

FEATURES

- Select four types of operation time ranges between 0.2 s and 100 s on a single unit.
- Select between five (∟-Δ switching) time ranges between 0.04 s and 0.7 s.
- There is a ∟-Δ switching indicator so you can check the operation at a glance.

CHARACTERISTICS

Item	Type	PM4H-SD/SDM	
Rating	Rated operating voltage	100 to 240V AC, 24V AC	
	Rated frequency	50/60Hz common (AC operating type)	
	Rated power consumption	Max. 10VA (100 to 240V AC) Max. 2.5VA (24V AC)	
	Output rating	5A 250V AC (resistive load)	
	Operation mode	∟-Δ star-delta switching (Power ON-delay)	
	∟ operation control time range	2s to 100s, 4 time ranges switchable	
	∟-Δ switching time	0.04, 0.1, 0.3, 0.5, 0.7s (5 time ranges selectable)	
Time accuracy (Note:)	Operation time fluctuation	±0.3% (power off time change at the range of 0.1s to 1h)	
	Setting error	±5%	
	Voltage error	±0.5% (at operating voltage changes between 85 to 110%)	
	Temperature error	±2% (at 20°C ambient temp. at the range of -10 to +50°C +14 to +122°F)	
Contact	Contact arrangement	Star (∟) side: Timed-out 1 Form A Delta (Δ) side: Timed-out 1 Form A Instantaneous: 1 Form A (Instantaneous for SDM type only)	
	Contact resistance (Initial value)	Max. 100mΩ (at 1A 6V DC)	
	Contact material	Au flash on Silver alloy	
Life	Mechanical	2×10 ⁷	
	Electrical	10 ⁵ (at rated control capacity)	
Electrical function	Allowable operating voltage range	85 to 110% of rated operating voltage (at 20°C coil temp.)	
	Insulation resistance (Initial value)	Min. 100MΩ Between live and dead metal parts Between input and output Between contacts of different poles *3 (At 500V DC) Between contacts of same pole	
	Breakdown voltage (Initial value)	2,000Vrms for 1 min Between live and dead metal parts 2,000Vrms for 1 min Between input and output 2,000Vrms for 1 min Between contacts of different poles *3 1,000Vrms for 1 min Between contacts of same pole	
	Min. power off time	500ms	
	Max. temperature rise	65°C 131°F	
Mechanical function	Shock resistance	Functional	Min. 294m/s ² (4 times on 3 axes)
		Destructive	Min. 980m/s ² (5 times on 3 axes)
	Vibration resistance	Functional	10 to 55Hz: 1 cycle/min double amplitude of 0.5mm (10min on 3 axes)
		Destructive	10 to 55Hz: 1 cycle/min double amplitude of 0.75mm (1h on 3 axes)
Operating condition	Ambient temperature	-10 to +50°C +14 to +122°F	
	Ambient humidity	Max. 85%RH	
	Atmospheric pressure	860 to 1,060hPa	
Others	Protective construction	IP65 on front panel (using rubber gasket ATC18002)	
	Weight	100g 3.527 oz (Pin type) 110g 3.880 oz (Screw terminal type)	

Notes: 1) Unless otherwise specified, the measurement conditions at the maximum scale time standard are specified at rated operating voltage, 20°C 68°F ambient temperature, and 1s power off time.

2) For the 2s range, the tolerance for each specification becomes ±10ms.

3) Between contacts of different poles for SDM type only.

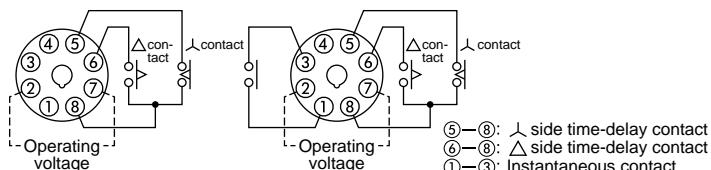
PRODUCT TYPE

Type	Operation mode	Contact arrangement	Time range	Protective construction	Rated operating voltage	Terminal type	Part number
PM4H-SD Star (∩)-Delta (Δ) switching	Star (∩)-Delta (Δ) switching	Relay Timed-out ∩ side: 1 Form A Δ side: 1 Form A	4 selectable operation ranges over 2s to 100s (∩-Δ switching time: 0.04, 0.1, 0.3, 0.5, 0.7s)	IP65	100 to 240V AC	8 pin screw	PM4HSD-S-AC240VW PM4HSD-S-AC240VSW
					24V AC	8 pin screw	PM4HSD-S-AC24VW PM4HSD-S-AC24VSW
100 to 240V AC		8 pin screw			PM4HSDM-S-AC240VW PM4HSDM-S-AC240VSW		
24V AC		8 pin screw			PM4HSDM-S-AC24VW PM4HSDM-S-AC24VSW		
PM4H-SD Star (∩)-Delta (Δ) switching		Relay Timed-out ∩ side: 1 Form A Δ side: 1 Form A		IP50	100 to 240V AC	8 pin screw	PM4HSD-S-AC240V PM4HSD-S-AC240VS
					24V AC	8 pin screw	PM4HSD-S-AC24V PM4HSD-S-AC24VS
PM4H-SDM Star (∩)-Delta (Δ) switching (Instantaneous contact)		Relay Timed-out ∩ side: 1 Form A Δ side: 1 Form A Instantaneous: 1 Form A			100 to 240V AC	8 pin screw	PM4HSDM-S-AC240V PM4HSDM-S-AC240VS
					24V AC	8 pin screw	PM4HSDM-S-AC24V PM4HSDM-S-AC24VS

WIRING DIAGRAMS

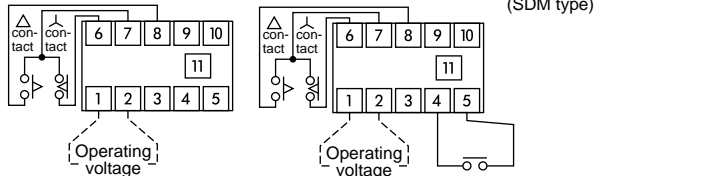
Pin type

No instantaneous contact With instantaneous contact



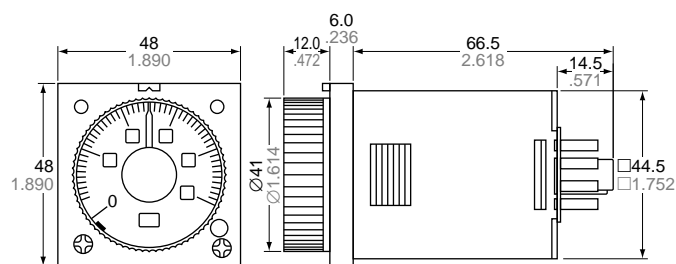
Screw terminal type

No instantaneous contact With instantaneous contact

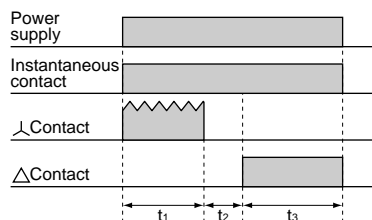


DIMENSIONS

mm inch



OPERATION MODE



t₁: ∩ operation time (∩ indicator LED lights)
t₂: ∩ - Δ switching time
t₃: Δ operation time (Δ indicator LED lights)

TIME RANGE

Time range	Time range unit	Operating time (s)	∩-Δ switching time (s)
2		0.2s to 2s	0.04
10		1s to 10s	0.1
20		2s to 20s	0.3
100		10s to 100s	0.5
			0.7