OMRON

Miniature Power Relays

MY(S) Versatile plug-in Relay

- Reduces wiring work by 60% when combined with the PYF-PU Push-In Plus Socket (according to actual OMRON measurements).
- 10 A (DPDT) and 5 A (4PDT)
- Gold-clad contacts (MY4(S))
- Test button (lockable)
- Wide portfolio includes hermetically sealed and latching types
- 2.6 mm wide pins offer higher conductivity and less temperature increase

Refer to the Common Relay Precautions and Safety Precautions on page 34.

Model Number Structure



The compliant standards depend on the model. For details, refer to information provided for individual models.

Coil Polarity (DC case) *	Туре	Contact form	Plug-Ir	socket/solder termina	als L	Flange mounting
			With LED indicator	With LED Indicator and Lockable test button	Without LED Indicator	
Type 1	Standard model	DPDT	MY2N(S)	MY2IN(S)	MY2(S)	MY2F
		DPDT (Bifurcated)	MY2ZN			
$ \bigcirc \qquad \begin{array}{c} + \\ 13 \\ 13 \\ 14 \\ 14 \\ 14 \\ 14 \\ 14 \\ 14$		4PDT	MY4N(S)	MY4IN(S)	MY4(S)	MY4F
A1 A2		4PDT (Bifurcated)	MY4ZN(S)	MY4ZIN(S)	MY4Z(S)	MY4ZF
	With Built-in diode	DPDT	MY2N-D2(S)	MY2IN-D2(S)		
	(DC only)	DPDT (Bifurcated)	MY2ZN-D2			
		4PDT	MY4N-D2(S)	MY4IN-D2(S)		
		4PDT (Bifurcated)	MY4ZN-D2(S)	MY4ZIN-D2(S)		
	With Built-in CR (AC only)	DPDT	MY2N-CR(S)	MY2IN-CR(S)		
		4PDT	MY4N-CR(S)	MY4IN-CR(S)		
		4PDT (Bifurcated)	MY4ZN-CR(S)	MY4ZIN-CR(S)		
	High reliability contacts	4PDT (Crossbar Bifurcated)			MY4Z-CBG	
	Plastic Sealed	4PDT	MYQ4N			
		4PDT (Bifurcated)			MYQ4Z	
	Lactching (coil latching)	DPDT			MY2K-US	
	Hermetic	4PDT			MY4H	
		4PDT (Bifurcated)			MY4ZH	
Type 2	Standard model	DPDT	MY2N1(S)	MY2IN1(S)		
		4PDT	MY4N1(S)	MY4IN1(S)		
$\begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \\ \end{array} \\ 13 \end{array} \\ 13 \end{array} \\ \begin{array}{c} 14 \end{array} \\ 14 \end{array} \\ \begin{array}{c} 14 \end{array} \\ \begin{array}{c} 14 \end{array} \\ \begin{array}{c} 14 \end{array} \\ \begin{array}{c} \end{array} $		4PDT (Bifurcated)	MY4ZN1(S)	MY4ZIN1(S)		
A1 L A2	With Built-in diode	DPDT	MY2N1-D2(S)	MY2IN1-D2(S)		
	(DC only)	4PDT	MY4N1-D2(S)	MY4IN1-D2(S)		
		4PDT (Bifurcated)	MY4ZN1-D2(S)	MY4ZIN1-D2(S)		

* In case of AC coil type relay, please select them from "Type 1" of Coil Polality.

Refer to *Connection Socket and Mounting Bracket Selection Table on page 25* in *Options* for information on the possible combinations of Models with Plug-in Terminals and Sockets.

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Specifications

Coil Ratings MY(S)

R	ated voltage	Rated current		Coil resistance		nductance Mus ence value) volta		Must release voltage	Max. voltage	Power consumption
	ŧ		60 Hz	_	Arm. OFF	Arm. ON	%	of rated volt	age	(approx.)
	6 V	214.1 mA	183 mA	12.2 Ω	0.04 H	0.08 H				
	12 V	106.5 mA	91 mA	46 Ω	0.17 H	0.33 H			110%	Approx. 0.9 to 1.3 VA (60 Hz)
AC	24 V	53.8 mA	46 mA	180 Ω	0.69 H	1.30 H		30% min.		
AC	48/50 V	24.7/25.7 mA	21.1/22.0 mA	788 Ω	3.22 H	5.66 H	-	30% mm.		
	110/120 V	9.9/10.8 mA	8.4/9.2 mA	4,430 Ω	19.20 H	32.1 H				
	220/240 V	4.8/5.3 mA	4.2/4.6 mA	18,790 Ω	83.50 H	136.4 H	80% max.			
	6 V	151 mA		39.8 Ω	0.17 H	0.33 H				
	12 V	75 mA		160 Ω	0.73 H	1.37 H				
DC	24 V	37.7 mA		636 Ω	3.20 H	5.72 H		10% min.		0.9 W
	48 V	18.8 mA		2,560 Ω	10.60 H	21.0 H				
	100/110 V	9.0/9.9 mA		11,100 Ω	45.60 H	86.2 H	1			

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

resistance.
 Performance characteristic data are measured at a coil temperature of 23°C.
 AC coil resistance and impedance are provided as reference values (at 60 Hz).
 Power consumption drop was measured for the above data. When driving transistors, check leakage current and connect a bleeder resistor if required.

MY2ZN, MY□F, MY4(Z)H

	Item	Rated curr	ent (mA)	Coil resistance	Coil induc	ctance (H)	Must-	Must-	Maximum	Power consumption		
Rate volta	d Ige (V)	50 Hz	60 Hz	(Ω)	Armature OFF	Armature ON	operate voltage (V)	release voltage (V)	voltage (V)	(VA, W)		
	12	106.5	91	46	0.17	0.33						
	24	53.8	46	180	0.69	1.3			9% min.*2 110% of rated voltage 9% min.*2	Approx. 0.9 to 1.3 VA		
AC	100/110	11.7/12.9	10/11	3,750	14.54	24.6		20% min *2				
AC	110/120	9.9/10.8	8.4/9.2	4,430	19.2	32.1		30 /8 mm.		(60 Hz)		
	200/220	6.2/6.8	5.3/5.8	12,950	54.75	94.07	80% max.*1			110% of rated	110% of rated	
	220/240	4.8/5.3	4.2/4.6	18,790	83.5	136.4	00 /6 max.					
	12	75		160	0.73	1.37						
DC	24	36.	9	650	3.2	5.72		10% min *2		Approx. 0.9		
DC	48	18.	5	2,600	10.6	21.0		107611111		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 the AC rated current and ±15% for the DC coil resistance.
2. The AC coil resistance and inductance values are reference values only (at 60 Hz).
3. Operating characteristics were measured at a coil temperature of 23°C.
4. The maximum voltage capacity was measured at an ambient temperature of 23°C.
*1. There is variation between products, but actual values are 80% max. 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

specified value. Note: Refer to page 19 for the coil specifications of the MY2K.

