# MY-GS

CSM\_MY-GS\_DS\_E\_10\_1

## Mechanical Indicators Added as a Standard Feature to Our Best-selling MY General-purpose Relays

- A lineup of models with latching levers added for easier circuit checking.
- Reduces wiring work by 60% when combined with the PYF-PU Push-In Plus Socket (according to actual OMRON measurements).
- Relays with AC and DC coils have different colors of operating indicators (LEDs).
- Printing on the coil tape indicates the operating coil specification.
- Mechanical operation indicators are a standard feature on all models.
- UL, CSA, IEC (VDE certification), CQC and Lioyd.



Refer to the Common Relay Precautions.

## 







#### **Features**

#### Common to all specifications

- · Mechanical indicators are a standard feature on all models so that you can easily check the contact status.
- The color of the LED shows whether the coil voltage is AC or DC.

Mechanical indicators
(one on left and one on right)

LED operation indicator
Relay with AC coil: Red
Relay with DC coil: Green

Relay with AC Coil (LED: Red)

Contacts OFF (coil de-energized)



Relay with AC Coil (LED: Red)



Relay with DC Coil (LED: Green)

#### With latching lever

- Useful for the operation check of relay sequence circuits.
- The coil voltage AC/DC can be identified by the color of the latching lever (AC coil specification: red, DC coil specification: Blue).

#### Latching lever operating method

	Normal State	Mode 1: Momentary State	Mode 2: Locked State
When seen from the top	Omerce Comments of the Comment	Yellow button	Omnon C E Note of the Control of the
When seen from the side	BE 1955	The state of the s	A STATE STAT
Operation Description		Slide the lever one step and press the yellow button with an insulated tool to operate the contacts.	If you slide the lever two steps, the contacts lock in the operation position.

## **Model Number Structure**

### **Model Number Legend**



1. Number of Poles 2: 2 poles 4: 4 poles

Latching Lever
 Blank: Without latching lever

With latching lever 3. LED Operation Indicator Blank:Built-in mechanical indicators

N: LED operation indicator and built-in mechanical indicators

4. Coil Surge Absorption
Blank:Standard models
D2: Models with built-in diodes (14: +)
D1: Models with built-in diodes (13: +)
CR: Models with built-in CR circuits

5. Operating Coil Voltage Display Example: DC24

### **List of Models**

## **Miniature Power Relays (MY-GS-R)**

				Plug-in (octal pins) terminals			
Category		Number	Contact	4	With operation indicator		
		of poles	structure			With latching lever	
Standard models		2		MY2-GS-R	MY2N-GS-R	MY2IN-GS-R	
		4		MY4-GS-R	MY4N-GS-R	MY4IN-GS-R	
	Type 1	2	- Single		MY2N-D2-GS-R	MY2IN-D2-GS-R	
Models with built-in diodes	(-) (+) 13 (-1) 14 A1 (-1) A2	4			MY4N-D2-GS-R	MY4IN-D2-GS-R	
for coil surge absorption	Type 2	2			MY2N-D1-GS-R	MY2IN-D1-GS-R	
	+ - 13 14 A1 A2	4			MY4N-D1-GS-R	MY4IN-D1-GS-R	
Models with built-in CR circuits for coil surge absorption		2			MY2N-CR-GS-R	MY2IN-CR-GS-R	
		4			MY4N-CR-GS-R	MY4IN-CR-GS-R	

## **Ordering Information**

#### Main unit

#### Standard model without operation indicator

Number of poles	Model	Rated voltage (V)	
2	MY2-GS-R	12, 24, 48, 100/110, 110/120, 200/220, 220/240 VAC 6, 12, 24, 48, 100/110 VDC	
4	MY4-GS-R	12, 24, 48, 100/110, 110/120, 200/220, 220/240 VAC 6, 12, 24, 48, 100/110 VDC	

#### Standard model with operation indicator

Number of poles	Model	Rated voltage (V)	
2	MY2N-GS-R	12, 24, 48, 100/110, 110/120, 200/220, 220/240 VAC 6, 12, 24, 48, 100/110, 220 VDC	
4	MY4N-GS-R	12, 24, 48, 100/110, 110/120, 200/220, 220/240 VAC 6, 12, 24, 48, 100/110, 220 VDC	

#### Standard model with operation indicator and latching lever

Number of poles	Model	Rated voltage (V)		
2	MY2IN-GS-R	12, 24, 48, 100/110, 110/120, 200/220, 220/240 VAC 6, 12, 24, 48, 100/110, 220 VDC		
4	MY4IN-GS-R	12, 24, 48, 100/110, 110/120, 200/220, 220/240 VAC 6, 12, 24, 48, 100/110, 220 VDC		

