

MY-GS-R

MY-GS-R

MY(S)

MYK

MYQ-MYH

Common Options (Order Separately)

Common Precautions

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)

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



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

	Normal State	Mode 1: Momentary State	Mode 2: Locked State
When seen from the top			
When seen from the side			
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.

MY-GS-R

Ordering Information

Main unit

Standard model without operation indicator

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

Standard model with operation indicator

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

Standard model with operation indicator and latching lever

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

Models with built-in diodes for coil surge absorption with operation indicator

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

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Ratings and Specifications

Ratings

Main unit

Operating Coil

Item	Rated current (mA)		Coil resistance (Ω)	Coil inductance (H)		Must-operate voltage	Must-release voltage	Maximum voltage	Power consumption (VA, W)
	50 Hz	60 Hz		Armature OFF	Armature ON				
Rated voltage	50 Hz	60 Hz		Percentage of rated voltage					
AC	12	106.5	91	46	0.17	0.33	30% min. *2	110%	Approx. 0.9 to 1.3 (at 60 Hz)
	24	53.8	46	180	0.69	1.3			
	48	25.7	21.1	788	3.22	5.66			
	100/110	11.7/12.9	10.0/11.0	3,750	14.54	24.6			
	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			
DC	6	146 (151)		41.0 (39.8)	0.17	0.33	10% min. *2	110%	Approx. 0.9
	12	72.7 (75)		165 (160)	0.73	1.37			
	24	36.3 (37.7)		662 (636)	3.2	5.72			
	48	17.6 (18.8)		2,725 (2,560)	10.6	21.0			
	100/110	8.7 (9.0)/9.6 (9.9)		11,440 (11,100)	45.6	86.2			
	220	3.6		60,394	362.3	452.9			
									Approx. 0.8

- Note:**
- 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.
 - The AC coil resistance and inductance values are reference values only (at 60 Hz).
 - 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.
 - 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		
	Resistive load	Inductive load (cos φ = 0.4, L/R = 7 ms)		Resistive load	Inductive load (cos φ = 0.4, L/R = 7 ms)	
Contact configuration	DPDT			4PDT		
Contact structure	Single					
Contact material	Ag					
Rated load	10 A at 250 VAC 10 A at 30 VDC	5 A at 220 VAC 5 A at 24 VDC	2 A at 220 VAC 2 A at 24 VDC	6 A at 250 VAC 6 A at 30 VDC	3 A at 220 VAC 3 A at 24 VDC	0.8 A at 220 VAC 1.5 A at 24 VDC
Electrical endurance *1	100,000 operations	500,000 operations		30,000 operations	200,000 operations	
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	440 VA 48 W		1,500 VA 180 W	176 VA 36 W	
Minimum load (reference values) *3	1 mA at 5 VDC					

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

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MYK

MYQ-MYH

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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 frequency	Mechanical	18,000 operations/h	
	Rated load	2,400 operations/h	
Insulation resistance *3		1,000 MΩ min.	
Dielectric strength	Between coil and contacts	2,000 VAC at 50/60 Hz for 1 min.	
	Between contacts of different polarity	2,000 VAC at 50/60 Hz for 1 min.	
	Between contacts of the same polarity	1,000 VAC at 50/60 Hz for 1 min.	
Vibration resistance	Destruction	10 to 55 to 10 Hz, Double amplitude: 1.0 mm	
	Malfunction	10 to 55 to 10 Hz, Double amplitude: 1.0 mm	
Shock resistance	Destruction	1,000 m/s ² (approx. 100 G)	
	Malfunction	200 m/s ² (Approx. 20 G)	
Mechanical endurance		50,000,000 operations (switching frequency: 18,000 operations/h)	
Ambient operating temperature		Standard models: -55 to 70°C (with no icing or condensation) Models with LED operation indicators: -40 to 70°C (with no icing or condensation)	
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

