## OMRON

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## Miniature Power Relays **MY Series**

#### Best-selling, general-purpose relays that can be selected based on operating environment and application

- Wiring work can be shortened by as much as 60%\* compared to conventional screw terminal sockets by combining with push-in plus terminal sockets (PYF-□-PU) that feature light insertion force and strong pull-out strength to achieve less wiring work.
- In addition to our standard type (MY-GS-R), an abundant lineup of models including latching relays that retain contact operation status (MYK) and sealed relays suitable for environments where dust and corrosive gases are present (MYQ/MYH) are also available.
- Selection is possible to suit the application, such as models with operation indicators and models with latching levers (MY-GS-R).
- \* When both push-in plus terminals and screw terminal sockets are combined with plug-in terminal types (according to actual OMRON measurements as of November 2015)

Refer to Safety Precautions on pages 62 to 63 and Safety Precautions for All Relays.













Refer to the standards certifications and compliance section of your OMRON website for the latest information on certified models.

#### Miniature Power Relay Types

MY-GS-R Miniature Power Relays	From page 4
MY(S) Miniature Power Relays	From page 13
MYK Miniature Power Latching Relays	From page 32
MYQ/MYH Miniature Power Sealed Relays	From page 37

#### **Common Information**

Common Options (Order Separately)	From page 43
Common Safety Precautions	From page 62



 MY(S)

MYK

#### MY/MYK/MYQ·MYH

#### Model List

#### Selection **MY-GS-R** Use this as reference when selecting the model. **Firstly Choice!** This general-purpose model can be used for a wide range of applications **MY-GS-R** MY(S) page 4 MYK Choose this model Choose this model Choose this model in an if you want to properly if you want to maintain environment with a large control a microload! the operation status of amount of corrosive gases and dust! the contact! MY□Z **Bifurcated contacts** MYK Latching Relays MYQ Plastic Sealed Relays MY Z-CBG Crossbar bifurcated MYH Hermetically Sealed Relays contacts page 37 page 32 page 13 MYQ-MYH

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#### MY/MYK/MYQ·MYH

#### **Miniature Power Relays: MY**

		Number				Plug-in terminals			Case-surface
Classification of poles		Contacts		Standard	With operation indicator	With latching lever	PCB terminals	mounting	
		2	Single		MY2-GS-R	MY2N-GS-R	MY2IN-GS-R	MY2-02	MY2F
		2	Bifurcated		MY2Z	MY2ZN			
		3	Single		MY3	MY3N		MY3-02	MY3F
standard mode	els		Single		MY4-GS-R	MY4N-GS-R	MY4IN-GS-R	MY4-02	MY4F
			D'f and a	Type 1		MY4ZN(S)	MY4ZIN(S)	10/17 00	
4	4	4	Bifurcated	Type 2	MY4Z(S)	MY4ZN1(S)	MY4ZIN1(S)	MY4Z-02	MY4ZF
		Crossbar bit	furcated	MY4Z-CBG	MY4ZN-CBG				
	•	Single			MY2N-D2-GS-R	MY2IN-D2-GS-R			
	Type 1	2	Bifurcated			MY2ZN-D2			
lodels with	$\ominus$ $\oplus$	3	Single			MY3N-D2			
uilt-in diode	13 14 A1 A2		Single			MY4N-D2-GS-R	MY4IN-D2-GS-R		
or coil surge		4	Bifurcated			MY4ZN-D2(S)	MY4ZIN-D2(S)		
bsorption	Type 2	2	Single			MY2N1-D2(S)	MY2IN1-D2(S)		
	÷ •		Single			MY4N1-D2(S)	MY4IN1-D2(S)		
13 A1	13 14 A1 A2	4	Bifurcated			MY4ZN1-D2(S)	MY4ZIN1-D2(S)		
odels with		2	Single			MY2N-CR-GS-R	MY2IN-CR-GS-R		
uilt-in CR circ			Single			MY4N-CR-GS-R	MY4IN-CR-GS-R		
coil surge absorption		4	Bifurcated			MY4ZN-CR(S)	MY4ZIN-CR(S)		

#### Miniature Power Latching Relays (MYK)

			Plug-in terminals		PCB terminals
Classification	Number of poles	Contacts		With operation indicator	
Standard models	2	Single	MY2K		MY2K-02

#### Miniature Power Sealed Relays (MYQ/MYH)

			Plug-in terminals		PCB terminals	
Classification	Number of poles	Contacts		With operation indicator		MYC
Plastic Secled Palaya		Single	MYQ4	MYQ4N	MYQ4-02	2
Plastic Sealed Relays	4	Bifurcated	MYQ4Z		MYQ4Z-02	
Hermetically Sealed		Single	MY4H		MY4H-0	E
Relays 4	4	Bifurcated	MY4ZH		MY4ZH-0	

Refer to Front-connecting Sockets and Back-connecting Sockets in Common Options (Order Separately) on pages 43 and 45 for main unit and socket combinations.

**М** Υ

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

MY(S)

MYK

MYQ-MYH

#### 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), and CQC.

⋒ Refer to the Common Relay Precautions.

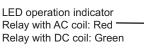
#### **Features**

#### 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) Contacts ON (coil energized)

Contacts OFF (coil de-energized)





Relay with AC Coil (LED: Red)



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

ommon Op	The coil voltage AC     Latching lever operative	-	f the latching lever (AC coil specificat	ion: red, DC coil specification: Blue).
tions		Normal State	Mode 1: Momentary State	Mode 2: Locked State
Common Options (Order Separately)	When seen from the top		Yellow button	
Common Preca	When seen from the side			
Precautions	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.

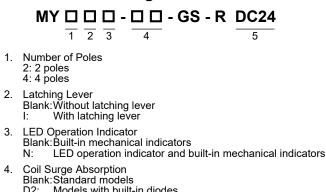


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#### OMRON

#### **Model Number Structure**

#### **Model Number Legend**



D2: Models with built-in diodes CR: Models with built-in CR circuits

Operating Coil Voltage Display Example: DC24 5.

#### **List of Models**

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

			Plug-in (octal pins)	terminals	
Cotogony	Number of	Contact	L <sub>TT</sub>	With operation indic	cator
Category	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
Models with built-in diodes	2	Cinala		MY2N-D2-GS-R	MY2IN-D2-GS-R
for coil surge absorption	4	Single		MY4N-D2-GS-R	MY4IN-D2-GS-R
Models with built-in CR circuits	2	2		MY2N-CR-GS-R	MY2IN-CR-GS-R
for coil surge absorption	4			MY4N-CR-GS-R	MY4IN-CR-GS-R



오 :051-37133855-6 :09014284236 ••• WWW.ARCOKALA.COM MYQ-MYH

#### **Ordering Information**

MY(S)

MYK

MYQ-MYH

#### 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

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 and latching lever

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 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**

	0										S
ltem Rated voltage		Rated cu	urrent (mA)	Coil resistance	Coil indu	ctance (H)	Must-operate voltage	Must-release voltage	Maximum voltage	Power consumption	치
		50 Hz	60 Hz	(Ω)	Armature OFF	Armature ON	Perce	ntage of rated v	oltage	(VA, Ŵ)	
	12	106.5	91	46	0.17	0.33					
	24	53.8	46	180	0.69	1.3					
	48	25.7	21.1	788	3.22	5.66		30% min. <b>*</b> 2			
AC	100/110	11.7/12.9	10.0/11.0	3,750	14.54	24.6	30'		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					
	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	80% max. <b>*</b> 1		110%		
	6	146 (151)	÷	41.0 (39.8)	0.17	0.33					
	12	72.7 (75)		165 (160)	0.73	1.37					S
	24	36.3 (37.7)	36.3 (37.7)		3.2	5.72				Approx. 0.9	
DC	48	17.6 (18.8)		2,725 (2,560)	10.6	21.0	10% min. <b>*</b> 2				
	100/110	8.7 (9.0)/9.0	6 (9.9)	11,440 (11,100)	45.6	86.2					
	220	3.6		60,394	362.3	452.9				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

The values in parentheses for the rated currents and coil voltages of DC coils are for models with LED operation indicators. 4.

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 ∳ = 0.4, L/R = 7 ms)	Resist	tive load	Inductive load (cos ∳ = 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		30,000 operations	200,000 operation	s	
Rated carry current	10 A			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	1,750 VA 210 W	440 VA 48 W	1,500 VA 180 W		176 VA 36 W	
Minimum load (reference values) *3	10 A       6 A *2         2,500 VA       1,750 VA       440 VA       1,500 VA       176 VA         300 W       210 W       48 W       180 W       36 W         1 mA at 5 VDC       requency: 2,400 operations/h. Ambient temperature condition: 23°C. Duty ratio: 33%.						
<ul> <li>k1. Rated load, switching fr</li> <li>k2. 4 poles of 6 A is for an a</li> <li>k3. These values are guide These values will deper under actual application</li> </ul>	ambient temperature or s for the switchable lir nd on the switching free	of 50°C. At an ambi mits for minute load	ient temperature of I levels, such as in	<sup>7</sup> 70°C, the value is electronic circuits.	3 A. Actual characteris		

#### 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	contacts of different polarity 2,000 VAC at 50/60 Hz for 1 min.			
	Between contacts of the same polarity	ty 1,000 VAC at 50/60 Hz for 1 min.			
Vibration resistance	Destruction	10 to 55 to 10 Hz, Double amplitude: 1.0 mm			
VIDIALION TESISLANCE	Malfunction	10 to 55 to 10 Hz, Double amplitude: 1.0 mm			
Shock resistance	Destruction	1,000 m/s² (approx. 100 G)			
Shock resistance	Malfunction	200 m/s <sup>2</sup> (Approx. 20 G)			
Mechanical enduranc	9	50,000,000 operations (switching frequency: 18,000 operations/h)			
Ambient operating ter	nperature	Standard models: $-55$ to $70^{\circ}$ C (with no icing or cond Models with LED operation indicators: $-40$ to $70^{\circ}$ C (v			
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 rated 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**

MYK

	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 Resistive Load 5 A, 250 VAC (General Use) 10 A, 250 VAC Resistive Load	6,000 operations
Q·MY		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	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 Resistive Load 5 A, 250 VAC (General Use) 10 A, 250 VAC Resistive Load	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

(-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 (cosφ = 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 (cos∳ = 1)	10,000 operations

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

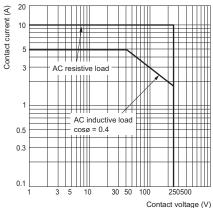
Model	Standard number	Certification No.	
MY-GS	GB/T 21711.1	CQC18002198531	

Common Options (Order Separately)

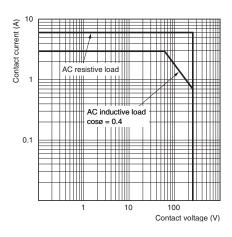
MY-

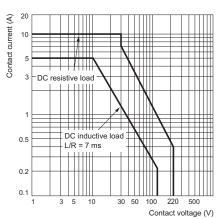
#### Engineering Data (Reference Value)

### Maximum Switching Capacity MY2

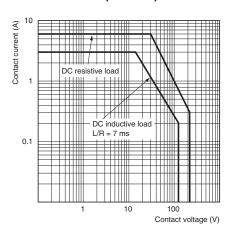












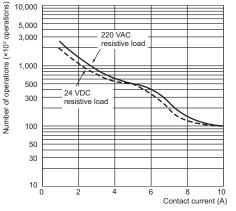


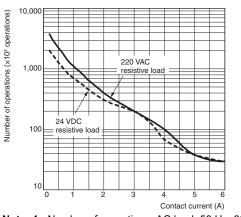
MY(S)

MYK

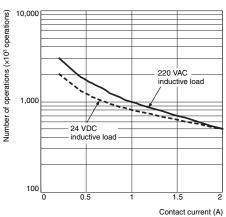
MYQ-MYH

Endurance Curve MY2□□-□□-GS-R (Resistive Load)

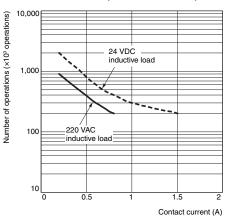


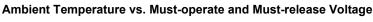


Note: 1. Number of operations: AC load, 50 Hz, 80% 2. Switching condition: NO or NC

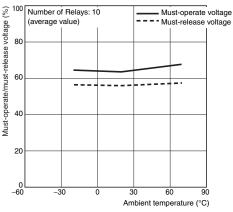


MY4□□-□□-GS-R (Inductive Load)

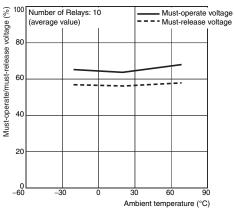




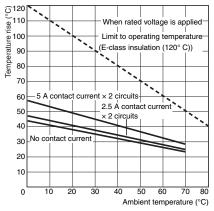
#### MY2DD-DD-GS-R AC Models

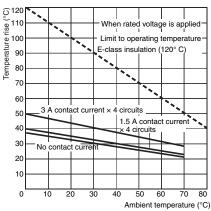


#### MY4D--GS-R AC Models

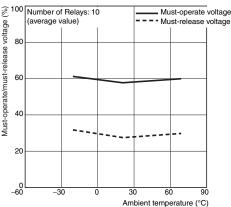


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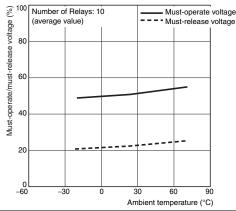




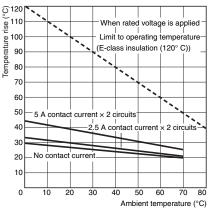




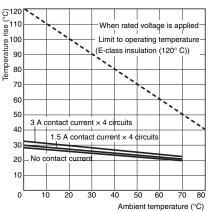
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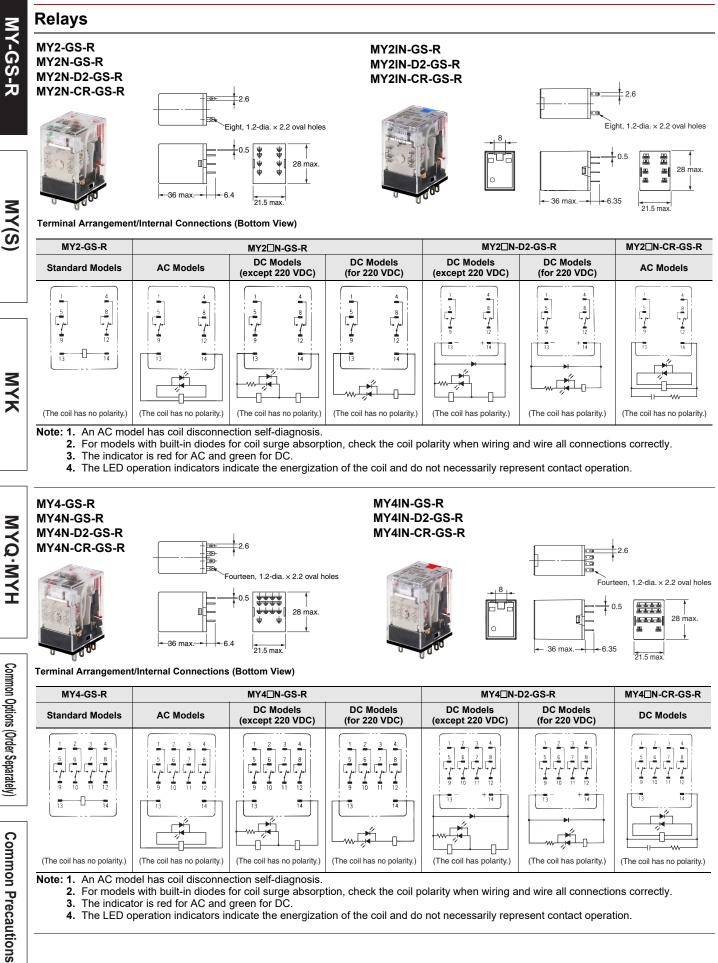
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#### MY400-00-GS-R DC Models



#### Dimensions



OMRON

## **Miniature Power Relays** MY(S)

#### Best-selling, general-purpose relays

- AC/DC coil voltage specifications can now be more easily distinguished thanks to the use of color-coded coil tape and operation indicators (LED).
- Latching levers convenient for circuit checking and MY(S) models equipped with mechanical operation indicators and operation indicators for monitoring operation status are available.
- Contact materials and contact structures can be selected based on contact reliability and corrosion resistance.

