

FEATURES

- Six selectable time ranges (three between 1 and 10 s and three between 1 and 10 min).
- Instantaneous reset available.
- The shorter body makes it easier to use.

CHARACTERISTICS

Item	Type	PM4H-F8	PM4H-F8R	PM4H-F11R
Rating	Rated operating voltage	100 to 120V AC, 200 to 240V AC, 24V AC, 24V DC, 12V DC		
	Rated frequency	50/60Hz common (AC operating type)		
	Rated power consumption	Max. 5VA (AC type) Max. 2W (DC type)		
	Output rating	3A 250V AC (resistive load)		
	Operation mode	Power OFF-delay	Power OFF-delay (with reset)	
	Time range	1s to 10s: 3 range switchable 1 min to 10 min: 3 range switchable		
Time accuracy *1	Operation time fluctuation	±0.3%		
	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	Timed-out 2 Form C	Timed-out 1 Form C	Timed-out 2 Form C
	Contact resistance (Initial value)	Max. 100mΩ (at 1A 6V DC)		
	Contact material	Au flash on Silver alloy		
Life	Mechanical	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.), 90 to 110% (DC Type)		
	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)	1,500Vrms for 1 min Between live and dead metal parts 1,500Vrms for 1 min Between input and output 1,000Vrms for 1 min Between contacts of different poles *3 750Vrms for 1 min Between contacts of same pole		
	Min. power on time	seconds range: 100ms minutes range: 2s		
	Min. power off time	—	50ms	
	Max. temperature rise	55°C 131°F		
Mechanical function	Shock resistance	Functional	Min. 98m/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 (1hr 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		
	Ripple factor (DC type)	20%		
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 (within 5% ripple factor for DC), 20°C 68°F ambient temperature.

2) For the 1s range, the tolerance for each specification becomes ±10ms. When the power goes on, inrush current (0.3A) flows. Cautions should be taken. The minimum power supplying time after forced reset input is 2s or more.

3) Between contacts of different pools for F8, F11R types only.

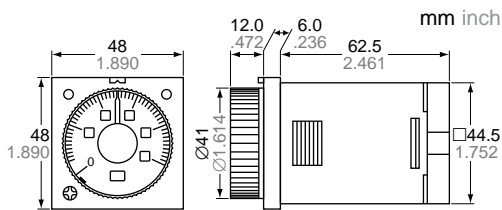
PRODUCT TYPE

Type	Operation mode	Contact arrangement	Time range	Protective construction	Rated operating voltage	Terminal type	Part Number	
PM4H-F8	Power OFF-delay (without reset)	Relay Timed-out 2 Form C	3 selectable time ranges over 1s to 10s	IP65	100 to 120V AC	8 pin	PM4HF8-S-AC120VW	
					200 to 240V AC	8 pin	PM4HF8-S-AC240VW	
					24V AC	8 pin	PM4HF8-S-AC24VW	
					12V DC	8 pin	PM4HF8-S-DC12VW	
			24V DC		8 pin	PM4HF8-S-DC24VW		
			100 to 120V AC		8 pin	PM4HF8-M-AC120VW		
			200 to 240V AC		8 pin	PM4HF8-M-AC240VW		
			24V AC		8 pin	PM4HF8-M-AC24VW		
			3 selectable time ranges over 1 min to 10 min	IP65	12V DC	8 pin	PM4HF8-M-DC12VW	
					24V DC	8 pin	PM4HF8-M-DC24VW	
					100 to 120V AC	8 pin	PM4HF8-S-AC120V	
					200 to 240V AC	8 pin	PM4HF8-S-AC240V	
			24V AC		8 pin	PM4HF8-S-AC24V		
			12V DC		8 pin	PM4HF8-S-DC12V		
			24V DC		8 pin	PM4HF8-S-DC24V		
			3 selectable time ranges over 1 min to 10 min		IP50	100 to 120V AC	8 pin	PM4HF8-M-AC120V
200 to 240V AC	8 pin	PM4HF8-M-AC240V						
24V AC	8 pin	PM4HF8-M-AC24V						
12V DC	8 pin	PM4HF8-M-DC12V						
24V DC	8 pin	PM4HF8-M-DC24V						
PM4H-F8R	Power OFF-delay (with instantaneous reset)	Relay Timed-out 1 Form C	3 selectable time ranges over 1s to 10s	IP65		100 to 120V AC	8 pin	PM4HF8R-S-AC120VW
						200 to 240V AC	8 pin	PM4HF8R-S-AC240VW
						24V AC	8 pin	PM4HF8R-S-AC24VW
					12V DC	8 pin	PM4HF8R-S-DC12VW	
			24V DC		8 pin	PM4HF8R-S-DC24VW		
			100 to 120V AC		8 pin	PM4HF8R-M-AC120VW		
			200 to 240V AC		8 pin	PM4HF8R-M-AC240VW		
			24V AC		8 pin	PM4HF8R-M-AC24VW		
			3 selectable time ranges over 1 min to 10 min	IP65	12V DC	8 pin	PM4HF8R-M-DC12VW	
					24V DC	8 pin	PM4HF8R-M-DC24VW	
					100 to 120V AC	8 pin	PM4HF8R-S-AC120V	
					200 to 240V AC	8 pin	PM4HF8R-S-AC240V	
			24V AC		8 pin	PM4HF8R-S-AC24V		
			12V DC		8 pin	PM4HF8R-S-DC12V		
			24V DC		8 pin	PM4HF8R-S-DC24V		
			3 selectable time ranges over 1s to 10s		IP50	100 to 120V AC	8 pin	PM4HF8R-M-AC120V
200 to 240V AC	8 pin	PM4HF8R-M-AC240V						
24V AC	8 pin	PM4HF8R-M-AC24V						
12V DC	8 pin	PM4HF8R-M-DC12V						
24V DC	8 pin	PM4HF8R-M-DC24V						
3 selectable time ranges over 1 min to 10 min	IP50	100 to 120V AC	8 pin	PM4HF8R-M-AC120V				
		200 to 240V AC	8 pin	PM4HF8R-M-AC240V				
		24V AC	8 pin	PM4HF8R-M-AC24V				
		12V DC	8 pin	PM4HF8R-M-DC12V				
24V DC		8 pin	PM4HF8R-M-DC24V					