#### Models with built-in diodes for coil surge absorption with operation indicator (14: +)

Number of poles	Model	Rated voltage (V)			
2	MY2N-D2-GS-R	12, 24, 48, 100/110, 220 VDC			
4	MY4N-D2-GS-R	12, 24, 48, 100/110, 220 VDC			

#### Models with built-in diodes for coil surge absorption with operation indicator (13: +)

Number of poles	Model	Rated voltage (V)			
2	MY2N-D1-GS-R	12, 24, 48, 100/110 VDC			
4	MY4N-D1-GS-R	12, 24, 48, 100/110 VDC			

#### Models with built-in diodes for coil surge absorption with operation indicator and latching lever (14: +)

Number of poles	Model	Rated voltage (V)			
2	MY2IN-D2-GS-R	12, 24, 48, 100/110, 220 VDC			
4	MY4IN-D2-GS-R	12, 24, 48, 100/110, 220 VDC			

#### Models with built-in diodes for coil surge absorption with operation indicator and latching lever (13: +)

Number of poles	Model	Rated voltage (V)		
2	MY2IN-D1-GS-R	12, 24, 48, 100/110 VDC		
4	MY4IN-D1-GS-R	12, 24, 48, 100/110 VDC		

#### Models with built-in CR circuits for coil surge absorption with operation indicator

Number of poles	Model	Rated voltage (V)			
2	MY2N-CR-GS-R	100/110, 110/120, 200/220, 220/240 VAC			
4	MY4N-CR-GS-R	100/110, 110/120, 200/220, 220/240 VAC			

#### Models with built-in CR circuits for coil surge absorption with operation indicator and latching lever

Number of poles	Model	Rated voltage (V)			
2	MY2IN-CR-GS-R	100/110, 110/120, 200/220, 220/240 VAC			
4	MY4IN-CR-GS-R	100/110, 110/120, 200/220, 220/240 VAC			

## **Ratings and Specifications**

#### Ratings

## Main unit Operating Coil

Item		Rated current (mA)		Coil resistance	Coil indu	Coil inductance (H)		Must-release voltage	Maximum voltage	Power consumption
Rate	d voltage	50 Hz	60 Hz	(Ω)	Armature OFF	Armature ON	Perce	Percentage of rated voltage		
	12	106.5	91	46	0.17	0.33			_ 110%	
	24	53.8	46	180	0.69	1.3				
	48	25.7	21.1	788	3.22	5.66				
AC	100/110	11.7/12.9	10.0/11.0	3,750	14.54	24.6		30% min. <b>*</b> 2		Approx. 0.9 to 1.3 (at 60 Hz)
	110/120	9.9/10.8	8.4/9.2	4,430	19.2	32.1	80% max. <b>*</b> 1			
	200/220	6.2/6.8	5.3/5.8	12,950	54.75	94.07				
	220/240	5.2/6.2	4.3/5.0	15,920	83.5	136.4				
	6	146 (151)		41.0 (39.8)	0.17	0.33	0070 max. 4-1	10% min. <b>*</b> 2		
	12	72.7 (75)		165 (160)	0.73	1.37				Approx. 0.9
	24	36.3 (37.7)		662 (636)	3.2	5.72				
DC	48	17.6 (18.8)		2,725 (2,560)	10.6	21.0				
	100/110	8.7 (9.0)/9.6	6 (9.9)	11,440 (11,100)	45.6	86.2	1			
	220	3.6	3.6		362.3	452.9	1			Approx. 0.8

- Note: 1. The rated current and coil resistance are measured at a coil temperature of 23°C with tolerances of +15%/–20% for the AC rated current and +15% for the DC coil resistance.
  - 2. The AC coil resistance and inductance values are reference values only (at 60 Hz).
  - 3. Operating characteristics were measured at a coil temperature of 23°C.
  - 4. The values in parentheses for the rated currents and coil voltages of DC coils are for models with LED operation indicators.
  - 5. The maximum voltage capacity was measured at an ambient temperature of 23°C.
- **\*1.** There is variation between products, but actual values are 80% max.

The Relay will operate if 80% or higher of the rated voltage is applied. However, to achieve the specified characteristics, apply the rated voltage to the coil.

\*2. There is variation between products, but actual values are 30% minimum for AC and 10% minimum for DC. To ensure release, use a value that is lower than the specified value.