\*Voltage is printed on white tape in the case of the Standard 3-pole model (MY3). Refer to Safety Precautions on pages 62 to 63 and Safety

Precautions for All Relays.

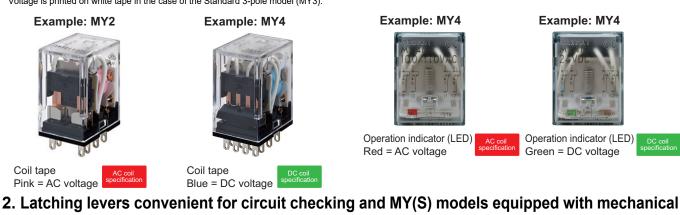


Refer to the standards certifications and compliance section of your OMRON website for the latest information on certified models.

#### Features

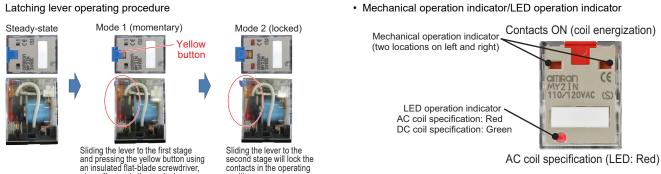
#### 1. More easily distinguished AC/DC coil voltage specifications • Distinguished using color-coded operation indicators (LED)

• Distinguished using color-coded coil tape\* \* Voltage is printed on white tape in the case of the Standard 3-pole model (MY3).



- operation indicators and operation indicators for monitoring operation status are available.
- · Latching lever operating procedure

etc., will operate the contacts



Contact materials and contact structures can be selected based on contact reliability and corrosion resistance.

Contact relia	pility		Corrosion re		
	Contact structure			Contact material	Typical model
High 🛧	Crossbar bifurcated contacts		High 🔨	Au cladding + AgPd	MY4Z-CBG
	Bifurcated contacts			Au cladding + Ag alloy Au plating + Ag alloy	MY4Z MY2Z
	Single contacts			Au cladding + Ag alloy	MY4
Low		<u>S</u>	Low	Ag alloy	MY2

position.





MYK

#### Model Number Structure

MY-GS-R	Model Number Legend • Plug-in Terminals Standard models M Y (1)	$\frac{1}{(2)}  \frac{1}{(3)}  (Example: MY4ZIN(S))$
	(1) Number of poles (2) (	Contacts (3) Options
MY(S)	3: 3-pole 2	None:SingleNone, (S):NoneZ:BifurcatedN, N(S):With operation indicator (A2/14: +)Z-CBG:Crossbar bifurcatedN1(S):With operation indicator (A1/13: +)IN(S):With operation indicator/latching lever (A2/14: +)IN(S):With operation indicator/latching lever (A1/13: +)IN1(S):With operation indicator/latching lever (A1/13: +)
Ĵ	Models with built-in diode for o	coil surge absorption
	ΜΥ	(Example: MY4ZIN-D2(S))
	(1)	(2)
МҮК	<ul> <li>(1) Number of poles/contacts</li> <li>2: 2-pole, single contacts</li> <li>2Z: 2-pole, bifurcated contacts</li> <li>3: 3-pole, single contacts</li> <li>4: 4-pole, single contacts</li> <li>4Z: 4-pole, bifurcated contacts</li> </ul>	<ul> <li>(2) Options</li> <li>N-D2, N-D2(S): Built-in diode for coil surge absorption, with operation indicator (A2/14: +)</li> <li>N1-D2(S): Built-in diode for coil surge absorption, with operation indicator (A1/13: +)</li> <li>IN-D2(S): Built-in diode for coil surge absorption, with operation indicator (A2/14: +)</li> <li>IN1-D2(S): Built-in diode for coil surge absorption, with operation indicator/latching lever (A2/14: +)</li> <li>IN1-D2(S): Built-in diode for coil surge absorption, with operation indicator/latching lever (A1/13: +)</li> </ul>
	Models with built-in CR circuit	for coil surge absorption
S	M Y	(Example: MY4ZIN-CR(S))
ъ С	(1) Number of poles/contacts	(2) Options
MYQ·MYH	<ul> <li>2: 2-pole, single contacts</li> <li>2: 2-pole, bifurcated contacts</li> <li>4: 4-pole, single contacts</li> <li>4Z: 4-pole, bifurcated contacts</li> <li>4Z: 4-pole, bifurcated contacts</li> </ul>	<ul> <li>N-CR, N-CR(S): Built-in CR circuit for coil surge absorption, with operation indicator</li> <li>IN-CR(S): Built-in CR circuit for coil surge absorption, with operation indicator/latching lever</li> </ul>
0		
Common Options (Order Separately)	•PCB terminals/case surf	(Example: MY2-02)
; (Orde	(1)	(2)
er Separately)	<ul> <li>(1) Number of poles/contacts</li> <li>2: 2-pole, single contacts</li> <li>3: 3-pole, single contacts</li> <li>4: 4-pole, single contacts</li> <li>4Z: 4-pole, bifurcated contacts</li> </ul>	(2) Terminals -02: PCB terminals F: Case-surface mounting
C		

#### Ordering Information When your order, specify the rated voltage.

#### •Plug-in Terminals

Without operation indicator

Classification	Number of poles	Contacts	Model	Rated voltage
		Single	MV2(C)	6, 12, 24, 48/50, 110/120, 220/240 VAC
	2	Single	MY2(S)	6, 12, 24, 48, 100/110 VDC
	2	Bifurcated	MY2Z	12, 24, 110/120, 220/240 VAC
				12, 24, 100/110 VDC
	3	Single	МҮЗ	12, 24, 110/120, 220/240 VAC
Standard models				12, 24, 48, 100/110 VDC
Stanuaru mouers		Single	MY4(S)	6, 12, 24, 48/50, 110/120, 220/240 VAC
				6, 12, 24, 48, 100/110 VDC
	4	Bifurcated	MY4Z(S)	6, 12, 24, 48/50, 110/120, 220/240 VAC
	-	Dirurcateu	WIT42(3)	6, 12, 24, 48, 100/110 VDC
		Crossbar bifurcated	MY4Z-CBG	100/110, 110/120, 200/220 VAC
		Grossbar bilurcated	WIT42-CBG	12, 24, 48, 100/110 VDC

#### With operation indicator

Classific	ation	Number of poles	Cont	acts	Model	Rated voltage	
						6, 12, 24, 48/50, 110/120, 220/240 VAC	
			Single	Type 1	MY2N(S)	6, 12, 24, 48, 100/110 VDC	
		2		Type 2	MY2N1(S)	6, 12, 24, 48, 100/110 VDC	
					MY2ZN	110/120, 220/240 VAC	MAK
			Bifurcated			24 VDC	
Standard models		2	Single		MY3N	24, 110/120, 220/240 VAC	
		5	Single			12, 24, 48, 100/110 VDC	
						6, 12, 24, 48/50, 110/120, 220/240 VAC	
			Single	Type 1	MY4N(S)	6, 12, 24, 48, 100/110 VDC	
				Type 2	MY4N1(S)	6, 12, 24, 48, 100/110 VDC	
					MX(7)/(0)	6, 12, 24, 48/50, 110/120, 220/240 VAC	2
	4	Bifurcated	Type 1	MY4ZN(S)	6, 12, 24, 48, 100/110 VDC		
				Type 2	MY4ZN1(S)	6, 12, 24, 48, 100/110 VDC	Q
						100/110, 200/220 VAC	  
		Crossbar bifurcated		MY4ZN-CBG	24 VDC	- I	
		•	Single Bifurcated		MY2N-D2(S)	6, 12, 24, 48, 100/110 VDC	
	Type 1	2			MY2ZN-D2	24 VDC	
Models with	Œ Ŧ	3	Single		MY3N-D2	12, 24, 48 VDC	
built-in diode	13 14 A1 A2		Single		MY4N-D2(S)	6, 12, 24, 48, 100/110 VDC	
for coil surge		4	Bifurcated		MY4ZN-D2(S)	6, 12, 24, 48, 100/110 VDC	<u> </u>
absorption	Type 2	2	Single		MY2N1-D2(S)	6, 12, 24, 48, 100/110 VDC	mmo
	÷ ⊖		Single		MY4N1-D2(S)	6, 12, 24, 48, 100/110 VDC	
	13 14 A1 A2	4	Bifurcated		MY4ZN1-D2(S)	6, 12, 24, 48, 100/110 VDC	tion
Models with	1	2	Single		MY2N-CR(S)	110/120, 220/240 VAC	
built-in CR circ	lodels with puilt-in CR circuit for		Single		MY4N-CR(S)	110/120, 220/240 VAC	Common Options (Order Separately)
coil surge abso	orption	4	Bifurcated		MY4ZN-CR(S)	110/120, 220/240 VAC	Sepa

## INI Y-GO-K

S	With operation	indicator	/latching l	ever				
IY-G	Classifica	ation	Number of poles	Cont	acts	Model	Rated voltage	
S						MY2IN(S)	6, 12, 24, 48/50, 110/120, 220/240 VAC	
לי			2	Single	Type 1	WITZIN(3)	6, 12, 24, 48, 100/110 VDC	
~					Type 2	MY2IN1(S)	6, 12, 24, 48, 100/110 VDC	
						MY4IN(S)	6, 12, 24, 48/50, 110/120, 220/240 VAC	
	Standard mode	ndard models		Single	Type 1	WIT4IN(3)	6, 12, 24, 48, 100/110 VDC	
			4		Type 2	MY4IN1(S)	6, 12, 24, 48, 100/110 VDC	
			4			MY4ZIN(S)	6, 12, 24, 48/50, 110/120, 220/240 VAC	
				Bifurcated	Type 1	WIT42IN(3)	6, 12, 24, 48, 100/110 VDC	
7					Type 2	MY4ZIN1(S)	6, 12, 24, 48, 100/110 VDC	
MY(S)		Type 1	2	Single		MY2IN-D2(S)	6, 12, 24, 48, 100/110 VDC	
6	Models with	⊖ ⊕	4	Single		MY4IN-D2(S)	6, 12, 24, 48, 100/110 VDC	
Ĵ	built-in diode	13 14 A1 A2	4	Bifurcated		MY4ZIN-D2(S)	6, 12, 24, 48, 100/110 VDC	
	for coil surge	Type 2	2	Single		MY2IN1-D2(S)	6, 12, 24, 48, 100/110 VDC	
	absorption	$\oplus$ $\bigcirc$	4	Single		MY4IN1-D2(S)	6, 12, 24, 48, 100/110 VDC	
		13 14 A1 A2	4	Bifurcated		MY4ZIN1-D2(S)	6, 12, 24, 48, 100/110 VDC	
	Models with		2	Single		MY2IN-CR(S)	110/120, 220/240 VAC	
	built-in CR circo		4	Single		MY4IN-CR(S)	110/120, 220/240 VAC	
	coil surge abso	rption	4	Bifurcated		MY4ZIN-CR(S)	110/120, 220/240 VAC	

#### PCB terminals

ズ	Classification	Number of poles	Contacts	Model	Rated voltage
		2	Cinale	MX2 02	12, 24, 100/110, 110/120, 200/220, 220/240 VAC
		2	Single	MY2-02	12, 24, 48, 100/110 VDC
	Standard models	3	Single	MY3-02	12, 24, 100/110, 110/120, 200/220, 220/240 VAC
	(compliant with Electrical Appliances and Material	3	Siligie	WIT 3-02	12, 24, 48, 100/110 VDC
			O'marka	MY4-02	12, 24, 100/110, 110/120, 200/220, 220/240 VAC
Ζ	Safety Act)		Single	WIT4-02	12, 24, 48, 100/110 VDC
NON		4 Bifurcated		MY4Z-02	100/110, 110/120, 200/220 VAC
<b>D</b>			Bilurcaled	IVI 1 42-02	12, 24, 48, 100/110 VDC

#### •Case-surface mounting

Classification	Number of poles	Contacts	Model	Rated voltage
	2	Single	MY2F	24, 100/110, 110/120, 200/220, 220/240 VAC
	2	Single		12, 24, 48, 100/110 VDC
	3	Cinale	MYOF	24, 100/110, 200/220 VAC
Standard models (compliant with Electrical	3	Single	MY3F	24, 100/110 VDC
Appliances and Material		Single	MVAE	24, 100/110, 110/120, 200/220 VAC
Safety Act)		Single	MY4F	12, 24, 48, 100/110 VDC
	4	Difuse at a d	MV47E	200/220 VAC
		Bifurcated	MY4ZF	12, 24 VDC

#### **Ratings and Specifications**

#### Ratings **Operating Coils**

Terminal Type	Classification	Number of poles		Without operation indicator	With operation indicator	With latching lever
		2	Single	MY2(S)	MY2N(S), MY2N1(S)	MY2IN(S), MY2IN1(S)
	Standard models	4	Single	MY4(S)	MY4N(S), MY4N1(S)	MY4IN(S), MY4IN1(S)
		4	Bifurcated	MY4Z(S)	MY4ZN(S), MY4ZN1(S)	MY4ZIN(S), MY4ZIN1(S)
	Models with	2	Single		MY2N-D2(S), MY2N1-D2(S)	MY2IN-D2(S), MY2IN1-D2(S)
Plug-in terminals	built-in diode for		Single		MY4N-D2(S), MY4N1-D2(S)	MY4IN-D2(S), MY4IN1-D2(S)
terminate	coil surge absorption	4	Bifurcated		MY4ZN-D2(S), MY4ZN1-D2(S)	MY4ZIN-D2(S), MY4ZIN1-D2(S)
	Models with	2	Single		MY2N-CR(S)	MY2IN-CR(S)
	built-in CR circuit for		Single		MY4N-CR(S)	MY4IN-CR(S)
	coil surge absorption	4	Bifurcated		MY4ZN-CR(S)	MY4ZIN-CR(S)

	ltem	Rated cur	rrent (mA)	Coil resistance	Coil induc	ctance (H)	Must	Must	Maximum	Power
Rated	voltage (V)	50 Hz 60 Hz		(Ω)	Armature OFF	Armature ON	operate voltage (V)	release voltage (V)	voltage (V)	consumption (VA, W)
	6	214.1	183	12.2	0.04	0.08				
	12	106.5	91	46	0.17	0.33			110% of rated	
AC	24	53.8	46	180	0.69	1.30		200/ min *2		Approx.0.9
AC	48/50	24.7/25.7	21.1/22.0	788	3.22	5.66		30% min.*2		to 1.3 (at 60 Hz)
	110/120	9.9/10.8	8.4/9.2	4,430	19.20	32.1				( ··· /
	220/240	4.8/5.3	4.2/4.6	18,790	83.50	136.4	80% max.*1			
	6	1	51	39.8	0.17	0.33			voltage	
	12	7	5	160	0.73	1.37				
DC	24	37	7.7	636	3.20	5.72	1	10% min.*2		Approx. 0.9
	48	18	3.8	2,560	10.60	21.0	1			
	100/110	9.0	/9.9	11,100	45.60	86.2				

Note: 1. The rated current and coil resistance are measured at a coil temperature of 23°C with tolerances of +15%/-20% for AC rated current and ±15% for 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 maximum voltage capacity was measured at an ambient temperature of 23°C.

5. Power consumption drop was measured for the above data. When driving transistors, check leakage current and connect a bleeder resistor if required. \*1. There is variation between products, but actual values are 80% maximum. To ensure operation, apply at least 80% of the rated value (at a coil temperature of 23°C).
\*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.