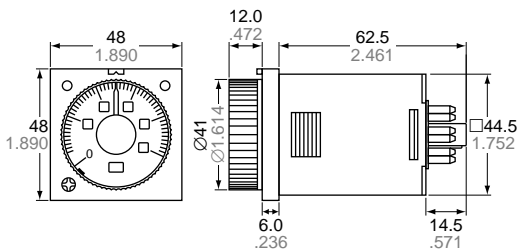
Type	Operation mode	Contact arrangement	Time range	Protective construction	Rated operating voltage	Terminal type	Part Number
PM4H-F11R	Power OFF-delay (with instantaneous reset)	Relay Timed-out 2 Form C	3 selectable time ranges over 1s to 10s	IP65	100 to 120V AC	11 pin	PM4HF11R-S-AC120VW
						screw	PM4HF11R-S-AC120VSW
					200 to 240V AC	11 pin	PM4HF11R-S-AC240VW
						screw	PM4HF11R-S-AC240VSW
					24V AC	11 pin	PM4HF11R-S-AC24VW
						screw	PM4HF11R-S-AC24VSW
				12V DC	11 pin	PM4HF11R-S-DC12VW	
					screw	PM4HF11R-S-DC12VSW	
				24V DC	11 pin	PM4HF11R-S-DC24VW	
					screw	PM4HF11R-S-DC24VSW	
				IP50	100 to 120V AC	11 pin	PM4HF11R-S-AC120V
						screw	PM4HF11R-S-AC120VS
			200 to 240V AC		11 pin	PM4HF11R-S-AC240V	
					screw	PM4HF11R-S-AC240VS	
			24V AC		11 pin	PM4HF11R-S-AC24V	
					screw	PM4HF11R-S-AC24VS	
			12V DC	11 pin	PM4HF11R-S-DC12V		
				screw	PM4HF11R-S-DC12VS		
			24V DC	11 pin	PM4HF11R-S-DC24V		
				screw	PM4HF11R-S-DC24VS		
			3 selectable time ranges over 1 min to 10 min	IP65	100 to 120V AC	11 pin	PM4HF11R-M-AC120VW
						screw	PM4HF11R-M-AC120VSW
					200 to 240V AC	11 pin	PM4HF11R-M-AC240VW
						screw	PM4HF11R-M-AC240VSW
24V AC	11 pin	PM4HF11R-M-AC24VW					
	screw	PM4HF11R-M-AC24VSW					
12V DC	11 pin	PM4HF11R-M-DC12VW					
	screw	PM4HF11R-M-DC12VSW					
24V DC	11 pin	PM4HF11R-M-DC24VW					
	screw	PM4HF11R-M-DC24VSW					
IP50	100 to 120V AC	11 pin		PM4HF11R-M-AC120V			
		screw		PM4HF11R-M-AC120VS			
	200 to 240V AC	11 pin	PM4HF11R-M-AC240V				
		screw	PM4HF11R-M-AC240VS				
	24V AC	11 pin	PM4HF11R-M-AC24V				
		screw	PM4HF11R-M-AC24VS				
12V DC	11 pin	PM4HF11R-M-DC12V					
	screw	PM4HF11R-M-DC12VS					
24V DC	11 pin	PM4HF11R-M-DC24V					
	screw	PM4HF11R-M-DC24VS					

