

Solid-state Timer

H3YN-4-B DC12



Image

Solid-state Timer, Four-mode multi, Output: 4PDT, Short-time range model, Plug-in terminal (14-pin), Black, 12 VDC

Rated power supply voltage	12 VDC If power supply incorporates a single-phase full-wave rectifier.
Control output (Type)	Time-limit: 4PDT
Connecting method	14-pin round socket (Push-In Plus Terminal Block)

Ratings/Specifications

As of December 23, 2024

Rated power supply voltage	12 VDC If power supply incorporates a single-phase full-wave rectifier.
Allowable voltage variable range	90 to 110% of the power supply voltage
Power consumption	Relay ON: Approx. 1.1 W (at 12 VDC)/Relay OFF: Approx. 0.1 W (at 12 VDC)
Reset voltage	10% max. of rated supply voltage
Number of time ranges	4
Operation mode	ON delay, Interval, Flicker OFF start, Flicker ON start
Control output (Type)	Time-limit: 4PDT
Control output (Contact output)	Resistive load: 3 A at 250 VAC (cosφ=1) Minimum applicable load: 1 mA at 1 VDC (failure level: P)
Ambient temperature range	Operating: -10 to 55 °C (with no icing) Storage: -25 to 65 °C (with no icing)
Ambient humidity range	Operating: 35 to 85 %
Accuracy of operating time	±1% FS max. (±1% ±10 ms in a range of 1 s)
Setting error	±10% FS ±50 ms max.
Reset time	0.1 s max. (including halfway reset)
Influence of voltage	±2% FS max.
Influence of temperature	±2% FS max.
Insulation resistance	100 MΩ min. (at 500 VDC)
Dielectric strength	Between current carrying terminals and exposed non-current carrying metal parts: 2000 VAC 50/60 Hz 1 min (Terminal screw sections are not excluded) Between operating power circuit and control output: 2,000 VAC 50/60 Hz 1 min Between contacts of different polarity: 1,500 VAC 50/60 Hz 1 min Between non-continuous contacts: 1,000 VAC 50/60 Hz 1 min

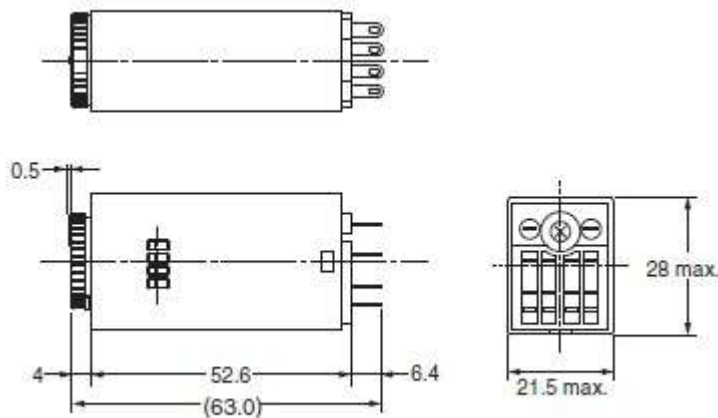
Impulse withstand voltage	Between power terminals: 1 kV Between current carrying terminals and exposed non-current carrying metal parts: 1.5 kV
Noise immunity	±1.5 kV square-wave noise by noise simulator (pulse width: 100 ns/1 μs, 1-ns rise)
Static immunity	Multifunction: 4 kV, Destruction: 8 kV
Vibration resistance	Destruction: 10 to 55 Hz, 0.75 mm single amplitude each in 3 directions for 1 hour Malfunction: 10 to 55 Hz, 0.5 mm single amplitude each in 3 directions for 10 min
Shock resistance	Destruction: 1,000 m/s ² , 3 times each in 6 directions Malfunction: 100 m/s ² , 3 times each in 6 directions
Life expectancy (relay output)	Electrical: 200,000 operations min. (3 A at 250 VAC, resistive load at 1800 operations/h, Room temperature) Mechanical: 10 million operations min. (under no load at 1,800 operations/h)
Degree of protection	IP40
Connecting method	14-pin round socket (Push-In Plus Terminal Block)
Case color	Black
Weight	Approx. 50 g
Applicable socket	PYF-14-PU-L

