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## Miniature Power Relays MY/MYK/MYQ·MYH

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

- In addition to our standard type (MY), 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 plug-in terminals).
- 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.
- \* 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 53 to 54 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 Miniature Power Relays	From page 3
MYK Miniature Power Latching Relays	From page 24
MYQ/MYH Miniature Power Sealed Relays	From page 29

#### **Common Information**

Common Options (Order Separately)	From page 35
Common Safety Precautions	From page 53

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

			Plug-in terminals	PCB terminals	Case-surface		
			4	With operation indi	cator	. —	mounting
Classification	Number	Contacts			With latching lever	ľ	
Classification	oi poles		143/0	I II (ON)	-	141/0.00	
	2	Single	MY2	MY2N	MY2IN(S)	MY2-02	MY2F
Standard models		Bifurcated	MY2Z	MY2ZN			
(compliant with	3	Single	MY3	MY3N		MY3-02	MY3F
Electrical Appliances and Material Safety Act)		Single	MY4	MY4N	MY4IN(S)	MY4-02	MY4F
and Material Salety Act)	4	Bifurcated	MY4Z	MY4ZN	MY4ZIN(S)	MY4Z-02	MY4ZF
		Crossbar bifurcated	MY4Z-CBG	MY4ZN-CBG			
Models with built-in	2	Single	MY2-D	MY2N-D2	MY2IN-D2(S)		
diode for coil surge	2	Bifurcated	MY2Z-D	MY2ZN-D2			
absorption (compliant with	3	Single	MY3-D	MY3N-D2			
Electrical Appliances	4	Single	MY4-D	MY4N-D2	MY4IN-D2(S)		
and Material Safety Act)	4	Bifurcated	MY4Z-D	MY4ZN-D2	MY4ZIN-D2(S)		
Models with built-in CR	2	Single	MY2-CR	MY2N-CR			
circuit for coil surge absorption	2	Bifurcated	MY2Z-CR	MY2ZN-CR			
(compliant with Electrical Appliances		Single	MY4-CR	MY4N-CR	MY4IN-CR(S)		
and Material Safety Act)	4	Bifurcated	MY4Z-CR	MY4ZN-CR	MY4ZIN-CR(S)		

Note: 1. The models in this table are UL/CSA certified. This is indicated with a certification mark on the products. (Except crossbar bifurcated models MY4Z-CBG

#### Miniature Power Latching Relays (MYK)

			Plug-in terminals		PCB terminals
Classification	Number of poles	Contacts		With operation indicator	T
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	F
Disatio Coaled Dalays	4	Single	MYQ4	MYQ4N	MYQ4-02
Plastic Sealed Relays	4	Bifurcated	MYQ4Z		MYQ4Z-02
Hermetically Sealed	4	Single	МҮ4Н		MY4H-0
Relays	4	Bifurcated	MY4ZH		MY4ZH-0

Refer to Front-connecting Sockets and Back-connecting Sockets in Common Options (Order Separately) on pages 35 and 36 for main unit and socket combinations.

and MY4Z-CBG)
The standard models with plug-in terminals, models with built-in diodes for coil surge absorption, and models with built-in CR circuits for coil surge absorption were used in combination with the PYF□A-E, PYF□-S and PYF-□-PU for the EC Declaration of Conformity. These products display the CE Marking.

## **Miniature Power Relays**

#### 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 53 to 54 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

**Example: MY4** 

• Distinguished using color-coded coil tape\*

**Example: MY2** 

- \* Voltage is printed on white tape in the case of the Standard 3-pole model (MY3).

• Distinguished using color-coded operation indicators (LED)



Operation indicator (LED)

Red = AC voltage





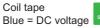
Operation indicator (LED) Green = DC voltage







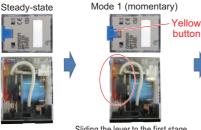






#### 2. Latching levers convenient for circuit checking and MY(S) models equipped with mechanical operation indicators and operation indicators for monitoring operation status are available.

• Latching lever operating procedure

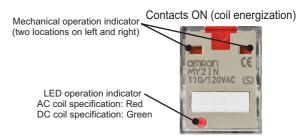


Sliding the lever to the first stage and pressing the yellow button using an insulated flat-blade screwdriver, etc., will operate the contacts



second stage will lock the contacts in the operating

· Mechanical operation indicator/LED operation indicator



AC coil specification (LED: Red)

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

Contact relial	oility	Corrosion re	sistance	
	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	olligic contacts	Low	Ag alloy	MY2

#### **Model Number Structure**

#### **Model Number Legend**

#### ●Plug-in Terminals

#### Standard models

M Y (Example: MY4ZIN(S))

#### (1) Number of poles

2: 2-pole3: 3-pole4: 4-pole

#### (2) Contacts

None: Single Z: Bifurcated

(3) Options
None: None

N: With operation indicator

Z-CBG: Crossbar bifurcated IN(S): With operation indicator/latching lever

#### Models with built-in diode for coil surge absorption



#### (1) Number of poles/contacts (2)

2: 2-pole, single contacts2Z: 2-pole, bifurcated contacts3: 3-pole, single contacts

4: 4-pole, single contacts

4Z: 4-pole, bifurcated contacts

#### (2) Options

None: Models with built-in diode for coil surge absorption

N-D2: Built-in diode for coil surge absorption, with operation indicator

IN-D2(S): Built-in diode for coil surge absorption, with operation indicator/latching lever

#### Models with built-in CR circuit for coil surge absorption

M	Υ			(Example: MY4ZIN-CR(S))
		(1)	(2)	

(2) Options

N-CR:

#### (1) Number of poles/contacts

2: 2-pole, single contacts4: 4-pole, single contacts

4: 4-pole, single contacts
4Z: 4-pole, bifurcated contacts

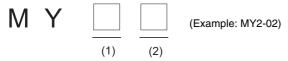
None: Models with built-in CR circuit for coil surge absorption

Built-in CR circuit for coil surge absorption, with operation indicator

IN-CR(S): Built-in CR circuit for coil surge absorption, with operation indicator/latching lever\*

\*4-pole: Single/bifurcated contacts only

#### PCB terminals/case surface mounted



#### (1) Number of poles/contacts (2) Terminals

2: 2-pole, single contacts
3: 3-pole, single contacts

3: 3-pole, single contacts4: 4-pole, single contacts

4Z: 4-pole, bifurcated contacts

-02: PCB terminals

F: Case-surface mounting

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

#### ●Plug-in Terminals

#### Without operation indicator

Classification	Number of poles	Contacts	Model	Rated voltage
		Single	MY2	12, 24, 100/110, 110/120, 200/220, 220/240 VAC
	2	Single	IVI Y Z	12, 24, 48, 100/110 VDC
	_	Bifurcated	MY2Z	12, 24, 100/110, 110/120, 200/220, 220/240 VAC
		Bilurcateu	IVI Y ZZ	12, 24, 48, 100/110 VDC
Standard models	3	Cinalo	MY3	12, 24, 100/110, 110/120, 200/220, 220/240 VAC
(compliant with	3	Single	IVITS	12, 24, 48, 100/110 VDC
Electrical Appliances		Single	MY4	12, 24, 100/110, 110/120, 200/220, 220/240 VAC
and Material Safety Act)		Siligle	IVI Y 4	12, 24, 48, 100/110 VDC
		Bifurcated	MY4Z	100/110, 110/120, 200/220, 220/240 VAC
	4			12, 24, 48, 100/110 VDC
	İ	Crossbar	Crossbar MY4Z-CBG	100/110, 110/120, 200/220 VAC
		bifurcated	WY4Z-CBG	12, 24, 48, 100/110 VDC
	•	Single	MY2-D	12, 24, 48, 100/110 VDC
Models with built-in	2	Bifurcated	MY2Z-D	12, 24, 100/110 VDC
diode for coil surge absorption	3	Single	MY3-D	12, 24, 100/110 VDC
(DC coil specification only)	4	Single	MY4-D	12, 24, 48, 100/110 VDC
` '	4	Bifurcated	MY4Z-D	12, 24, 48, 100/110 VDC
Models with built-in CR		Single	MY2-CR	100/110, 110/120, 200/220, 220/240 VAC
circuit for coil surge	2	Bifurcated	MY2Z-CR	100/110, 200/220 VAC,
absorption		Single	MY4-CR	100/110, 110/120, 200/220, 220/240 VAC
(AC coil specification only)	4	Bifurcated	MY4Z-CR	100/110, 110/120, 200/220, 220/240 VAC

#### With operation indicator

Classification	Number of poles	Contacts	Model	Rated voltage
		Cinala	MY2N	12, 24, 100/110, 110/120, 200/220, 220/240 VAC
	2	Single	IVI Y Z IN	12, 24, 48, 100/110 VDC
	_	Bifurcated	MY2ZN	12, 24, 100/110, 110/120, 200/220, 220/240 VAC
		Biluicateu	IVI I ZZIV	12, 24, 48, 100/110 VDC
Standard models	3	Single	MY3N	12, 24, 100/110, 110/120, 200/220, 220/240 VAC
(compliant with	3	Siligle	WITSIN	12, 24, 48, 100/110 VDC
Electrical Appliances		Single	MY4N	12, 24, 100/110, 110/120, 200/220, 220/240 VAC
and Material Safety Act)	4	Siligle	IVI Y 4IV	12, 24, 48, 100/110 VDC
		Bifurcated	MY4ZN	24, 100/110, 110/120, 200/220, 220/240 VAC
				12, 24, 48, 100/110 VDC
		Crossbar	MY4ZN-CBG	100/110, 200/220 VAC
		bifurcated		24 VDC
	2	Single	MY2N-D2	12, 24, 48, 100/110 VDC
Models with built-in	2	Bifurcated	MY2ZN-D2	12, 24, 100/110 VDC
diode for coil surge absorption	3	Single	MY3N-D2	12, 24, 100/110 VDC
(DC coil specification only)	4	Single	MY4N-D2	12, 24, 48, 100/110 VDC
	-	Bifurcated	MY4ZN-D2	12, 24, 48, 100/110 VDC
Models with built-in CR circuit for coil surge absorption	2	Single	MY2N-CR	100/110, 110/120, 200/220, 220/240 VAC
	4	Single	MY4N-CR	100/110, 110/120, 200/220, 220/240 VAC
(AC coil specification only)	4	Bifurcated	MY4ZN-CR	100/110, 110/120, 200/220, 220/240 VAC

