (without icing or condensation) **Model H3CR-A8E, Model H3CR-A** -10 to 55°C (without icing)
Storage temperature	-25 to 65°C (without icing)	**Model H5CX-L8E-N, Model H5CX-L8-N** -25 to 70°C (without icing or condensation) **Model H3CR-A8E, Model H3CR-A** -25 to 65°C without icing)

[Rating / Characteristics]

Item	Product discontinuation Model H3AM-NS-[], Model H3AM-NSR-[]	Recommendable replacement Model H5CX-L8E-N, Model H5CX-L8-N, Model H3CR-A8E, Model H3CR-A
Ambient humidity	35 to 85%	**Model H5CX-L8E-N, Model H5CX-L8-N** 25 to 85% **Model H3CR-A8E, Model H3CR-A** 35 to 85%
Accuracy of operating time	±0.7% FS max.	**Model H5CX-L8E-N, Model H5CX-L8-N** ±0.01%±0.05 s max. (Power-ON start) **Model H3CR-A8E, Model H3CR-A** ±0.2% max. (±0.2%±10 ms max. for the range of 1.2 s and 3 s)
Setting error	±2% FS max.	**Model H5CX-L8E-N, Model H5CX-L8-N** ±0.01%±0.05 s max. (Power-ON start) **Model H3CR-A8E, Model H3CR-A** ±5% FS ±50 ms max.
Influence of voltage	±1% FS max.	**Model H5CX-L8E-N, Model H5CX-L8-N** ±0.01%±0.05 s max. (Power-ON start) **Model H3CR-A8E, Model H3CR-A** ±0.2% max. (±0.2%±10 ms max. for the range of 1.2s and 3 s)
Influence of temperature	±2% FS max.	**Model H5CX-L8E-N, Model H5CX-L8-N** ±0.01%±0.05 s max. (Power-ON start) **Model H3CR-A8E, Model H3CR-A** ±1% max. (±1%±10 ms max. for the range of 1.2 s and 3 s)
Life expectancy	Mechanical: 5,000,000 times min. (under no load) Electrical: 100,000 times min. (5A at 250 VAC, resistive load)	**Model H5CX-L8E-N, Model H5CX-L8-N** Mechanical: 10,000,000 times min. (under no load) Electrical: 100,000 times min. (5 A at 250 VAC, resistive load) **Model H3CR-A8E, Model H3CR-A** Mechanical: 20,000,000 times min. (under no load) Electrical: 100,000 times min. (5 A at 250 VAC, resistive load)
Enclosure rating	IP65 (front panel only) * Model Y92S-35 is necessary to ensure IP65 waterproofing between the Timer and installation panel.	**Model H5CX-L8E-N, Model H5CX-L8-N** IP66 (front panel only) * Model Y92S-35 is necessary to ensure IP65 waterproofing between the Timer and installation panel. (Refer to **[Dimensions]**) **Model H3CR-A8E, Model H3CR-A** IP40 (front panel only)
Weight	Approx. 350 g	**Model H5CX-L8E-N, Model H5CX-L8-N** Approx. 115 g **Model H3CR-A8E, Model H3CR-A** Approx. 90 g
Approved standards	UL508, CSA C22.2 No.14 Conforms to EN61812-1, IEC60664-1 4kV/2	**Model H5CX-L8E-N, Model H5CX-L8-N** UL508/CSA C22.2 No.14 (Approved as cURus) Conforms to EN61812-1, CCC **Model H3CR-A8E, Model H3CR-A** UL508, SA C22.2 No.14 Conforms to EN61812-1, IEC60664-1 4kV/2 NK, LR, CC

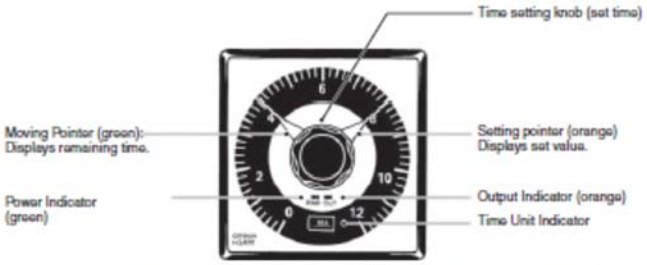
[Operation ratings]