As of December 23, 2024

Dimensions

As of December 23, 2024

Outline drawing



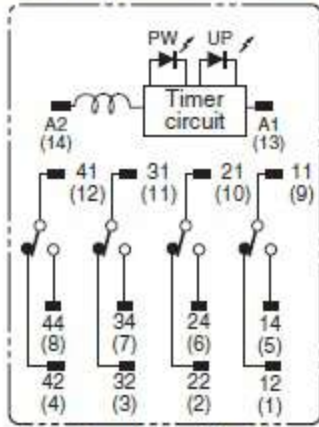
As of December 23, 2024

Internal connection

As of December 23, 2024

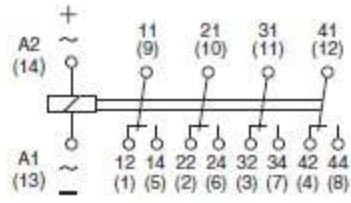
Internal connection

H3YN-4-B/-41-B
H3YN-4-Z-B/-41-Z-B



(Bottom View)

(DIN Indication)



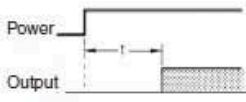
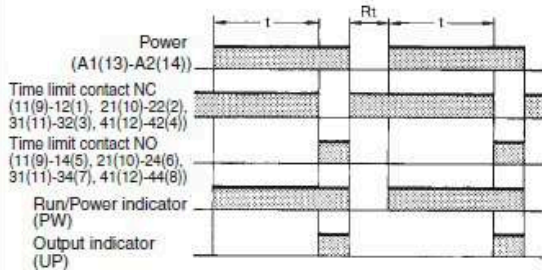
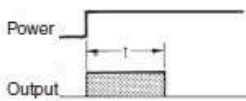
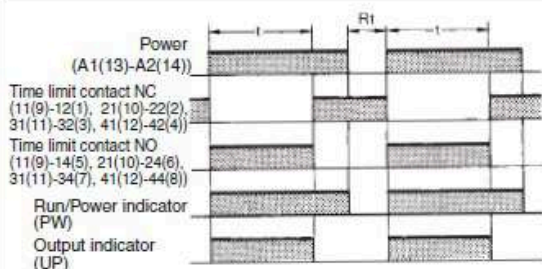
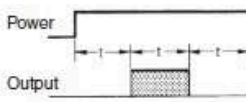
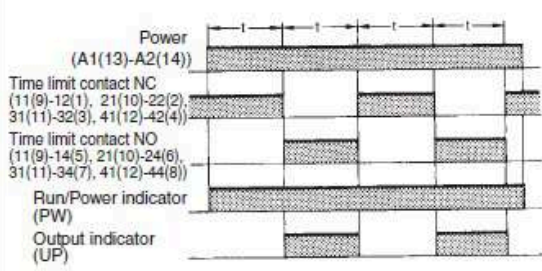
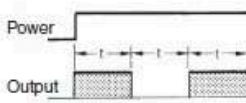
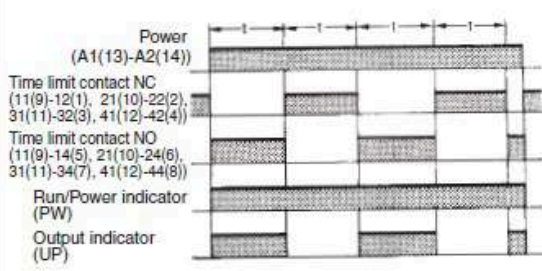
As of December 23, 2024

Operating chart

As of December 23, 2024

Operating chart

Timing Chart

Operating mode	Timing chart	
	H3YN-4-B/-41-B	
ON-delay 		
Interval 		
Flicker OFF-start 		
Flicker ON-start 		

Note: t: Set time
 Rt: Reset time