#### With operation indicator/latching lever

Classification	Number of poles	( 'Ontacte	Model	Rated voltage
	2	Single	MY2IN(S)	100/110, 200/220 VAC
Standard models		Siligle	WITZIN(3)	12, 24, 48 VDC
(compliant with		Cinala	MY4IN(S)	100/110, 200/220 VAC
Electrical Appliances	4	Single	WITAIN(5)	12, 24, 48 VDC
and Material Safety Act)	4	Bifurcated	MY4ZIN(S)	100/110, 200/220 VAC
				12, 24, 48 VDC
Models with built-in	2	Single	MY2IN-D2(S)	12, 24, 48 VDC
diode for coil surge absorption		Single	MY4IN-D2(S)	12, 24, 48 VDC
(DC coil specification only)	4	Bifurcated	MY4ZIN-D2(S)	12, 24, 48 VDC
Models with built-in CR circuit for coil surge absorption (AC coil specification only)	4	Single	MY4IN-CR(S)	100/110, 200/220 VAC
	4	Bifurcated	MY4ZIN-CR(S)	100/110, 200/220 VAC

#### ●PCB terminals

Classification	Number of poles		Model	Rated voltage
	2	Single	MY2-02	12, 24, 100/110, 110/120, 200/220, 220/240 VAC
		Siligle	W 1 2-02	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	3			12, 24, 48, 100/110 VDC
Electrical Appliances		Single	MY4-02	12, 24, 100/110, 110/120, 200/220, 220/240 VAC
and Material Safety Act)	4	Siligle		12, 24, 48, 100/110 VDC
		Bifurcated	MY4Z-02	100/110, 110/120, 200/220 VAC
			IVI T 42-U2	12, 24, 48, 100/110 VDC

#### ●Case-surface mounting

Classification	Number of poles		Model	Rated voltage
	2	Single	MY2F	24, 100/110, 110/120, 200/220, 220/240 VAC
		Siligle	IVIYZF	12, 24, 48, 100/110 VDC
Standard models 3 (compliant with	2	Single	МҮ3F	24, 100/110, 200/220 VAC
	3			24, 100/110 VDC
Electrical Appliances and Material Safety Act)	4	Single	MY4F	24, 100/110, 110/120, 200/220 VAC
апо мацена завету Асту				12, 24, 48, 100/110 VDC
		Bifurcated	MV47E	200/220 VAC
			MY4ZF	12, 24 VDC

#### **Ratings and Specifications**

#### **Ratings Operating Coils**

Terminal Type	Classification	Number of poles	Contacts	Without operation indicator	With operation indicator
		2	Single	MY2	MY2N
	Standard models	4	Single	MY4	MY4N
		4	Bifurcated	MY4Z	MY4ZN
	Models with built-in diode for	2	Single	MY2-D	MY2N-D2
Plug-in terminals	coil surge absorption	_	Single	MY4-D	MY4N-D2
	(DC coil specification only)	4	Bifurcated	MY4Z-D	MY4ZN-D2
	Models with built-in CR circuit	2	Single	MY2-CR	MY2N-CR
	for coil surge absorption	4	Single	MY4-CR	MY4N-CR
	(AC coil specification only)	4	Bifurcated	MY4Z-CR	MY4ZN-CR

	Item	Rated cur	rent (mA)	Coil resistance	Coil indu	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)
	12	106.5	91	46	0.17	0.33				
	24	53.8	46	180	0.69	1.3			110% of rated voltage	
AC	100/110	11.7/12.9	10/11	3,750	14.54	24.6		30% min.*2		Approx. 0.9 to 1.3 (at 60 Hz)
	110/120	9.9/10.8	8.4/9.2	4,430	19.2	32.1		30% min. 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	80% max. 1			
	12	72	2.7	165	0.73	1.37		10% min.*2		
DC	24	36	5.3	662	3.2	5.72				Approx. 0.9
DC	48	17	<b>'</b> .6	2,725	10.6	21.0				
	100/110	8.7	9.6	11,440	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
  - 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 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 (at a coil temperature of  $23^{\circ}C$ ).
- \*2. There is variation between products, but actual values are 10% minimum for DC. To ensure release, use a value that is lower than the specified value.

Terminal Type	Classification	Number of poles	Contacts	Without operation indicator	With operation indicator
	Standard models	2	Bifurcated	MY2Z	MY2ZN
Plug-in terminals	Models with built-in diode for coil surge absorption (DC coil specification only)	2	Bifurcated	MY2Z-D	MY2ZN-D2

	Item	Rated cui	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)	ate release voltage (V)  30% min.*2  110% of rated voltage	consumption (VA, W)	
	12	106.5	91	46	0.17	0.33				
	24	53.8	46	180	0.69	1.3				
AC	100/110	11.7/12.9	10/11	3,750	14.54	24.6		20% min *0	6 min.*2	Approx. 0.9 to 1.3
AC	110/120	9.9/10.8	8.4/9.2	4,430	19.2	32.1		30% 11111. 2		(at 60 Hz)
	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	60% IIIax. I			
	12	7	5	160	0.73	1.37				
DC	24	36	5.9	650	3.2	5.72		109/ min *0		Approx. 0.9
DC	48	18	3.5	2,600	10.6	21.0		10% 111111. 2		Арргох. 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
  - 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
  - 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 10% minimum for DC. To ensure release, use a value that is lower than the specified value.

Terminal Type	Classification	Number of poles	Contacts	With latching lever
		2	Single	MY2IN(S)
	Standard models	4	Single	MY4IN(S)
		4	Bifurcated	MY4ZIN(S)
	Models with built-in diode for	2	Single	MY2IN-D2(S)
Plug-in terminals	coil surge absorption	4	Single	MY4IN-D2(S)
	(DC coil specification only)	4	Bifurcated	MY4ZIN-D2(S)
	Models with built-in CR circuit	2	Single	MY4IN-CR(S)
	for coil surge absorption (AC coil specification only)	4	Bifurcated	MY4ZIN-CR(S)

	Item	Rated cur	rent (mA)	Coil resistance	Coil indu	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)
	100/110	11.7/12.9	10/11	3,750	14.54	24.6				Approx. 0.9
AC	200/220	6.2/6.8	5.3/5.8	12,950	30% min.*2	to 1.3 (at 60 Hz)				
	12	7	5	160	0.73	1.37	80% max.*1		rated	
DC	24	37	37.7 636 3.2 5.72 10% min.*2 voltage	Approx. 0.9						
	48	18	3.8	2,560	10.6	21				

- 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 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  $^{\circ}\text{C}$
- \*1. 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 10% minimum for DC. To ensure release, use a value that is lower than the specified value.

Terminal Type	Classification	Number of poles	Contacts	Without operation indicator	With operation indicator
		3	Single	MY3	MY3N
Plug-in terminals	Standard models	4	Crossbar bifurcated	MY4Z-CBG	MY4ZN-CBG
		2	Single	MY2-02	_
PCB terminals	Standard models	3	Single	MY3-02	_
PCB terminais	Standard models	4	Single	MY4-02	_
		4	Bifurcated	MY4Z-02	_
		2	Single	MY2F	_
Case-surface	Standard models	3	Single	MY3F	_
mounting	Standard models	4	Single	MY4F	_
		4	Bifurcated	MY4ZF	_

	Item	Rated cur	rent (mA)	Coil resistance	Coil indu	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)
	12	106.5	91	46	0.17	0.33				
	24	53.8	46	180	0.69	1.3			110% of rated voltage	
AC	100/110	11.7/12.9	10/11	3,750	14.54	24.6		30% min.*2		Approx. 0.9 to 1.3 (at 60 Hz)
AC	110/120	9.9/10.8	8.4/9.2	4,430	19.2	32.1		30% min. 2		
	200/220	6.2/6.8	5.3/5.8	12,950	54.75	94.07	000/ may *1			
	220/240	4.8/5.3	4.2/4.6	18,790	83.5	136.4	80% max.*1			
	12	7	5	160	0.73	1.37				
<b>DO</b>	24	36	5.9	650	3.2	5.72		100/ *0		A 0 0
DC	48	18	3.5	2,600	10.6	21.0	1	10% min.*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.
  - 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.

  - 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	(DPDT)			3-pole	(3PDT)
Contact structure	Sin	igle	With latchi	ng lever (S)	Bifurcated		Single	
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)	Resistive load	Inductive load (cos φ = 0.4, L/R = 7 ms)
Rated load	5 A at 220 VAC 5 A at 24 VDC	2 A at 220 VAC 2 A at 24 VDC	5 A at 250 VAC 2 A at 250 VAC 5 A at 30 VDC 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	5 A (10 A*2)				5 A		5 A	
Maximum switching voltage	250 VAC, 125 VI	DC .					250 VAC, 125 VDC	
Maximum switching current	5 A		10 A		5 A		5 A	
Maximum switching power	-,			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	ngle			Rifu	cated				bifurcated
	0	g.c	With latchi	ing lever (S)		outou	With latching lever (S)		(C	BG)
Load	Resistive load $(\cos \varphi = 0.4, L/R = 7 \text{ ms})$		Resistive load	Inductive load ( $\cos \phi = 0.4$ , L/R = 7 ms)	Resistive load ( $\cos \varphi = 0.4$ , L/R = 7 ms)		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 220 VAC 3 A at 24 VDC	0.8 A at 220 VAC 1.5 A at 24 VDC	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 220 VAC 3 A at 24 VDC	0.8 A at 220 VAC 1.5 A at 24 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	3 A (5 A*2)				3 A (5 A*2)			1 A		
Maximum switching voltage	250 VAC, 12	5 VDC								
Maximum switching current	3 A	A							1 A	
Maximum switching power	660 VA 72 W 176 VA 1,250 VA 200 VA 45 W				660 VA 72 W	176 VA 36 W	1,250 VA 150 W	200 VA 45 W	220 VA 24 W	66 VA 12 W
Contact material	Au cladding	+ Ag alloy	•		•		•		Au cladding	+ AgPd

<sup>\*1.</sup> If you use a Socket, do not exceed the rated carry current of the Socket.
\*2. Values shown in parentheses are for the MY□(S) model with latching lever.

#### **Characteristics**

	of poles	2-pole	(DPDT)	3-pole (3PDT)		4-pole (4PDT)								
	Contact structure	Single	Bifurcated	Single	Single	Bifurcated	Crossbar bifurcated (CBG)							
Contact resistance	ce*1 *2	50 m $Ω$ max.					100 mΩ max.							
Operate	time*3	20 ms max.												
Release	time*3	20 ms max.												
switching	Mechanical	18,000 operations/h												
frequency	Rated load	1,800 operations/h												
Insulatio resistant		100 MΩ min.												
	Between coil and contacts													
Dielectric strength	Between contacts of different polarity	2,000 VAC, 50/60 Hz fo	,000 VAC, 50/60 Hz for 1 min											
	Between contacts of the same polarity	1,000 VAC at 50/60 Hz		700 VAC at 50/60 Hz for 1 min										
Vibration	Destruction	10 to 55 to 10 Hz, 0.5-r	nm single amplitude (1.0	0-mm double amplitude)										
resistance	Malfunction	10 to 55 to 10 Hz, 0.5-r	nm single amplitude (1.0	0-mm double amplitude)										
Shock	Destruction	1,000 m/s <sup>2</sup>												
resistance	Malfunction	200 m/s <sup>2</sup>												
Endurance	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 ra		1 mA at 5 VDC	100 μA at 1 VDC	1 mA at 5 VDC	A at 5 VDC 1 mA at 1 VDC 100 μA at 1 VDC 100 μA at 1									
Weight		Approx. 35 g	Approx. 35 g	Approx. 35 g	Approx. 35 g	Approx. 35 g	Approx. 35 g							

Note: The data shown above are initial values.