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

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

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

VDE-certified Models: EN 61810-1

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

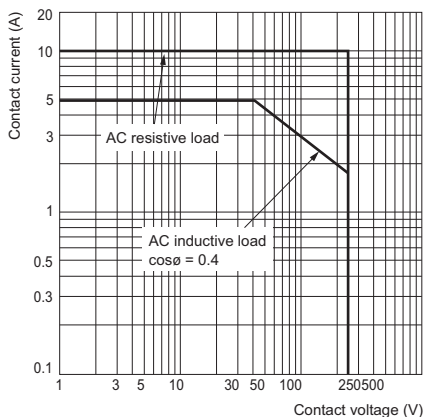
CQC-certified Models

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

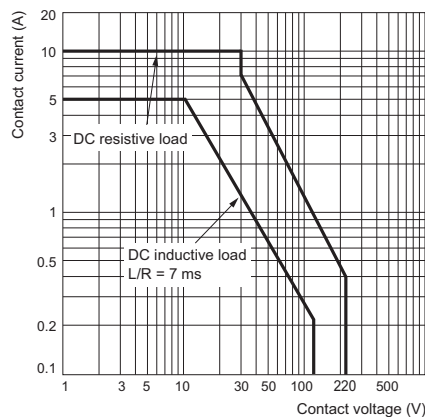
Engineering Data (Reference Value)

Maximum Switching Capacity

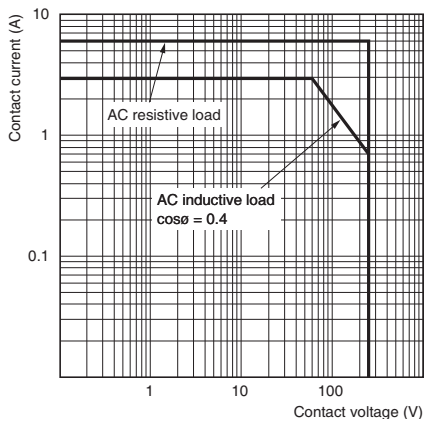
MY2□□-□□-GS-R (AC load)



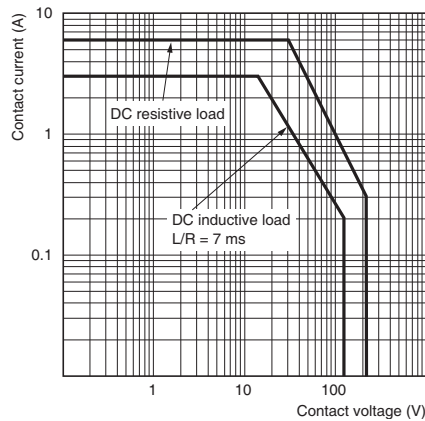
MY2□□-□□-GS-R (DC load)



MY4□□-□□-GS-R (AC load)



MY4□□-□□-GS-R (DC load)



MY-GS-R

MY(S)

MYK

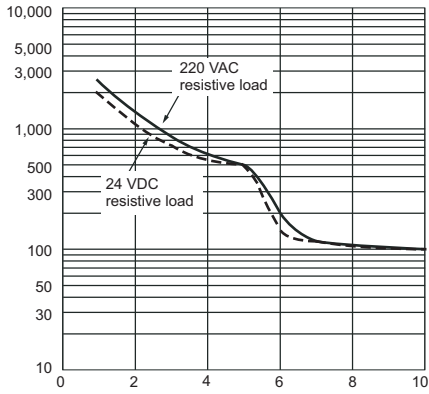
MYQ-MYH

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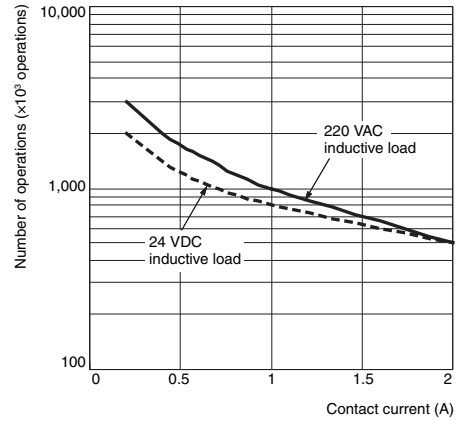
Common Precautions

Endurance Curve

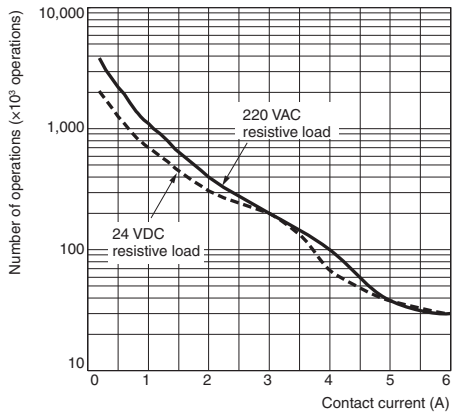
MY2□□-□□-GS-R (Resistive Load)