MY(S)

**М** Υ

Terminal Type	Classification	Number of poles	Contacts	Without operation indicator	With operation indicator
		2	Bifurcated	MY2Z	MY2ZN
	Standard models	3	Single	МҮЗ	MY3N
Plug-in terminals		4	Crossbar bifurcated	MY4Z-CBG	MY4ZN-CBG
torninalo	Models with built-in diode	2	Bifurcated		MY2ZN-D2
	for coil surge absorption	3	Single		MY3N-D2
		2	Single	MY2-02	
РСВ	Standard models	3	Single	MY3-02	
terminals	Standard models	4	Single	MY4-02	
		4	Bifurcated	MY4Z-02	
		2	Single	MY2F	
Case-surface	Standard models	3	Single	MY3F	
mounting	Standard models		Single	MY4F	
			Bifurcated	MY4ZF	

	ltem	Rated cur	rent (mA)	Coil resistance	Coil induc	tance (H)	Must	Must	Maximum	Power
Rated	voltage (V)	50 Hz	60 Hz	(Ω)	Armature OFF	Armature ON	operate voltage (V)	release voltage (V)	voltage (V)	consumption (VA, W)
	12	106.5	91	46	0.17	0.33				
1	24	53.8	46	180	0.69	1.3				Approx. 0.9 to 1.3 (at 60 Hz)
AC	100/110	11.7/12.9	10/11	3,750	14.54	24.6		30% min.*2	110% of	
AC	110/120	9.9/10.8	8.4/9.2	4,430	19.2	32.1		30% mm. 2		
	200/220	6.2/6.8	5.3/5.8	12,950	54.75	94.07	80% max.*1			
	220/240	4.8/5.3	4.2/4.6	18,790	83.5	136.4	00% max. 1		rated voltage	
	12	7	5	160	0.73	1.37			Ŭ	
DC	24	36	6.9	650	3.2	5.72		10% min.*2		Approx 0.0
	48	18	8.5	2,600	10.6	21.0	1	10% 11111. 2		Approx. 0.9
	100/110	9.1	/10	11,000	45.6	86.2				

Note: 1. The rated current and coil resistance are measured at a coil temperature of 23°C with tolerances of +15%/-20% for AC rated current and ±15% for 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 maximum voltage capacity was measured at an ambient temperature of 23°C.
 \*1. There is variation between products, but actual values are 80% maximum. To ensure operation, apply at least 80% of the rated value.
 \*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.

#### **Contact Ratings**

Number of poles (contact configuration)		2-pole	3-pole	3-pole (3PDT)			
Contact structure	Sir	igle	Bifur	cated	Si	ngle	
Load	Resistive load	Inductive load (cos φ = 0.4, L/R = 7 ms)	Resistive load	Inductive load (cos φ = 0.4, L/R = 7 ms)	Resistive load	Inductive load (cos φ = 0.4, L/R = 7 ms)	
Rated load	5 A at 250 VAC 5 A at 30 VDC	2 A at 250 VAC 2 A at 30 VDC	5 A at 220 VAC 5 A at 24 VDC	2 A at 220 VAC 2 A at 24 VDC	5 A at 220 VAC 5 A at 24 VDC	2 A at 220 VAC 2 A at 24 VDC	
Rated carry current*1	10 A		5 A		5 A		
Maximum switching voltage	250 VAC, 125 VDC				250 VAC, 125 VDC		
Maximum switching current	10 A		5 A		5 A		
Maximum switching power	2,500 VA 300 W	500 VA 60 W	1,100 VA 120 W	440 VA 48 W	1,100 VA 120 W	440 VA 48 W	
Contact material	Ag		Au plating + Ag		Ag		

Number of poles (contact configuration)			4-pole	(4PDT)				
Contact structure	Sir	igle	Bifur	cated	Crossbar bifurcated (CBG)			
Load	Resistive load	Inductive load (cos φ = 0.4, L/R = 7 ms)	Resistive load	Inductive load (cos φ = 0.4, L/R = 7 ms)	Resistive load	Inductive load (cos φ = 0.4, L/R = 7 ms)		
Rated load	3 A at 250 VAC 3 A at 30 VDC	0.8 A at 250 VAC 1.5 A at 30 VDC	3 A at 250 VAC 3 A at 30 VDC	0.8 A at 250 VAC 1.5 A at 30 VDC	1 A at 220 VAC 1 A at 24 VDC	0.3 A at 220 VAC 0.5 A at 24 VDC		
Rated carry current*1	5 A			·	1 A			
Maximum switching voltage	250 VAC, 125 VDC							
Maximum switching current	5 A				1 A			
Maximum switching power	1,250 VA 150 W	200 VA 45 W	1,250 VA 150 W	200 VA 45 W	220 VA 24 W	66 VA 12 W		
Contact material	Au cladding + Ag al	Au cladding + Ag alloy Au cladding + AgPd						

\*1. If you use a Socket, do not exceed the rated carry current of the Socket.

MYK

5	(cont	Number of poles act configuration)	2-pole	(DPDT)	3-pole (3PDT)		4-pole (4PDT)				
MY-GS-R		Contact structure	Single	Bifurcated	Single	Single	Bifurcated	Crossbar bifurcated (CBG)			
	Contact res	istance*1 *2	100 mΩ max.         50 mΩ max.         50 mΩ max.         100 mΩ max.         100 mΩ max.         100 mΩ max.								
	Operate tim	Operate time*3     20 ms max.       Release time*3     20 ms max.       Maximum switching frequency     Mechanical     18,000 operations/h       Rated load     1,800 operations/h									
	Release tim	1e*3	20 ms max.								
		Mechanical	18,000 operations/h								
		Rated load	1,800 operations/h								
	Insulation r	esistance*4	100 M $\Omega$ min.								
2		Between coil and contacts									
IY(S)	Dielectric strength	Between contacts of different polarity	2,000 VAC, 50/60 Hz	for 1 min							
		Between contacts of the same polarity	1,000 VAC at 50/60 Hz for 1 min								
	Vibration	Destruction	10 to 55 to 10 Hz, 0.5	5-mm single amplitude	(1.0-mm double amp	litude)					
	resistance	Malfunction	10 to 55 to 10 Hz, 0.5	5-mm single amplitude	(1.0-mm double amp	litude)					
	Shock	Destruction	1,000 m/s <sup>2</sup>								
	resistance	Malfunction	200 m/s <sup>2</sup>								
МУК	Mechanical		AC: 50,000,000 operations min. DC: 100,000,000 operations min. (switching frequency: 18,000 operations/h)	AC: 50,000,000 operations min. DC: 50,000,000 operations min. (switching frequency: 18,000 operations/h)	AC: 50,000,000 operations min. DC: 100,000,000 operations min. (switching frequency: 18,000 operations/h)	AC: 50,000,000 operations min. DC: 100,000,000 operations min. (switching frequency: 18,000 operations/h)	AC: 20,000,000 operations min. DC: 20,000,000 operations min. (switching frequency: 18,000 operations/h)	AC: 50,000,000 operations min. DC: 50,000,000 operations min. (switching frequency 18,000 operations/h)			
		Electrical*5	500,000 operations min. (rated load, switching frequency: 1,800 operations/h)	200,000 operations min. (rated load, switching frequency: 1,800 operations/h)	500,000 operations min. (rated load, switching frequency: 1,800 operations/h)	200,000 operations min. (rated load, switching frequency: 1,800 operations/h)	100,000 operations min. (rated load, switching frequency: 1,800 operations/h)	50,000 operations min. (rated load, switching frequency: 1,800 operations/h)			
	Failure rate (reference v		1 mA at 5 VDC	100 µA at 1 VDC	1 mA at 5 VDC	1 mA at 1 VDC	100 µA at 1 VDC	100 µA at 1 VDC			
	Weight		Approx. 35 g	Approx. 35 g	Approx. 35 g	Approx. 35 g	Approx. 35 g	Approx. 35 g			
MYQ-MYH	<ul> <li>*1. Models v</li> <li>*2. Measure</li> <li>*3. Measure</li> <li>*4. Measure</li> <li>*5. Ambient</li> </ul>	ement conditions: 1 A ement conditions: Wi ement conditions: Fo temperature conditi	re 100 mΩ maximum. A at 5 VDC using the v ith rated operating pov r 500 VDC applied to	ver applied, not includi the same location as f	or dielectric strength n	neasurement.					

Number of poles (contact configuration)		2-pole	(DPDT)		3-pole	(3PDT)		4-pole	(4PDT)	
Contact structure	Sin	gle	Bifur	cated	Single		Single/bifurcated		Crossbar bifurcated (CBG)	
Operation indicator	Without operation indicator	With operation indicator								
Ambient operating temperature*1	-55 to +70%	1	-55 to +70%	-55 to +60%*2	-55 to +70%	-55 to +60% *2	-55 to +70%	1	-55 to +70%	-55 to +60%
Ambient operating humidity	5 to 85%RH									

OMRON

\*1. With no icing or condensation.\*2. This limitation is due to the diode junction temperature and elements used.

Common Options (Order Separately)

#### **Certified Standards** •UL certification (File No. E41515)

Model	Standard number	Category	Listed/ Recognized	Operating Coil ratings	No. of poles	Contact ratings	Certified number of operations	MY-GS-R	
MY2□(S) MY2□-D2(S) MY2□-CR(S)	UL508	NRNT2	Recognition	6 to 240 VAC 6 to 125 VDC	2	10 A, 250 VAC (General Use) 10 A, 30 VDC (General Use) 7 A, 240 VAC (General Use) 7 A, 24 VDC (Resistive) 5 A, 240 VAC (General Use) 5 A, 250 VAC (Resistive) 5 A, 30 VDC (Resistive) 3 A, 265 VAC (Resistive)	6,000		
						1/6 HP, 250 VAC 1/8 HP, 265 VAC 1/10 HP, 120 VAC	1,000		
						B300 Pilot Duty (Same polarity)	6,000		
MY2Z⊟ MY2-02 MY2F	UL508	NRNT2	Recognition	6 to 240 VAC 6 to 125 VDC	2	7 A, 240 VAC (General Use) 7 A, 24 VDC (Resistive) 5 A, 240 VAC (General Use) 5 A, 250 VAC (Resistive) 5 A, 30 VDC (Resistive) 3 A, 265 VAC (Resistive)	6,000	MY(S)	
						1/6 HP, 250 VAC 1/8 HP, 265 VAC 1/10 HP, 120 VAC	1,000	-	
						B300 Pilot Duty (Same polarity)	6,000	-	
MY3□ MY3N-D2	UL508	NRNT2	Recognition	6 to 240 VAC 6 to 125 VDC	3	5 A, 28 VDC (Resistive) 5 A, 240 VAC (General Use)	6,000		
MY3-02 MY3F						1/6 HP, 250 VAC	1,000		
MY4□(S) MY4□-D2(S) MY4□-CR(S) MY4□-02 MY4□F	UL508	NRNT2	Recognition	6 to 240 VAC 6 to 125 VDC	4	5 A, 28 VDC (General Use) (Same polarity) 5 A, 240 VAC (General Use) (Same polarity) 5 A, 30 VDC (Resistive) (Same polarity) 5 A, 250 VAC (Resistive) (Same polarity) 0.2 A, 120 VDC (Resistive) (Same polarity)	6,000	MYK	
						1/6 HP, 250 VAC (Same polarity) 1/10 HP, 120 VAC (Same polarity)	1,000		
						B300 Pilot Duty (Same polarity)	6,000		

MY-G	Model	Standard number	Class number	Operating Coil ratings	No. of poles	Contact ratings	Certified number of operations
MY2□(S) MY2□-D2(S) MY2□-CR(S)		-D2(S)		6 to 240 VAC 2 6 to 125 VDC		7 A, 240 VAC (Resistive) 7 A, 24 VDC (Resistive) 5 A, 240 VAC (General Use) 5 A, 250 VAC (Resistive) 5 A, 30 VDC (Resistive)	6,000
					1/6 HP, 250 VAC (Same polarity) 1/10 HP, 120 VAC (Same polarity)	1,000	
Z	MY2Z□ MY2-02 MY2F	C22.2 NO.0, No.14		6 to 240 VAC 6 to 125 VDC	2	7 A, 240 VAC (General Use) (Same polarity) 7 A, 24 VDC (Resistive) (Same polarity) 5 A, 240 VAC (General Use) (Same polarity) 5 A, 30 VDC (Resistive) 5 A, 250 VAC (Resistive) (Same polarity) 0.2 A, 120 VDC (Resistive)	6,000
MY(S) MY3					1/6 HP, 250 VAC 1/10 HP, 120 VAC	1,000	
MY3 MY3N-D2 MY3-02 MY3F	MY3N-D2 MY3-02	C22.2 NO.0, No.14		6 to 240 VAC 6 to 125 VDC	3	5 A, 28 VDC (Resistive) 5 A, 240 VAC (General Use) 7 A, 240 VAC (General Use) 7 A, 240 VAC (General Use) 7 A, 24 VDC (Resistive)	6,000
						1/6 HP, 250 VAC	1,000
	MY4□(S) MY4□-D2(S) MY4□-CR(S)	C22.2 No.14	3211 07	6 to 240 VAC 6 to 125 VDC	4	5 A, 240 VAC (General Use) (Same polarity) 5 A, 28 VDC (General Use) (Same polarity) 5 A, 250 VAC (Resistive) (Same polarity) 5 A, 30 VDC (Resistive) (Same polarity) 0.2 A, 120 VDC (Resistive) (Same polarity)	6,000
2						1/6 HP, 250 VAC (Same polarity) 1/10 HP, 120 VAC (Same polarity)	1,000
МАК						B300 Pilot Duty (Same polarity)	6,000
×	MY4⊡-02 MY4⊡F	C22.2 NO.0, No.14	3211 07	6 to 240 VAC 6 to 125 VDC	4	7 A, 240 VAC (General Use) (Same polarity) 7 A, 24 VDC (Resistive) (Same polarity) 5 A, 240 VAC (General Use) (Same polarity) 5 A, 30 VDC (Resistive) 5 A, 250 VAC (Resistive) (Same polarity) 0.2 A, 120 VDC (Resistive)	6,000
						1/6 HP, 250 VAC 1/10 HP, 120 VAC	1,000

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•TÜV Rheinland certification (Certification No. R50030059)
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Model	Operating Coil ratings	Contact ratings	Certified number of operations
MY2Z MY2-02 MY2F	6 to 125 VDC, 6 to 240 VAC	5 A, 250 VAC ( $\cos \varphi = 1.0$ )	100,000
MY3 MY3N-D2 MY3-02 MY3F		5 A, 250 VAC ( $\cos \varphi = 1.0$ ) 0.8 A, 250 VAC ( $\cos \varphi = 0.4$ )	
MY4□-02 MY4□F		3 A, 120 VAC ( $\cos \varphi = 1.0$ ) 0.8 A, 250 VAC ( $\cos \varphi = 0.4$ )	

Common Options (Order Separately)

MYK

	•			
Model	EMC Directive	Low Voltage Directive	Machinery Directive	Safety Category
MY2 (S) MY2D2(S) MY2CR(S) MY2Z MY2ZN-D2 MY2F	Not applicable	Applicable	Not applicable	1
MY3□ MY3N-D2 MY3F				
MY4□(S) MY4□-D2(S) MY4□-CR(S) MY4□F				

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

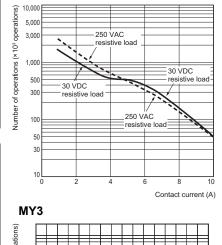
Model	File No.	Environmental Category	Operating Coil ratings	Contact ratings	Certified number of operations
MY2□(S) MY2□-D2(S) MY2□-CR(S)	File No.98/10014	ENV2,3	6 to 240 VAC 6 to 125 VDC	10 A, 250 VAC (Resistive) 2 A, 250 VAC (PF0.4) 10 A, 30 VDC (Resistive) 2 A, 30 VDC (L/R = 7 ms)	MY2: 50,000
MY2Z MY2ZN-D2	File No.90/10270	ENV2,3	6 to 240 VAC 6 to 125 VDC	2 A, 30 VDC inductive load 2 A, 200 VAC inductive load	MY2: 50,000
MY4□(S) MY4□-D2(S) MY4□-CR(S)	File No.98/10014	ENV2,3	6 to 240 VAC 6 to 125 VDC	5 A, 250 VAC (Resistive) 0.8 A, 250 VAC (PF0.4) 5 A, 30 VDC (Resistive) 1.5 A, 30 VDC (L/R = 7 ms)	MY4: 50,000

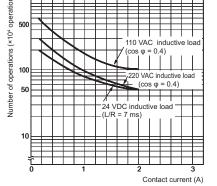
#### •VDE certification

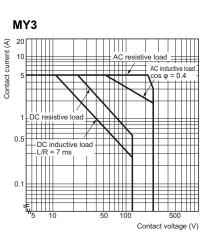
Model	Standard number	Certification No.	Operating Coil ratings	Contact ratings	Certified number of operations
MY2□(S) MY2□-D2(S) MY2□-CR(S)	EN 61810-1	112467UG	6, 12, 24, 48/50, 100/110, 110/120, 200/220, 220/240 VAC	10A, 250 VAC (cos φ = 1) 10A, 30 VDC (L/R = 0 ms)	MY2: 100,000 MY4: 100,000 MY4Z: 50,000 (AC)
			6, 12, 24, 48, 100/110, 125 VDC		
MY4□(S) MY4□-D2(S) MY4□-CR(S)			6, 12, 24, 48/50, 100/110, 110/120, 200/220, 220/240 VAC	5 A, 250 VAC (cos φ = 1) 5 A, 30 VDC (L/R = 0 ms)	
			6, 12, 24, 48, 100/110, 125 VDC		