- Models with latching lever are 100 mΩ maximum.
   Measurement conditions: 1 A at 5 VDC using the voltage drop method.
   Measurement conditions: With rated operating power applied, not including contact bounce.
   Measurement 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.

Classification			Standard models				in diode for coil sur CR circuit for coil su	
Contacts		Single/bifurcated	i	Crossbar/bif	urcated (CBG)		Single/bifurcated	d
	Without	With operation	indicator	Without	With operation	Without	With operation indicator	
Features	operation indicator		With latching lever	operation indicator	indicator	operation indicator		With latching lever
Ambient operating temperature*1	–55 to 70°C	−55 to 60°C*2	-55 to 70°C	–25 to 70°C	–25 to 60°C	-55 to 60°C*2	-55 to 60°C*2	–55 to 70°C
Ambient operating humidity	5% to 85%					5% to 85%		

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

#### **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
MY2 MY2N MY2IN(S) MY2N-D2 MY2-D2 MY2IN-D2(S) MY2-CR MY2N-CR	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 MY2ZN MY2-02 MY2F MY2Z-D MY2Z-D2	MY2ZN 6 to 125 VDC MY2-02 MY2F MY2Z-D		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			
MY2Z-CR MY2ZN-CR						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 MY3-D MY3N-D2 MY3-02	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
MY3F						1/6 HP, 250 VAC	1,000
MY4 MY4N MY4IN(S) MY4-D MY4N-D2 MY4IN-D2(S) MY4Z MY4ZIN(S) MY4Z-D MY4Z-D2 MY4ZIN-D2(S) MY4Z-CR MY4Z-CR MY4ZN-CR MY4ZIN-CR(S)	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
MY4-02 MY4F MY4Z-02						1/6 HP, 250 VAC (Same polarity) 1/10 HP, 120 VAC (Same polarity)	1,000
MY4ZF						B300 Pilot Duty (Same polarity)	6,000

#### ●CSA certification (File No. LR31928)

Model	Standard number	Class number	Operating Coil ratings	No. of poles	Contact ratings	Certified number of operations
MY2 MY2N MY2IN(S) MY2N-D2 MY2-D2 MY2IN-D2(S)	C22.2 NO.0, No.14		6 to 240 VAC 6 to 125 VDC	2	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
MY2-CR MY2N-CR					1/6 HP, 250 VAC (Same polarity) 1/10 HP, 120 VAC (Same polarity)	1,000
MY2Z MY2ZN MY2-02 MY2F MY2Z-D MY2Z-D2	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
MY2Z-CR MY2ZN-CR					1/6 HP, 250 VAC 1/10 HP, 120 VAC	1,000
MY3 MY3N MY3-D 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, 24 VDC (Resistive)	6,000
MY3F					1/6 HP, 250 VAC	1,000
MY4 MY4N MY4N(S) MY4-D MY4N-D2 MY4N-D2(S) MY4-CR MY4IN-CR(S) MY4Z MY4ZN MY4ZN MY4ZIN(S) MY4Z-D MY4ZN-D2 MY4ZN-D2(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
MY4Z-C MY4ZN-CR					1/6 HP, 250 VAC (Same polarity) 1/10 HP, 120 VAC (Same polarity)	1,000
MY4ZIN-CR(S)					B300 Pilot Duty (Same polarity)	6,000
MY4-02 MY4F MY4Z-02 MY4ZF	C22.2 NO.0, No.14	14 3211 07 6 to 240 VAC 6 to 125 VDC 4		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

#### ●TÜV Rheinland certification (Certification No. R50030059)

Model	Operating Coil ratings	Contact ratings	Certified number of operations
MY2Z MY2ZN MY2-02 MY2F MY2Z-D MY2Z-D2 MY2Z-CR MY2Z-CR	6 to 125 VDC, 6 to 240 VAC	5 A, 250 VAC (cos φ = 1.0)	100,000
MY3 MY3N MY3-D MY3N-D2 MY3-02 MY3F		5 A, 250 VAC (cos $\phi$ = 1.0) 0.8 A, 250 VAC (cos $\phi$ = 0.4)	
MY4-02 MY4F MY4Z-02 MY4ZF		3 A, 120 VAC ( $\cos \phi = 1.0$ ) 0.8 A, 250 VAC ( $\cos \phi = 0.4$ )	

## ●CE Marking

Model	EMC Directive	Low Voltage Directive	Machinery Directive	Safety Category
MY2 MY2N MY2IN(S) MY2Z MY2ZN MY2-D MY2N-D2 MY2IN-D2(S) MY2-CR MY2N-CR MY2Z-CR MY2Z-CR MY2Z-CR MY2ZN-CR MY2ZN-CR MY2ZN-D2 MY2ZN-D2	Not applicable	Applicable	Not applicable	1
MY3 MY3N MY3-D MY3N-D2 MY3F				
MY4N MY4IN(S) MY4Z MY4ZN MY4ZIN(S) MY4-D MY4H-D2 MY4IN-D2(S)				
MY4Z-D MY4ZN-D2 MY4ZIN-D2(S) MY4-CR MY4N-CR MY4Z-CR MY4ZN-CR MY4ZN-CR MY4ZN-CR MY4ZN-CR				

## ●LR certification (Lloyd's Register)

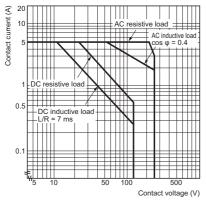
Model	File No.	Environmental Category	Operating Coil ratings	Contact ratings	Certified number of operations
MY2 MY2N MY2IN(S) MY2-D MY2N-D2 MY2IN-D2(S) MY2-CR MY2N-CR	File No.98/10014	ENV2,3	6 to 240 VAC 6 to 125 VDC	10 A, 250 VAC (Resistive) 2 A, 250 VAC (PF0.4) 10 A, 30 VDC (Resistive) 2 A, 30 VDC (L/R = 7 ms)	MY2: 50,000
MY2Z MY2ZN MY2Z-D 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 MY4N MY4IN(S) MY4-D MY4N-D2 MY4IN-D2(S) MY4-CR MY4IN-CR(S) MY4Z MY4ZN MY4ZIN(S) MY4Z-D MY4ZIN-D2 MY4ZIN-D2(S) MY4Z-CR MY4ZIN-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

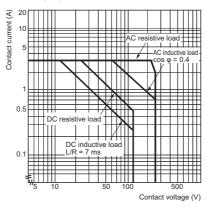
Model	Standard number	Certification No.	Operating Coil ratings	Contact ratings	Certified number of operations
MY2 MY2N MY2IN(S) MY2-D MY2N-D2 MY2IN-D2(S)	EN 61810-1	112467UG	6, 12, 24, 48/50, 100/110, 110/120, 200/220, 220/240 VAC	10A, 250 VAC ( $\cos \varphi = 1$ ) 10A, 30 VDC (L/R = 0 ms)	MY2: 100,000 MY4: 100,000 MY4Z: 50,000 (AC)
MY2-CR MY2N-CR			6, 12, 24, 48, 100/110, 125 VDC		
MY4 MY4N MY4IN(S) MY4ZN MY4ZIN(S) MY4-D MY4ZN-D2 MY4IN-D2(S) MY4Z-D MY4Z-D2 MY4Z-D2 MY4Z-D2 MY4Z-D2 MY4Z-D2 MY4Z-D2 MY4-CR MY4N-CR MY4N-CR MY4N-CR MY4N-CR MY4IN-CR(S) MY4Z-CR			6, 12, 24, 48/50, 100/110, 110/120, 200/220, 220/240 VAC 6, 12, 24, 48, 100/110, 125 VDC	5 A, 250 VAC (cos φ = 1) 5 A, 30 VDC (L/R = 0 ms)	

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

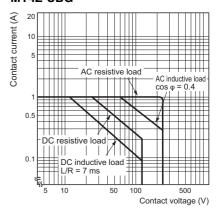
#### Maximum Switching Capacity Plug-in terminals MY2 and MY3



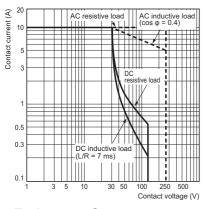
#### MY4 and MY4Z



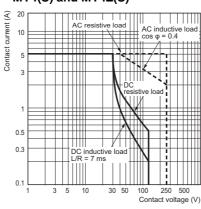
#### **MY4Z-CBG**



## Plug-in Terminals, with latching lever MY2(S)

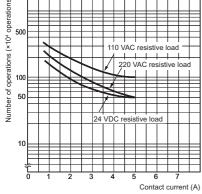


#### MY4(S) and MY4Z(S)

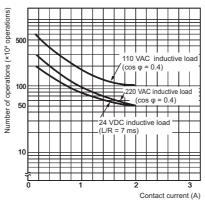


#### Endurance Curve Plug-in terminals

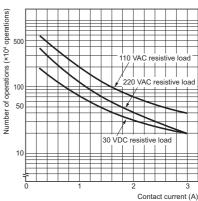




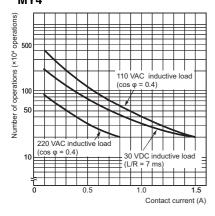
MY2 and MY3



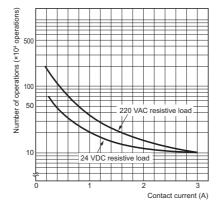
MY4



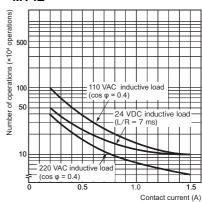
MY4



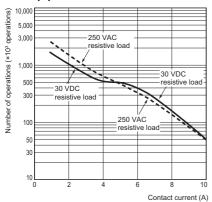
MY4Z



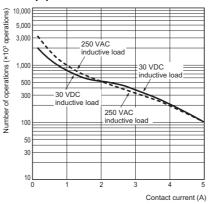
MY4Z



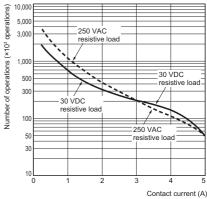
#### Plug-in Terminals, with latching lever MY2(S)