#### Contacts

	2 poles				4 poles	
	Resistiv	ve load	Inductive load (cos φ = 0.4, L/R = 7 ms)	Resist	ive load	Inductive load (cos φ = 0.4, L/R = 7 ms)
Contact configuration	DPDT 4PDT					
Contact structure	Single			•		
Contact material	Ag					
Rated load	10 A at 250 VAC 10 A at 30 VDC	5 A at 220 VAC 5 A at 24 VDC	2 A at 220 VAC 2 A at 24 VDC	6 A at 250 VAC 6 A at 30 VDC	3 A at 220 VAC 3 A at 24 VDC	0.8 A at 220 VAC 1.5 A at 24 VDC
Electrical endurance *1	100,000 operations	500,000 operations	П	30,000 operations	200,000 operations	
Rated carry current	10 A	-1		6 A *2		
Maximum contact voltage	250 VAC, 220 VDC			250 VAC, 220 VDC		
Maximum contact current	10 A			6 A *2		
Maximum switching capacity	2,500 VA 300 W		440 VA 48 W	1,500 VA 180 W 176 VA 36 W		
Minimum load (reference values) *3	1 mA at 5 VDC			1		

- \*1. Rated load, switching frequency: 2,400 operations/h. Ambient temperature condition: 23°C. Duty ratio: 33%.
- \*2. 4 poles of 6 A is for an ambient temperature of 50°C. At an ambient temperature of 70°C, the value is 3 A.
- **\*3.** These values are guides for the switchable limits for minute load levels, such as in electronic circuits. Actual characteristics may be different. These values will depend on the switching frequency, atmosphere, and expected reliability level. Confirm applicability in the actual system under actual application conditions.

#### **Characteristics** Main unit

		2 poles	4 poles		
Contact resistance *1		100 mΩ max.			
Operation time *2		20 ms max.			
Release time *2		20 ms max.			
Maximum operating Mechanical		18, 000 operations/h			
frequency	Rated load	2,400 operations/h			
Insulation resistance	*3	1,000 MΩ min.			
	Between coil and contacts	2,000 VAC at 50/60 Hz for 1 min.			
Dielectric strength	Between contacts of different polarity	2,000 VAC at 50/60 Hz for 1 min.			
	Between contacts of the same polarity	1,000 VAC at 50/60 Hz for 1 min.			
Vibration resistance	Destruction	10 to 55 to 10 Hz, Double amplitude: 1.0 mm			
Vibration resistance	Malfunction	10 to 55 to 10 Hz, Double amplitude: 1.0 mm			
Shock resistance	Destruction	1,000 m/s <sup>2</sup> (approx. 100 G)			
Shock resistance	Malfunction	200 m/s <sup>2</sup> (Approx. 20 G)			
Mechanical endurance		50,000,000 operations (switching frequency: 18,000	0 operations/h)		
Ambient operating ter	nperature	Standard models: –55 to 70°C (with no icing or con Models with LED operation indicators: –40 to 70°C			
Ambient humidity		5% to 85%			
Weight		Approx. 35 g			

Note: The above values are initial values.

\*1. Measurement conditions: 1 A at 5 VDC using the voltage drop method.

\*2. Measurement conditions: With rate operating power applied, not including contact bounce time.

\*3. Measurement conditions: For 500 VDC applied to the same location as for dielectric strength measurement.

### **Certified Ratings for Models Certified for Safety Standards**

The rated values for safety standard certification are not the same as individually defined performance values. Always check the specifications before use.

#### Main unit

**UL-certified Models: UL508** 

MY-GS	Number of poles	Coil ratings	Contact ratings	Certified number of operations
	2	12 VAC, 24 VAC, 48 VAC, 100/110 VAC, 110/120 VAC, 200/220 VAC, or 220/240 VAC 6 VDC, 12 VDC, 24 VDC, 48 VDC, 100/110 VDC, or 220 VDC	5 A, 30 VDC (General Use) 10 A, 30 VDC (General Use) 5 A, 250 VAC (General Use) 10 A, 250 VAC (General Use)	6,000 operations
	4	12 VAC, 24 VAC, 48 VAC, 100/110 VAC, 110/120 VAC, 200/220 VAC, or 220/240 VAC 6 VDC, 12 VDC, 24 VDC, 48 VDC, 100/110 VDC, or 220 VDC	3 A, 30 VDC (General Use) 6 A, 30 VDC Resistive Load 3 A, 250 VAC (General Use) 6 A, 250 VAC Resistive Load	6,000 operations

#### CSA-certified Models: CSA C22.2 No.14

MY-GS	Number of poles	Coll ratings Contact ratings		Certified number of operations
	2	12 VAC, 24 VAC, 48 VAC, 100/110 VAC, 110/120 VAC, 200/220 VAC, or 220/240 VAC 6 VDC, 12 VDC, 24 VDC, 48 VDC, 100/110 VDC, or 220 VDC	5 A, 30 VDC (General Use) 10 A, 30 VDC (General Use) 5 A, 250 VAC (General Use) 10 A, 250 VAC (General Use)	6,000 operations
	4	12 VAC, 24 VAC, 48 VAC, 100/110 VAC, 110/120 VAC, 200/220 VAC, or 220/240 VAC 6 VDC, 12 VDC, 24 VDC, 48 VDC, 100/110 VDC, or 220 VDC	3 A, 30 VDC (General Use) 6 A, 30 VDC Resistive Load 3 A, 250 VAC (General Use) 6 A, 250 VAC Resistive Load	6,000 operations