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

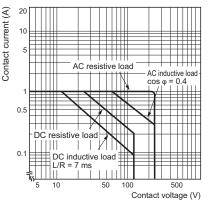
#### Maximum Switching Capacity MY-GS-R MY2(S) Contact current (A) Contact current (A) DC 1 0.5 0.3 DC inductive (L/R = 7 ms) i 0.1 (S 5 10 30 50 100 250 500 Contact voltage (V) MY4(S) Contact current (A) 2 2 3 AC resistive load AC inductive load $\cos \varphi = 0.4$ 3 MYK 0.5 DC 0.3 ductive loa 0.1 5 10 30 50 100 250 500 Contact voltage (V) Endurance Curve MY2(S)





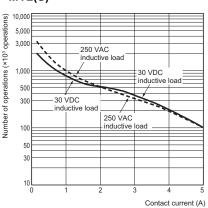


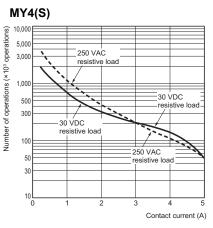






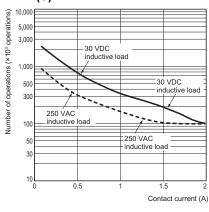
ns)

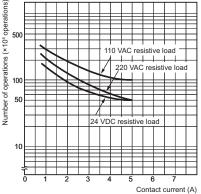






MY3



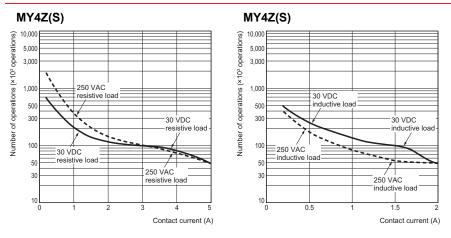






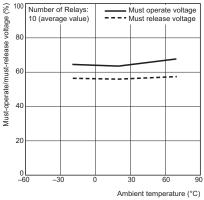
MYQ-MYH

Common Options (Order Separately)

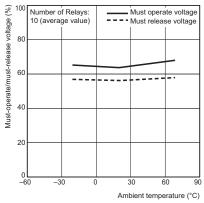


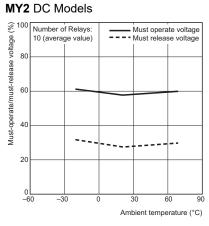
#### •Ambient Temperature vs. Must-operate and Must-release Voltage

#### MY2 AC Models

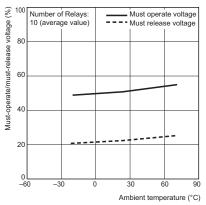


#### MY4 AC Models



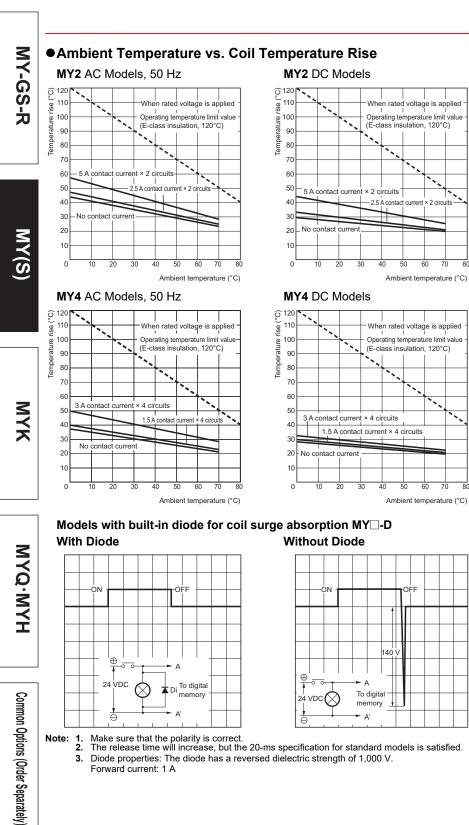


#### MY4 DC Models





**MY-GS-R** 



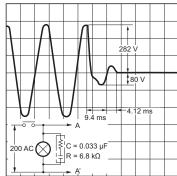
Note:

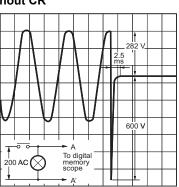
ė

Make sure that the polarity is correct. The release time will increase, but the 20-ms specification for standard models is satisfied. 1. 2. Diode properties: The diode has a reversed dielectric strength of 1,000 V. Forward current: 1 A  $\,$ 3.

A'

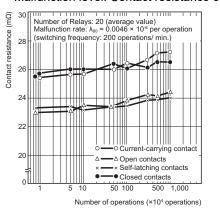
#### Models with built-in CR circuit for coil surge absorption MY□-CR With CR Without CR





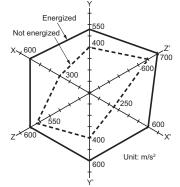
#### • Contact Reliability Test MY4Z-CBG (Modified Allen Bradley Circuit)

Contact load: 5 VDC, 1 mA resistive load Malfunction level: Contact resistance of 100  $\Omega$ 



#### Common Specifications for MY2, MY3, MY4, MY4Z, MY□-02, MY□F, and MY(S) ●Shock Malfunction

#### N = 20



Measurement: Shock was applied 3 times each in 6 directions along 3 axes with the Relay energized and not energized to check the shock values that cause the Relay to malfunction. Criteria: Non-energized: 200 m/s<sup>2</sup>, Energized: 200 m/s<sup>2</sup>

Shock direction



MYK

#### Dimensions

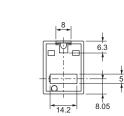
#### Plug-in terminals

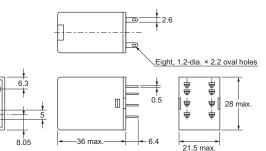
### MY-GS-R MY2□(S)

MY(S)

MYK

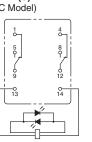
MYQ-MYH





Note: The picture is lockable test button type.

MY2IN(S) (AC Model)

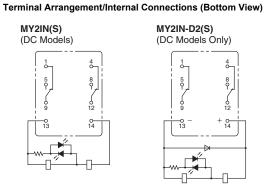


MY2IN(S) (DC Models) 5 9 6 12 0-14 П

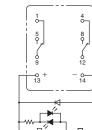
MY2IN1(S) (DC Models)

5 9

-П



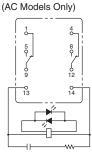
MY2IN1-D2(S) (DC Models Only)

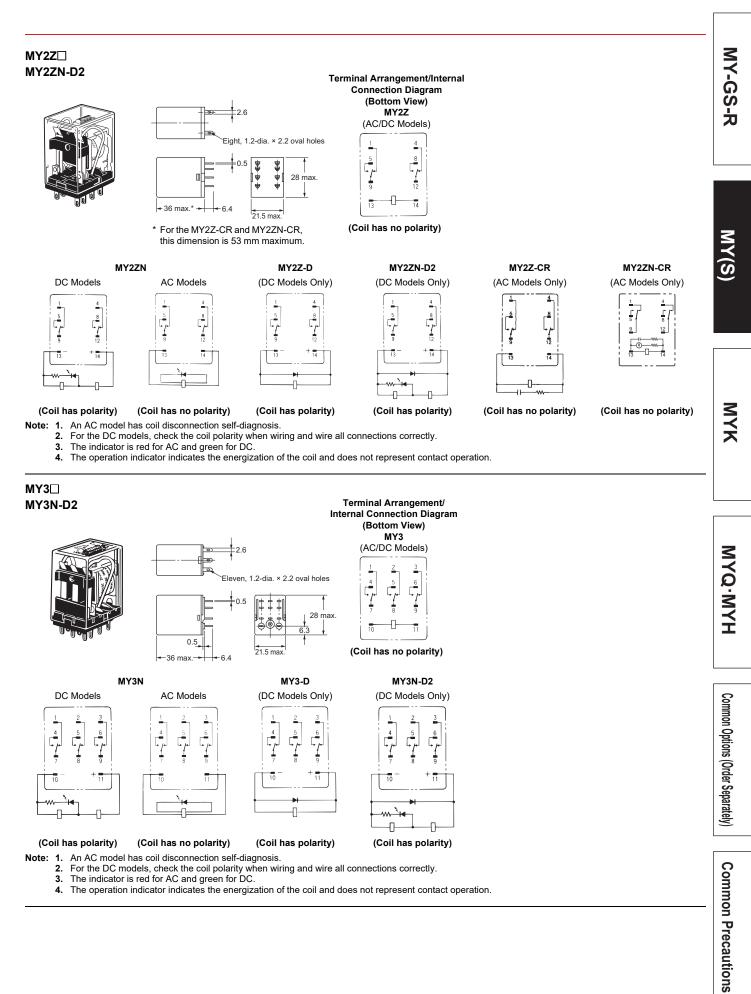


Ð -0-Note: For the DC models, check the coil polarity when wiring and wire all connections correctly.

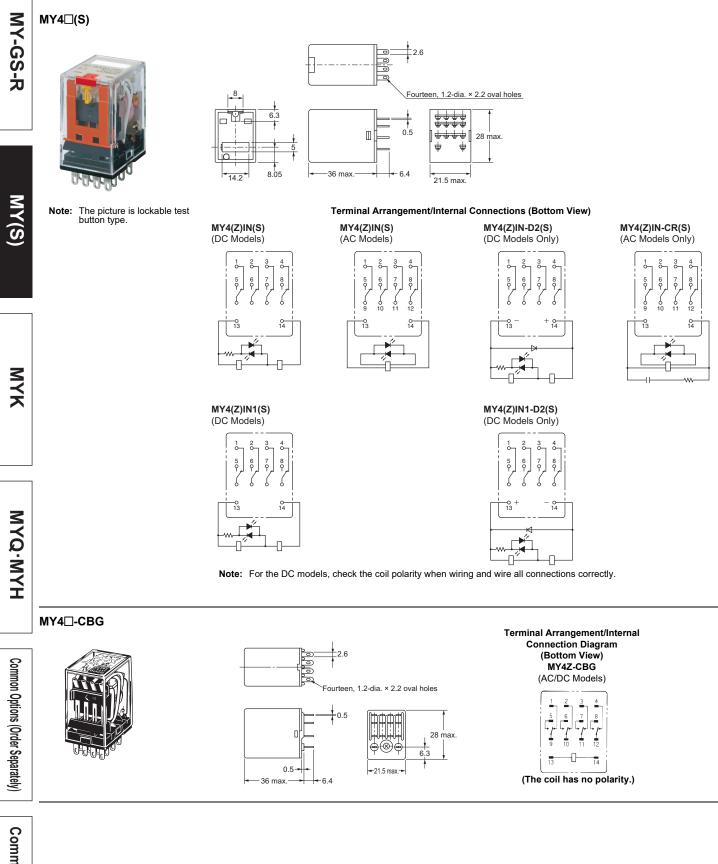
6 12

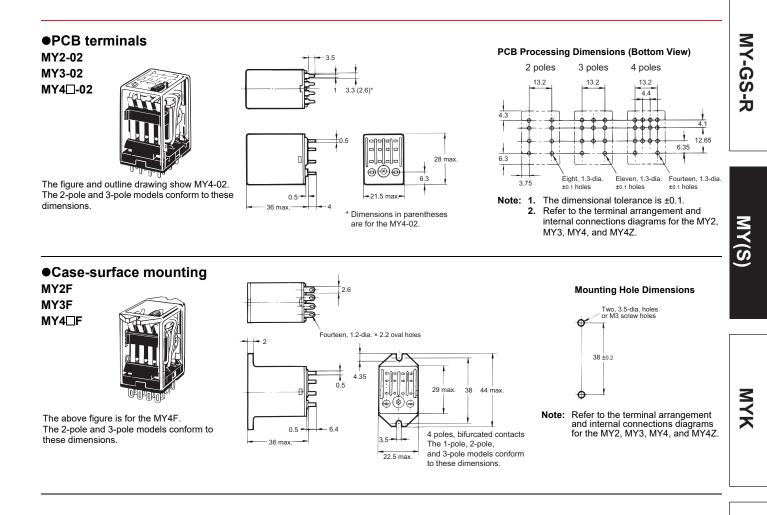
MY2IN-CR (AC Models Only)





ons 29





## Miniature Power Latching Relays

MY(S)

## Latching miniature power relays that retain contact operation status

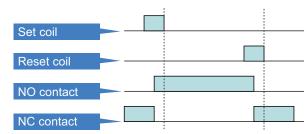
- A low power consumption type that retains contacts using a magnetic lock system.
- Equipped with mechanical operation indicators to make operation status easy-to-see.

Refer to Safety Precautions on pages 62 to 63 and Safety Precautions for All Relays.

#### Features

#### Latching Relays MYK

Retains contact operation status.



NO contact turns on when voltage is applied to the set coil and stays on even if voltage stops being applied to the set coil. NO contact turns off when voltage is applied to the reset coil, after which NC contact will turn on.\*

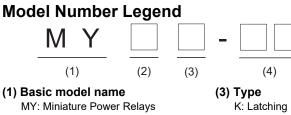
\*MYK features a magnetic lock system.

Contact operation status can be seen at a glance thanks to the mechanical operation indicator.



MYK

#### **Model Number Structure**



(2) Number of poles/contacts 2: 2-pole, single

_	(4)
(3) T	<b>ype</b>
⊬	K: Latching relay

(4) Options, terminal type None: Plug-in terminals 02: PCB terminals

#### **Ordering Information**

When your order, specify the rated voltage.

#### Main unit

#### Plug-in terminals

Classification	Number of poles	Contacts	Model	Rated voltage
Standard models (compliant with Electrical	2 Single	Single	MV2K	12, 24, 100, 100/110 VAC
Appliances and Material Safety Act)		MY2K	12, 24, 48 VDC	

#### PCB terminals

Classification	Number of poles	Contacte	Model	Rated voltage
Standard models (compliant with Electrical	2	Single	MY2K-02	24, 100 VAC
Appliances and Material Safety Act)	2	2 Single		12, 24 VDC

#### **MYK**

#### **MYK**

#### **Ratings and Specifications**

#### Ratings

#### Operating coil

		Set coil			Reset coil						Power consumption (VA, W)	
Rated voltage (V)		Rated current (mA)		Coil resistance	Rated current (mA)		Coil resistance	Must operate voltage (V)	Must release voltage (V)	Maximum voltage (V)	Set coil	Reset coil
		50 Hz	60 Hz	(Ω)	50 Hz	60 Hz	(Ω)	voltage (v)	voltage (v)			
AC	12	57	56	72	39	38.2	130	80% max.*	80% max.	110% max. of rated	Approx. 0.6 to 0.9 (at 60 Hz)	Approx. 0.2 to 0.5 (at 60 Hz)
	24	27.4	26.4	320	18.6	18.1	550					
	100	7.1	6.9	5,400	3.5	3.4	3,000					
DC	12	110		110	50		235	00% max.	60% max.	voltage	Approx. 1.3	Approx. 0.6
	24	52		470	25		940					
	48	2	:7	1,800	1	6	3,000					

MY(S)

2. The rated current and coil resistance are measured at a coil temperature of 23°C with tolerances of +15%/-20% for AC rated current and ±15% for DC coil

3.

resistance. The AC coil resistance is a reference value only. Operating characteristics were measured at a coil temperature of 23°C. 4.

The maximum voltage capacity was measured at an ambient temperature of 23°C.
 \*There is variation between products, but actual values are 80% maximum.

Note: 1. The rated current for AC is the value measured with a DC ammeter in half-wave rectification.