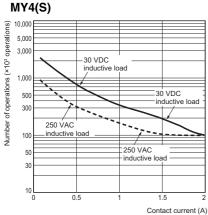


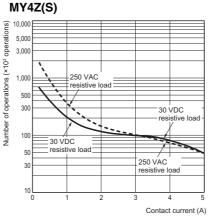
#### MY2(S)



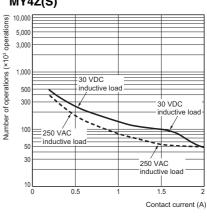
MY4(S)





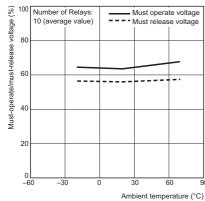


MY4Z(S)

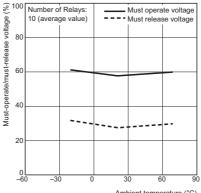


#### ● Ambient Temperature vs. Must-operate and Must-release Voltage

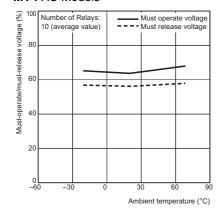
#### MY2 AC Models



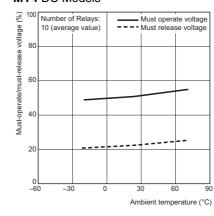
MY2 DC Models



MY4 AC Models



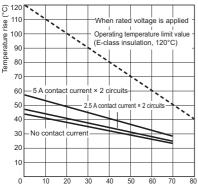
MY4 DC Models



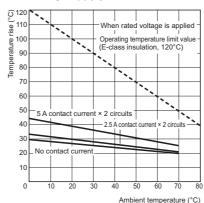
Ambient temperature (°C)

#### ● Ambient Temperature vs. Coil Temperature Rise

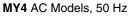
#### MY2 AC Models, 50 Hz

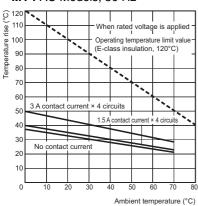


#### MY2 DC Models

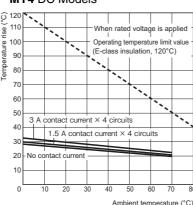


#### Ambient temperature (°C)

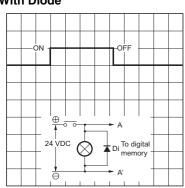




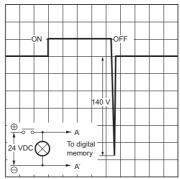
#### MY4 DC Models



#### Models with built-in diode for coil surge absorption MY□-D With Diode



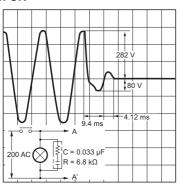
#### **Without Diode**

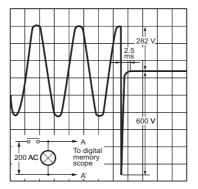


- Note: 1. Make sure that the polarity is correct.
   2. The release time will increase, but the 20-ms specification for standard models is satisfied.
   3. Diode properties: The diode has a reversed dielectric strength of 1,000 V.

Forward current: 1 A

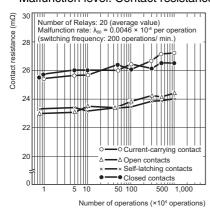
## Models with built-in CR circuit for coil surge absorption MY□-CR With CR Without CR





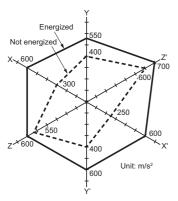
#### Contact Reliability Test MY4Z-CBG (Modified Allen Bradley Circuit)

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/s², Energized: 200 m/s²

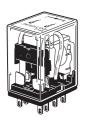
#### Shock direction

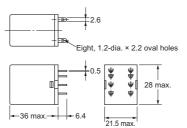


**Dimensions** (Unit: mm)

#### Plug-in terminals

#### MY2, MY2N, MY2-D and MY2N-D2 MY2-CR, MY2N-CR

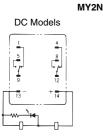


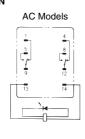


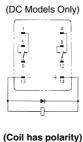
**Terminal Arrangement/** Internal Connection Diagram (Bottom View) MY2 (AC/DC Models)



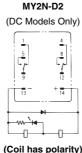
(Coil has no polarity)

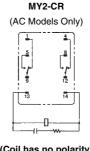






MY2-D





MY2N-CR (AC Models Only)

(Coil has polarity)

(Coil has no polarity)

(Coil has polarity)

(Coil has polarity)

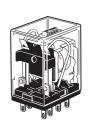
(Coil has no polarity)

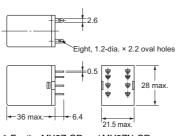
(Coil has no polarity)

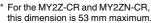
Note: 1. An AC model has coil disconnection self-diagnosis.

- For the DC models, check the coil polarity when wiring and wire all connections correctly. The indicator is red for AC and green for DC.
- 4. The operation indicator indicates the energization of the coil and does not represent contact operation.

#### MY2Z, MY2ZN, MY2Z-D and MY2ZN-D2 MY2Z-CR, MY2ZN-CR



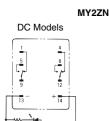


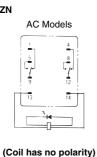


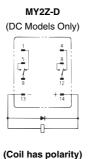
#### **Terminal Arrangement/Internal Connection Diagram** (Bottom View) MY2Z (AC/DC Models)

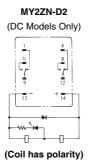


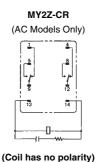
(Coil has no polarity)

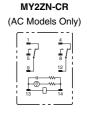












(Coil has no polarity)

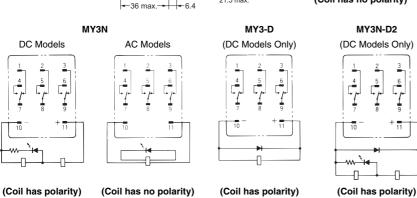
(Coil has polarity)

- 1. An AC model has coil disconnection self-diagnosis.
- 2. For the DC models, check the coil polarity when wiring and wire all connections correctly.
- The indicator is red for AC and green for DC.
- The operation indicator indicates the energization of the coil and does not represent contact operation.

#### MY3, MY3N, MY3-D, and MY3N-D2

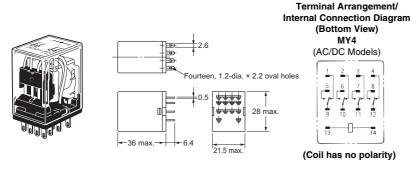
#### Internal Connection Diagram (Bottom View) MY3 (AC/DC Models) en, 1.2-dia. × 2.2 oval holes 0.5 (Coil has no polarity)

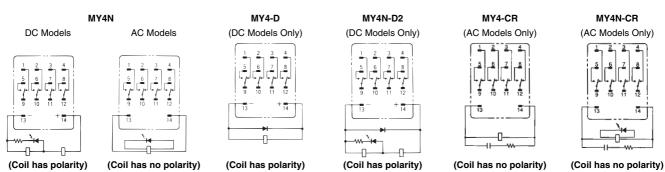
Terminal Arrangement/



- Note: 1. An AC model has coil disconnection self-diagnosis.
  - For the DC models, check the coil polarity when wiring and wire all connections correctly.
  - The indicator is red for AC and green for DC.
  - The operation indicator indicates the energization of the coil and does not represent contact operation.

#### MY4, MY4N, MY4-D and MY4N-D2 MY4-CR, MY4N-CR

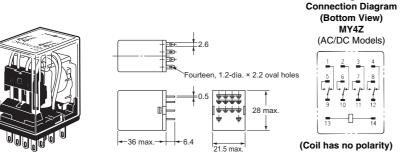


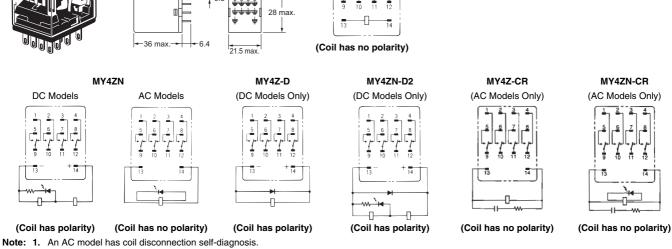


- Note: 1. An AC model has coil disconnection self-diagnosis.
  - For the DC models, check the coil polarity when wiring and wire all connections correctly. The indicator is red for AC and green for DC.

  - The operation indicator indicates the energization of the coil and does not represent contact operation.

#### MY4Z, MY4ZN, MY4Z-D, MY4ZN-D2 MY4Z-CR, MY4ZN-CR



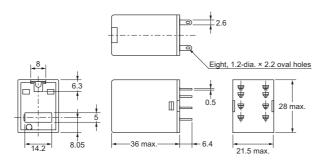


**Terminal Arrangement/Internal** 

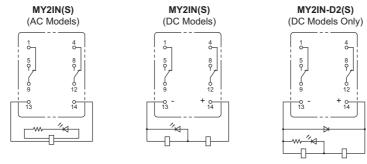
- - 2. For the DC models, check the coil polarity when wiring and wire all connections correctly.
  - The indicator is red for AC and green for DC.
  - The operation indicator indicates the energization of the coil and does not represent contact operation.

#### MY2IN(S) MY2IN-D2(S)



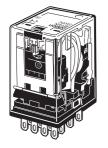


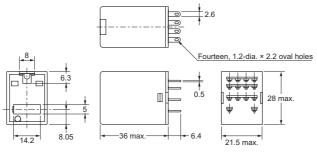
#### Terminal Arrangement/Internal Connections (Bottom View)



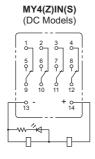
Note: For the DC models, check the coil polarity when wiring and wire all connections correctly.

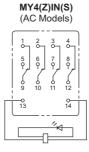
#### MY(Z)IN(S) MY4(Z)IN-D2(S) MY4(Z)IN-CR(S)

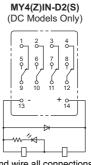


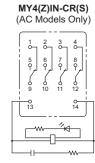


#### Terminal Arrangement/Internal Connections (Bottom View)





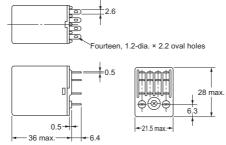


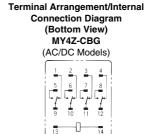


**Note:** For the DC models, check the coil polarity when wiring and wire all connections correctly.

#### **MY4Z-CBG**







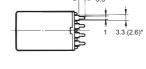
(The coil has no polarity.)