#### VDE-certified Models: EN 61810-1

MY-GS	Number of poles	Coil ratings	Contact ratings	Certified number of operations
	2	12 VAC, 24 VAC, 48 VAC, 100/110 VAC, 110/120 VAC, 200/220 VAC, or 220/240 VAC 6 VDC, 12 VDC, 24 VDC, 48 VDC, 100/110 VDC, or 220 VDC	10 A, 30 VDC (L/R = 0) 10 A, 250 VAC (cosp = 1)	10,000 operations
	4	12 VAC, 24 VAC, 48 VAC, 100/110 VAC, 110/120 VAC, 200/220 VAC, or 220/240 VAC 6 VDC, 12 VDC, 24 VDC, 48 VDC, 100/110 VDC, or 220 VDC	6 A, 30 VDC (L/R = 0) 6 A, 250 VAC (cosφ = 1)	10,000 operations

#### **CQC-certified Models**

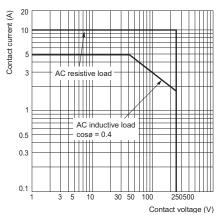
Model	Standard number	Certification No.
MY-GS	GB/T 21711.1	CQC18002198531

#### LR certification (Lloyd's Register)

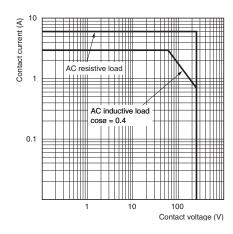
Model	Environmental Category	Operating Coil ratings
MY-GS-R	ENV2. 3	12 to 240 VAC
WI I -GG-IX	LINVZ, J	6 to 220 VDC

## **Engineering Data (Reference Value)**

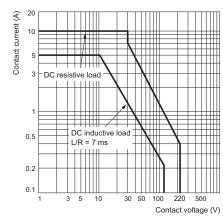
## Maximum Switching Capacity MY2□□-□□-GS-R (AC load)



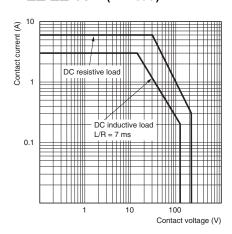
#### MY4□□-□□-GS-R (AC load)



#### MY2□□-□□-GS-R (DC load)

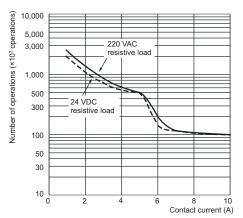


#### MY4□□-□□-GS-R (DC load)

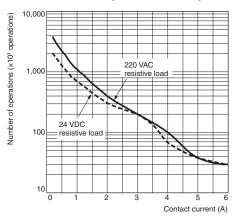


#### **Endurance Curve**

#### MY2□□-□□-GS-R (Resistive Load)



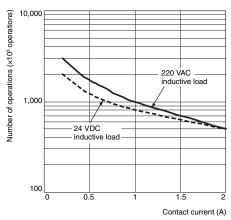
#### MY4□□-□□-GS-R (Resistive Load)



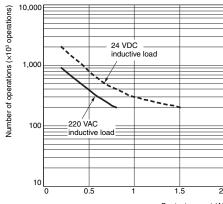
Note: 1. Number of operations: AC load, 50 Hz, 80%

