

100- μ A-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.



Note: The socket is optional.



Refer to *Safety Precautions for All Solid State Relays*.

Model Number Structure

Model Number Legend

G3FM-□□□□□□

1 2 3 4 5 6

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

Ordering Information



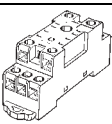


List of Models

| 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 (Terminal cover structure) * |  | PYFZ-08 |
| | Screw terminals (finger protection structure) |  | PYFZ-08-E |
| | Screw terminals (finger protection structure) |  | PYF08A-N |
| | Push-In Plus terminal blocks (Socket combination) |  | PYF-08-PU |
| Back-mounting | Relays with PCB Terminals |  | PY08-02 |

* Terminal cover type is PYCZ-C08. (Order Separately) For details, refer to the *Terminal Covers*.

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

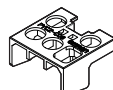
Refer to *PYF□□-PU/P2RF-□□-PU* for details on A Push-In Plus Terminal Block Socket of your OMRON website.

Hold-down Clips

| Applicable Socket | | | Hold-down Clips |
|--------------------|---|-----------|-----------------|
| Classification | Terminal type | Model | Model |
| For front-mounting | Screw terminals | PYFZ-08 | PYC-A1 * |
| | Screw terminals (finger protection structure) | PYFZ-08-E | |
| | Screw terminals (finger protection structure) | PYF08A-N | |
| For back-mounting | Relays with PCB Terminals | PY08-02 | PYC-P |

* PYC-A1 is provided with two clips.

Terminal Covers

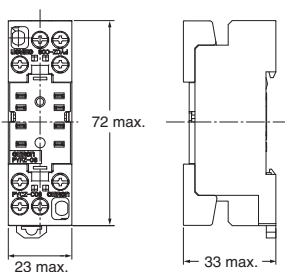
| Applicable Socket | Terminal Covers | |
|-------------------|---|-------------------------|
| Model | Appearance | Model |
| PYFZ-08 |  | PYCZ-C08 (2 pcs/set) |

Note: Use these covers in a combination with PYFZ-08.

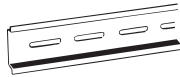



Dimensions with terminal cover

PYCZ-C08

(Unit: mm)



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)

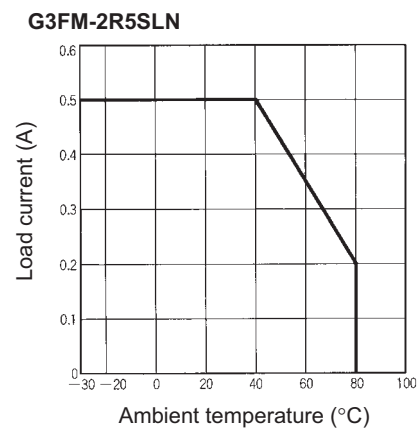
| Model | Input | | | | | Output | | | |
|-------------|---------------|-------------------|------------|----------------------|----------------------|--------------------------------|------------------------------------|------------------------|----------------|
| | Rated voltage | Operating voltage | 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 |
| MTTFd (Reference value) | 1,000 years min. |

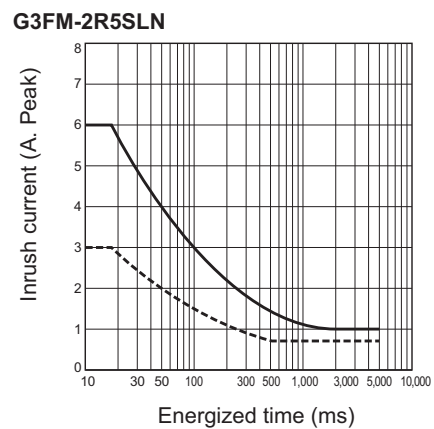
Engineering Data

Load Current vs. Ambient Temperature Characteristics



One Cycle Surge Current: Non-repetitive

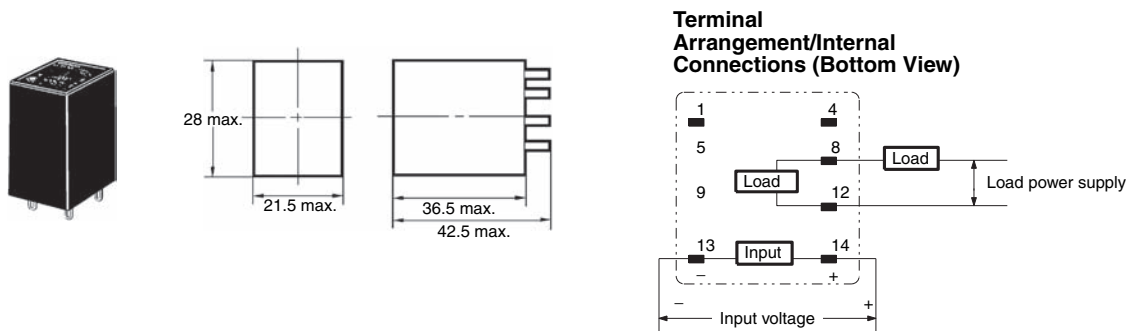
Non-repetitive (Keep the inrush current to half the rated value if it occurs repetitively.)



Dimensions

Note: All units are in millimeters unless otherwise indicated.

Relay



Accessories (Order Separately)

Connection Socket

Hold-down Clips

Terminal Covers

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, Terminal Covers 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.

In the interest of product improvement, specifications are subject to change without notice.

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