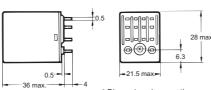
#### ●PCB terminals

MY2-02 MY3-02 MY4-02 MY4Z-02



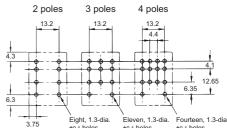
The figure and outline drawing show MY4-02. The 2-pole and 3-pole models conform to these dimensions.





\* Dimensions in parentheses are for the MY4-02.

#### PCB Processing Dimensions (Bottom View)



Note: 1. The dimensional tolerance is ±0.1 holes

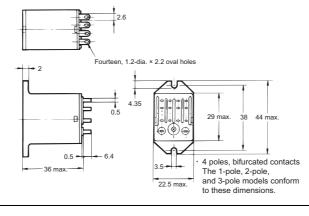
2. Refer to the terminal arrangement and internal connections diagrams for the MY2, MY3, MY4, and MY4Z.

#### Case-surface mounting

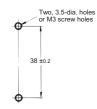
MY2F MY3F MY4F MY4ZF



The above figure is for the MY4F. The 2-pole and 3-pole models conform to these dimensions.



#### Mounting Hole Dimensions



**Note:** Refer to the terminal arrangement and internal connections diagrams for the MY2, MY3, MY4, and MY4Z.

## 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.

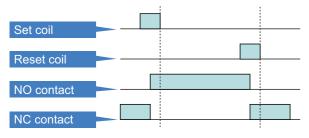
Refer to Safety Precautions on pages 53 to 54 and Safety Precautions for All Relays.



#### **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.







#### **Model Number Structure**

#### **Model Number Legend**



(1) Basic model name

MY: Miniature Power Relays

(3) Type

K: Latching relay

(2) Number of poles/contacts

2: 2-pole, single

(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

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

#### **●PCB** terminals

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

## **Ratings and Specifications**

#### **Ratings**

#### ●Operating coil (AC)

	Rated voltage (V)		Set coil				Reset coil					Power consumption (VA, W)			
			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		60 Hz	(Ω)	50 Hz 60 Hz		(Ω)	voltage (v)	voltage (v)					
		12	57	56	72	39	38.2	130				Approx. 0.6	Approx. 0.2		
	AC	24	27.4	26.4	320	18.6	18.1	550		80% max.	110% max.	to 0.9	to 0.5		
		100	7.1	6.9	5,400	3.5	3.4	3,000	80% max.*			(at 60 Hz)	(at 60 Hz)		
1		12	11	10	110	5	0	235	00% max. 00% max.	00 /6 IIIax. 00 /6 IIIax.	00 /6 IIIax. 00 /6 IIIax.	% max. 80% max.	voltage		
	DC	24	5	2	470	2	.5	940				Approx. 1.3	Approx. 0.6		
		48	2	.7	1,800	1	6	3,000							

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

- 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 is a reference value only.

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

#### Contact Ratings

Number of poles (contact configuration)	2-pole (DPDT)				
Contact structure	Single				
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	rry 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 m $Ω$ 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 resi	istance*3	100 M $\Omega$ 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>			
Endurance	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 opera	ating temperature*6	-55 to 60°C			
Ambient opera	ating 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.

Measurement conditions:
 Measurement conditions:
 Measurement conditions:
 Ambient temperature conditions:
 This value was measured
 With no icing or condensa

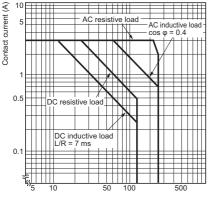
With rated operating power applied, not including contact bounce.
For 500 VDC applied to the same location as for dielectric strength measurement.

Ambient temperature condition: 23°C

- This value was measured at a switching frequency of 120 operations per minute.
- With no icing or condensation.

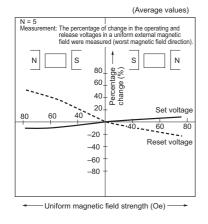
## **Engineering Data (Reference Value)**

## Maximum Switching Capacity MY2K(-02)

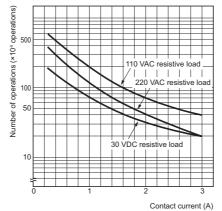


Contact voltage (

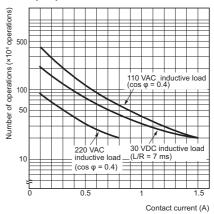
#### Magnetic Interference (External Magnetic Field) MY2K 24 VDC



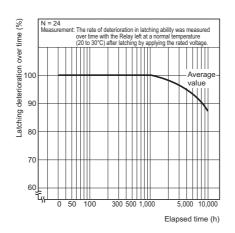
## **Endurance Curve** MYK(-02)



MYK(-02)

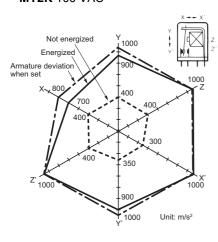


## **Latching Deterioration Over Time**MY2K



#### **Shock Malfunction**

MY2K 100 VAC



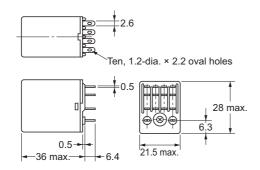
N = 20

Measurement: Shock was applied in 6 directions along 3 axes 2 times with the Relay energized and 3 times with the Relay 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> **Dimensions** (Unit: mm)

#### ●Plug-in terminals MY2K





#### Terminal Arrangement/ Internal Connection Diagram (Bottom View)

For AC



Note: R is a resistor for ampereturn correction. Built into models with specifications of 50 VAC or more. (The coil has no polarity.)

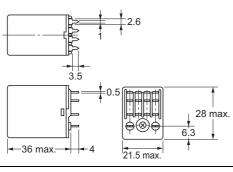
For DC



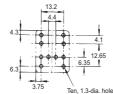
Note: Pay close attention to the set coil and reset coil polarities. If the connections are not correct, unintended operation may occur.

#### ●PCB terminals MY2K-02





## PCB Processing Dimensions (Bottom View)



**Note:** The dimensional tolerance is ±0.1.

## 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 53 to 54 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

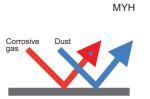
These realize excellent reliability even in environments where salt damage occurs or where dust is generated.





#### **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.





### **Model Number Structure**

#### **Model Number Legend**



#### (1) Basic model name

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

None: None

N: With operation indicator\*
\*Only MYQ (plastic sealed relay)

#### (4) Options, terminal type

None: Plug-in terminals

02: Plastic sealed relays, PCB terminals0: 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		Model	Rated voltage	Model	Rated voltage	
Standard models	Single 4 Bifurcate	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)		Bifurcated	MYQ4Z	100/110, 110/120, 200/220 VAC			
				12, 24 VDC			

#### ●PCB terminals

Classification	Number of poles	Single   MYQ4-02   Fated voltage		Rated voltage
Standard models		Cinalo	MVO4 02	50, 200/220, 220/240 VAC
(compliant with	4	Siligle	W 1 Q4-02	24 VDC
Electrical Appliances and Material Safety Act)		Bifurcated	MYQ4Z-02	100/110 VAC
				24, 48 VDC

#### **Hermetically Sealed Relays**

#### Plug-in terminals

Classification	Number of poles	Contacts	Model	Rated voltage
Standard models	4	Single	MY4H	24, 100/110, 110/120 VAC
(compliant with Electrical Appliances and Material Safety Act)			IVI T 4F1	12, 24, 48, 100/110 VDC
		Bifurcated	MY4ZH	24, 100/110, 110/120 VAC
			WY4ZH	12, 24, 48, 100/110 VDC

#### PCB terminals

Classification	Number of poles	Contacts	Model	Rated voltage
Standard models	4	Single	MY4H-0	110/120 VAC
(compliant with Electrical Appliances			W17411-0	24 VDC
and Material Safety Act)		Bifurcated	MY4ZH-0	24, 100/110 VDC

## **Ratings and Specifications**

#### ●Operating coil (AC)

		Rated cur	urrent (mA) Coil Coil inductance (H)  Must operate		Must release	Maximum	Power			
Rated	voltage (V)	50 Hz	60 Hz	resistance (Ω)	Armature OFF	Armature ON	voltage (V)*1	voltage (V)*2	voltage (V)	consumption (VA, W)
	24	53.8	46	180	0.69	1.3		30% min.	110% max. of rated voltage	
	100/110	11.7/12.9	10/11	3,750	14.54	24.6				Approx. 0.9 to 1.3 (at 60 Hz)
AC	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	91.07				
	220/240	4.8/5.3	4.2/4.6	18,790	83.5	136.4	80% max.			
	12	7	5	165	0.734	1.37				
DC	24	36	6.9	650	3.2	5.72		10% min.		A
ЪС	48	18	3.5	2,600	10.6	21.0				Approx. 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

- The AC coil resistance and coil inductance values are for reference 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.
- \*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

#### **Plastic Sealed Relays: MYQ**

Number of poles (contact configuration)	4-pole (4PDT)		
Contact structure	Single/b	ifurcated	
Load	Resistive load	Inductive load ( $\cos \varphi = 0.4$ , 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 24 W	110 VA 12 W	
Contact material	Au plating + Ag		

#### **Hermetically Sealed Relays: MYH**

Number of poles (contact configuration)	4-pole (4PDT)					
Contact structure	Siı	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	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				

#### **Characteristics**

Model			MYQ		MYH			
Contact resistance*1		50 mΩ max.						
Operate time*2		20 ms max.						
Release time*2		20 ms max.	20 ms max.					
Maximum Mechanical switching frequency Rated load		18,000 operations/h						
		1,800 operations/h						
Insulation resistar	nce*3	100 M $\Omega$ min.						
Between coil and contacts		1,500 VAC at 50/60	Hz for 1 min	1,000 VAC at 50/60	Hz for 1 min			
Dielectric strength	Between contacts of different polarity	1,500 VAC at 50/60	Hz for 1 min	1,000 VAC at 50/60	Hz for 1 min			
	Between contacts of the same polarity	1,000 VAC at 50/60	Hz for 1 min	700 VAC at 50/60 Hz for 1 min				
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 resistance Destruction		1,000 m/s <sup>2</sup>						
SHOCK TESISTATICE	Malfunction	200 m/s <sup>2</sup>						
Endurance	Mechanical	Single contacts: 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)			
Electrical*4		Single contacts: 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:

\*2. Measurement conditions:

With rated A at 5 VDC using the voltage drop method.

With rated operating power applied, not including contact bounce.

Ambient temperature condition: 23°C

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

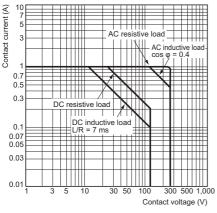
Ambient temperature condition: 23°C

This value was measured at a switching frequency of 120 operations per minute.