#### Contact Ratings

Number of poles (contact configuration)						
Contact structure						
Load	Resistive load	Inductive load (cos $\varphi$ = 0.4, L/R = 7 ms)				
Rated load	3 A at 220 VAC 3 A at 24 VDC	0.8 A at 220 VAC 1.5 A at 24 VDC				
Rated carry current	3 A					
Maximum switching voltage	250 VAC, 125 VDC					
Maximum switching current	3 A					
Maximum switching power	660 VA 72 W	176 VA 36 W				
Contact material	Au plating + Ag					

#### **Characteristics**

Contact resist	ance*1	50 mΩ max.			
	Operate time*2	AC: 30 ms max., DC: 15 ms max.			
Set	Minimum pulse width	AC: 60 ms. DC: 30 ms			
	Release time*2	AC: 30 ms max., DC: 15 ms max.			
Reset	Minimum pulse width	AC: 60 ms, DC: 30 ms			
Maximum	Mechanical	18,000 operations/h			
switching frequency	Rated load	1,800 operations/h			
Insulation resistance*3		100 MΩ min.			
Dielectric	Between coil and contacts Between contacts of different polarity	1,500 VAC at 50/60 Hz for 1 min			
strength	Between contacts of the same polarity	1.000 VAC at 50/60 Hz for 1 min			
	Between set/reset coils				
Vibration	Destruction	10 to 55 to 10 Hz, 0.5-mm single amplitude (1.0-mm double amplitude)			
resistance	Malfunction	10 to 55 to 10 Hz, 0.5-mm single amplitude (1.0-mm double amplitude)			
Shock	Destruction	1,000 m/s <sup>2</sup>			
resistance	Malfunction	200 m/s <sup>2</sup>			
En dunance.	Mechanical	100,000,000 operations min. (switching frequency: 18,000 operations/h)			
Endurance	Electrical*4	200,000 operations min. (at rated load, switching frequency: 1,800 operations/h)			
Failure rate P value (reference value)*5		1 mA at 1 VDC			
Ambient operating temperature*6		-55 to 60°C			
Ambient operating humidity		5% to 85%			
Weight		Approx. 30 g			

Note: The data shown above are initial values. \*1. Measurement conditions: 1 A at 5 VI

1 A at 5 VDC using the voltage drop method.

\*2. Measurement conditions:

With rated operating power applied, not including contact bounce. For 500 VDC applied to the same location as for dielectric strength measurement.

Ambient temperature condition: 23°C

 Measurement conditions:
 \*3. Measurement conditions:
 \*4. Ambient temperature conv
 \*5. This value was measured
 \*6. With no icing or condensa This value was measured at a switching frequency of 120 operations per minute.

With no icing or condensation.

OMRON

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

**Endurance Curve** 

110 VAC resistive load

30 VDC resistive

Latching Deterioration Over Time

nent: The rate of deterioration in latching ability was measured over time with the Relay left at a normal temperature (20 to 30°C) after latching by applying the rated voltage.

300 500 1,000

220 VAC resistive load

Contact current (A)

Averag value

5.000 10.000

Elapsed time (h)

MYK(-02)

operations)

Number of operations (×10<sup>4</sup>

500

100

50

10

Latching deterioration over time (%) 8 6 0

70

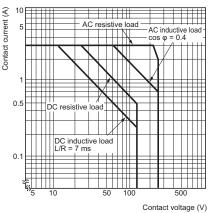
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0 50 100

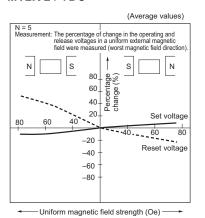
MY2K 24 VDC

N = 24

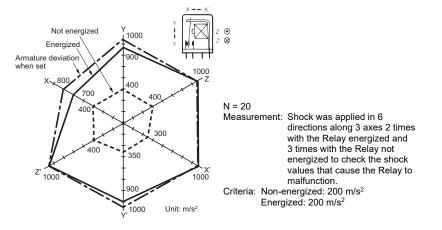
### Maximum Switching Capacity MY2K(-02)



#### Magnetic Interference (External Magnetic Field) MY2K 24 VDC



#### Shock Malfunction MY2K 100 VAC



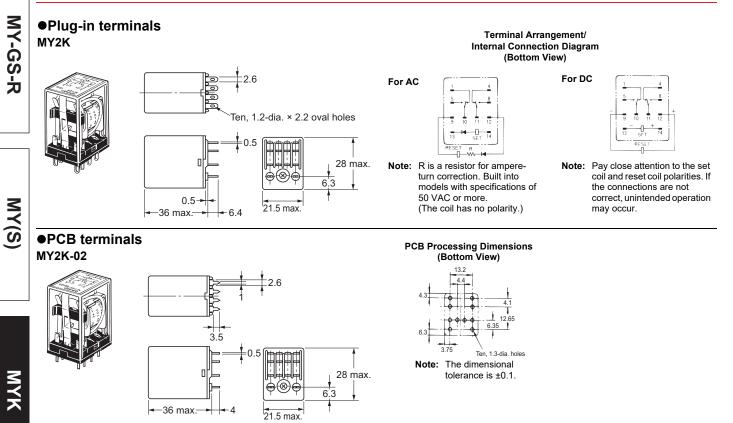
# **MYK(-02)** (subjected by the second second

MY(S)

MY-GS-R

#### MYK

#### Dimensions



# **Miniature Power Sealed Relays** MYQ/MYH

### Sealed relays that are tough in environments where dust or corrosive gases, etc., are present

- Plastic sealed relays (MYQ) and hermetically sealed relays (MYH) that are resistant to effects from the surrounding environment
- Highly airtight structures that are tough in environments where corrosive gases such as chloride gas, sulfuric gas, and silicone gas are generated. They are also resistant to environments where salt damage is occurred and where dust is generated.
- Prevent relay contact failures via a highly airtight structure.

Refer to Safety Precautions on pages 62 to 63 and Safety Precautions for All Relays.



Refer to the standards certifications and compliance section of your OMRON website for the latest information on certified models.

### **Features**

### Highly Airtight Relays (Plug-in Terminals)

Seal performance	Degree of protection	Typical relay	Features
High 🔨	Hermetically sealed	МҮН	Sealing with metals, the glass case and base, etc. with inert gases (N2) inside makes it airtight structure which provides the external casing with durability against harmful corrosion, and prevents corrosive gases from intruding inside relays.
	Plastic sealed	MYQ	Structure that seals relays with the resin case and cover, etc., to prevent effects from corrosive environments.
Low	Closed type (cased)	MY, MY4Z-CBG	Relays in the case realize the structure that protects them from contact with foreign materials.

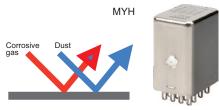
### Plastic Sealed Relays: MYQ

These realize excellent reliability even in environments where salt damage occurs or where dust is generated.



### Hermetically Sealed Relays: MYH

These realize excellent reliability even in environments where dust is generated or where corrosive gases (chloride gas, sulfuric gas, silicone gas, etc.) are present.



**MYQ·MYH** 

MYK



### **MYQ·MYH**

MY-GS-R

MY(S)

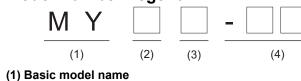
MYK

MYQ-M

HΗ

### **Model Number Structure**

### Model Number Legend



MY: Miniature Power Sealed Relays

#### (2) Contacts/seals

- Q4: 4-pole, single contacts, plastic sealed relays
- Q4Z: 4-pole, bifurcated contacts, plastic sealed relays
- 4H: 4-pole, single contacts, hermetically sealed relays
- 4ZH: 4-pole, bifurcated contacts, hermetically sealed relays

#### (3) Type

Rated voltage

Rated voltage

24, 100/110, 110/120 VAC

12, 24, 48, 100/110 VDC

24, 100/110, 110/120 VAC

12, 24, 48, 100/110 VDC

110/120 VAC

24, 100/110 VDC

24 VDC

- None: None
- N: With operation indicator\* \*Only MYQ (plastic sealed relay)
- (4) Options, terminal type
  - None: Plug-in terminals
  - 02: Plastic sealed relays, PCB terminals
  - 0: Hermetically sealed relays, PCB terminals

### **Ordering Information**

When your order, specify the rated voltage.

### **Plastic Sealed Relays**

#### Plug-in terminals

Classification	Number Contacts				With operation indicator	
Classification	of poles	Contacts	Model	Rated voltage	Model	Rated voltage
Standard models		Single	MYQ4	100/110, 110/120, 200/220, 220/240 VAC	MYQ4N	24, 100/110, 110/120, 200/220, 220/240 VAC
(compliant with				24 VDC		12, 24, 48, 100/110 VDC
Electrical Appliances and Material Safety Act)	2t) Bifurcated	MYQ4Z	100/110, 110/120, 200/220 VAC			
				12, 24 VDC		

#### PCB terminals

Classification	Number of poles	Contacts	Model	Rated voltage
Standard models	4	Single	MYQ4-02	50, 200/220, 220/240 VAC
(compliant with			WI 1 Q4-02	24 VDC
Electrical Appliances		Difurcated	MYO 47 02	100/110 VAC
and Material Safety Act)		Bifurcated	MYQ4Z-02	24, 48 VDC

Model

MY4H

MY4ZH

Model

MY4H-0

MY4ZH-0

### **Hermetically Sealed Relays**

Number

of poles

4

Number

of poles

4

Contacts

Bifurcated

Contacts

Bifurcated

Single

Single

Plug-in terminals

Classification

Standard models

(compliant with Electrical Appliances

and Material Safety Act)

PCB terminals

Classification

Standard models

Electrical Appliances

and Material Safety Act)

(compliant with

38

### OMRON

### **MYQ·MYH**

### **Ratings and Specifications**

#### Operating coil

		Rated cur	rrent (mA)	Coil	Coil indu	ctance (H)	Must suggest	Must release	Maximum	Power				
Rated	l voltage (V)	50 Hz	60 Hz	resistance (Ω)	Armature OFF	Armature ON	Must operate voltage (V)*1	voltage (V)*2	voltage (V)	consumption (VA, W)				
	24	53.8	46	180	0.69	1.3	30% min.							
	100/110	11.7/12.9	10/11	3,750	14.54	24.6								
AC	110/120	9.9/10.8	8.4/9.2	4,430	19.2	32.1		30% min.		0% min. 1.3 (at	Approx. 0.9 to 1.3 (at 60 Hz)			
	200/220	6.2/6.8	5.3/5.8	12,950	54.75	91.07					1.0 (dt 00 112)			
	220/240	4.8/5.3	4.2/4.6	18,790	83.5	136.4	80% max.		110% max. of rated voltage					
	12	7	5	165	0.734	1.37			rated voltage					
DC	24	36	5.9	650	3.2	5.72		10% min.		Approx. 0.9				
DC	48	18	3.5	2,600	10.6	21.0	1	10% ጠጠ.	Аррго	Applox. 0.9				
	100/110	9.1	/10	11,000	45.6	86.0								

Note: 1. The rated current and coil resistance are measured at a coil temperature of 23°C with tolerances of +15%/-20% for AC rated current and ±15% for DC coil resistance

The AC coil resistance and coil inductance values are for reference only. 2.

3. Operating characteristics were measured at a coil temperature of 23°C

4. The maximum voltage capacity was measured at an ambient temperature of 23°C.

 There is variation between products, but actual values are 80% maximum. To ensure operation, apply at least 80% of the rated value.
 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.

#### Contact Ratings Plastic Sealed Relays: MYQ

Number of poles (contact configuration)	4-pole (4PDT)				
Contact structure	Single/b	ifurcated			
Load	Resistive load	Inductive load (cos φ = 0.4, L/R = 7 ms)			
Rated load	1 A at 220 VAC 1 A at 24 VDC	0.5 A at 220 VAC 0.5 A at 24 VDC			
Rated carry current	1 A				
Maximum switching voltage	250 VAC 125 VDC				
Maximum switching current	1 A				
Maximum switching power	220 VA 110 VA 24 W 12 W				
Contact material	Au plating + Ag				

#### Hermetically Sealed Relays: MYH

Number of poles (contact configuration)	4-pole (4PDT)				
Contact structure	Si	ngle	Bifu	rcated	
Load	Resistive load	Inductive load (cos $\phi$ = 0.4, L/R = 7 ms)	Resistive load	Inductive load (cos $\phi$ = 0.4, L/R = 7 ms)	
Rated load	3 A at 110 VAC 3 A at 24 VDC	0.8 A at 110 VAC 1.5 A at 24 VDC	3 A at 110 VAC 3 A at 24 VDC	0.8 A at 110 VAC 1.5 A at 24 VDC	
Rated carry current	3 A		-		
Maximum switching voltage	125 VAC 125 VDC				
Maximum switching current	3 A				
Maximum switching power	330 VA 72 W	88 VA 36 W	330 VA 72 W	88 VA 36 W	
Contact material	Au plating +	Ag			

(S)

Ζ

### Characteristics

N							
	Model			MYQ		МҮН	
GS-	Contact resistance	e*1	50 mΩ max.				
	Operate time*2		20 ms max.				
R	Release time*2		20 ms max.				
	Maximum	Mechanical	18,000 operations/h				
	switching frequency	Rated load	1,800 operations/h				
	Insulation resistar	ice*3	100 M $\Omega$ min.				
	Between coil and contacts		2,000 VAC at 50/60 H	Hz for 1 min	1,000 VAC at 50/60	Hz for 1 min	
7	Dielectric strength	Between contacts of different polarity	2,000 VAC at 50/60 H	Hz for 1 min	1,000 VAC at 50/60	Hz for 1 min	
MY(S		Between contacts of the same polarity	1,000 VAC at 50/60 H	Hz for 1 min	700 VAC at 50/60 H	z for 1 min	
S	Vibration	Destruction	10 to 55 to 10 Hz, 0.5	5-mm single amplitude (1.0-mm doubl	e amplitude)		
$\smile$	resistance	Malfunction	10 to 55 to 10 Hz, 0.5				
	Shock resistance	Destruction	1,000 m/s <sup>2</sup>				
	SHOCK resistance	Malfunction	200 m/s <sup>2</sup>				
	Endurance	Mechanical	Bifurcated contacts:	AC: 50,000,000 operations min., DC: 100,000,000 operations min. 5,000,000 operations min., DC: 5,000,000 operations min. (switching frequency: 18,000 operations/h)	Single contacts: Bifurcated contacts:	50,000,000 operations min. 5,000,000 operations min. (switching frequency: 18,000 operations/h)	
MYK		Electrical*4	Bifurcated contacts:	200,000 operations min. 100,000 operations min. (at rated load, switching frequency: 1,800 operations/h)	Single contacts: Bifurcated contacts:	100,000 operations min. 50,000 operations min. (at rated load, switching frequency: 1,800 operations/h)	
	Failure rate P Leve	el (reference value)*5	Single contacts: Bifurcated contacts:	1 mA at 1 VDC 100 μA at 1 VDC	Single contacts: Bifurcated contacts:	100 μA at 1 VDC 100 μA at 100 mVDC	
	Ambient operating	temperature*6	-55 to 60°C		-25 to 60°C		
	Ambient operating	humidity	5% to 85%				
	Weight		Approx. 35 g		Approx. 50 g		

Note: The data shown above are initial values. \*1.

Measurement conditions:

1 A at 5 VDC using the voltage drop method. With rated operating power applied, not including contact bounce. Measurement conditions:

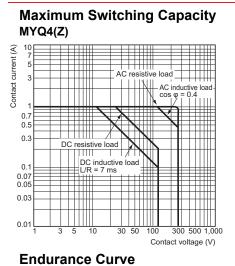
Ambient temperature conditions: 23°C Ambient temperature conditions: For 500 VDC applied to the same location as for dielectric strength measurement. Ambient temperature condition: 23°C This value was measured at a switching frequency of 120 operations per minute. With no icing or condensation.

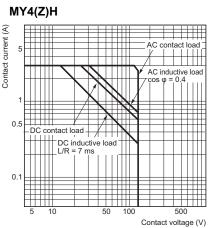
\*3. \*4. \*5. \*6.

\*2.

### MYQ·MYH

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





110 VAC re

24 VDC resistive load

-24 VDC inductive load -(L/R = 7 ms)

The endurance of bifurcated contacts is one-half that of single contacts.

Contact current (A)

MY4H

500

100

50

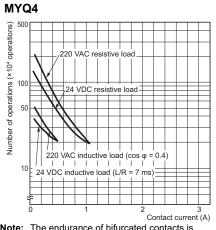
10

Note:

110 VAC inductive load

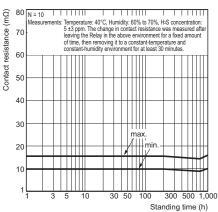
(cos φ = 0.4)

Number of operations (x10<sup>4</sup> operations)

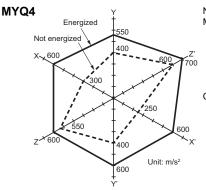


Note: The endurance of bifurcated contacts is one-half that of single contacts.