DIMENSIONS

- Screw terminal type (embedded mounting)

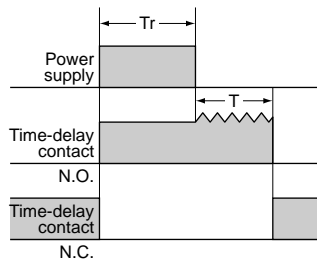


- Pin type (embedded mounting/surface)

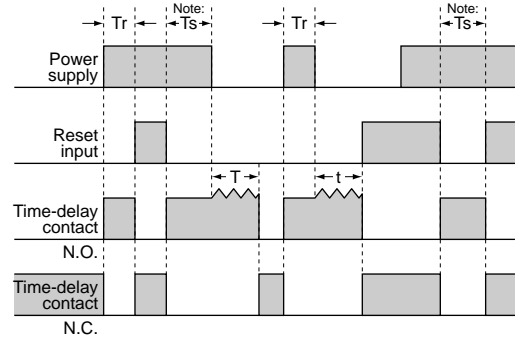


OPERATION

- PM4H-F8 (no reset input)



- PM4H-F8R/F11R (with reset input)

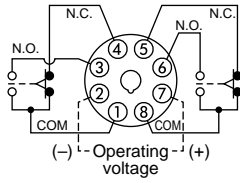


Note: t : Time setting
 T_r : Minimum power supply application time
 T_s : Min. 2s (Time to restart operation after reset input is set to OFF: both second type and minute type)

WIRING DIAGRAMS

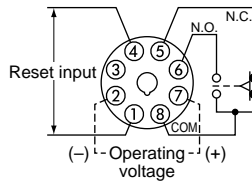
• **PM4H-F8 (no reset input)**

Pin type
Time-delay 2C



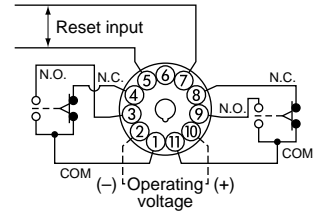
• **PM4H-F8R (with reset input)**

Pin type
Time-delay 1C, with reset input

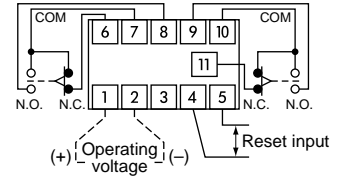


• **PM4H-F11R (with reset input)**

Pin type
Time-delay 2C, with reset input

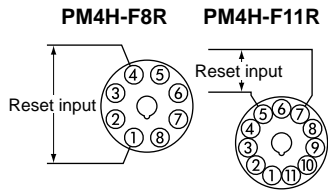


Screw terminal type
Time-delay 2C, with reset input



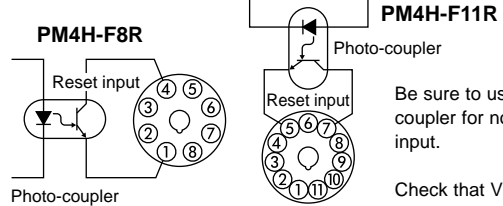
PM4H-F (WITH RESET) INPUT CONDITIONS

1. Contact operating input (pin type example)



Use a contact with good contact reliability for the input. Contact bounce can lead to erroneous operation of the timer, so use a contact with short bounce time. Make the resistance between terminals for a short circuit less than 1k-ohms. Make the resistance between terminals for an open circuit greater than 100k-ohms.

2. Non-contact input (pin type example)



Be sure to use a photo-coupler for non-contact input.

Check that $V_{ce} = 0.6V$ Max. when ON.

TIME RANGE

Time range unit	second range	minute range
1	0.04s to 1s	0.04 min to 1 min
5	0.2s to 5s	0.2 min to 5 min
10	0.4s to 10s	0.4 min to 10 min