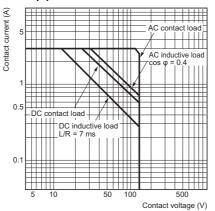
With no icing or condensation.

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

## Maximum Switching Capacity MYQ4(Z)

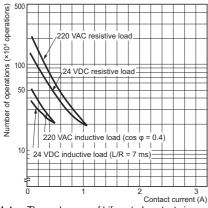


#### MY4(Z)H



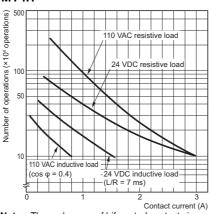
## **Endurance Curve**

#### MYQ4



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

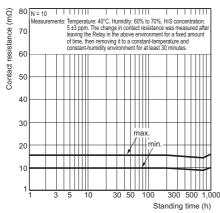
#### MY4H



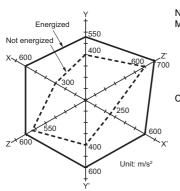
**Note:** The endurance of bifurcated contacts is one-half that of single contacts.

#### H₂S 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

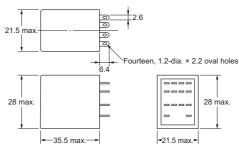


**Dimensions** (Unit: mm)

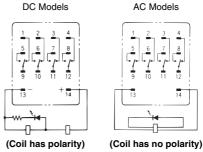
#### ●Plug-in terminals

#### **Plastic Sealed Relays** MYQ4(Z)(N)





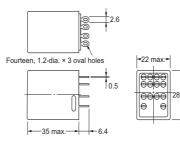
#### MYQ4(Z)N



- Note: 1. An AC model has coil disconnection self-diagnosis.
  - For the DC models, check the coil polarity when wiring and wire all connections correctly.

#### **Hermetically Sealed Relays** MY4(Z)H





Terminal Arrangement/
Internal Connection Diagram (Bottom View) MY4(Z)H

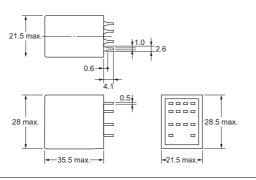


(Coil has no polarity)

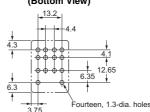
#### ●PCB terminals

#### **Plastic Sealed Relays** MYQ4(Z)-02



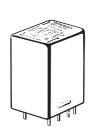


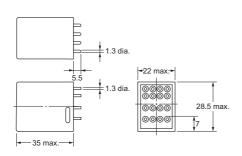
## PCB Processing Dimensions (Bottom View)



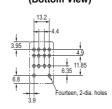
The dimensional Note: tolerance is  $\pm 0.1$ .

#### **Hermetically Sealed Relays** MY4(Z)H-0





#### **PCB Processing Dimensions** (Bottom View)



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

## **Ordering Information**

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

Number of pins	Applicable relay model*1	Terminal Type	Mounting Method	Appearance	Model
	MY2□ MY2IN(S)	Push-In Plus Terminal (Integrated socket with release lever)	Mounted on a DIN track or with screws*2		PYF-08-PU
	MY2Z□-CR	Push-In Plus Terminal (Without release lever)	Mounted on a DIN track or with screws*2		PYF-08-PU-L
8	MY2□ MY2IN(S) MY2Z□-CR	Screwless terminal	Mounted on a DIN track		PYF08S
	MY2□ MY2IN(S) MY2Z□-CR	Screw terminal (M3 screw size)	Mounted on a DIN track or with screws		PYF08A
	MY2□ MY2IN(S) MY2Z□-CR	Screw terminal Finger-protection structure*3 (M3 screw size)	Mounted on a DIN track or with screws		PYF08A-E
	MY2□ MY2IN(S) MY2Z□-CR	Screw terminal (M3.5 screw size)	Screw mounting only		PYF08M
11	МҮЗ	Screw terminal (M3 screw size)	Mounted on a DIN track or with screws		PYF11A
	MY4□, MY4H MYQ4□, MY4□(S) MY2K	Push-In Plus Terminal (Integrated socket with release lever)	Mounted on a DIN track or with screws*2		PYF-14-PU
	MY4Z□-CBG-CR	Push-In Plus Terminal (Without release lever)	Mounted on a DIN track or with screws*2		PYF-14-PU-L
14	MY4□, MY4H MYQ4□, MY4□(S) MY2K MY4Z□-CBG-CR	Screwless terminal	Mounted on a DIN track		PYF14S
	MY4□, MY4H MYQ4□, MY4□(S) MY2K MY4Z□-CBG-CR	Screw terminal (M3 screw size)	Mounted on a DIN track or with screws		PYF14A
	MY4□, MY4H MYQ4□, MY4□(S)	Screw terminal Finger-protection structure*3 (M3 screw size)	Mounted on a DIN track or with screws		PYF14A-E
	MY2K MY4Z□-CBG-CR	Screw terminal (M3.5 screw size)	Mounted on a DIN track or with screws		PYF14T

<sup>\*1.</sup> 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.
 The finger-protection type (PYF□A-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.

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

Number of pins	Applicable relay model*1	Terminal Type	Appearance	Model	Appearance	Models with Hold-down Clips*2
	MY2□, MY2IN(S)	Solder terminals		PY08		PY08-Y1
	MY2Z□-CR					PY08-Y3
	MY2□, MY2IN(S)	Wrapping terminals	p n	PY08QN		PY08QN-Y1
8	MY2Z□-CR	Terminal length: 25 mm		PTUOQN		PY08QN-Y3
	MY2□, MY2IN(S)	Wrapping terminals	D 2	PY08QN2		PY08QN2-Y1
	MY2Z⊡-CR	Terminal length: 20 mm				PY08QN2-Y3
	MY2□, MY2IN(S) MY2Z□-CR	PCB terminals		PY08-02	_	_
	МҰЗ	Solder terminals		PY11		PY11-Y1
11	МҰЗ	Wrapping terminals Terminal length: 25 mm		PY11QN		PY11QN-Y1
	МҰЗ	Wrapping terminals Terminal length: 20 mm		PY11QN2		PY11QN2-Y1
	муз	PCB terminals		PY11-02	_	_

Number of pins	Applicable relay model*1	Terminal Type	Appearance	Model	Appearance	Models with Hold-down Clips*2
	MY4□, MY4□(S), MY2K, MY4H, MYQ4□			DV44		PY14-Y1
	MY4Z□-CBG-CR	Solder terminals		PY14		PY14-Y3
14	MY4□, MY4□(S), MY2K, MY4H, MYQ4□	Wrapping terminals				PY14QN-Y1
	MY4Z□-CBG-CR	Terminal length: 25 mm		PY14QN		PY14QN-Y3
	MY4□, MY4□(S), MY2K, MY4H, MYQ4□	Wrapping terminals		PY14QN2		PY14QN2-Y1
	MY4Z□-CBG-CR	Terminal length: 20 mm		F114QN2		PY14QN2-Y3
	MY4□, MY4□(S), MY4Z□-CBG-CR MY2K, MY4H, MYQ4□	PCB terminals		PY14-02	_	_

<sup>\*1.</sup> 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.

#### **Hold-down Clip**

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

<sup>\*1.</sup> 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.

**Socket Accessories Hold-down Clip** 

#### ●List of Hold-down Clip Models

#### For Front-connecting Sockets

	Mounting method	DIN track mounted/screw mounted					Screw mounting only	
	Terminal Type	Push-In Plu	ıs Terminal	Screw	terminal (M3 scre	w size)	Screw terminal (	M3.5 screw size)
	Applicable sockets	PYF-08-PU-L	PYF-14-PU-L	PYF08A(-E)	PYF11A	PYF14A(-E)	PYF14T	PYF08M
Number of pins	Applicable relay model*1	Hold-down Clip model*2	Hold-down Clip model*2	Hold-down Clip model*2	Hold-down Clip model*2	Hold-down Clip model*2	Hold-down Clip model*2	Hold-down Clip model*2
	MY2□	_	_	PYC-A1	_	_	_	PYC-P
8	MY2IN(S)*3	_	_	PYC-E1	_	_	_	_
	MY2Z□-CR	Y92H-3	_	Y92H-3	_	_	_	_
11	MY3	_	_	_	PYC-A1	_	_	_
14	MY4□, MY4(Z)H, MYQ4, MYQ4N, MYQ4Z, MY4□(S), MY2K	-	_	-	_	PYC-A1	PYC-A1	_
	MY4Z□-CBG-CR *4	_	Y92H-3	_	_	Y92H-3	Y92H-3	_

#### For Back-connecting Sockets

	Terminal Type Solder terminals		Wrapping terminals (PY□QN terminal length: 25 mm, PY□QN2 terminal length: 20 mm)			PCB terminals				
	Applicable sockets	PY08	PY11	PY14	PY08QN(2)	PY11QN(2)	PY14QN(2)	PY08-02	PY11-02	PY14-02
Number of pins	Applicable relay model*1	Hold-down Clip model*2	Hold-down Clip model*2	Hold-down Clip model*2	Hold-down Clip model*2	Hold-down Clip model*2	Hold-down Clip model*2	Hold-down Clip model*2	Hold-down Clip model*2	Hold-down Clip model*2
8	MY2□ MY2IN(S)*3	PYC-P	_	_	PYC-P	_	_	PYC-P	_	_
	MY2Z□-CR	PYC-1	_	_	PYC-1	_	_	PYC-1	_	_
11	MY3	_	PYC-P	_	_	PYC-P	_	_	PYC-P	_
14	MY4□, MY4(Z)H, MYQ4, MYQ4N, MYQ4Z, MY4□(S), MY2K	_	_	PYC-P	_	_	PYC-P	_	_	PYC-P
	MY4Z□-CBG-CR *4	_	_	PYC-1	_	_	PYC-1	_	_	PYC-1

<sup>\*1.</sup> The applicable relay model is a plug-in terminal type.

\*2. This is the model of the applicable hold-down clips. Hold-down clips are sold in sets of two. However, PYC-P and PYC-1 contain just one hold-down clip.

\*3. We recommend using PYC-E1 hold-down clips for MY2IN(S) relays with a latching lever.

(If PYC-A1 is used with MY2IN(S), the latching lever will be blocked by the hold-down clip and the lever will not operate.)

\*4. The release lever cannot be mounted if the relay height is 53 mm or more.

If the relay height is 53 mm or more, use in combination with hold-down clip Y92H-3.

