Solid State Relays
G3FM

CSM_G3FM_DS_E_5_3

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

G3FM-□□□□□
1 2 3 4 5 6

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

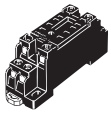
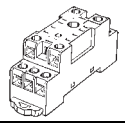
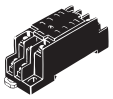
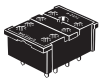
■ List of Models

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 0.5 A at 24 to 110 VDC	5 VDC	G3FM-2R5SLN
				12 VDC	
				24 VDC	

Note: When ordering, specify the rated input voltage.

■ 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.

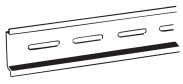
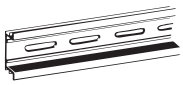
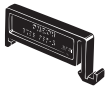
Refer to *PYF□□-PU/P2RF-□□-PU for details on A Push-In Plus Terminal Block Socket* of your OMRON website.

Hold-down Clips

Applicable Socket			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	Type		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		PFP-100N2
	End Plate			PFP-M
	Spacer			PFP-S

Specifications

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

Model	Input					Output			
	Rated voltage	Operating voltage	Impedance	Voltage levels		Applicable load			
				Must operate voltage	Must release voltage	Rated load voltage	Load voltage range	Load current	Inrush current
G3FM-2R5SLN	5 VDC	4 to 6 VDC	250 Ω±20%	4 VDC max.	1 VDC min.	24 to 240 VAC 24 to 110 VDC	19.2 to 264 VAC 19.2 to 125 VDC	1 to 500 mA at 40°C	6 A (10 ms)
	12 VDC	9.6 to 14.4 VDC	600 Ω±20%	9.6 VDC max.					
	24 VDC	19.2 to 28.8 VDC	1.2 kΩ±20%	19.2 VDC					

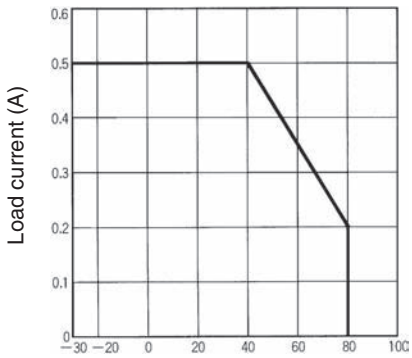
■ Characteristics

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

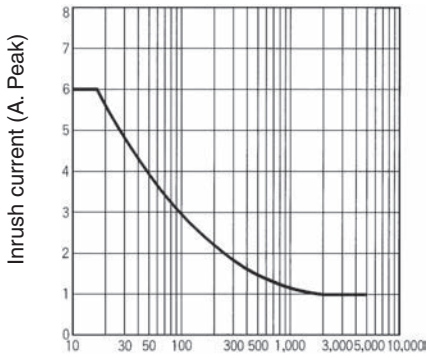
G3FM-2R5SLN



One Cycle Surge Current: Non-repetitive

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

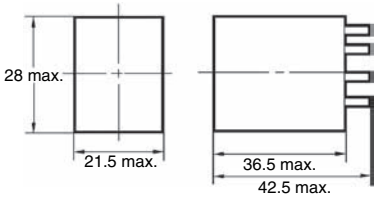
G3FM-2R5SLN



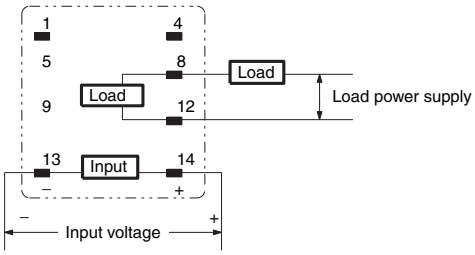
Dimensions

Note: All units are in millimeters unless otherwise indicated.

■ Relay



Terminal Arrangement/Internal Connections (Bottom View)



■ 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-□□-PU/P2RF-□□-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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