2. Switching condition: NO or NC

#### MY2□□-□□-GS-R (Inductive Load)

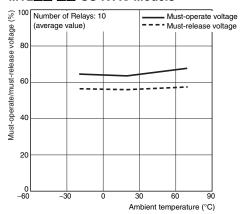


#### MY4□□-□□-GS-R (Inductive Load)

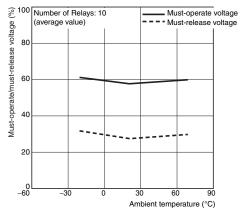


#### Ambient Temperature vs. Must-operate and Must-release Voltage

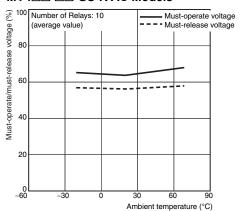
#### MY2□□-□□-GS-R AC Models



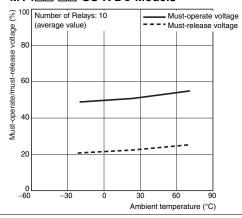
#### MY2□□-□□-GS-R DC Models



#### MY4□□-□□-GS-R AC Models

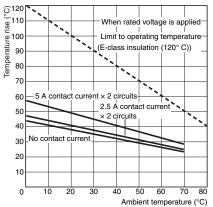


#### MY4□□-□□-GS-R DC Models

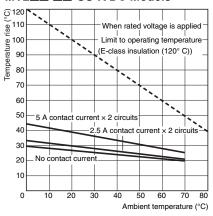


#### Ambient Temperature vs. Coil Temperature Rise

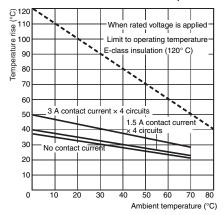
#### MY2 -- -- GS-R AC Models, 50 Hz



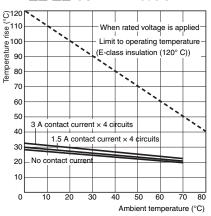
#### MY2 -- -- GS-R DC Models



#### MY4□□-□□-GS-R AC Models, 50 Hz



#### MY4□□-□□-GS-R DC Models

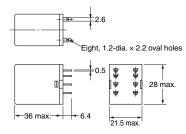


Dimensions (Unit: mm)

## Relays

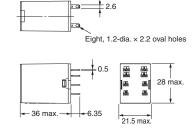
MY2-GS-R MY2N-GS-R MY2N-D2-GS-R MY2N-CR-GS-R MY2N-D1-GS-R





MY2IN-GS-R MY2IN-D2-GS-R MY2IN-CR-GS-R MY2IN-D1-GS-R





Terminal Arrangement/Internal Connections (Bottom View)

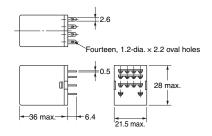
MY2-GS-R	MY2□N-GS-R			MY2□N-	D2-GS-R
Standard Models	AC Models	DC Models (except 220 VDC)	DC Models (for 220 VDC)	DC Models (except 220 VDC)	DC Models (for 220 VDC)
5 8 9 12 	5 8 8 12 12 13 14	1 4 8 8 12 12 13 14 14 14 14 14 14 14 14 14 14 14 14 14	5 9 12 13	1 8 8 1 12 1 13 1 14 1 14 1 14 1 14 1 14 1 14	1 4 8 8 1 1 2 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1
(The coil has no polarity.)	(The coil has no polarity.)	(The coil has no polarity.)	(The coil has no polarity.)	(The coil has polarity.)	(The coil has polarity.)

MY2□N-	MY2□N-D1-GS-R			
DC Models (except 220 VDC)	DC Models (for 220 VDC)	AC Models		
1 4 8 8 9 12 12 13 + 14	5 5 8 8 12 9 12	1 8 8 9 12 12 13 14		
(The coil has polarity.)	(The coil has polarity.)	(The coil has no polarity.)		

- Note: 1. An AC model has coil disconnection self-diagnosis.
  - 2. For models with built-in diodes for coil surge absorption, check the coil polarity when wiring and wire all connections correctly.
  - 3. The indicator is red for AC and green for DC.
  - **4.** The LED operation indicators indicate the energization of the coil and do not necessarily represent contact operation.

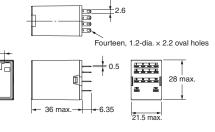
MY4-GS-R MY4N-GS-R MY4N-D2-GS-R MY4N-CR-GS-R MY4N-D1-GS-R





MY4IN-GS-R MY4IN-D2-GS-R MY4IN-CR-GS-R MY4IN-D1-GS-R





Terminal Arrangement/Internal Connections (Bottom View)

MY4-GS-R		MY4□N-GS-R			D2-GS-R
Standard Models AC Models		DC Models (except 220 VDC)  DC Models (for 220 VDC)		DC Models (except 220 VDC)	DC Models (for 220 VDC)
5 6 7 8 9 10 11 12 13 14	1 2 3 4 5 6 7 8 9 10 11 12	1 2 3 4 5 6 7 8 9 10 11 12	1 2 3 4 8 7 8 9 10 11 12 13 14	1 2 3 4 8 5 6 7 8 9 10 11 12 13 14	5 6 7 8 9 10 11 12 13 14 14
(The coil has no polarity.)	(The coil has no polarity.)	(The coil has no polarity.)	(The coil has no polarity.)	(The coil has polarity.)	(The coil has polarity.)

MY4□N-	MY4□N-D1-GS-R		
DC Models (except 220 VDC)	DC Models (for 220 VDC)	DC Models	
(The coil has polarity.)	1 2 3 4 8 7 1 8 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	(The coil has no polarity.)	

- Note: 1. An AC model has coil disconnection self-diagnosis.

  2. For models with built-in diodes for coil surge absorption, check the coil polarity when wiring and wire all connections correctly.

  3. The inflicator is red for AC and green for DC.

  - 4. The LED operation indicators indicate the energization of the coil and do not necessarily represent contact operation.