# ●Front-connecting Socket Accessories For Push-In Plus Terminal Sockets (PYF-08-PU(-L)/PYF-14-PU(-L)) Short Bars

Applicable sockets	Pitch	Application	Shang/aytarnal dimensions	Number of poles	L (Length)	Insulati on color	Model*1
			3.90	2	15.1		PYDN-7.75-020□
		Bridging contact terminals (common)	5	3	22.85		PYDN-7.75-030□
PYF-08-PU(-L) PYF-14PU(-L)	7.75 mm		2.25	4	30.6	Red (R)	PYDN-7.75-040□
				20	154.6		PYDN-7.75-200□
	31.0 mm	For Coil terminals	3.90 11.57 12.25 224.35	8	224.35	Blue (S) Yellow(Y)	PYDN-31.0-080□

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

#### Labels

Applicable sockets	Model
PYF-08-PU(-L)	XW5Z-P4.0LB1
PYF-14PU(-L)	(1 sheet/60 pieces)

## 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	Insulation	2	Red (R) Blue (B)	<b>PYDM-08S</b> □ (50 pcs./bag)
PYF14S	27.5 mm	coils between sockets	1.2-dia. Pitch	2		<b>PYDM-14S</b> □ (50 pcs./bag)

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

#### Labels

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

#### **Release Levers**

Applicable sockets	Shape/external dimensions	Model
PYF08S	54.4	PYCM-08S
PYF14S	52.5	PYCM-14S

## For Screw Terminal Sockets (PYF08A/PYF14A) Short Bars

Applicable sockets	Pitch	Application	Shape/external dimensions	Number of poles	Insulation color	Model*1	
			3.3	2		PYD-025B□ (2P) (10 pcs./bag)	
PYF08A	22 mm	For bridging	154 -22- -3.3 -5.6	8	B (Black)	<b>PYD-085B</b> □ <b>(8P)</b> (10 pcs./bag)	
		adjacent sockets	3.3 -5.6	2	S (Blue) R (Red)	PYD-026B□ (2P) (10 pcs./bag)	
PYF14A	29 mm		203 29 3.3 5.6	8		<b>PYD-086B</b> □ <b>(8P)</b> (10 pcs./bag)	
	7 mm	For bridging with the same socket	For bridging	3.2	2	B (Black)	<b>PYD-020B</b> □ <b>(2P)</b> (50 pcs./bag)
			77+7- 17-7- 3.2 5.6	3	Y (Yellow)	<b>PYD-030B</b> □ <b>(3P)</b> (10 pcs./bag)	

<sup>\*1.</sup> Replace the box ( $\square$ ) in the model number with the code for the covering color.

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

	Applicable Sockets	Socket Mounting Plates			
Model	Models with hold-down clips	Appearance	Number of sockets	Model	
PY08 PY08QN	PY08-Y1, PY08-Y3 PY08QN-Y1, PY08QN-Y3		1	PYP-1	
PY08QN2 PY11 PY11QN PY11QN2	PY08QN2-Y1, PY08QN2-Y3 PY11-Y1 PY11QN-Y1		18	PYP-18*	
PY11QN2 PY14 PY14QN PY14QN2	PY11QN2-Y1 PY14-Y1, PY14-Y3 PY14QN-Y1, PY14QN-Y3 PY14QN2-Y1, PY14QN2-Y3		36	PYP-36*	

<sup>\*</sup>You can cut the PYP-18 and PYP-36 to any required length.

#### **Parts for Track Mounting**

Туре		Appearance	Model
DIN Tracks	1 m		PFP-100N
DIN HACKS	0.5 m		PFP-50N
End Plate*		O Tomas Varia	PFP-M
Spacer			PFP-S

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

### **Ratings and Specifications**

#### **Characteristics**

#### Sockets

							Di	Dielectric strength				
Model	Connection	Number of pins	Terminal Type	Ambient operating temperature	Ambient operating humidity	operating carry	Between contact terminals of same polarity	Between contact terminals of different polarity	coll and	Insulation resistance *1		
PYF-08-PU			Push-In Plus Terminal	-40 to 70°C		10 A*2			2,000 VAC		Approx. 80 g	
PYF08S			Screwless terminal	<u></u>	]	10 A*2	2,000 VAC	2,000 VAC			Approx. 46 g	
PYF08A		8				7 A	for 1 min	for 1 min	for 1 min		Approx. 32 g	
PYF08A-E	A	_	Screw terminal	–55 to 70°C		, ,					Approx. 32 g	
PYF08M	Front					5 A	1,500 VAC for 1 min	1,500 VAC for 1 min	1,500 VAC for 1 min	1,000 MΩ	Approx. 26 g	
PYF11A	Front	11	Screw terminal	<u> </u>		l'				min. (500 VAC)	Approx. 43 g	
PYF-14-PU			Push-In Plus Terminal	-40 to 70°C		6 A	2,000 VAC 2,000 VAC			(000 1,	Approx. 87 g	
PYF14S			Screwless terminal		]	5 A			2,000 VAC		Approx. 62 g	
PYF14A	Ī	14		-55 to 70°C			for 1 min	for 1 min	for 1 min		Approx. 49 g	
PYF14A-E			Screw terminal	-35 10 70 0		3 A					Approx. 49 g	
PYF14T	A					'					Approx. 53 g	
PY08								1,500 VAC for 1 min	1,500 VAC for 1 min		Approx. 8 g	
PY08-Y1			Solder terminals	5% to 85%							Approx. 9 g	
PY08-Y3	Ī	8									Approx. 9 g	
PY08QN	Ī		Wrapping terminals (Terminal length: 25 mm)  Wrapping terminals (Terminal length: 20 mm)			'	1,500 VAC for 1 min				Approx. 12 g	
PY08QN-Y1	1					7 A				100 MΩ	Approx. 13 g	
PY08QN-Y3	Ā					/ A				min.	Approx. 13 g	
PY08QN2	i										Approx. 11 g	
PY08QN2-Y1	i										Approx. 12 g	
PY08QN2-Y3	Ä .						ļ	ļ		Approx. 12 g		
PY08-02	Ä .		PCB terminals			'					Approx. 7 g	
PY11	A .	Solder terminals								Approx. 9 g		
PY11-Y1	Ä .		Solder terminals				1,500 VAC		1,500 VAC for 1 min	100 M $\Omega$ min.	Approx. 10 g	
PY11QN	A .		Wrapping terminals					1,500 VAC for 1 min			Approx. 13 g	
PY11QN-Y1	Back	Back 11	'''.			5 A					Approx. 14 g	
PY11QN2	i i		Wrapping terminals			'	101 1 111111				Approx. 12 g	
PY11QN2-Y1	i i		(Terminal length: 20 mm)			'					Approx. 13 g	
PY11-02	1		PCB terminals			'					Approx. 8 g	
PY14	Ä								1,500 VAC for 1 min		Approx. 10 g	
PY14-Y1	i		Solder terminals	nals :		'					Approx. 11 g	
PY14-Y3	i					ļ	1,500 VAC for 1 min				Approx. 11 g	
PY14QN	1		Wrapping terminals			'				100 MΩ	Approx. 14 g	
PY14QN-Y1	i i		(Terminal length:			3 A					Approx. 15 g	
PY14QN-Y3	i i	14	14 (161111111111111111111111111111111111							min.	Approx. 15 g	
PY14QN2	i i		Wrapping terminals (Terminal length:			'					Approx. 13 g	
PY14QN2-Y1	ă .					'					Approx. 14 g	
PY14QN2-Y3	20 mm) PCB terminals											Approx. 14 g
PY14-02				'					Approx. 9 g			

#### **Socket Accessories**

#### ●For Front-connecting Sockets

#### **Short Bars**

Application	Applicable sockets	Model	Maximum carry current	Ambient operating temperature	Ambient operating humidity
		PYDN-7.75-020□	- 20 A	-40 to 70°C	5% to 85%
	PYF-08-PU(-L) PYF-14-PU(-L)	PYDN-7.75-030□			
		PYDN-7.75-040□			
		PYDN-7.75-200□			
Bridging contact terminals	PYF08A	PYD-025B□		-40 to 70°C (with no icing or condensation)	45% to 85% (with no icing or condensation)
(common)	FIFUOA	PYD-085B□	20 A - (However, 18 A when - 70°C)		
	PYF14A	PYD-026B□			
		PYD-086B□			
		PYD-020B□			
		PYD-030B□			
	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%

For 500 VDC applied to the same location as for dielectric strength measurement. 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. This model is a set including a socket and relay hold-down clips. This weight shown is the total including the socket and relay hold-down clips.

#### **Certified Standards**

#### ●CSA certification (File No. LR031928)

Model	Ratings	Class number	Standard number	
PYF-08-PU	10 A, 250 V			
PYF-14-PU	6 A, 250 V			
PYF08S	10 A, 250 V	3211 07	CSA C22.2 No14	
PYF14S	5 A, 250 V	021107	CON CLEIL NOT	
PY□ PYF□A(-E)	7 A, 250 V			

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

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

#### ●TÜV Rheinland certification

Model	Ratings	Standard number	Certification No.	
PYF-08-PU	10 A, 250 V*	EN 61984	R50327595	
PYF-14-PU	6 A, 250 V	EN 01904		

<sup>\*</sup>Ratings are for an ambient temperature of  $55^{\circ}$ C or below. At an ambient temperature of  $70^{\circ}$ C, the value is 7 A.

#### **●VDE** certification

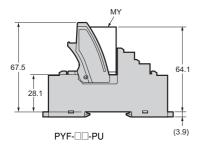
Model	Standard number	Certification No.	
PYF08S	VDE0627 (EN61984)	40015509	
PYF14	VDE0627 (EN61984)		

**Dimensions** (Unit: mm)

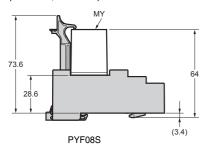
#### **Height with Socket**

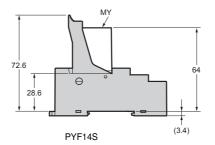
#### ●Front-connecting Sockets

• Push-In Plus Terminal (PYF-□-PU)

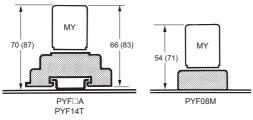


· Screwless terminal (PYF08S, PYF14S)





 Screw terminal (PYF□A(-E), PYF14T, PYF08M)



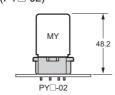
- **Note:** 1. The PYF $\square$ A can be mounted on a track or with screws.
  - The heights given in parentheses are the measurements for 53-mm-high Relays.
     Use the PYC-P Hold-down Clip for the PYF08M.