Product discontinuation Model H3AM-NS-[]	Recommendable replacement Model H5CX-L8E-N, Model H3CR-A8E
 **Note:** *Rt* is the reset time and *t* is the set time.	**Model H5CX-L8E-N** A-2 mode (Power ON-delay (Ⅰ): Power supply reset operation)  **Model H3CR-A8E** A mode: ON-delay 

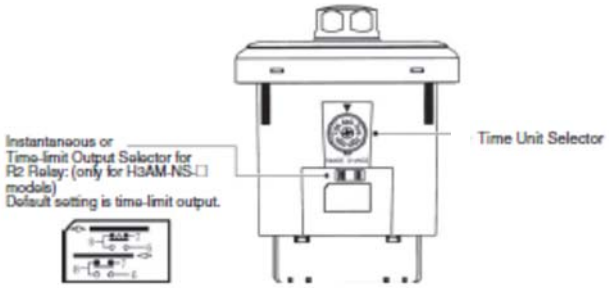
Product discontinuation Model H3AM-NSR-[]	Recommendable replacement Model H5CX-L8-N, Model H3CR-A
 **Note:** *t* is the set time, *Rt'* is the reset application time, and *t'* is the power interruption time.	**Model H5CX-L8-N** A-3 mode (Power ON-delay(Ⅱ): Holding operation at power down)  **Model H3CR-A** A mode: ON-delay 

[Operation methods]

Product discontinuation Model H3AM-NS-[], Model H3AM-NSR-[]	Recommendable replacement Model H5CX-L8E-N, Model H5CX-L8-N Model H3CR-A8E, Model H3CR-A



Note: The scale goes up to "3" with the H3AM-□-A and up to "6" with the H3AM-□-B.

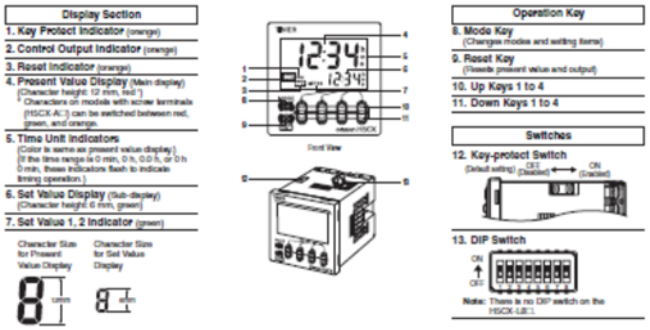


(Illustrated Model: H3AM-□□□-C)

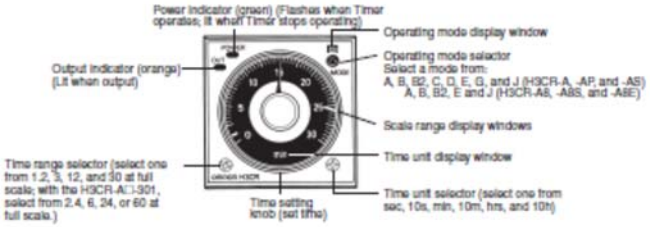
Applicable Time Unit

Model	Full scale on dial	Applicable time unit					
		s	10 s	min	10 min	h	10 h
H3AM-□□□-A	3	No	Yes	Yes	Yes	Yes	Yes
H3AM-□□□-B	6	No	Yes	Yes	Yes	Yes	Yes
H3AM-□□□-C	12	Yes	Yes	Yes	Yes	Yes	No

Model H5CX-L8E-N, Model H5CX-L8-N



Model H3CR-A8E, Model H3CR-A



Scale range display windows changes as below by turning the Time range selector clockwise.*

0	0.2	0.4	0.6	0.8	1.0	1.2
0	0.5	1	1.5	2	2.5	3
0	2	4	6	8	10	12
0	5	10	15	20	25	30