## **Common Options (Order Separately)**

## **Ordering Information**

#### **Front-mounting Sockets**

Number of Pins	Applicable Relay Model	Terminal Type	Mounting Method	Appearance	Model	Hold-down Clips
8	MY2□-GS-R	Screw terminal Finger protection structure *1 (Screw size M3)	DIN Track or screw mounting		PYFZ-08-E	PYC-A1 *3
		Screw terminal Finger protection structure *1 (Screw size M3)	DIN Track or screw mounting		PYF08A-N	PYC-A1 *3
		Push-In Plus Terminal (Integrated Socket with release lever)	DIN Track or screw mounting *2		PYF-08-PU	
14		Screw terminal Finger protection structure *1 (Screw size M3)	DIN Track or screw mounting		PYFZ-14-E	PYC-A1 *3
	MY4□-GS-R	Screw terminal Finger protection structure *1 (Screw size M3)	DIN Track or screw mounting		PYF14A-N	PYC-A1 *3
		Push-In Plus Terminal (Integrated Socket with release lever)	DIN Track or screw mounting *2		PYF-14-PU	

**<sup>\*1.</sup>** In the finger protection type (PYFZ-□-E, and PYF□A-N), the terminal cover is integrated into the Socket. Round terminals cannot be used. Use forked terminals or ferrules instead.

#### **Back-mounting Sockets**

Number of Pins	Applicable Relay Model	Terminal Type	Appearance	Model	Hold-down Clips
8	MY2□-GS-R	PCB terminals		PY08-02	PYC-P <b>*</b> 1
14	MY4□-GS-R	PCB terminals		PY14-02	F10-F41

<sup>\*1.</sup> If an MY□IN Relay with a Latching Lever is used in combination with a PY□-02 Socket for Relays with PCB Terminals and a PYC-P Mounting Bracket, the lever will not operate.

#### Socket accessories Mounting Bracket

Appearance *1	Model	Weight *2	Application
	PYC-A1	Approx. 0.54 g	For joining the Socket and Relay
	PYC-P	Approx. 1.4 g	For joining the Socket and Relay

**<sup>\*1.</sup>** Describes the appearance when the Relay, Socket, and Mounting Bracket have been combined together.

<sup>\*2.</sup> There are screw mounting holes in the DIN hooks on the PYF-□□-PU. Pull out the DIN hook tabs to mount the Sockets with screws.

**<sup>\*3.</sup>** Model number of the applicable Mounting Bracket. Sold in sets of two.

<sup>\*2.</sup> The PYC-A1 includes two Mounting Brackets in one set. The weight specified above is the weight of one Mounting Bracket.

## **Ratings and Specifications**

#### **Characteristics**

#### **Sockets**

							Dielectric strength				
Model	Conn ection	Number of Pins	Terminal Type	Ambient operating temperature	Ambient humidity	Continuous carry current	Between contact terminals of same polarity	Between contact terminals of different polarity	Between coil and contact terminals	Insulation resistance *1	Weight
PYFZ-08-E			Screw	–55 to 70°C	5% to 85% RH	10 A	2,250 VAC 1 min	2,250 VAC 1 min	2,250 VAC 1 min	1,000 MΩ min. (500 VDC)	Approx. 32 g
PYF08A-N		8	terminal	−55 to 55°C	5% to 85% RH	7A <b>*</b> 3	2,000 VAC 1 min	2,000 VAC 1 min	2,000 VAC 1 min	1,000 MΩ min. (500 VDC)	Approx. 32 g
PYF-08-PU			Push-In Plus Terminal	-40 to 70°C	5% to 85% RH	10A <b>*</b> 2	2,000 VAC 1 min	2,000 VAC 1 min	2,000 VAC 1 min	1,000 MΩ min. (500 VDC)	Approx. 80 g
PYFZ-14-E	Front		Screw	−55 to 70°C	5% to 85% RH	6A	2,250 VAC 1 min	2,250 VAC 1 min	2,250 VAC 1 min	1,000 MΩ min. (500 VDC)	Approx. 50 g
PYF14A-N		14	terminal 14	−55 to 55°C	5% to 85% RH	5A <b>*</b> 3	2,000 VAC 1 min	2,000 VAC 1 min	2,000 VAC 1 min	1,000 MΩ min. (500 VDC)	Approx. 50 g
PYF-14-PU		Push-In Plus Terminal	-40 to 70°C	5% to 85% RH	6A	2,000 VAC 1 min	2,000 VAC 1 min	2,000 VAC 1 min	1,000 MΩ min. (500 VDC)	Approx. 87 g	
PY08-02	Back	8	РСВ	–55 to 70°C	5% to 85% RH	7A	1,500 VAC 1 min	1,500 VAC 1 min	1,500 VAC 1 min	100 MΩ min.	Approx. 7.2 g
PY14-02	Dack	14	terminals	–55 to 70°C	5% to 85% RH	3A	1,500 VAC 1 min	1,500 VAC 1 min	1,500 VAC 1 min	100 MΩ min.	Approx. 10 g