#### ●Back-connecting Sockets

 Solder terminals/wrapping terminals (PY□)



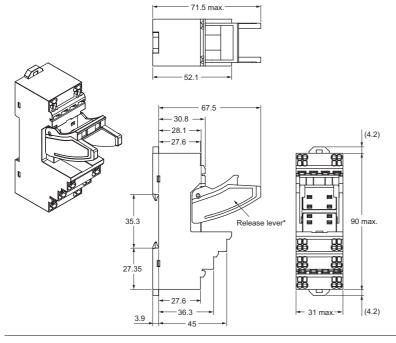
• PCB terminals (PY□-02)



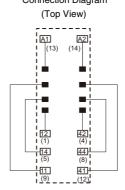
#### **Front-connecting Sockets**

#### ●Push-In Plus Terminal

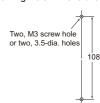
#### PYF-08-PU(-L)



Terminal Arrangement/Internal Connection Diagram

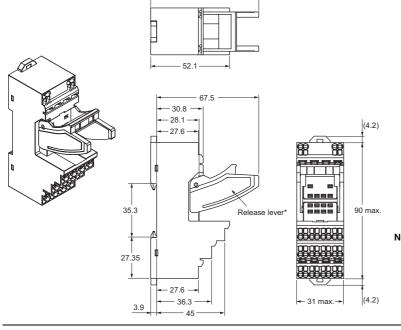


Note: The numbers in parentheses are traditionally used terminal numbers. Mounting Hole Dimensions

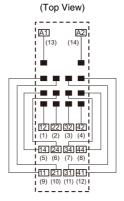


Note: Pull out the hooks to mount the Relay with screws.

#### PYF-14-PU(-L)

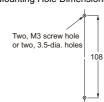


Terminal Arrangement/Internal Connection Diagram



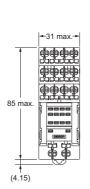
Note: The numbers in parentheses are traditionally used terminal numbers.

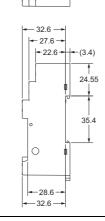
Mounting Hole Dimensions

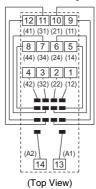


**Note:** Pull out the hooks to mount the Relay with screws.

#### Screwless terminal PYF08S **-**-38.2 max.-Terminal Arrangement/Internal Connection Diagram −36.5 max.<del>→</del> (41) (11) 8 5 32.6 (44) (14) -27.6 4 1 23.2 max <del>-</del>22.6-**⊢** (3.4) (42) 24.5 85 max. 35.4 14 13 (Top View) Note: The number shown in parentheses is the DIN standard. -28.6 (5) - 32.6 Terminal Arrangement/Internal Connection Diagram PYF14S **→**36.5 max.→ 12 11 10 9







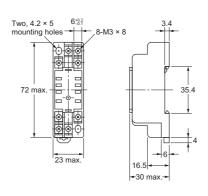
Note: The number shown in parentheses is the DIN standard.

#### **Front-connecting Sockets**

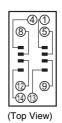
#### Screw terminal

#### PYF08A

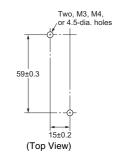




Terminal Arrangement/ Internal Connection Diagram



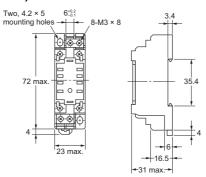
Mounting Hole Dimensions



Note: Track mounting is also possible.

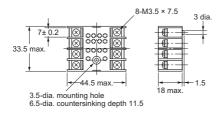
#### PYF08A-E (Finger-protection structure)





PYF08M



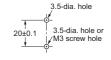


Terminal Arrangement/Internal Connection Diagram



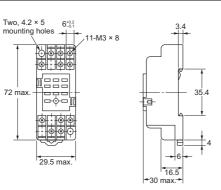
(Top View)

Mounting Hole Dimensions

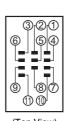


PYF11A



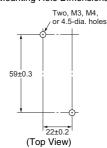


Terminal Arrangement/Internal Connection Diagram



(Top View)

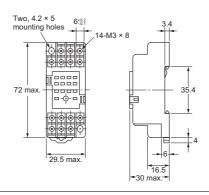
Mounting Hole Dimensions



Note: Track mounting is also possible.

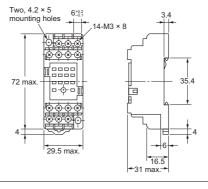
#### PYF14A



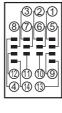


PYF14A-E (Finger-protection structure)

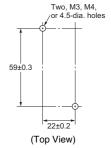




Terminal Arrangement/Internal Connection Diagram



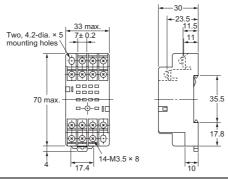
(Top View)



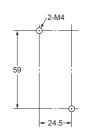
**Note:** Track mounting is also possible.

#### PYF14T





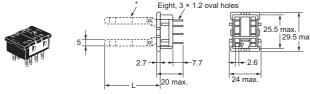
Mounting Hole Dimensions



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

#### Solder terminals





\*PY08-Y includes the potion indicated by broken line

#### Terminal Arrangement/Internal Connection Diagram



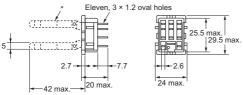
(Bottom View)

#### Mounting Hole Dimensions



**PY11** PY11-Y1





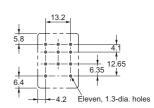
\*PY11-Y1 includes the potion indicated by broken line

## Terminal Arrangement/Internal Connection Diagram



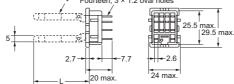
(Bottom View)

#### Mounting Hole Dimensions



**PY14** PY14-Y1 PY14-Y3





\*PY14-Y includes the potion indicated by broken line

Terminal Arrangement/Internal Connection Diagram



(Bottom View)

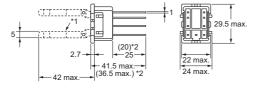
Mounting Hole Dimensions



### Wrapping terminals

PY08QN PY08QN2 PY08QN2-Y1 **PY08QN2-Y3** 





\*1. PY08QN(2)-Y1 includes the potion indicated by broken line. \*2. Dimensions in parentheses are for PY08QN2(-Y1).

#### Terminal Arrangement/Internal Connection Diagram



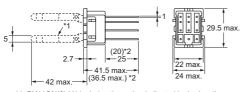
(Bottom View)

#### Mounting Hole Dimensions



PY11QN PY11QN2 PY11QN-Y1 **PY11QN2-Y1** 





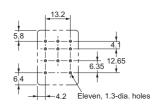
\*1. PY11QN(2)-Y1 includes the potion indicated by broken line \*2. Dimensions in parentheses are for PY11QN2(-Y1).

Terminal Arrangement/Internal Connection Diagram



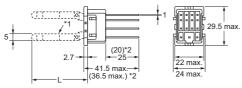
(Bottom View)

#### Mounting Hole Dimensions



#### PY14QN/PY14QN2 PY14QN-Y1/PY14QN2-Y1 **PY14QN-Y3** (L = 60 max.) PY14QN2-Y3 (L = 60 max.)





\*1. PY14QN-Y□ and PY14QN2-Y□ include the potion indicated by broken line \*2. Dimensions in parentheses are for PY14QN2(-Y□).

#### Terminal Arrangement/Internal Connection Diagram



(Bottom View)

#### Mounting Hole Dimensions

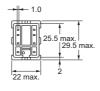


#### PCB terminals

#### PY08-02



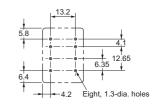




#### Terminal Arrangement/Internal Connection Diagram



Mounting Hole and PCB Dimensions

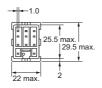


#### PY11-02

•This is not a flux-tight structure. We recommend manual soldering for this





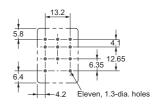


## Terminal Arrangement/Internal Connection Diagram



(Bottom View)

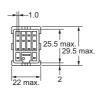




PY14-02



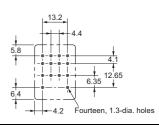




#### Terminal Arrangement/Internal Connection Diagram



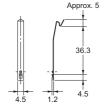
Mounting Hole and PCB Dimensions



#### **Socket Accessories**

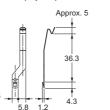
#### ●Hold-down Clip

• PYC-A1 1 set (2 pcs.)

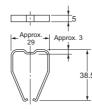




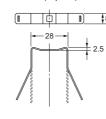
• PYC-E1



PYC-P



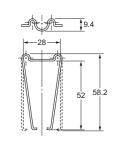
• PYC-S 1 set (2 pcs.)



 Y92H-3 1 set (2 pcs.)

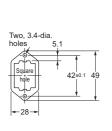


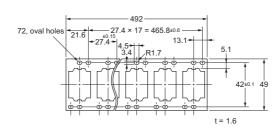
• PYC-1



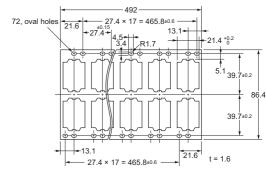
#### Socket Mounting Plates

PYP-1 **PYP-18** 





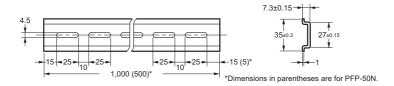
**PYP-36** 



#### Accessories for DIN Track Mounting

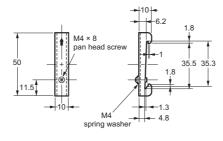
DIN Tracks PFP-100N PFP-50N





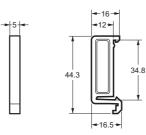
## End Plate PFP-M





Spacer PFP-S





#### **Safety Precautions**

#### Relays

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.

**CAUTION** 

Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate 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**



General caution

Indicates the possibility of non-specified general cautions, warnings, and danger.



Electric shock caution

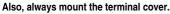
Used to warn of the risk of electric shock under specific conditions.



 High temperature caution
 Indicates the possibility of injuries by high temperature under specific conditions.

#### **↑** CAUTION

Do not touch terminal sections (i.e., current-carrying parts) while power is being supplied.



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.

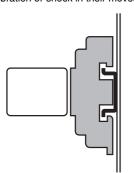
#### **Precautions for Correct Use**

#### Handling

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□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.

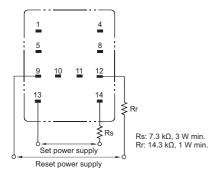
If there is the possibility of large voltage surges that could be applied to the elements from an external source, take any necessary surge absorption measures.

#### **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.

#### ● 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.

#### ●Hermetically Sealed Relays (MYH/MYQ)

#### **Relays with PCB Terminals**

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

#### Solution

Refer to the external dimensions of the Relay and design the PCB pattern with enough space to prevent this problem.

#### **Application Environments**

Humid environments can cause insulation problems, which may result in short-circuiting or unintended operation.

#### Solution

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 problem.

#### **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- -- Data Sheet (Catalog No. SGFR-218).

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

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

#### ●Screw Terminal Sockets (PYF08A(-E), PYF08M, PYF11A, PYF14A(-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

#### **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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