Miniature Power Relays: MY2(S)/MY4(S)/MY4Z(S)

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

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Specifications

Contact Ratings

	DPDT		4PDT		4PDT (bifurcated)		
ltem	Resistive load (cos φ = 1)	Inductive load (cos φ = 0.4, L/R = 7 ms)	Resistive load (cos φ = 1)	Inductive load (cos φ = 0.4, L/R = 7 ms)	Resistive load (cos φ = 1)	Inductive load (cos φ = 0.4, L/R = 7 ms)	
Rated load	5A, 250 VAC 5A, 30 VDC	2A, 250 VAC 2 A, 30 VDC	3 A, 250 VAC 3 A, 30 VDC	0.8 A, 250 VAC 1.5 A, 30 VDC	3 A, 250 VAC 3 A, 30 VDC	0.8 A, 250 VAC 1.5 A, 30 VDC	
Carry current	10 A (see note)		5 A (see note)				
Max. switching voltage	250 VAC 125 VDC						
Max. switching current	10 A		5 A				
Contact materials	Ag		Au cladding + Ag alloy				
Failure rate (reference value)	5 VDC, 1 mA		1 VDC, 1 mA 1 VDC, 100 μA				

Note: Don't exceed the carry current of a Socket in use. Please see page 23.

Characteristics

Item	All Relays
Contact resistance	100 m Ω max. (50 m Ω : 4PDT bifurcated)
Operate time	20 ms max.
Release time	20 ms max.
Max. operating frequency	Mechanical:18,000 operations/hr Electrical:1,800 operations/hr (under rated load)
Insulation resistance	100 MΩ min. (at 500 VDC)
Dielectric strength	2,000 VAC, 50/60 Hz for 1.0 min (1,000 VAC between contacts of same polarity)
Vibration resistance	Destruction:10 to 55 to 10 Hz, 0.5 mm single amplitude (1.0 mm double amplitude) Malfunction:10 to 55 to 10 Hz, 0.5 mm single amplitude (1.0 mm double amplitude)
Shock resistance	Destruction:1,000 m/s ² Malfunction:200 m/s ²
Endurance	See the following table.
Ambient temperature	Operating: -55 to 70°C (with no icing)
Ambient humidity	Operating: 5 to 85% RH
Weight	Approx. 35 g
Note. The values given above are initial values	

Note: The values given above are initial values.

Endurance Characteristics

Contact form	Mechanical life (at 18,000 operations/hr)	Electrical life (at 1,800 operations/hr under rated load)	
DPDT	AC:50,000,000 operations min.	500,000 operations min.	
4PDT	DC:100,000,000 operations min.	200,000 operations min.	
4PDT (bifurcated)	20,000,000 operations min.	100,000 operations min.	

MY(S) Dimensions

List of Models

MY2 (S) Series 2.6 Eight, 1.2-dia. × 2.2 oval holes 8 6.3 ₽ ¥Ľ_e ₽ 0.5 ŧ ¢ 28 max ÷ 4 8.05 -36 max 6.4 14.2 21.5 max. Note: The picture is lockable test button type. Terminal Arrangement/Internal Connections (Bottom View) MY2IN(S) (DC Models) MY2IN(S) MY2IN-D2(S) MY2IN-CR (DC Models Only) (AC Model) (AC Models Only) 1 C 4 1 1 4 1 4 5 9 5 9 5 9, 5 9 8 9, 8 9 8 9 8 9 69 6 12 ð 6 12 6 12 ő 0 0 0--14 0-14 -0 13 0-14 -0 13 -0 13 -0 13 ″∖ ″⊲ ″∢ ~~~ ~~~ ″⊲ -0--D-=0= ~~~ -D-П MY2IN1-D2(S) (DC Models Only) MY2IN1(S) (DC Models) 1 5 9 ş, 8 9 69 69 6 12 6 12 0-14 -0 13 0-14 -0 13 ⊳``w

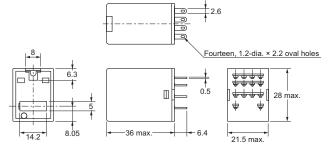
Note: For the DC models, check the coil polarity when wiring and wire all connections correctly.

-D-

-D-

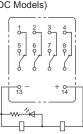
MY4DD(S) series



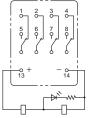


Note: The picture is lockable test button type.

MY4(Z)IN(S) (DC Models)



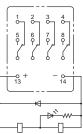
MY4(Z)IN1(S) (DC Models)



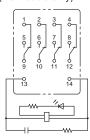
MY4(Z)IN(S) (AC Models) MY4(Z)IN-D2(S) (DC Models Only)

Terminal Arrangement/Internal Connections (Bottom View)

MY4(Z)IN1-D2(S) (DC Models Only)

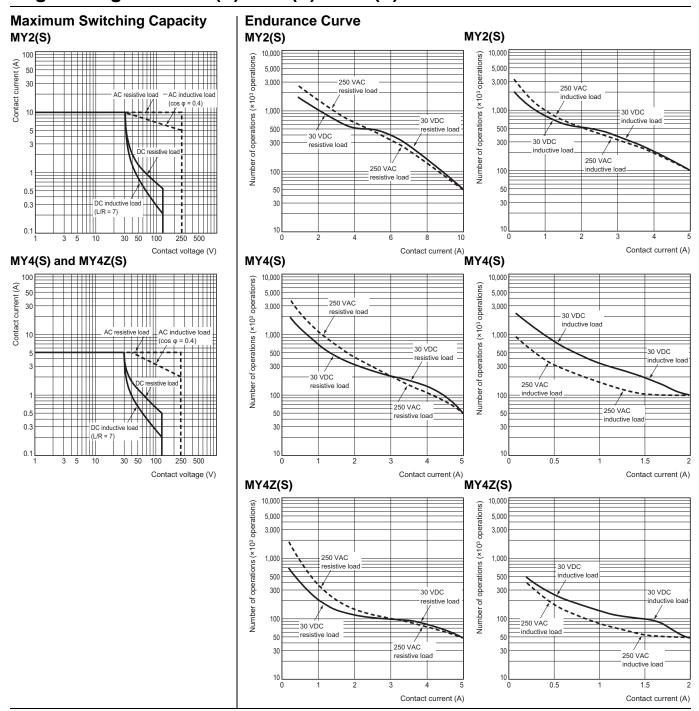


MY4(Z)IN-CR(S) (AC Models Only)

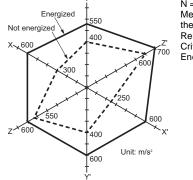


Note: For the DC models, check the coil polarity when wiring and wire all connections correctly.

MY(S) Engineering Data MY2(S)/ MY4(S)/MY4Z(S)



Common Specifications for MY2(S)/MY4(S)/MY4Z(S) Malfunctioning Shock



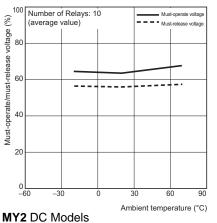
N = 20 Measurem

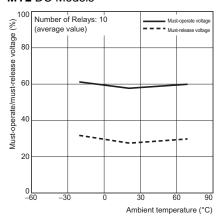
Measurement: Shock was applied 3 times each in 6 directions along 3 axes with the Relay energized and not energized to check the shock values that cause the Relay to malfunction. Criteria: Non-energized: 200 m/s², Energized: 200 m/s² Shock direction $x \rightarrow x'$ $y \qquad \qquad x \rightarrow x'$ $y \qquad \qquad x \rightarrow x'$

Engineering Data MY(S) (MY2ZN, MY F)

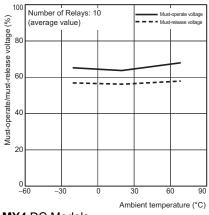
Ambient Temperature vs.