#### H<sub>2</sub>S Gas Data MYQ4



#### **Shock Malfunction**

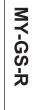


N = 20

Measurement: Shock was applied 3 times each in 6 directions along 3 axes with the Relay energized and not energized to check the shock values that cause the Relay to malfunction. Criteria: Non-energized: 200 m/s<sup>2</sup> Energized: 200 m/s<sup>2</sup>

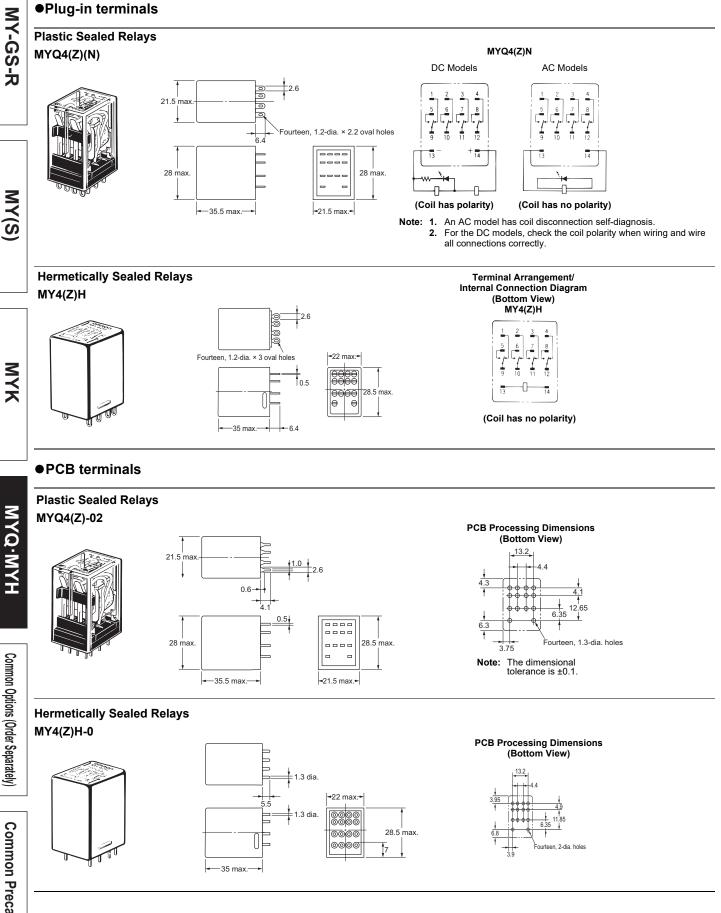
Shock direction





### **MYQ·MYH**

### **Dimensions**



**Common Precautions** 

### OMRON

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

### **Ordering Information**

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

Applicable elay model*1	Mounting Method	Conductive part protection	Terminal Type	Applicable crimp terminal/ Electric wire	Appearance	Model	Hold-down Clips/ Release Levers (Order Separately)	÷
			Push-In Plus	Ferrules Solid wire		PYF-08-PU*2 * MY2Z□-CR, MY2□-CR 24 VAC cannot be used	With release lever * Hold by release lever	
			Terminal	Stranded wire		PYF-08-PU-L*2		MY(S)
	Mounted on a DIN track or with screws	Available	Screw terminal (M3 screw size)	Forked terminals Solid wire Stranded wire		PYFZ-08-E*4	MY2⊡: PYC-A1 MY2IN(S): PYC-E1	
IY2⊟ IY2⊟(S) IY2Z⊡-CR						PYF08A-N	MY2Z⊡-ĆR, MY2⊡-CR 24 VAC: Y92H-3	
				Round terminals Forked terminals Solid wire Stranded wire	and the second s	PYFZ-08 * Terminal cover: PYCZ-C08		
	Mounted on a		Screwless	Solid wire			PYCM-08S * MY2Z□-CR,	
	DIN track	Available	terminal (Clamp method)	Stranded wire		PYF08S	MY2⊡-CR 24 VAC cannot be used * Hold by release lever	
Y3□	Mounted on a DIN track or with screws	None	Screw terminal (M3 screw size)	Round terminals Forked terminals Solid wire Stranded wire		PYF11A	PYC-A1	

\*1. The applicable relay model is a plug-in terminal type.
\*2. There are screw mounting holes in the DIN hooks on the PYF-\_\_PU and P2RF-\_\_PU. Pull out the DIN hook tabs to mount the Sockets with screws.
\*3. Terminal cover type is PYCZ-C08. (Order Separately) For details, refer to the *For Screw Terminal Sockets (PYFZ-08/PYFZ-14) Terminal covers* on page 50.
\*4. The finger-protection type (PYFZ-\_E) is a type in which the terminal cover is integrated into the socket. Round terminals connot he used the fortune terminal cover is integrated into the socket. The finger-protection type (PYFZ-□-E) is a type in which the terminal cover is integrated into the socket. Round terminals cannot be used. Use forked terminals or ferrules instead.

MY-(	Applicable relay model*1	Mounting Method	Conductive part protection	Terminal Type	Applicable crimp terminal/ Electric wire	Appearance	Model	Hold-down Clips/ Release Levers (Order Separately)
MY-GS-R				Push-In Plus Terminal	Ferrules Solid wire		PYF-14-PU*2 * MY4ZN-CBG-CR, MY4-CR 24 VAC, MY4N-CR 24 VAC/115 VAC cannot be used	With release lever * Hold by release lever
			Available		Stranded wire		PYF-14-PU-L*2	
MY(S)		Mounted on a DIN track or with screws			Forked terminals Solid wire		PYFZ-14-E*4	MY4Z⊡-CBG-CR, MY4-CR 24 VAC, MY4N-CR 24 VAC/115 VA:
Ŭ	MY4 MY4 MY4 MY4 MYQ4 MY4Z -CBG-CR MY2K		Screw terminal (M3 screw size)	Stranded wire	S.P.	PYF14A-N	Y92H-3 Other than those above: PYC-A1	
	WI ZIX		(Terminal cover sold separately)		Round terminals Forked terminals Solid wire Stranded wire		PYFZ-14 * Terminal cover: PYCZ-C14	-
МҮК		Mounted on a DIN track Available		Screwless terminal (Clamp method)	Solid wire Stranded wire	r to	PYF14S	PYCM-14S * MY4Z□-CBG-CR, MY4-CR 24 VAC, MY4N-CR 24 VAC/115 VAC cannot be used * Hold by release lever
		Mounted on a DIN track or with screws	None	Screw terminal (M3.5 screw size)	Round terminals Forked terminals Solid wire Stranded wire		PYF14T	MY4Z□-CBG-CR: Y92H-3 Other than those above: PYC-A1
MYQ-MYH	MY2	DIN track or Available Rise-Up termina			Solid wire		PYF14-ESS-B	
НАМ	and MY4		Kise-Up terminal	Stranded wire		PYF14-ESN-B	_ PYC-35-B	

\*1.

The applicable relay model is a plug-in terminal type. There are screw mounting holes in the DIN hooks on the PYF-\_\_\_\_-PU and P2RF-\_\_\_\_-PU. Pull out the DIN hook tabs to mount the Sockets with screws. Terminal cover type is PYCZ-C14. (Order Separately) For details, refer to the *For Screw Terminal Sockets (PYFZ-08/PYFZ-14) Terminal covers* on page 50. The finger-protection type (PYFZ-\_\_-E) is a type in which the terminal cover is integrated into the socket. Round terminals cannot be used. Use forked terminals or ferrules instead. \*2. \*3. \*4.

<b>Y</b> 2□	Solder terminals			PY08	
Y2□	Wrapping terminals		ila .		
MY2□ MY2□(S) MY2Z□-CR	Terminal length: 25 mm	Accessories (Order Separately)		PY08QN	
	Wrapping terminals Terminal length: 20 mm	* MY2Z□-CR: PYC-1     Other than those above: PYC-P		PY08QN2	
	PCB terminals			PY08-02	
	Solder terminals			PY08-Y1	
Y2□ Y2□(S)	Wrapping terminals Terminal length: 25 mm	With Hold-down Clips*2		PY08QN-Y1	
		_			
	Wrapping terminals Terminal length: 20 mm			PY08QN2-Y1	

\*1. The applicable relay model is a plug-in terminal type.\*2. The hold-down clips for connecting the relay and socket come as a set with the socket.

Σ	Applicable relay model*1	Terminal Type	Hold-down Clips	Appearance	Model
MY-GS-R		Solder terminals	Accessories (Order Separately) * PYC-P		PY11
		Wrapping terminals Terminal length: 25 mm	Accessories (Order Separately) * PYC-P		PY11QN
MY(S)		Wrapping terminals Terminal length: 20 mm	Accessories (Order Separately) * PYC-P		PY11QN2
)		PCB terminals	Accessories (Order Separately) * PYC-P		PY11-02
		Solder terminals		bangan d	PY14
МҮК	MY4 MY4 (S) MY4 H MY44 MY42 -CBG-CR MY2K	Wrapping terminals Terminal length: 25 mm	Accessories (Order Separately) - * MY4Z⊡-CBG-CR: PYC-1		PY14QN
		Wrapping terminals Terminal length: 20 mm	Other than those above: PYC-P		PY14QN2
MYQ-MYH		PCB terminals		Ŷ	PY14-02
		Solder terminals			PY14-Y1
Common Options (Order Separately)	MY4□ MY4□(S) MY4□H MYQ4□ MY2K	Wrapping terminals Terminal length: 25 mm	With Hold-down Clips*2		PY14QN-Y1
<b>Common Precautions</b>	*1. The applicable relay model is a	Wrapping terminals Terminal length: 20 mm			PY14QN2-Y1

\*1. The applicable relay model is a plug-in terminal type.
 \*2. The hold-down clips for connecting the relay and socket come as a set with the socket.

Appearance*1	Model*2	Weight*3	Application
	PYC-A1	Approx. 0.54 g	
	PYC-E1	Approx. 0.6 g	For connecting relays and sockets
	РҮС-Р	Approx. 1.4 g	
	PYC-S	Approx. 1.8 g	For connecting sockets, socket mounting plates, and relays
	Y92H-3*4	Approx. 0.7 g	For connecting models with built-in CR circuit for coil surge absorption
	PYC-1*5	Approx. 6 g	(MY2Z□-CR) and sockets

Hold-down Clip

\*1. The appearance shown is one in which the relay, socket, and hold-down clip are assembled.
\*2. Hold-down clips are used in sets of two. However, PYC-P and PYC-1.
\*3. The weight shown above is the weight for one hold-down clip.
\*4. MY2-CR 24 VAC, MY2N-CR 24 VAC, MY4-CR 24 VAC and MY4N-CR 24 VAC/115 VAC use in combination with hold-down clip Y92H-3.
\*5. MY2-CR 24 VAC, MY2N-CR 24 VAC, MY4-CR 24 VAC and MY4N-CR 24 VAC/115 VAC use in combination with hold-down clip PYC-1.



#### •Front-connecting Socket Accessories

For Push-In Plus Terminal Sockets (PYF-08-PU(-L)/PYF-14-PU(-L))

Short Bars

) 	Applicable sockets	Pitch	Application		Number of poles	L (Length)	Insulati on color	Model*1
				3.90	2	15.1		PYDN-7.75-020
		Bridging contact betrets fetretes	Bridging contact terminals (common)	terminals	3	22.85		PYDN-7.75-030
		7.75 mm				4	30.6	
	PYF-08-PU(-L)				20 154.6	154.6	Red (R)	PYDN-7.75-200
	PYF-14PU(-L)	31.0 mm	For Coil terminals	3.90 18.5 2.25 224.35 1.57	8	224.35	Blue (S) Yellow(Y)	PYDN-31.0-080□

\*1. Replace the box ( $\Box$ ) in the model number with the code for the covering color.  $\Box$ Color selection: R = Red, S = Blue, Y = Yellow

#### Labels

٦	Applicable sockets	Model	Manufacturer	Minimum order (Box) (quantity per box)
	PYF-08-PU(-L) PYF-14PU(-L)	MG-CPM-04 41390N	Cembre	1,680 (35 sheet / 48 pieces)

Note: PRINTER: MARKINGENIUS MG3 (Ask to your Omron contact for more details on printers)

#### For Screwless Terminal Sockets (PYF08S/PYF14S) Short Bars

Applicable sockets	Pitch	Application	Shape/external dimensions	Number of poles	Insulati on color	Model*1
PYF08S	19.7 mm	For bridging		2	Red (R)	<b>PYDM-08S</b> □ (50 pcs./bag)
PYF14S	27.5 mm	coils between sockets	1.2-dia. ← Pitch →	2	Blue (B)	<b>PYDM-14S</b> □ (50 pcs./bag)

\*1. Replace the box ( $\Box$ ) in the model number with the code for the covering color.  $\Box$ Color selection: R = Red, B = Blue

#### Labels

Applicable sockets	Model
PYF08S	R99-11
PYF14S	(100 pcs./bag)

#### Release Levers

Applicable socket	s Shape/external dimensions	Model
PYF08S		PYCM-08S
PYF14S		PYCM-14S

MY(S)

MYK

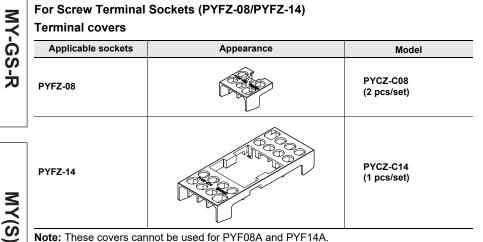
MYQ-MYH

Common Options (Order Separately)

For Screw Terminal Sockets (PYFZ-08/PYFZ-14	ł)
Short Bars	

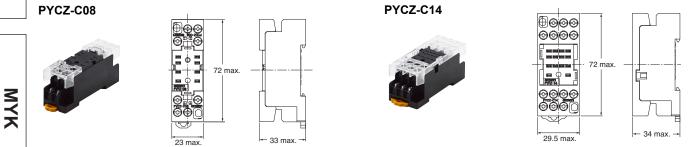
Applicable sockets	Pitch	Application	Shape/external dimensions	Number of poles	Insulation color	Model*1
				2		<b>PYD-025B⊡ (2P)</b> (10 pcs./bag)
PYFZ-08	22 mm	For bridging		8	B (Black)	<b>PYD-085B⊡ (8P)</b> (10 pcs./bag)
	29 mm	adjacent sockets		2	S (Blue) R (Red)	<b>PYD-026B⊡ (2P)</b> (10 pcs./bag)
PYFZ-14				8		<b>PYD-086B⊡ (8P)</b> (10 pcs./bag)
				2	B (Black)	<b>PYD-020B□ (2P)</b> (50 pcs./bag)
	7 mm			3	Y (Yellow)	<b>PYD-030B⊡ (3P)</b> (10 pcs./bag)

\*1. Replace the box ( $\Box$ ) in the model number with the code for the covering color.



Note: These covers cannot be used for PYF08A and PYF14A.

#### Dimensions with terminal cover



(Unit: mm)

#### Socket Mounting Plates (For Back-connecting Socket PY:)/Solder Terminals, PY:QN(2)/Wrapping Terminals)

	Applicable Sockets	S	ocket Mounting	Plates
Model	Models with hold-down clips	Appearance	Number of sockets	Model
PY08 PY08QN			1	PYP-1
PY08QN2 PY11 PY11QN PY11QN2	PY08-Y1 PY08QN-Y1 PY08QN2-Y1 PY14-Y1		18	PYP-18*
PY14 PY14QN PY14QN2	PY14QN-Y1 PY14QN2-Y1		36	PYP-36*

#### Parts for Track Mounting

Common Options (Order Separately)	*You can cut the PYP-1 Parts for Track M		any required length.	
lions	Туре		Appearance	Model
(Orde	DIN Tracks	1 m	0 n	PFP-100N
r Sepa	DIN HACKS	0.5 m		PFP-50N
rately)	End Plate*		Contraction of the second seco	PFP-M
Comm	Spacer			PFP-S

Note: The track conforms to DIN standards. \*When mounting DIN track, please use End Plate (Model PFP-M).

