

- ① EXT. GATING
Polarity selector switch for external synchronization signal.
Set at ON for L mode and OFF for H mode.
- ② Delay time range selector switch
ON: 1-10 seconds / OFF: 0.1-1 second
- ③ Operation mode selector switch
Timer disabled, one-shot, on-delay, off-delay, latch
- ④ Power indicator (green LED)
- ⑤ Operation indicator (red LED)
- ⑥ Sensor lamp burnt-out bulb alert indicator (red LED)
- ⑦ Delay time adjustment

Rating/Performance/Specification

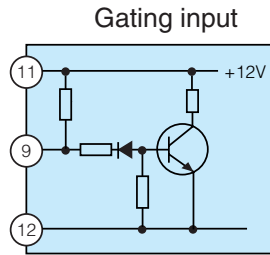
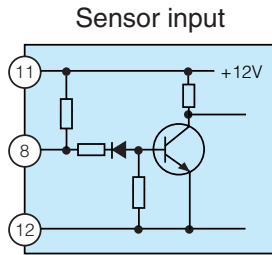
Type		MP2F		
Power supply	AC/DC100~240V ±10%			
Power consumption	25 VA max. 25 W max.			
Operation mode	Timer functions (on-delay, off-delay, one-shot, latch, timer disabled) Delay time: 0.1-1 s or 1- 10s			
Output mode	Relay output 1c Rating: 3A (250 VAC) noninductive load	Current output/voltage output Rating: Current output: sink current 100 mV (30 VDC) max. Voltage output: output impedance 3.9 kΩ (12 VDC)	Burnt-out bulb alert output (current output/voltage output)	
Input mode	Voltage input Straight polarity H : 6~12V L : 0~1V			Input impedance 4.7 KΩ
Minimum input duration	400 μs (in off-delay, one-shot and latch modes)			
Power supplied to sensor	DC12V ±5% 100mA/DC4.5V ±5% 0.8A			
External gate	Contact input/voltage input	Voltage input	H : 6~12V L : 0~1V	H/L mode selectable
Response time	10 μs max. (with timer disabled)			
Indicator	P.L: power indicator (green LED) OP.L: operation indicator (red LED) LAMP ALARM: burnt-out bulb alert indicator (red LED)			
Volume	TIME: delay time adjustment (0.1-1s/1-10s)			
Switch	EXT. GATING switch: for external gating polarity switching; ON for L, OFF for H Delay time range selector switch: ON for 1-10s, OFF for 0.1-1 s Operation mode selector switch: for switching between timer disabled, one-shot, on-delay, off-delay and latch			
Material	Resin			
Connection	Plug-in terminal block			
Mass	350 g max.			
Applicable sensor	MX10/MX10F Series			

Environmental Specification

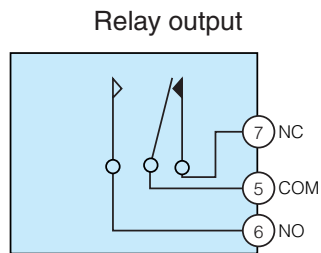
Ambient temperature	-10 - +50 °C (non-freezing)
Ambient humidity	35-85%RH (non-condensing)
Protective structure	IP20
Vibration	10-55 Hz / 1.5 mm amplitude / 2 hours each in 3 direction
Shock	1000m / s ² / 2 times each in 3 directions
Dielectric withstanding	Between power supply terminal and contact terminal: 1,500 VAC for 1 minute / Between contacts: 1,000 VAC for 1 minute
Insulation resistance	Between power supply terminal and contact output terminal/contacts: 500 VDC, 100 MΩ or higher

MP2F

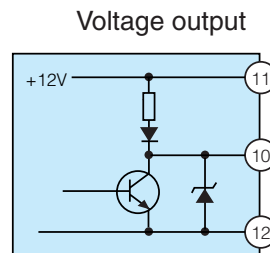
Input Circuit



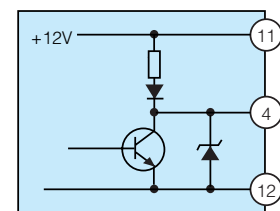
Output Circuit



Contact capacity: 250 VAC 3 A
(noninductive load)



Burnt-out bulb alert output



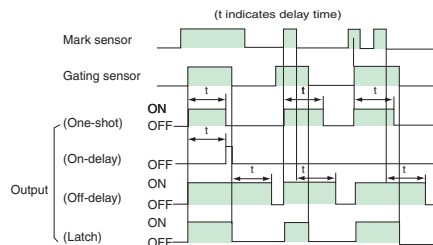
(Note) At power-up, about 3 V is output until the lamp is illuminated.

Operation

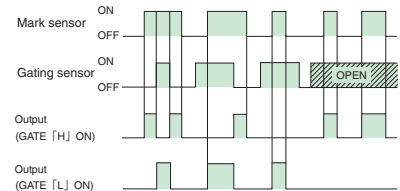
- When not using external gating in modes other than the latch mode, set H for EXT. GATING.
- In the latch mode, gating input can be used for reset with EXT. GATING setting "H" (L input).
- In the latch mode with EXT. GATING setting "L," the output signal is activated when the mark sensor and gating sensors are activated and the output is held until the gating sensor is deactivated.
- Delay time can be set with the TIME volume.

Minimum/maximum delay time can be set at "MIN"/"MAX."

(Timer operation)



(Operation with timer disabled)



Selector Switches

(1) EXT. GATING

Polarity selector switch for external synchronization signal. Set at ON for L mode and OFF for H mode.

(2) TIME

Delay time range selector switch. Setting at ON specifies a range between 1 and 10 seconds, OFF between 0.1 and 1 second.

(Timer is disabled when NORM is ON.)



(3) Operation mode switching

Set the selector switches according to the output mode.

Operation with timer disabled	One-shot	On-delay	Off-delay	Latch

(Note) Switches with settings not shown in the figure do not affect the operation of the respective modes.