**<sup>\*1.</sup>** For 500 VDC applied to the same location as for dielectric strength measurement.

#### **Socket Accessories** For front-connecting Sockets **Short Bars**

Application	Applicable sockets	Model	Maximum carry current	Ambient operating temperature	Ambient operating humidity
For Contact terminals (common)		PYDN-7.75-020□	- 20 A		
	PYF-08-PU(-L) PYF-14PU(-L)	PYDN-7.75-030□		−40 to 70°C	5% to 85%RH
		PYDN-7.75-040□			
		PYDN-7.75-200□			
For Coil terminals	PYF-08-PU(-L) PYF-14PU(-L)	PYDN-31.0-080□	20 A	−40 to 70°C	5% to 85%RH

#### **Certified Standards**

#### **Sockets**

#### CSA certified (File No. LR031928)

Model	Ratings	Class number	Standard number
PYFZ-08-E	10A 250V		
PYFZ-14-E	6A 250V *		
PYF08A-N	7A 250V	3211 07	CSA C22.2 No14
PYF14A-N	7A 250V	321107	C3A C22.2 NO 14
PYF-08-PU	10A 250V		
PYF-14-PU	6A 250V *		

<sup>\*</sup>When power is supplied to all four poles, use with a total power current that does not exceed 20 A.

#### **UL Standards Certification (File No. E87929)**

Model	Ratings	Standard number	Category	Listed/ Recognized
PYFZ-08-E	10A 250V			
PYFZ-14-E	6A 250V *			
PYF08A-N	7A 250V	UL 508	SWIV2	Recognition
PYF14A-N	7A 250V	OL 306	SWIVZ	Recognition
PYF-08-PU	10A 250V			
PYF-14-PU	6A 250V *			

<sup>\*</sup>When power is supplied to all four poles, use with a total power current that does not exceed 20 A.

#### **TÜV Rheinland certification**

Model	Ratings	Standard number	Certification No.
PYFZ-08-E	10A 250V		R50405329
PYFZ-14-E	6A 250V		130403329
PYF08A-N	7A 250V	EN 61984	J50224549
PYF14A-N	7A 250V	EN 01904	350224549
PYF-08-PU	10A 250V *		R50327595
PYF-14-PU	6A 250V		K30321395

<sup>\*</sup>Ratings are for an ambient temperature of up to 55°C. At an ambient temperature of 70°C, the value is 7A.

<sup>\*2.</sup> The continuous carry current of 10 A is for an ambient temperature of 55°C. At an ambient temperature of 70°C, the value is 7 A.

\*3. When using the PYF08A-N or PYF14A-N at an ambient operating temperature exceeding 40°C, reduce the continuous carry current to 60%.

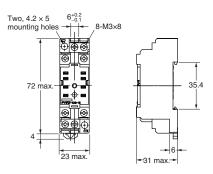
### **Dimensions**

#### **Connection Sockets**

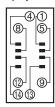
#### **Front-mounting Sockets**

#### PYFZ-08-E

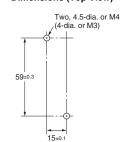




#### Terminal Arrangement/ Internal Connections (Top View)



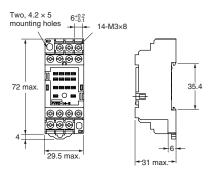
#### Mounting Hole Dimensions (Top View)



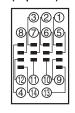
Note: Mounts to DIN Track.

PYFZ-14-E

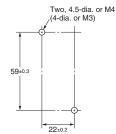




Terminal Arrangement/ Internal Connections (Top View)



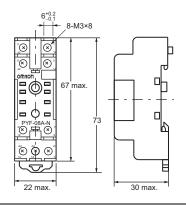
#### Mounting Hole Dimensions (Top View)



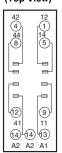
Note: Mounts to DIN Track.

PYF08A-N

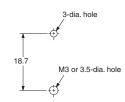




Terminal Arrangement/ Internal Connections (Top View)



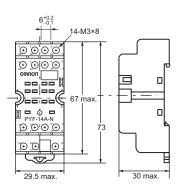
#### Mounting Hole Dimensions (Top View)



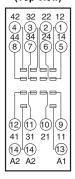
Note: Mounts to DIN Track.