Must-operate and Must-release Voltage MY2 AC Models

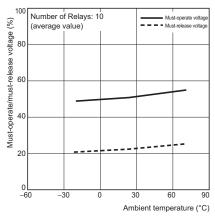




MY4 AC Models



MY4 DC Models



Ambient Temperature vs. Coil Temperature Rise

ated voltage is applied

*

60

Ambient temperature (°C)

rated voltage is applied

ī

(E-class insulation, 120° C)

5 A c . ntact ci

Operating temperature limit value

80

Operating temperature limit val

(E-class insulation, 120° C)

5 A contact current × 2 circuits

~

Whe

circuit

MY2 AC Models, 50 Hz

120

110

100

90

80

70

60 5 A cc ontact cu

50

40

30

20 10

120

110

100

90

80

70

60

50

40

30

20

10

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rise

nperature

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No co tact curr

20

MY4 AC Models, 50 Hz

contact (

No contact cu

30 40

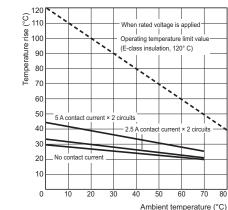
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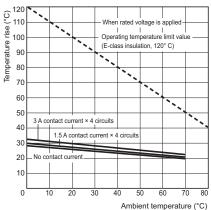
rise

Temperature





MY4 DC Models



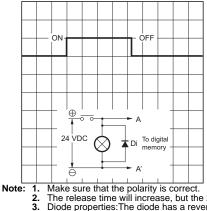
Models with built-in diodes The diode absorbs surge from the coil. This type is best suited for applications with semiconductor circuits. With Diode Without Diode With Diode

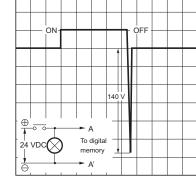
80

60

Ambient temperature (°C)

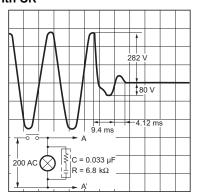
remit



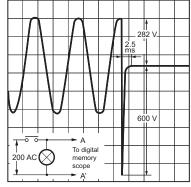


The release time will increase, but the 20-ms specification for standard models is satisfied. Diode properties:The diode has a reversed dielectric strength of 1,000 V. Forward current: 1 A

Models with Built-in CR Circuits With CR



Without CR



Detailed Information on Models Certified for Safety Standards, MY2(S)/MY4(S)/MY4Z(S)

VDE-certified Models (No. 112467UG, EN61810-1)

Model	Coil ratings	Contact form	Contact ratings	File No.	Certified number of operations
MY□	6, 12, 24, 48/50, 100/ 110, 110/120, 200/ 220, and 220/240 VAC	110, 110/120, 200/ DPD1 10 A, 30 VDC (L/R = 0 ms) MY2: 10,000 op		30 VDC (L/R = 0 ms)	
	6, 12, 24, 48, 100/ 110, and 125 VDC		5 A, 250 VAC (cos φ = 1) 5 A, 30 VDC (L/R = 0 ms)	0092 (VDL0433)	MY4: 100,000 operations MY4Z: 50,000 operations (AC)

UL508-certified Models (File No. 41515)

Model	Coil ratings	Contact form	Contact ratings	File No.	Certified number of operations
			10A, 250 VAC (General Use)		
			10A, 30 VDC (General Use)		
			7A, 240 VAC (General Use)		
			7A, 24 VDC (Resistive)		6,000
			5A, 240 VAC (General Use)		8,000
		DPDT	5A, 250 VAC (Resistive)		
		DFD1	5A, 30 VDC (Resistive)		
			3A, 265 VAC (Resistive)		
			1/6HP, 250 VAC		1,000
MY	6 to 240 VAC		1/8HP, 265 VAC		
	6 to 125 VDC		1/10HP, 120 VAC	E41515 (UL508)	
			B300 Pilot Duty (Same polarity)		6,000
			5A, 28 VDC (General Use) (Same polarity)		6,000
			5A, 240 VAC (General Use) (Same polarity)		
			5A, 30 VDC (Resistive) (Same polarity)		
		4007	5A, 250 VAC (Resistive) (Same polarity)		
		4PDT	0.2A, 120 VDC (Resistive) (Same polarity)		
			1/6HP, 250 VAC (Same polarity)		1,000
			1/10HP, 120 VAC (Same polarity)		1,000
			B300 Pilot Duty (Same polarity)	-	6,000

CSA 22.2 No. 14-certified Models (File No. LR31928)

Model	Coil ratings	Contact form	Contact ratings	File No.	Certified number of operations	
			7A, 240 VAC (General Use)			
			7A, 24 VDC (Resistive)			
			5A, 240 VAC (General Use)		6,000	
			5A, 250 VAC (Resistive)		8,000	
		DPDT	5A, 30 VDC (Resistive)			
		DFDT	3A, 265 VAC (Resistive)			
			1/6HP, 250 VAC			
			1/8HP, 265 VAC		1,000	
MY	6 to 240 VAC		1/10HP, 120 VAC	LR31928 (CSA C22.2) (No. 14)		
	6 to 125 VDC		B300 Pilot Duty (Same polarity)		6,000	
			5A, 240 VAC (General Use) (Same polarity)		6,000	
			5A, 28 VDC (General Use) (Same polarity)			
			5A, 250 VAC (Resistive) (Same polarity)			
		4007	5A, 30 VDC (Resistive) (Same polarity)			
		4PDT	0.2A, 120 VDC (Resistive) (Same polarity)			
			1/6HP, 250 VAC (Same polarity)		1 000	
			1/10HP, 120 VAC (Same polarity)		1,000	
			B300 Pilot Duty (Same polarity)		6,000	

LR-certified Models (File No. 98/10014)

Model	Coil ratings	Contact form	Contact ratings	File No.	Certified number of operations
MY	6 to 240 VAC	DPDT	10 A, 250 VAC (resistive) 2 A, 250 VAC (PF0.4) 10 A, 30 VDC (resistive) 2 A, 30 VDC (L/R = 7 ms)	98/10014	MY2: 50,000 operations
	6 to 125 VDC	4PDT	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)	96/10014	MY4: 50,000 operations

Miniature Power Relays: MY2ZN



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

-55 to 60° C*2

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

Standard

models

-55 to 70° C

5% to 85%

Туре

Item Ambient

operating

humidity

temperature*1 Ambient operating

Model with built-in operation indicator, diode, or CR circuit

Specifications

Contact Ratings

Load Item	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	
Rated carry current	5 A		
Maximum contact voltage	250 VAC, 125 VDC		
Maximum contact current	5 A		
Contact form	DPDT (Bifurcated)		
Contact materials	Au plating + Ag		