## 50

### **Ratings and Specifications**

### **Characteristics**

							Di	electric stren	gth			
Model	Connection	Number of pins	Terminal Type	Ambient operating temperature	Ambient operating 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	
PYF-08-PU			Push-In Plus Terminal	-40 to 70°C		10 A*2	2,000 VAC	2,000 VAC	2,000 VAC		Approx. 80 g	
PYF08S			Screwless terminal			10772	for 1 min	for 1 min	for 1 min		Approx. 46 g	
PYFZ-08		8		−55 to 70°C		10 A	2,250 VAC	2,250 VAC	2,250 VAC		Approx. 32 g	
PYFZ-08-E			Screw terminal		_		for 1 min	for 1 min	for 1 min	+	Approx. 32 g	
PYF08A-N				−55 to 55°C		7 A*3	2,000 VAC for 1 min	2,000 VAC for 1 min	2,000 VAC for 1 min		Approx. 32 g	
PYF11A	Front	11	Screw terminal	−55 to 70°C		5 A	2,000 VAC for 1 min	2,000 VAC for 1 min	2,000 VAC for 1 min	1,000 MΩ min.	Approx. 43 g	
PYF-14-PU	Fiont		Push-In Plus Terminal	-40 to 70°C		6 A	2,000 VAC	2,000 VAC	2,000 VAC	(500 VAC)	Approx. 87 g	9
PYF14S			Screwless terminal			5 A	for 1 min	for 1 min	for 1 min		Approx. 62 g	
PYFZ-14				−55 to 70°C		6 A	2,250 VAC	2,250 VAC	2,250 VAC		Approx. 50 g	
PYFZ-14-E		14			_		for 1 min	for 1 min	for 1 min	+	Approx. 50 g	
PYF14A-N			Screw terminal	−55 to 55°C		5 A*3	2,000 VAC for 1 min	2,000 VAC for 1 min	2,000 VAC for 1 min		Approx. 50 g	
PYF14T				−55 to 70°C		3 A	2,000 VAC for 1 min	2,000 VAC for 1 min	2,000 VAC for 1 min		Approx. 53 g	
PY08			Solder terminals								Approx. 8 g	
PY08-Y1			Solder terminals								Approx. 9 g	
PY08QN			Wrapping terminals		5% to						Approx. 12 g	
PY08QN-Y1		8	(Terminal length: 25 mm)		85%	7 A	1,500 VAC	1,500 VAC	1,500 VAC	100 MΩ	Approx. 13 g	
PY08QN2			Wrapping terminals				for 1 min	for 1 min	for 1 min	min.	Approx. 11 g	
PY08QN2-Y1			(Terminal length: 20 mm)								Approx. 12 g	
PY08-02			PCB terminals								Approx. 7 g	
PY11			Solder terminals								Approx. 9 g	L
PY11QN			Wrapping terminals (Terminal length: 25 mm)				1.500 VAC	1.500 VAC	1.500 VAC	100 MΩ	Approx. 13 g	
PY11QN2	Back	11	Wrapping terminals (Terminal length: 20 mm)	-55 to 70°C		5 A	for 1 min	for 1 min	for 1 min	min.	Approx. 12 g	
PY11-02			PCB terminals								Approx. 8 g	
PY14			O al da e ta main a la								Approx. 10 g	
PY14-Y1			Solder terminals								Approx. 11 g	
PY14QN			Wrapping terminals								Approx. 14 g	
PY14QN-Y1		14	(Terminal length: 25 mm)			3 A	1,500 VAC	1,500 VAC	1,500 VAC	100 MΩ	Approx. 15 g	
PY14QN2			Wrapping terminals				for 1 min	for 1 min	for 1 min	min.	Approx. 13 g	
PY14QN2-Y1			(Terminal length: 20 mm)								Approx. 14 g	L
PY14-02			PCB terminals	1							Approx. 9 g	

Model	Connection	Number of pins	Terminal Type	Continuous carry current	Dielectric strength	Insulation resistance *1
PYF14-ESS-B	Front	14	Rise-Up terminal	12 A	>3 kV	>5 MΩ
PYF14-ESN-B	Front	14	Rise-Op terminal	IZ A	>3 KV	>5 10122

\*2. \*3.

\*1. For 500 VDC applied to the same location as for dielectric strength measurement.
\*2. The carrying current of 10 A is for an ambient temperature of 55°C or below. 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%.

#### **Socket Accessories** •For Front-connecting Sockets

GS-R	Application	Applicable sockets	Model	Maximum carry current	Ambient operating temperature	Ambient operating humidity	
<i>N</i>			PYDN-7.75-020				
		PYF-08-PU(-L)	PYDN-7.75-030	20 A	-40 to 70°C	5% to 85%	
		PYF-14-PU(-L) PYDN-	PYDN-7.75-040	20 A			
			PYDN-7.75-200				
	Bridging contact terminals	PYFZ-08	PYD-025B				
	(common)	F1F2-00	PYD-085B				
		PYFZ-14	PYD-026B	20 A	-40 to 70°C (with no icing or condensation)	45% to 85% (with no icing or condensation)	
			PYD-086B	<ul> <li>(However, 18 A when 70°C)</li> </ul>			
2		F1FZ-14	PYD-020B	,			
6			PYD-030B				
MY(S)		PYF-08-PU(-L) PYF-14-PU(-L)	PYDN-31.0-080	20 A	-40 to 70°C	5% to 85%	
	For Coil terminals	PYF08S	PYDM-08S	10 A	-40 to 70°C	5% to 85%	
		PYF14S	PYDM-14S	10 A	-40 to 70°C	5% to 85%	

### **Certified Standards** •CSA certification (File No. LR031928)

	Model	Ratings	Class number	Standard number
Ζ	PYF-08-PU(-L)	10 A, 250 V		
YM	PYF-14-PU(-L)	6 A, 250 V*		
X	PYF08S	10 A, 250 V		
	PYF14S	5 A, 250 V	3211 07	CSA C22.2 No14
	PYFZ-08(-E)	10 A, 250 V		
	PYFZ-14(-E)	6 A, 250 V		
	PY□ PYF□A	7 A, 250 V		

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

#### •UL certification (File No. E87929)

Model	Ratings	Standard number	Category	Listed/Recognized
PYF-08-PU(-L)	10 A, 250 V			
PYF-14-PU(-L)	6 A, 250 V*			
PYF08S PYF14S	10 A, 250 V	UL508	SWIV2	Desservition
PYFZ-08(-E)	10 A, 250 V	ULSUO	300102	Recognition
PYFZ-14(-E)	6 A, 250 V			
PY□ PYF□A	7 A, 250 V			

\*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.
PYF-08-PU(-L)	10 A, 250 V*	EN 61984	DE0207E0E
PYF-14-PU(-L)	6 A, 250 V		R30327395
PYFZ-08(-E)	10 A, 250 V		R50405329
PYFZ-14(-E)	6 A, 250 V		R50405329

\*Ratings are for an ambient temperature of 55°C or below. At an ambient temperature of 70°C, the value is 7 A.

#### •VDE certification

Model	Standard number	Certification No.
PYF08S		40015509
PYF14	VDE0627 (EN61984)	40010009

#### Others

Model	Standards	File No.
PYF14-ESN-B	UL508	E244189
PYF14-ESS-B	CSA22.2	LR225761

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Common Options (Order Separately)

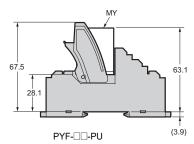
MYQ-MYH

### Dimensions

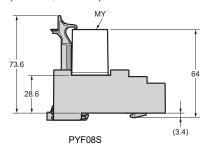
#### Height with Socket

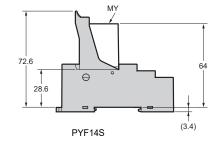


 Push-In Plus Terminal (PYF-□-PU)



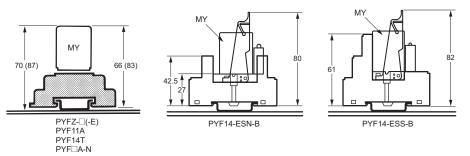
 Screwless terminal (PYF08S, PYF14S)





Screw terminal

(PYFZ-□(-E), PYF11A, PYF14T, PYF□A-N, PYF14-ES□-B)



**Note:** 1. The PYF11A can be mounted on a track or with screws.

The heights given in parentheses are the measurements for 53-mm-high Relays.

#### Back-connecting Sockets

• Solder terminals/wrapping terminals (PY□)



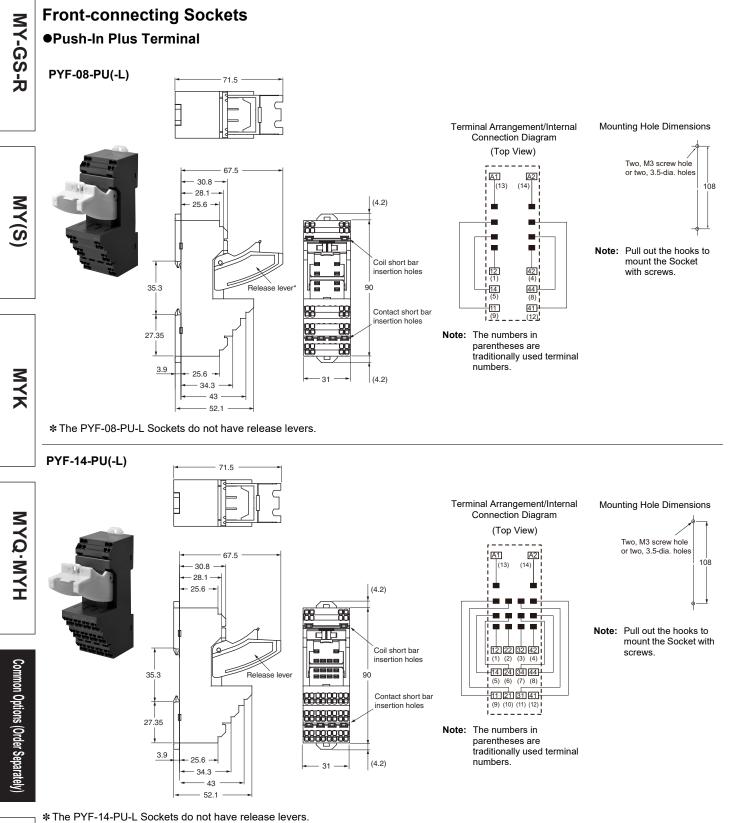
 PCB terminals (PY□-02)



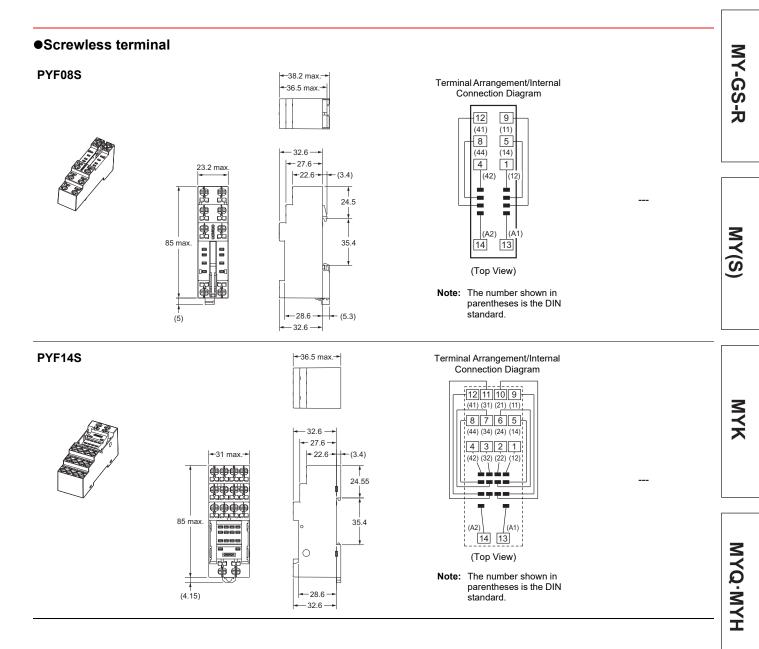
(Unit: mm)