PYF14A-N

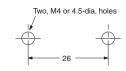




Terminal Arrangement/ Internal Connections (Top View)



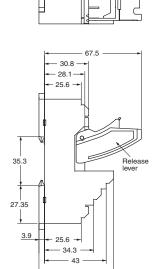
#### Mounting Hole Dimensions (Top View)

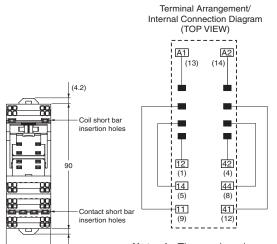


Note: Mounts to DIN Track.

#### PYF-08-PU







Mounting Hole Dimensions

Two M3 screw holes or two 3.5-dia. holes

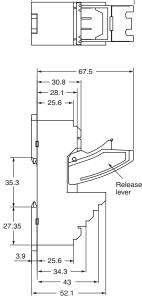
Note: 1. The numbers in parentheses are traditionally used terminal numbers.

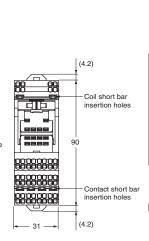
- 2. Insert the short bar into only the A1 or A2 side.
- 3. Only the No. 11 and No. 41 terminals function as bridging contact terminals. The two insertion holes between the terminals are false terminals to allow for installation without having to fold out the short bar pins.

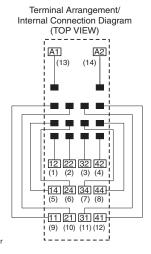
Note: Pull out the hooks to mount the Socket with screws.

#### PYF-14-PU



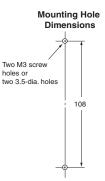






Note: 1. The numbers in parentheses are traditionally used terminal numbers.

2. Insert the short bar into only the A1 or A2side.

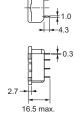


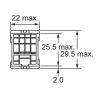
Note: Pull out the hooks to mount the Socket with screws.

#### **Back-mounting Sockets**

#### PY08-02



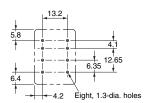




#### Terminal Arrangement/ Internal Connections (Bottom View)

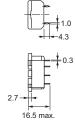


#### PCB Processing Dimensions



PY14-02



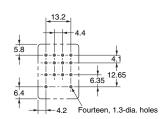




Terminal Arrangement/ Internal Connections (Bottom View)



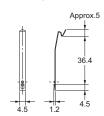
PCB Processing Dimensions



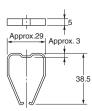
#### **Socket Accessories**

## Hold-down Clips PYC-A1

Set of 2 clips

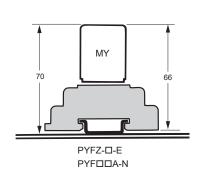


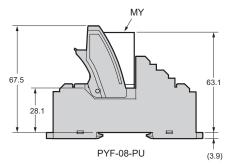
PYC-P

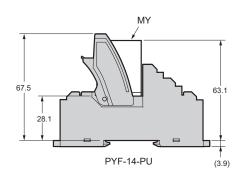


## Mounting Heights with Sockets (Unit: mm)

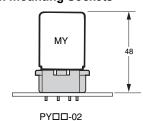
#### **Front-mounting Sockets**







#### **Back-mounting Sockets**



## **Safety Precautions**

Refer to the *Common Relay Precautions* for precautions that apply to all Relays in the website at the following URL: http://www.ia.omron.com/.

#### **Precautions for Correct Use**

#### Handling

For models with built-in diodes for coil surge absorption, check the coil polarity when wiring and wire all connections correctly.

#### Installation

There is no specifically required installation orientation, but make sure that the Relays are installed so that the contacts are not subjected to vibration or shock in their movement direction.

## Using MY-GS Relays with Microloads with Infrequent Operation

If standard MYGS Relays are used to infrequently switch microloads, the contacts may become unstable and eventually result in poor contact. In this case, we recommend using the MY4Z-CBG Series, which has high contact reliability for microloads

#### **Relay Replacement**

To replace the Relay, turn OFF the power supply to the load and Relay coil sides to prevent unintended operation and possible electrical shock.

#### **Applicable Sockets**

Use only combinations of OMRON Relays and Sockets.

• Use the following tightening torque for screws during wiring.

Model	Tightening torque
PYFZ-08-E	0.59 to 0.88 N·m
PYFZ-14-E	* Use a No. 1 screwdriver.

 Use the following wire diameters as a guide for wiring. (Select the appropriate wire diameter for the current used.)

Model Recommended wire diameter (mm			
PYFZ-08-E	Stranded wire	0.75 to 2.5 mm <sup>2</sup> AWG 18 to 14	
PYFZ-14-E	Solid wire	0.75 to 1.5 mm <sup>2</sup> AWG 18 to 16	

#### **Latching Levers**

- Turn OFF the power supply when operating the latching lever.
   After you use the latching lever always return it to its original state.
- Do not use the latching lever as a switch.
- The latching lever can be used for 100 operations min.

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