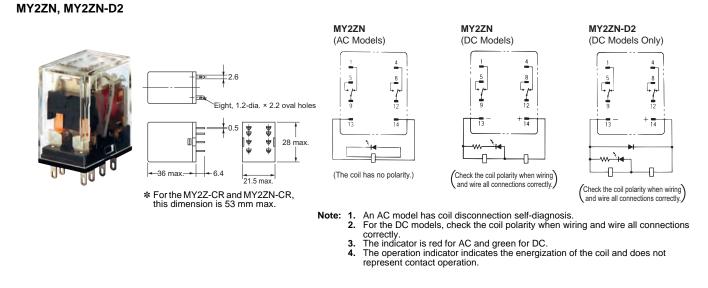
Item		MY2ZN series	
Contact resistance*1		50 mΩ max.	
Operation time*2		20 ms max.	
Release time*2		20 ms max.	
Maximum Mechanical		18,000 operations/h	
operating frequency	Rated load	1,800 operations/h	
Insulation resistance*3		100 MΩ min.	
	Between coil and contacts		
Dielectric strength	Between contacts of different polarity	2,000 VAC at 50/60 Hz for 1 min.	
Suengui	Between contacts of the same polarity	1,000 VAC at 50/60 Hz for 1 min.	
Vibration Destruction		10 to 55 to 10 Hz, 0.5-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 ²	
resistance	Malfunction	200 m/s ²	
Endurance	Mechanical	50,000,000 operations min. (operating frequency: 18,000 operations/h)	
Endurance	Electrical ^{#4}	200,000 operations min. (rated load, switching frequency: 1,800 operations/h)	

Item	MY2ZN	
Failure rate P value (reference value)*5	100 µA at 1 VDC	*1 *2
Weight	Approx. 35 g	*3 *4

Note: These are initial values.

Note: These are initial values.
*1. Measurement conditions: 1 A at 5 VDC using the voltage drop method.
*2. Measurement conditions: With rated operating power applied. Ambient temperature condition: 23° C
*3. Measurement conditions: For 500 VDC applied to the same location as for dielectric strength measurement.
*4. Ambient temperature condition: 23°C
*5. This value was measured at a switching frequency of 120 operations per minute.

MY(S) Dimensions



Flange-mounting Relays: MY



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

Specifications

Contact Ratings

Contact form	DPDT		4PDT, 4PDT (Bifurcated)	
Load Item	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	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	5 A		3 A	
Maximum contact voltage	250 VAC, 125 VDC		·	
Maximum contact current	5 A		3 A	
Contact form	DPDT		4PDT, 4PDT (Bifurcated)	
Contact materials	Ag		Au plating + Ag	

Type Item	MY□F
Ambient operating temperature*	–55 to 70° C
Ambient operating humidity	5% to 85%

* With no icing or condensation.

Characteristics

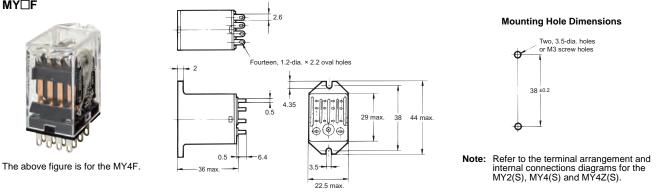
Item	Contact form	DPDT	4PDT, 4PDT (Bifurcated)	
Contact resistance*1		50 mΩ max.		
Operation time ^{*2}		20 ms max.		
Release time	k 2	20 ms max.		
Maximum Mechanical operating frequency Rated load		18,000 operations/h		
		1,800 operations/h		
Insulation res	sistance*3	100 MΩ min.		
	Between coil and contacts			
Dielectric strength	Between contacts of different polarity	2,000 VAC at 50/60 Hz for 1 min.		
g	Between contacts of the same polarity	1,000 VAC at 50/60 Hz for 1 min.		
Vibration	Destruction	10 to 55 to 10 Hz, 0.5-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 ²		
resistance	Malfunction	200 m/s ²		
Endurance	Mechanical	AC: 50,000,000 operations min. DC: 100,000,000 operations min. (switching frequency: 18,000 operations/h)		
Lindurance	Electrical*4	500,000 operations min. (rated load, switching frequency: 1,800 operations/h)200,000 operations min. (rated load, switching frequency: 1,800 operations/h)		

Item Contact form	DPDT	4PDT, 4PDT (Bifurcated)
Failure rate P value (reference value)	1 mA at 5 VDC	1 mA at 1 VDC
Weight	Approx. 35 g	

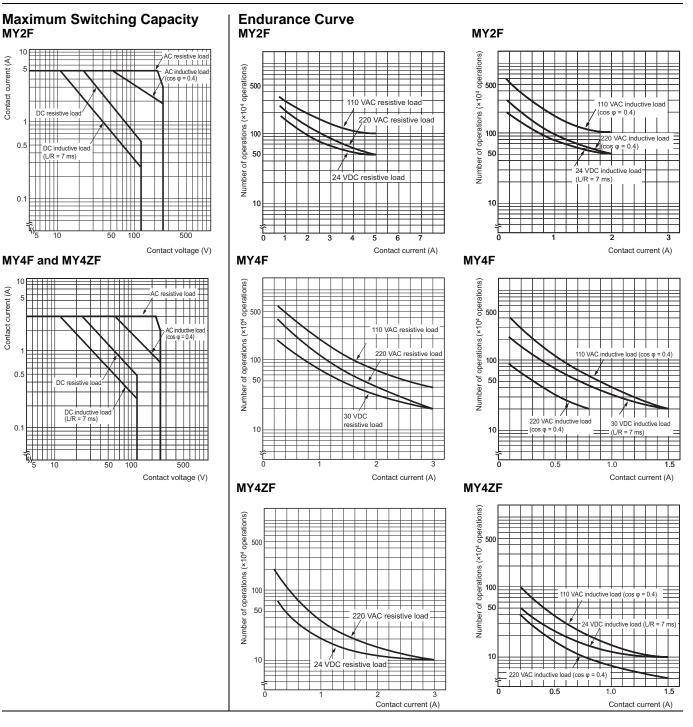
Note: These are initial values.
*1. Measurement conditions: 1 A at 5 VDC using the voltage drop method
*2. Measurement conditions: With rated operating power applied. Ambient temperature condition: 23° C
*3. Measurement conditions: For 500 VDC applied to the same location as for dielectric strength measurement.
*4. Ambient temperature condition: 23° C
*5. This value was measured at a switching frequency of 120 operations per minute.

MY(S) Dimensions

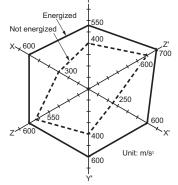
Flange mounting MY⊡F



Engineering Data MYDF



Common Specifications for MY



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 2 , Energized: 200 m/s 2

Shock direction



Detailed Information on Models Certified for Safety Standards, MY2ZN and MYDF

- The standard models are certified for UL and CSA standards.
 The rated values for safety standard certification are not the same as individually defined performance values. Always check the specifications before use.

TÜV-certified Models (File No. R50030059)

Model	Coil ratings	Contact form	Contact ratings	Certified number of operations
	6 to 125	DPDT	5 A, 250 VAC (cos ϕ = 1.0)	
MY□	VDC 6 to 240 VDC	4PDT	3 A, 120 VAC ($\cos \varphi = 1.0$) 0.8 A, 120 VAC ($\cos \varphi = 0.4$)	10,000 operations

UL-certified Models (File No. E41515)

Model	Coil ratings	Contact form	Contact ratings	Certified number of operations	
			7A, 240 VAC (General Use)		
			7A, 24 VDC (Resistive)		
			5A, 240 VAC (General Use)	6,000	
			5A, 250 VAC (Resistive)	0,000	
		DPDT	5A, 30 VDC (Resistive)		
		DIDI	3A, 265 VAC (Resistive)		
			1/6HP, 250 VAC		
			1/8HP, 265 VAC	1,000	
	6 to 240 VAC 6 to 125 VDC		1/10HP, 120 VAC		
			B300 Pilot Duty	6,000	
MY□		4PDT	5A, 28 VDC (General Use) (Same polarity)	6,000	
			5A, 240 VAC (General Use) (Same polarity)		
			5A, 30 VDC (Resistive) (Same polarity)		
			5A, 250 VAC (Resistive) (Same polarity)		
			0.2A, 120 VDC (Resistive) (Same polarity)		
			1/6HP, 250 VAC (Same polarity)	1,000	
			1/10HP, 120 VAC (Same polarity)	1,000	
			B300 Pilot Duty (Same polarity)	6,000	

CSA-certified Models (File No. LR31928)

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When ordering models that are certified for Lloyd's Register (LR) Standards, be sure to specify "LR-certified Model" with your order.