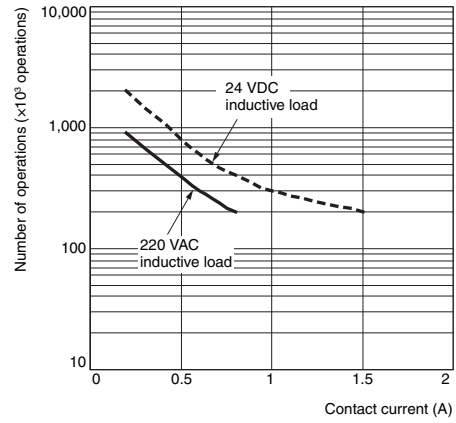
MY2□□-□□-GS-R (Inductive Load)



MY4□□-□□-GS-R (Resistive Load)



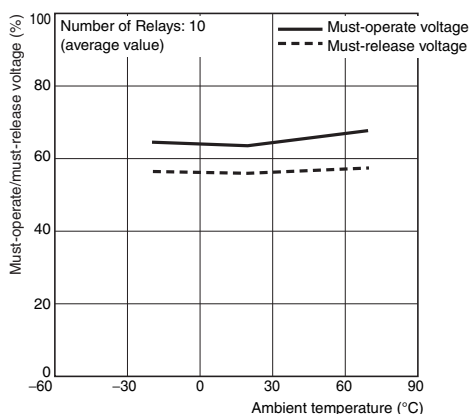
MY4□□-□□-GS-R (Inductive Load)



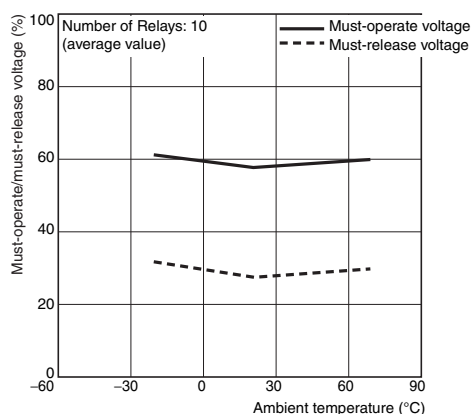
Note: 1. Number of operations: AC load, 50 Hz, 80%
 2. Switching condition: NO or NC