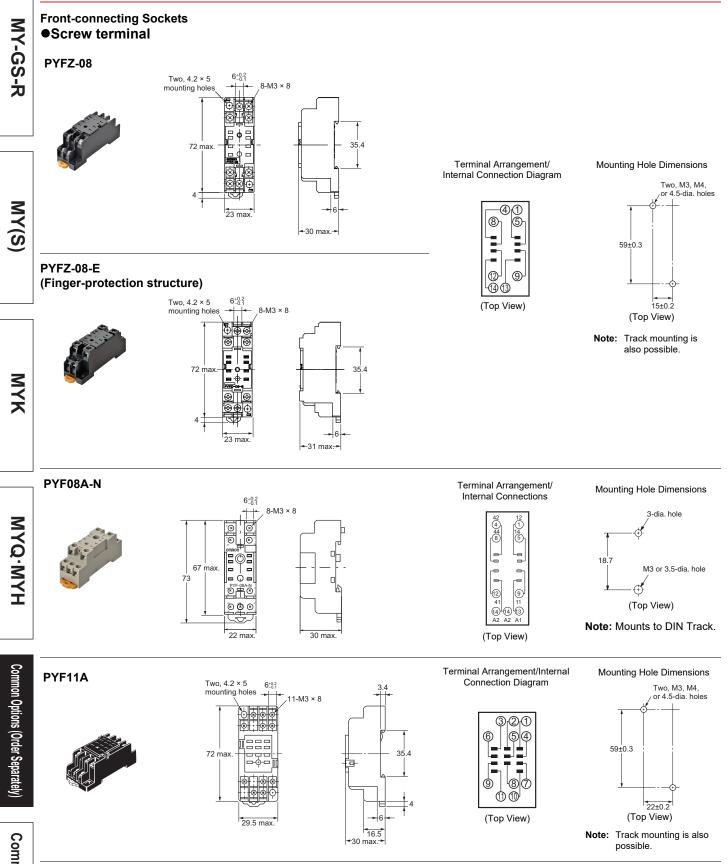




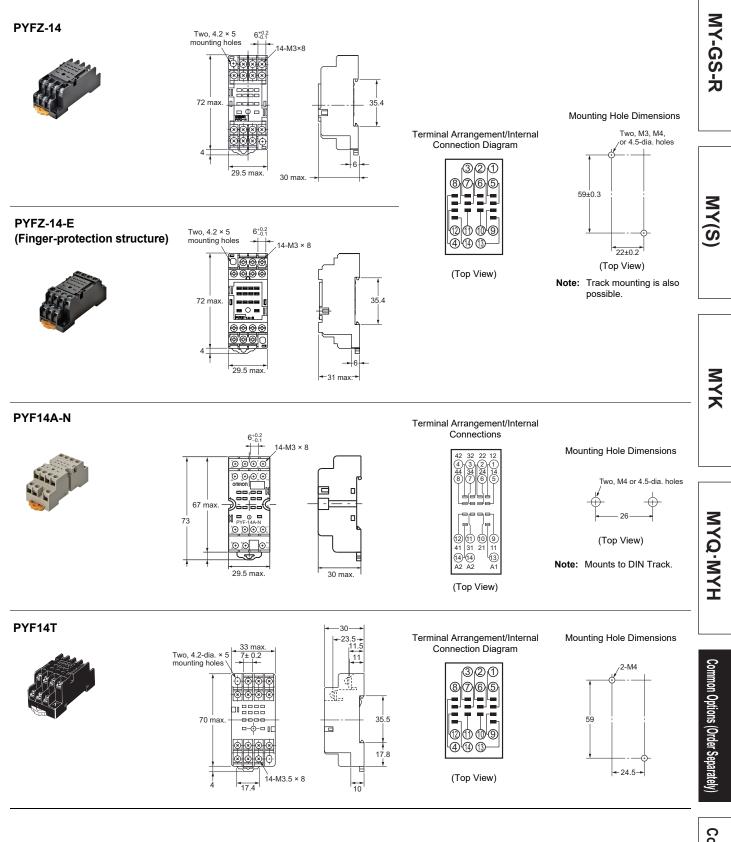


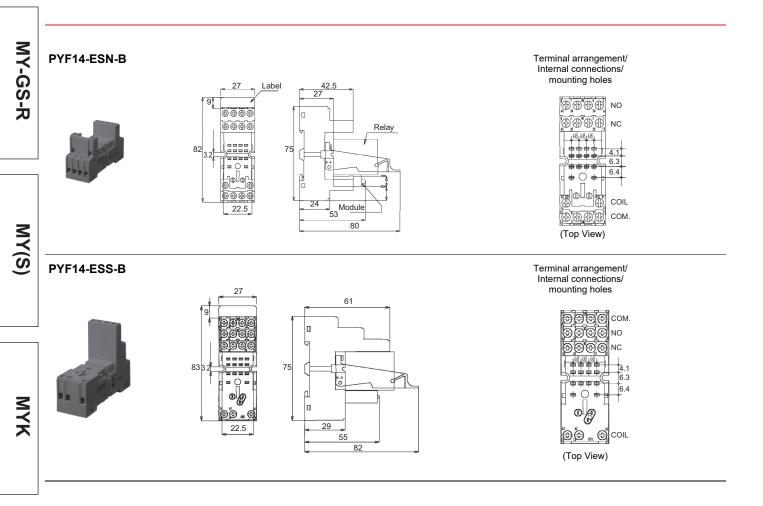
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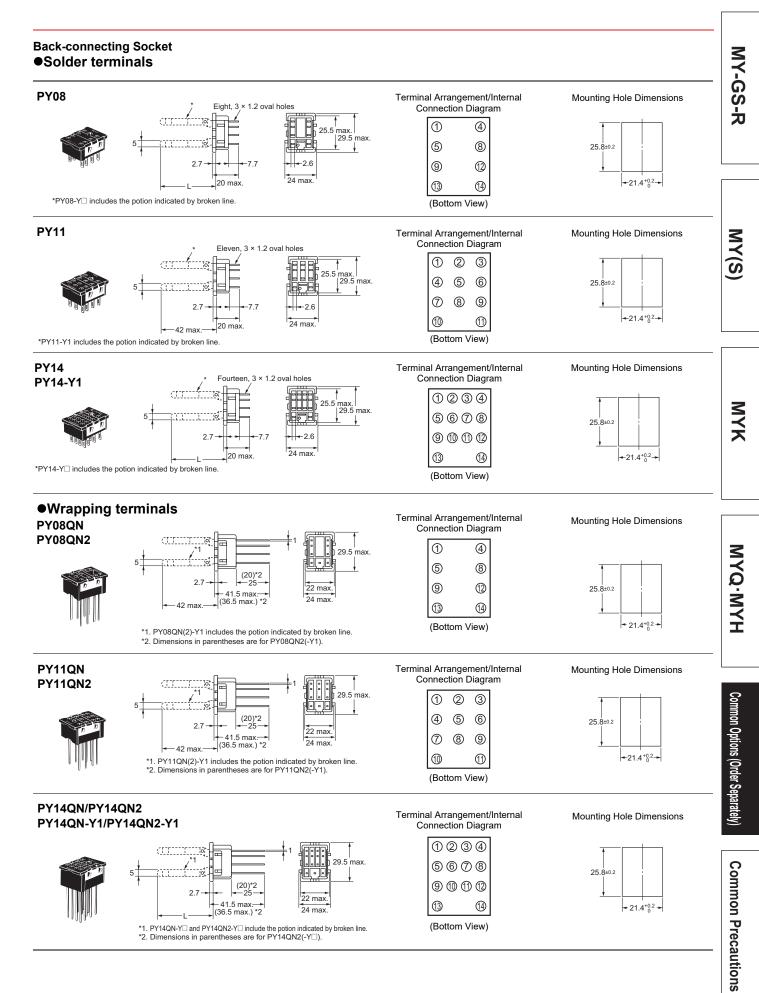


**Common Precautions** 

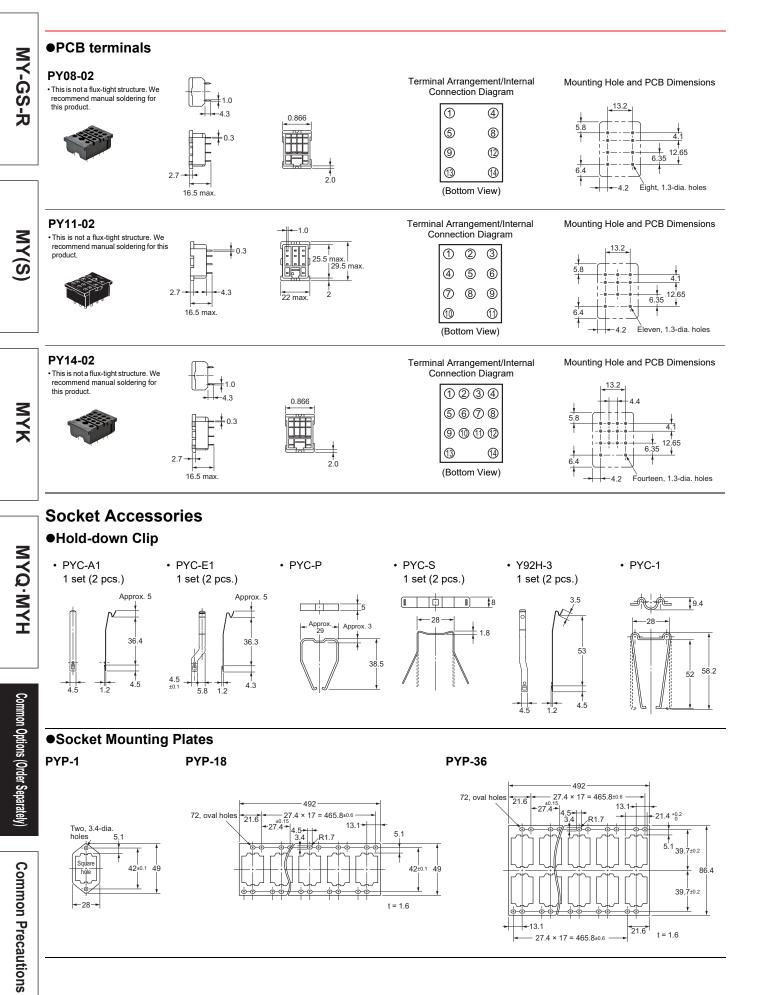


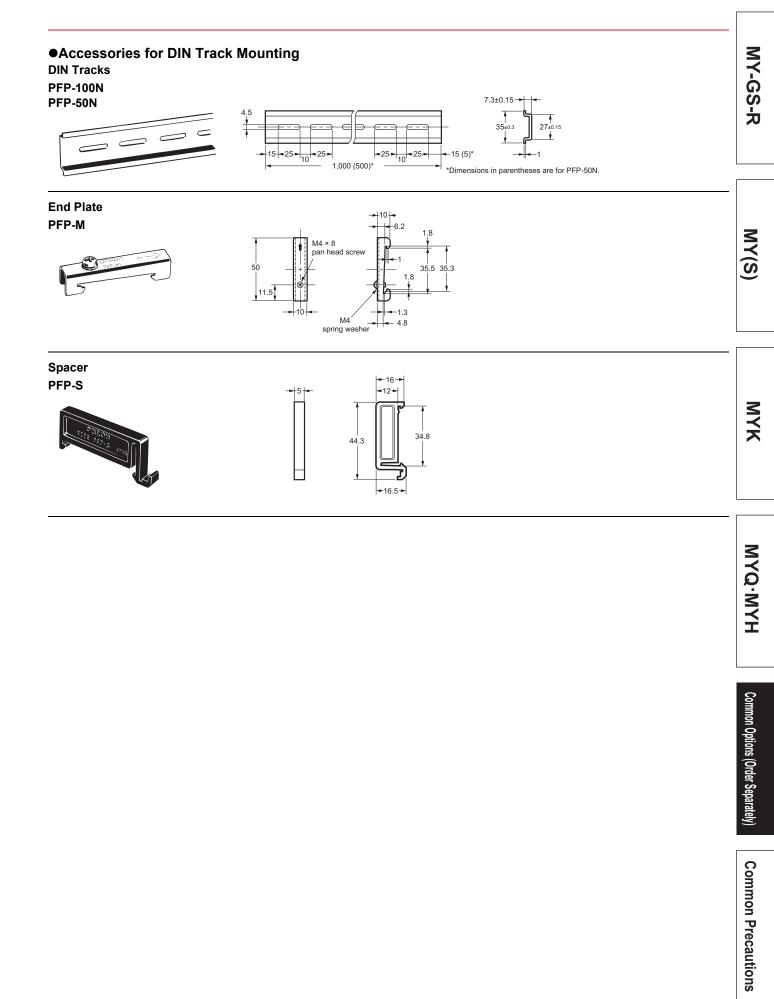


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OMRON





### **Safety Precautions**

### Relays

MY-GS-F

# Be sure to read the *Safety Precautions for All Relays* in the website at the following URL: http://www.ia.omron.com/product/cautions/36/safety\_precautions.html

#### Warning Indications

-		
	Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury, or may result in serious injury or death. Additionally there may be significant property damage.	
	Indicates a potenti10_ally hazardous situation which, if not avoided, may result in minor or moder- ate injury or in property damage.	
Precautions for Correct Use	Supplementary comments on what to do or avoid doing, to prevent failure to operate, malfunction, or undesirable effects on product performance.	
Meaning of Product Safety Symbols		

$\triangle$	<ul> <li>General caution</li> <li>Indicates the possibility of non-specified general cautions, warnings, and danger.</li> </ul>		
	• Electric shock caution Used to warn of the risk of electric shock under specific conditions.		
	<ul> <li>High temperature caution Indicates the possibility of injuries by high temperature under specific conditions.</li> </ul>		
o not touch terminal sections (i.e., current-carrying parts) hile power is being supplied.			

Also, always mount the terminal cover.



Touching current-carrying parts may result in electric shock.

Do not touch the main unit while power is being supplied or immediately after the power supply has been turned OFF. The main unit will be extremely hot and may result in burns.



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

#### Handling

Do

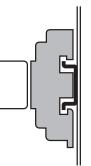
wh

MYQ-MYH

For models with a built-in operation indicator, models with a built-in diode, or high-sensitivity models, check the coil polarity when wiring and wire all connections correctly (DC operation).

#### 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.



• Use two M3 screws to mount the case-surface mounting (MY $\square$ F) and tighten them securely. (Appropriate tightening torque: 0.98 N·m)

#### 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.

#### Attaching and Removing Relay Hold-down Clips

When you attach a Hold-down Clip to or remove it from a Socket, wear gloves or take other measures to prevent injuring your fingers on the Hold-down Clip.

#### Compliance with Electrical Appliances and Material Safety Act

- MY standard models comply with the Electrical Appliances and Material Safety Act.
- Always protect any exposed terminals (including Socket terminals) after wiring with insulation tubes or resin coating on PCBs.

Model	Number of poles	Operating Coil ratings	Contact ratings
MY	1 2 3	6 to 220 VAC 6 to 120 VDC	5 A, 200 VAC
	4*	6 to 110 VAC 6 to 120 VDC	3 A, 115 VAC

\*Under the Electrical Appliances and Material Safety Act, do not use the Type 4 model with a voltage that exceeds 150 VAC. However, this restriction can be ignored if compliance with the Electrical Appliances and Material Safety Act is not required.

#### Miniature Power Relays: MY

#### 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 minimum.

#### About the Built-in Diode and CR Elements

The diode or CR element that are built into the Relay are designed to absorb the reverse voltage from the Relay coil. If a large surge in voltage is applied to the diode or CR element from an external source, the element will be destroyed.

If there is the possibility of large voltage surges that could be applied to the elements from an external source, take any necessary surge absorption measures.

#### **Using Microloads with Infrequent Operation**

If any standard MY-series Relays (e.g., MY4) are used infrequently to switch microloads, the contacts may become unstable and eventually result in failure contact. In this case, we recommend using the MY4Z-CBG Series, which has high contact reliability for microloads.

Common Options (Order Separately

Hermetically Sealed Relays (MYH/MYQ)

pattern with enough space to prevent this problem.

result in short-circuiting or unintended operation.

When a Relay with PCB Terminals is mounted, a short-circuit can occur depending on the design of the PCB pattern because the Relay

Refer to the external dimensions of the Relay and design the PCB

Humid environments can cause insulation problems, which may

Do not use these Relays in any environment where the Relay will

come into contact with water vapor, condensation, or water droplets.

This can reduce the surface tension of the terminal insulating beads

and cause short-circuiting or unintended operation due to insulation

**Relays with PCB Terminals** 

Application Environments

itself is made out of metal.

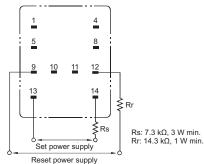
Solution

Solution

problem.

#### •Latching Relays (MYK)

• For applications that use a 200 VAC power supply, connect external resistors Rs and Rr to a 100 VAC Relay.



- Do not apply a voltage to the set and reset coils at the same time. If you apply the rated voltage to both coils simultaneously, the Relay will be set.
- The minimum pulse width in the performance column is the value for the following measurement conditions: an ambient temperature of 23°C with the rated operating voltage applied to the coil. Satisfactory performance may be unattainable due to decreased holding strength caused by changes in circuit conditions and ambient operating temperature, or due to changes caused by product aging.

During actual use, apply a pulse width of the rated operating voltage suitable for the actual load to the coil and reset this at least once per year as a means of dealing with product aging.

 If the Relay is used in an environment with strong magnetic fields, the surrounding magnetic field can demagnetize the magnetic body and cause unintended operation.

Therefore, do not use these Relays in environments with strong magnetic fields.

### **Optional Sockets (Order Separately)**

Be sure to read the *Safety Precautions for All Relays* in the website at the following URL: http://www.ia.omron.com/product/cautions/36/safety\_precautions.html

### **Front-connecting Sockets**

#### •Push-In Plus Terminal Sockets (PYF-08-PU(-L), PYF-14-PU(-L))

Refer to Safety Precautions on the Push-In Plus Terminal Block Socket PYF- -PU/P2RF- -PU Data Sheet (Catalog No. SGFR-218).

#### Screwless Terminal Sockets (PYF08S, PYF14S)

Refer to Safety Precautions on the Screwless Terminal Socket PYF S/P2RF-S Data Sheet (Catalog No. CDRR-011).

#### Screw Terminal Sockets (PYFZ-08(-E), PYF11A, PYFZ-14(-E), PYF-14T)

Be sure to read the Safety Precautions for All Relays, 4-2-1 Panel-mounting Sockets and 4-2-2 Relay Removal Direction of the website at the following URL: http://www.ia.omron.com/product/cautions/36/safety\_precautions.html

• Use the following tightening torque for screws during wiring.

Model	Tightening torque
PYFZ-08 PYFZ-14	0.78 to 1.18 N·m
PYFZ-08-E PYFZ-14-E	0.59 to 0.88 N·m * 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 <sup>2</sup> )	
_	PYFZ-08 PYFZ-14	Stranded wire	0.75 to 2.5 mm <sup>2</sup> AWG 18 to 14
		Solid wire	0.75 to 1.5 mm <sup>2</sup> AWG 18 to 16
	PYFZ-08-E PYFZ-14-E	Stranded wire	0.75 to 2.5 mm <sup>2</sup> AWG 18 to 14
		Solid wire	0.75 to 1.5 mm <sup>2</sup> AWG 18 to 16

#### **Back-connecting Socket**

•Solder Terminal Sockets (PY08(-Y1/-Y3), PY11(-Y1/-Y3))

# Wrapping Terminals Sockets (PY08QN(-Y1/-Y3), PY08QN2(-Y1/-Y3), PY11QN(-Y1), PY11QN2(-Y1)) PCB Terminal Sockets (PY08-02, PY11-02)

Be sure to read the Safety Precautions for All Relays, 4-2-3 Back-connecting Sockets and 4-2-5 Terminal Soldering of the website at the following URL: http://www.ia.omron.com/product/cautions/36/safety precautions.html

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**OMRON Corporation** Industrial Automation Company

Kyoto, JAPAN

Contact : www.ia.omron.com

#### **Regional Headquarters**

**OMRON EUROPE B.V.** Wegalaan 67-69, 2132 JD Hoofddorp The Netherlands Tel: (31) 2356-81-300 Fax: (31) 2356-81-388

**OMRON ASIA PACIFIC PTE. LTD.** 438B Alexandra Road, #08-01/02 Alexandra Technopark, Singapore 119968 Tel: (65) 6835-3011 Fax: (65) 6835-2711 **OMRON ELECTRONICS LLC** 2895 Greenspoint Parkway, Suite 200 Hoffman Estates, IL 60169 U.S.A. Tel: (1) 847-843-7900 Fax: (1) 847-843-7787

OMRON (CHINA) CO., LTD. Room 2211, Bank of China Tower, 200 Yin Cheng Zhong Road, PuDong New Area, Shanghai, 200120, China Tel: (86) 21-5037-2222 Fax: (86) 21-5037-2200 Authorized Distributor:

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