LR-certified Models (File No. 90/10270)

Model	Coil ratings	Contact form	Contact ratings
MY□	6 to 240 VAC 6 to 125 VDC	DPDT	2 A, 30 VDC inductive load 2 A, 200 VAC inductive load
		4PDT	1.5 A, 30 VDC inductive load 0.8 A, 200 VAC inductive load 1.5 A, 115 VAC inductive load

Miniature Power Relays: MY4Z-CBG

Specifications

Contact Ratings

Load Item	Resistive load	Inductive load (cos φ = 0.4, L/R = 7 ms)	
Rated load	1 A at 220 VAC 1 A at 24 VDC	0.3 A at 220 VAC 0.5 A at 24 VDC	
Rated carry current	- 1 A		
Maximum contact voltage	250 VAC, 125 VDC		
Maximum contact current	1 A		
Contact form	4PDT (Crossbar bifurcated)		
Contact materials	Au cladding + AgPd		

Characteristics

Contact resis	tance*1	100 mΩ max.				
Operation tim	1e*2	20 ms max.				
Release time	\$2	20 ms max.				
Maximum	Mechanical	18,000 operations/h				
operating frequency	Electrical	1,800 operations/h				
Insulation resistance*3		100 MΩ				
Distantais	Between coil and contacts	2.000 VAC at 50/60 Hz for 1 min.				
Dielectric strength	Between contacts of different polarity	,				
	Between contacts of the same polarity	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	Destruction	1,000 m/s ²				
resistance	Malfunction	200 m/s ²				
Endurance	Mechanical	5,000,000 operations min. (operating frequency: 18,000 operations/hr)				
Endurance	Electrical*4	50,000 operations min. (switching frequency: 1,800 operations/h) at rated load				
Failure rate P value (reference value)*		100 μA at 1 VDC				
Ambient operating temperature		-25 to 70°C (with no icing or condensation)				
Ambient oper	rating humidity	5% to 85%				
Weight		Approx. 35 g				
Note: The abo	ove values are initi	ial values.				

Note: The above values are initial values.
*1. Measurement conditions: 1 A at 5 VDC using the voltage drop method
*2. Measurement conditions: With rated operating power applied, not including contact bounce. Ambient temperature condition: 23° C

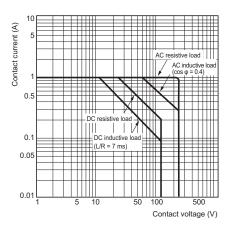
Ambient temperature condition: 23° C
*3. Measurement conditions: For 500 VDC applied to the same location as for dielectric strength measurement.
*4. Ambient temperature condition: 23° C
*5. This value was measured at a switching frequency of 120 operations per minutes.

minute.

Engineering Data

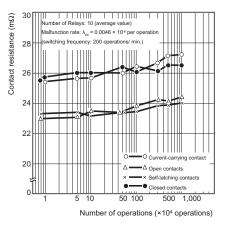
Maximum Switching Capacity

MY4Z-CBG



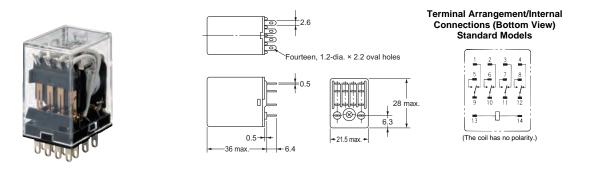
Contact Reliability Test (Modified Allen Bradley Circuit)

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



MY(S) Dimensions

MY4Z-CBG



Safety Precautions

Refer to the Common Relay Precautions. Applicable Sockets Use only combinations of OMRON Relays and Sockets.

Plastic Sealed Relays: MYQ4

Specifications

Contact Ratings

Type Item	Resistive load	Inductive load (cos φ = 0.4, L/R = 7 ms)				
Rated load	1 A at 220 VAC, 1 A at 24 VDC	0.5 A at 220 VAC, 0.5 A at 24 VDC				
Rated carry current	1 A					
Maximum contact voltage	250 VAC, 125 VDC					
Maximum contact current	1 A					
Maximum switching capacity (reference value)	220 VAC, 24 W	110 VAC, 12 W				
Failure rate P value (reference value)	Single contacts: 1 mA at 1 VDC, Bif	furcated contacts: 100 μA at 1 VDC				
Contact form	4PDT, 4PDT (Bifurcated)					
Contact materials	Au plating + Ag					
* This value was measured at a	switching frequency of 120 operation	ns per minute.				

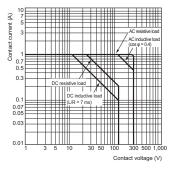
Ambient operating temperature	-55 to 60° C*
Ambient operating humidity	5% to 85%
With no icing or condensation.	

Characteristics

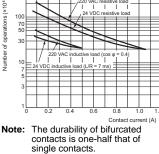
Contact res	istance ^{*1}	50 mΩ max.]
Operation ti	ime ^{‡2}	20 ms max.	
Release tim	e*2	20 ms max.	
Maximum	Mechanical	18,000 operations/h	
operating frequency	Rated load	1,800 operations/h	
	Between coil and contacts	1,500 VAC at 50/60 Hz for 1 min.	
Dielectric strength	Between contacts of different polarity	1,500 VAC at 50/60 Hz for 1 min.	
j	Between contacts of the same polarity	1,000 VAC at 50/60 Hz for 1 min.	Note: The values at the left are initial values.
Insulation rea	sistance ^{*3}	100 MΩ min.	*1. Measurement conditions: 1 A at 5
Vibration	Destruction	10 to 55 to 10 Hz, 0.5-mm single amplitude (1.0-mm double amplitude)	VDC using the voltage drop method
resistance	Malfunction	10 to 55 to 10 Hz, 0.5-mm single amplitude (1.0-mm double amplitude)	*2. Measurement conditions: With rated operating power applied, not
Shock	Destruction	1,000 m/s ²	including contact bounce. Ambient temperature condition:
resistance	Malfunction	200 m/s ²	23° C *3. Measurement conditions: For 500
Endurance	Mechanical	AC: 50,000,000 operations (5,000,000*4) min., DC: 100,000,000 operations (5,000,000*4) min. (switching frequency: 18,000 operations/h)	*3. Measurement conditions: For 500 VDC applied to the same location as for dielectric strength measurement.
Enquidince	Electrical*5	200,000 operations min. (100,000 operations ^{*4}) (rated load, switching frequency: 1,800 operations/h)	 *4. This value is for bifurcated contacts. *5. Ambient temperature condition:
Weight		Approx. 35 g	23° C

Engineering Data

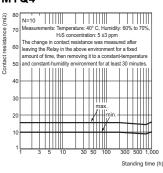
Maximum Switching Capacity MYQ4(Z)



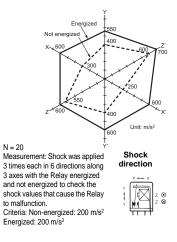
Endurance Curve MYQ4



H₂S Gas Data MYQ4



Malfunctioning Shock

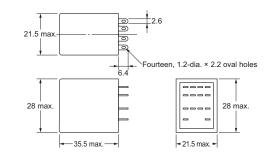


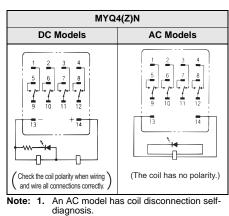
MY(S) Dimensions

(Unit: mm)

Relays with Plug-in Terminals or Soldered Terminals MYQ4(Z)(N)







All AC model has conditioned accounter and diagnosis.
 For the DC models, check the coil polarity when wiring and wire all connections correctly.

