Solid State Relays

100-µA-max. Leakage Current, No Bleeder Resistor Required

- Reduces wiring work by 60% when combined with the PFY-08-PU Push-In Plus Socket (according to actual OMRON measurements).
- 1 mA to 500 mA micro-load switching.
- Switch to both AC and DC with no polarity.
- Switch for a wide range of voltages; 19.2 to 264 VAC, 19.2 to 125 VDC.
- Switch full- and half-wave rectifier AC loads.
- Same sizes and terminal arrangements as OMRON Power Relay MY Series.
- Switch MY Series (without bleeder resistor).
- Superior surge absorption with a built-in varistor.
- Optimum SSR to control minute load, valves, and solenoids.

Refer to Safety Precautions for All Solid State Relays.



Note: The socket is optional.

Model Number Structure

Model Number Legend



- 1 23456
- 1. Basic Model Name G3FM: Solid State Relay
- 2. Rated Load Power Supply Voltage 2: 200 VAC
- 3. Rated Load Current R5: 0.5 A
- 4. Terminal Type
- S: Plug-in terminals
- 5. Zero Cross Function
- L: Not equipped with zero cross function
- 6. Operation Indicator
 - N: Equipped with operation indicator

Ordering Information

■ List of Models

Isolation	Zero cross function	Indicator	Rated output load	Rated input voltage	Model
Photo-voltage coupler	No	Yes	0.5 A at 24 to 240 VAC	5 VDC	G3FM-2R5SLN
			0.5 A at 24 to 110 VDC	12 VDC	
				24 VDC	

Note: When ordering, specify the rated input voltage.

G3FM

■ Accessories (Order Separately)

Connection Sockets

Classification	Terminal type	Appearance	Model
Front-mounting	Screw terminals (finger protection structure)		PYF08A-E
	Screw terminals (finger protection structure)		PYF08A-N
	Screw terminals		PYF08A
	Push-In Plus terminal blocks (Socket combination)		PYF-08-PU
Back-mounting	Relays with PCB Terminals		PY08-02

Refer to Common Socket and DIN Track Products for details on Connection Sockets and DIN Track products (sold separately) of your OMRON website.

Refer to PYF -PU/P2RF--PU for details on A Push-In Plus Terminal Block Socket of your OMRON website.

Hold-down Clips

	Hold-down Clips		
Classification	Terminal type	Model	Model *
For front-mounting	Screw terminals (finger protection structure)	PYF08A-E and PYF08A-N	PYC-A1
	Screw terminals	PYF08A	
For back-mounting	Relays with PCB Terminals	PY08-02	PYC-P

* PYC-A1 is provided with two clips.

DIN Track Mounting Parts

Classification/ division		Туре	Appearance	Model	
For front-mounting	DIN Tracks	Shallow type, total length: 1 m		PFP-100N	
		Shallow type, total length: 0.5 m		PFP-50N	
		Deep type, total length: 1 m	0000	PFP-100N2	
	End Plate		Comment of the second	PFP-M	
	Spacer			PFP-S	

Specifications

■ Ratings (at an Ambient Temperature of 25°C)

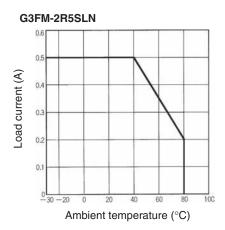
Model	Input					Output			
	Rated			Voltag	Voltage levels		Applicable load		
voltage	voltage		Must operate voltage	Must release voltage	Rated load voltage	Load voltage range	Load current	Inrush current	
G3FM-2R5SLN	5 VDC 12 VDC	4 to 6 VDC 9.6 to	250 Ω±20% 600 Ω±20%	4 VDC max. 9.6 VDC	1 VDC min.	240 VAC 24 to		6 A (10 ms)	
	12 000	14.4 VDC	000 <u>32</u> ±20 %	max.					(/
2	24 VDC	19.2 to 28.8 VDC	1.2 kΩ±20%	19.2 VDC					

■ Characteristics

Operate time	5 ms max.			
Release time	10 ms max.			
Output ON voltage drop	3 V (RMS) max.			
Leakage current	0.1 mA max. (at 200 VAC)			
Insulation resistance	100 MΩ min. (at 500 VDC)			
Dielectric strength	1,500 VAC, 50/60 Hz for 1 min			
Vibration resistance	10 to 55 to 10 Hz, 0.75-mm single amplitude			
Shock resistance	1,000 m/s ²			
Ambient temperature	Operating: –30°C to 80°C (with no icing or condensation) Storage: –30°C to 100°C (with no icing or condensation)			
Ambient humidity	Operating: 45% to 85%			
Weight	Approx. 50 g			

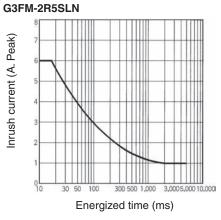
Engineering Data

Load Current vs. Ambient Temperature Characteristics



One Cycle Surge Current: Non-repetitive

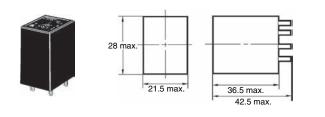
Non-repetitive (Keep the inrush current to half the rated value if it occurs repetitively.)

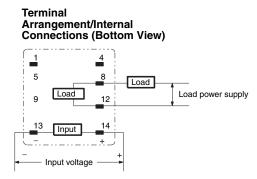


Dimensions

Note: All units are in millimeters unless otherwise indicated.

Relay





Accessories (Order Separately)

Connection Socket

Hold-down Clips

DIN Track Mounting Parts

Refer to Products Related to Common Sockets and DIN Tracks for precautions on the applicable Sockets of your OMRON website. Refer to PYF-__PU/P2RF-__PU for precautions on Push-In Plus Terminal Block Sockets of your OMRON website.

Safety Precautions

Be sure to read 'the Common Precautions' in the website at the following URL: http://www.ia.omron.com/.

Refer to the Common Solid State Relay Precautions for common precautions of your OMRON website.

Refer to *Products Related to Common Sockets and DIN Tracks for precautions on the applicable Sockets* of your OMRON website.

Refer to PYF-DD-PU/P2RF-DD-PU for precautions on Push-In Plus Terminal Block Sockets of your OMRON website.

ALL DIMENSIONS SHOWN ARE IN MILLIMETERS.

To convert millimeters into inches, multiply by 0.03937. To convert grams into ounces, multiply by 0.03527.

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