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

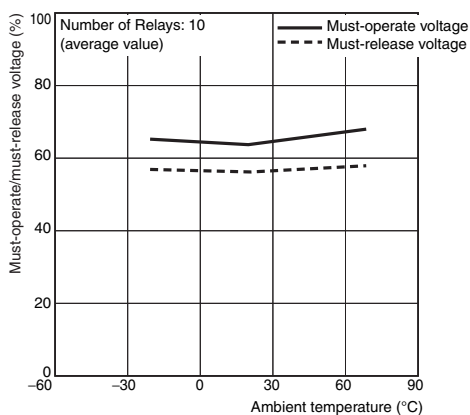
MY2□□-□□-GS-R AC Models



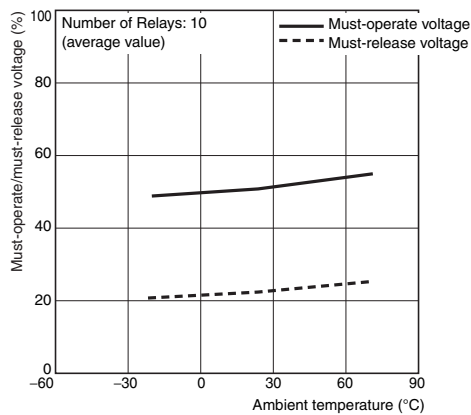
MY2□□-□□-GS-R DC Models



MY4□□-□□-GS-R AC Models

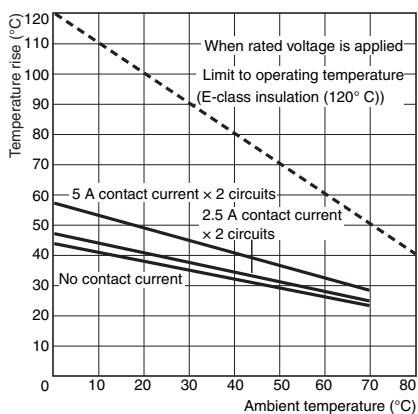


MY4□□-□□-GS-R DC Models

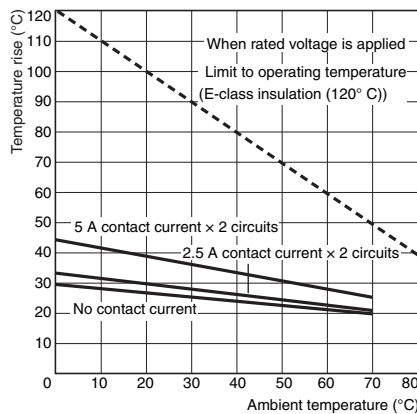


Ambient Temperature vs. Coil Temperature Rise

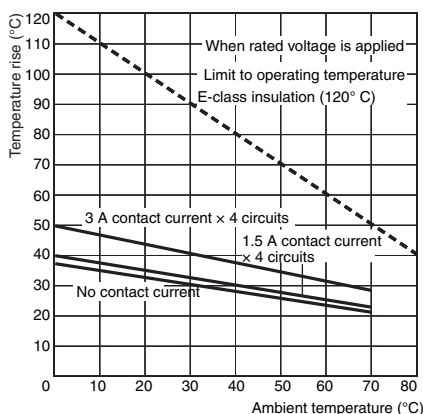
MY2□□-□□-GS-R AC Models, 50 Hz



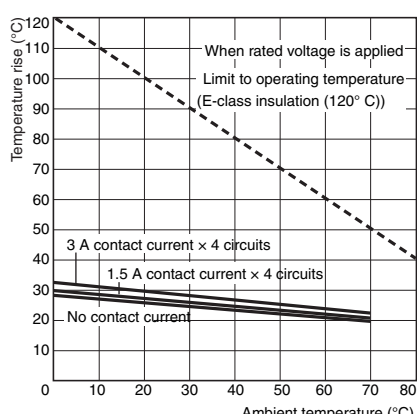
MY2□□-□□-GS-R DC Models



MY4□□-□□-GS-R AC Models, 50 Hz



MY4□□-□□-GS-R DC Models



MY-GS-R

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MYK

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MY-GS-R

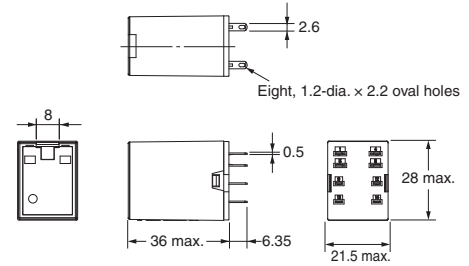
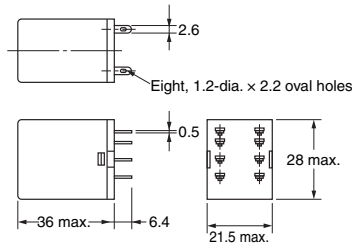
Dimensions

(Unit: mm)

Relays

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

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



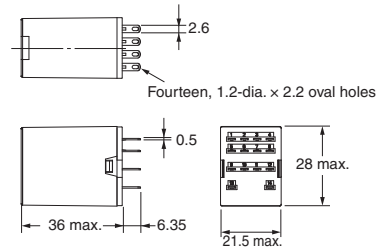
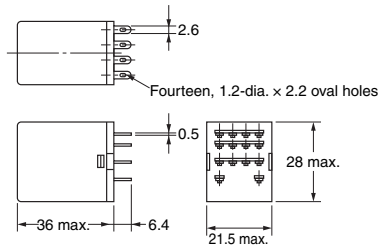
Terminal Arrangement/Internal Connections (Bottom View)

MY2-GS-R	MY2□N-GS-R			MY2□N-D2-GS-R		MY2□N-CR-GS-R
Standard Models	AC Models	DC Models (except 220 VDC)	DC Models (for 220 VDC)	DC Models (except 220 VDC)	DC Models (for 220 VDC)	AC Models
(The coil has no polarity.)	(The coil has no polarity.)	(The coil has no polarity.)	(The coil has no polarity.)	(The coil has polarity.)	(The coil has polarity.)	(The coil has no polarity.)

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

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

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



Terminal Arrangement/Internal Connections (Bottom View)

MY4-GS-R	MY4□N-GS-R			MY4□N-D2-GS-R		MY4□N-CR-GS-R
Standard Models	AC Models	DC Models (except 220 VDC)	DC Models (for 220 VDC)	DC Models (except 220 VDC)	DC Models (for 220 VDC)	DC Models
(The coil has no polarity.)	(The coil has no polarity.)	(The coil has no polarity.)	(The coil has no polarity.)	(The coil has polarity.)	(The coil has polarity.)	(The coil has no polarity.)

- Note:**
1. An AC model has coil disconnection self-diagnosis.
 2. For models with built-in diodes for coil surge absorption, check the coil polarity when wiring and wire all connections correctly.
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