Safety Precautions

- For models with built-in operation indicators, check the coil polarity when wiring and wire all connections correctly (DC operation).
- wiring and wire all connections correctly (DC operation).
 Use only combinations of OMRON Relays and Sockets.

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.

Latching Relays: MY2K

Specifications

Coil Rating

Item		Set coil		Reset coil			_		Power consumption (VA, W)												
		Rated current (mA)		Coil	Rated current (mA)		Coil	Set voltage (V)	Reset voltage (V)	Maximum voltage (V)	Oct coll	Denot coll									
Rated v	oltage (V)	50 Hz	60 Hz	resistance (Ω)	50 Hz	60 Hz	resistance (Ω)	(,,	ronago (r)	voluge (1)	Set coil	Reset coil									
	12	57	56	72	39	38.2	130		80% max.	110% max of	Approx. 0.6 to 0.9 (at 60 Hz)	Approx. 0.2 to 0.5 (at 60 Hz)									
AC	24	27.4	26.4	320	18.6	18.1	550														
	100	7.1	6.9	5,400	3.5	3.4	3,000	80% max.													
	12	11	10	110	5	0	235	80% max. 80% f													
DC	24	5	2	470	2	5	940				l										Approx. 1.3
	48	2	7	1,800	1	6	3,000														

Note: 1. The rated current for AC is the value measured with a DC ammeter in half-wave rectification.
 2. The rated current and coil resistance are measured at a coil temperature of 23°C with tolerances of +15%/-20% for the AC rated current and ±15% for the DC coil resistance.
 3. The AC coil resistance is a reference value only.
 4. Operating characteristics were measured at a coil temperature of 23°C.
 5. The maximum voltage capacity was measured at an ambient temperature of 23°C.

Contact Ratings

Load Item	Resistive load	Inductive load (cos φ = 0.4, L/R = 7 ms)
Rated load	3 A at 220 VAC 3 A at 24 VDC	0.8 A at 220 VAC 1.5 A at 24 VDC
Rated carry current	3 A	
Maximum contact voltage	250 VAC, 125 VDC	
Maximum contact current	3 A	
Contact form	DPDT	
Contact materials	Au plating + Ag	
Ambient operating temperature	–55 to 60° C*	
Ambient operating humidity	5% to 85%	

* With no icing or condensation.

Characteristics

Contact resis	stance*1	AC: 30 ms max., DC: 15 ms max. th AC: 60 ms, DC: 30 ms 18,000 operations/h 1,800 operations/h 100 MΩ 1,500 VAC at 50/60 Hz for 1 min. of 1,000 VAC at 50/60 Hz for 1 min. 10 to 55 to 10 Hz, 0.5-mm single amplitude (1.0-mm double amplitude) 10 to 55 to 10 Hz, 0.5-mm single amplitude (1.0-mm double amplitude) 1,000 m/s ² 200 m/s ² 100,000,000 operations min. (switching frequency: 18,000 operations/h)				
Set	Minimum pulse width esset Time*2 Minimum pulse width Mechanical perating Rated load sulation resistance*3 Between coil and contacts Between coil and contacts Between coil and contacts rength Between contacts of different polarity Between coils Destruction bration Destruction sistance Destruction	AC: 30 ms max., DC: 15 ms max.				
Jei	Minimum pulse width	AC: 60 ms, DC: 30 ms				
Reset	Time ^{*2}	AC: 30 ms max., DC: 15 ms max.				
Nesel	Minimum pulse width	AC: 60 ms, DC: 30 ms				
Maximum	Time*2 Minimum pulse width Mechanical Rated load sistance*3 Between coil and contacts Between coiland contacts Between contacts of different polarity Between contacts of the same polarity Between set/ reset coils Destruction Malfunction Malfunction Mechanical Electrical*4	18,000 operations/h				
operating frequency	Rated load	1,800 operations/h				
Insulation re	sistance*3	th AC: 60 ms, DC: 30 ms AC: 30 ms max., DC: 15 ms max. th AC: 60 ms, DC: 30 ms 18,000 operations/h 1,800 operations/h 100 MΩ f 1,500 VAC at 50/60 Hz for 1 min. of 1,000 VAC at 50/60 Hz for 1 min. 10 to 55 to 10 Hz, 0.5-mm single amplitude (1.0-mm double amplitude) 10 to 55 to 10 Hz, 0.5-mm single amplitude (1.0-mm double amplitude) 10 to 55 to 10 Hz, 0.5-mm single amplitude (1.0-mm double amplitude) 10 to 55 to 10 Hz, 0.5-mm single amplitude (1.0-mm double amplitude) 10 to 55 to 10 Hz, 0.5-mm single amplitude (1.0-mm double amplitude) 10 to 55 to 10 Hz, 0.5-mm single amplitude (1.0-mm double amplitude) 10 to 55 to 10 Hz, 0.5-mm single amplitude (1.0-mm double amplitude) 10 to 55 to 10 Hz, 0.5-mm single amplitude (1.0-mm double amplitude) 10 to 55 to 10 Hz, 0.5-mm single amplitude (1.0-mm double amplitude) 100,000,000 operations min. (switching frequency: 18,000 operations/h)				
Dielectric strength		1 500 VAC at 50/60 Hz for 1 min				
		1,000 V/AC at 50/60 Hz for 1 min				
Vibration	Destruction					
resistance	Malfunction					
Shock	Destruction	1,000 m/s ²				
resistance	Malfunction	200 m/s ²				
Endurance	Mechanical					
Enquiance	Electrical*4	200,000 operations min. (at 1,800 operations/hr, rated load)				
Failure rate P va	lue (reference value)*5	1 mA at 1 VDC				
Weight		Approx. 30 g				

Note: The above values are initial values.
*1. Measurement conditions: 1 A at 5 VDC using the voltage drop method
*2. Measurement conditions: With rated operating power applied, not including

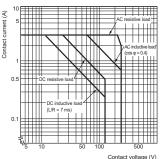
contact bounce. ***3.** Measurement conditions: For 500 VDC applied to the same location as for 43. Measurement conductors. For solve applied to the same location as to dielectric strength measurement.
 44. Ambient temperature condition: 23° C
 *5. This value was measured at a switching frequency of 120 operations per

minute.

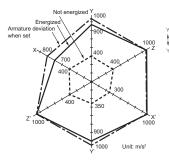
MY(S) Engineering Data

MY2K

Maximum Switching Capacity



MY2K 100 VAC Malfunctioning Shock



Endurance Curve

8

Energized: 200 m/s²

Measurement: Shock was applied 2

axes with the Relay energized and not

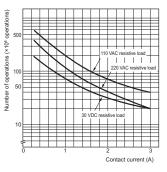
energized to check the shock values

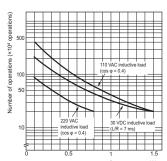
that cause the Relay to malfunction.

Criteria: Non-energized: 200 m/s²

times each in 6 directions along 3

N = 20

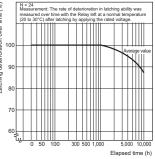




MY2K 24 VDC Magnetic Interference (External Magnetic Field)

For AC

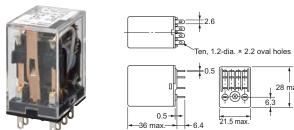
Latching Deterioration Over Time



(Unit: mm)

Dimensions

Relays with Plug-in Terminals or Soldered Terminals MY2K



Terminal Arrangement/Internal Connections (Bottom View)



Note: R is a resistor for ampere-turn correction. This resistor is built-in to 50-VAC and higher models. (The coil has no polarity.)

Safety Precautions

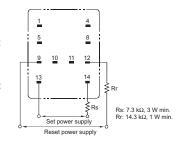
- For applications that use a 200 VAC power supply, connect external resistors Rs and Rr to a 100 VAC Relay.
- Do not apply a voltage to the set and reset coils at the same time. If you apply the rated voltage to both coils simultaneously, the Relay will be set.
- The minimum pulse width in the performance column is the value for the following measurement conditions: an ambient temperature of 23° C with the rated operating voltage applied to the coil. The performance values given here may not be satisfied due to use over time and a reduction in latching performance due to changes in the ambient temperature or in the conditions of the application circuit.
- For actual use, apply the rated operating voltage with a pulse width based on the actual load and reset the Relay at least once per year to prevent degradation over time.
- If the Relay is used in an environment with strong magnetic fields, the surrounding magnetic field can demagnetize the
 magnetic body and cause unintended operation. Therefore, do not use these Relays in environments with strong
 magnetic fields.

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.





Hermetically Sealed Relays: MY4(Z)H

Specifications

Contact Ratings

Load	MY	MY4H M							
Item	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							
Rated carry current	3 A								
Maximum contact voltage	125 VAC 125 VDC								
Maximum contact current	3 A								
Contact form	4DPDT		4DPDT (Bifu	urcated)					
Contact materials	Au plating + /	٩g							
Ambient operating temperature	-25 to 60° C*								
Ambient operating humidity	5% to 85%								

* With no icing or condensation.

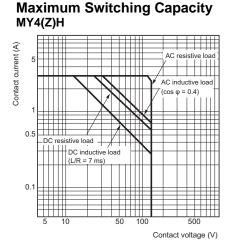
Characteristics

Contact re	sistance*1	50 m Ω max.				
Operation	time*2	20 ms max.				
Release time*2		20 ms max.				
		18,000 operations/h				
operating frequency	Rated load	1,800 operations/h				
Insulation resistance*4		100 MΩ min.				
Dielectric	Between coil and contacts	1,000 VAC at 50/60 Hz for 1 min.				
strength	Between contacts of different polarity	(700 VAC between contacts of the same polarity				
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 ²				
resistance	Malfunction	200 m/s ²				
Endurance	Mechanical	50,000,000 operations (5,000,000 operations*4) min. (operating frequency: 18,000 operations/h)				
Endurance	Electrical*5	100,000 operations (50,000 operations*4) min. rated load, switching frequency: 1,800 operations/h)				
Failure rat (reference		Single contacts: 100 μA at 1 VDC Bifurcated contacts: 100 μA at 100 mVDC				
Weight		Approx. 50 g				

Note: The above values are initial values. *1. Measurement conditions: 1 A at 5 VDC using the voltage drop method *2. Measurement conditions: With rated operating power applied, not including

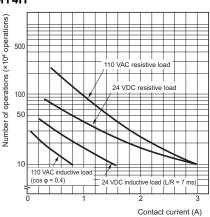
*2. Measurement conditions: With rated operating power applied, not including contact bounce. Ambient temperature condition: 23° C
*3. Measurement conditions: For 500 VDC applied to the same location as for dielectric strength measurement.
*4. This value is for bifurcated contacts.
*5. Ambient temperature condition: 23° C
*6. This value was measured at a switching frequency of 120 operations per minute.

Engineering Data



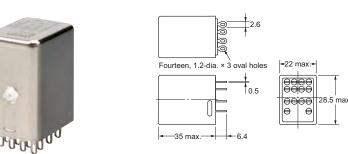
Endurance Curve

MY4H

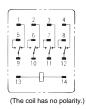


Note: The durability of bifurcated contacts is one-half that of single contacts.

Relays with Plug-in Terminals or Soldered Terminals $\ensuremath{\mathsf{MY4}}(\ensuremath{\mathsf{Z}})\ensuremath{\mathsf{H}}$



Terminal Arrangement/ Internal Connections (Bottom View)



Safety Precautions

Applicable Sockets

Use only combinations of OMRON Relays and Sockets. Application Environment for Hermetically Sealed

Relays

Humid environments can cause insulation problems, which may result in shortcircuiting 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 insulating beads and cause short-circuiting or unintended operation due to poor insulation.

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.

Sockets for MY

DIN-rail-mounted (DIN-rail) Socket Conforms to VDE 0106, Part 100

- Snap into position along continuous sections of any mounting DIN-rail.
- Facilitates sheet metal design by standardized mounting dimensions.
- Design with sufficient dielectric separation between terminals eliminates the need of any insulating sheet.



Dielectric withstand voltage Terminal No. of Insulation resistance Mounting Appearance Model Carry current type poles (see note 2) PYF-08-PU 10 A 2 Push-In Plus 2,000 VAC, 1 min $1,000 \text{ M}\Omega \text{ min}$ terminals 4 PYF-14-PU 6 A PYFZ-08-E/ 10 A 2,250 VAC, 1 min PYFZ-08 PYF08A-E/ 2 7 A $1,000 \text{ M}\Omega \text{ min}$ PYF08A 2,000 VAC, 1 min PYF08A-N (see note 3) 7 A (see note 4) DIN-rail-mounted Screw terminals Socket PYFZ-14-E/ 6 A 2,250 VAC, 1 min PYFZ-14 PYF14A-E/ 5 A 4 PYF14A 1,000 $M\Omega$ min 2,000 VAC, 1 min PYF14A-N (see note 3) 5 A (see note 4) PYF14-ESS-B 2 and 4 Rise-Up 12 A > 3 KV > 5 MΩ Common terminals PYF14-ESN-B

Specifications

Mounting	Terminal type	No. of poles	Appearance	Model	Carry current	Dielectric withstand voltage	Insulation resistance (see note 2)
	Solder terminals	2		PY08/ PY08-Y1	7 A		1000 MΩ min.
		4		PY14/ PY14-Y1	3 A	-	
Back-connecting	Wrapping	2		PY08QN/ PY08QN-Y1	7 A	1,500 VAC, 1 min	100 MΩ min.
	terminals	4		PY14QN/ PY14QN-Y1	3 A		
	Relays with PCB terminals	2		PY08-02	7 A		
		4		PY14-02	3 A		

Note: 1. The values given above are initial values.
 2. The values for insulation resistance were measured at 500 VDC at the same place as the dielectric strength.
 3. The maximum operating ambient temperature for the PYF08A-N and PYF14A-N is 55°C.
 4. When using the PYF08A-N or PYF14A-N at an operating ambient temperature exceeding 40°C, reduce the current to 60%.
 5. The MY2(S) can be used at 70°C with a carry current of 7 A.

Options (Order Separately)

Connection Socket and Mounting Bracket Selection Table

(The possible combinations of models with plug-in terminals and sockets)

Conr	ecting method	Fro	ont-mounting	g Sockets (PY	Back-mounting Sockets (PYD)							
Mo	unting method		Track or so	rew mounting								
	Terminal Type		Screw terminals	Rise-Up	Push-In Plus				Wrappin	g terminals		Relays
			(finger protection structure) *2	terminals Terminal Block *3		Solder t	Solder terminals		Terminal length: 25 mm		Terminal length: 20 mm	
No. of poles	Model	(Order separately: Hold-down Clips) *1		Without Release Lever	With Release Lever	Without Mounting Brackets *1	Nounting Mounting Mour		With Mounting Brackets	Without Mounting Brackets *1	With Mounting Brackets	(Order separately : Hold-down Clips) *1
	MY2(S), MY2ZN (except for MY2K□, MY2Z□-CR)	PYFZ-08 (PYC-A1) PYF08A (PYC-A1)	PYFZ-08-E (PYC-A1) PYF08A-E (PYC-A1) PYF08A-N (PYC-A1)		PYF-08-PU	РY08 (РҮС-Р)	PY08-Y1	PY08QN (PYC-P)	PY08QN-Y1	PY08QN2 (PYC-P)	PY08QN2-Y1	РY08-02 (РҮС-Р)
8	MY2I(S) * ⁵	PYFZ-08 (PYC-E1) PYF08A (PYC-E1)	PYFZ-08-E (PYC-E1) PYF08A-E (PYC-E1) PYF08A-N (PYC-E1)	PYF14-ESN-B (PYC-35-B)								
	MY2Z-⊡-CR *6	PYFZ-08 (Y92H-3) PYF08A (Y92H-3)	PYFZ-08-E (Y92H-3) PFY08A-E (Y92H-3) PFY08A-N (Y92H-3)	PYF14-ESS-B (PYC-35-B)		PY08 (PYC-1)	PY08-Y3	PY08QN (PYC-1)		PY08QN2 (PYC-1)		PY08-02 (PYC-1)
14	MY4(S), MY4I(S), MY4-CBG, MY4Q, MY4(Z)H, MY2K	PYFZ-14 (PYC-A1) PYF14A (PYC-A1)	PYFZ-14-E (PYC-A1) PYF14A-E (PYC-A1) PYF14A-N (PYC-A1)		PYF-14-PU	PY14 (PYC-P)	PY14-Y1	PY14QN (PYC-P)	PY14QN-Y1	PY14QN2 (PYC-P)	PY14QN2-Y1	PY14-02 (PYC-P)

Note: Refer to Common Socket and DIN Track Products for the external dimensions of the Socket Relays and details on Hold-down Clips. *1. The information in parentheses is the model number of the applicable Mounting Bracket. Mounting Brackets are sold in sets of two. However,

the PYC-P is just one Mounting Bracket.

*2. The PYF□A-É has a terminal cover with finger protection. The Socket and Terminal Cover are integrated into one unit. Round terminals cannot be used. Use forked terminals or ferrules instead.

***3.** A Push-In Plus Terminal Block Socket functions as a release lever to hold or remove a Relay. Refer to PYF-D-PU/P2RF-D-PU for details. ***4.** If an MYID(S) Relay with a Latching Lever is used in combination with a PYD-02 Socket for Relays with PCB Terminal Socket and PYC-P

Mounting Brackets, the lever will not operate. ***5.** We recommends using the PYC-E1 Mounting Bracket for a MY2I(S) Relay with Latching Lever. (If the PYC-A1 is used with the MY2I(S), the

latching lever will be blocked by the Mounting Bracket and the lever will not operate.) *6. The Mounting Brackets are applicable for Relays with a height of 36 mm or less. If the Relay height is greater than 53 mm, use Y92H-3 for the

Front-mounting Socket and PYC-1 for the Back-mounting Socket. (The Y92H-3 is a set of two Brackets and the PYC-1 is just one Bracket.)

Terminal Covers for PYFZ-08/PYFZ-14 Sockets

Applicable model	Model				
PYFZ-08	PYCZ-C08 (2 pcs/set)				
PYFZ-14	PYCZ-C14 (1 pcs/set)				
Note: These covers cannot be used for PYF08A and PY					

Note: These covers cannot be used for PYF08A and PYF14A. Use these covers in a combination with PYFZ-08 and PYFZ-14.

Mounting Plates for Sockets

Socket model	For 1 Socket	For 18 Sockets	For 36 Sockets
PY08, PY08QN(2), PY14, PY14QN(2)	PYP-1	PYP-18	PYP-36

Note: PYP-18 and PYP-36 can be cut into any desired length in accordance with the number of Sockets.

DIN-rail and Accessories

Supporting DIN-rail (length = 500 mm)	PFP-50N
Supporting DIN-rail (length = 1,000 mm) PFP	PFP-100N, PFP-100N2
End Plate	PFP-M
Spacer	PFP-S

Safety Standards for Sockets Front-mounted Sockets (PYF⁽⁾)

Model	Standards	File No.
	TÜV (EN 61984)	
PYF-08-PU PYF-14-PU	UL508	E87929
	CSA C22.2 No.14	
PYF14A-E, PYF14A-N	VDE0627 (EN61984)	Nr.B387 (License No.)
	TÜV(EN 61984)	R50405329
PYFZ-08-E, PYFZ-08 PYFZ-14-E, PYFZ-14	UL508	E87929
,	CSA22.2	LR31928
	TÜV(EN 61984)	J50224549
PYF08A-E, PYF08A-N PYF14A-E, PYF14A-N	UL508	E87929
···· _ ,····	CSA22.2	LR31928
PYF14-ESN-B	UL508	E244189
PYF14-ESS-B	CSA22.2	LR225761
PYF08A	UL508	E87929
PYF14A	CSA22.2	LR31928

MY

PYF14-ESS-B

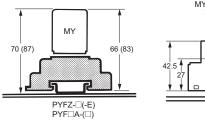
Back-connecting Sockets (PY□)

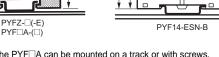
Model	Standards	File No.
PY08(-02)	UL508	E87929
PY14(-02)	CSA C22.2	LR31928

Mounting Heights with Sockets (Unit: mm)

Front-mounting Sockets Screw terminal

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



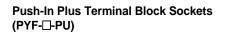


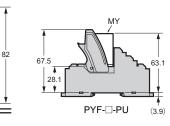
Note: 1. The PYF□A can be mounted on a track or with screws.
2. The heights given in parentheses are the measurements for 53-mm-high Relays.

Back-mounting Sockets Solder terminals/Wrapping terminals

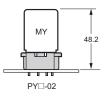
(PYD)







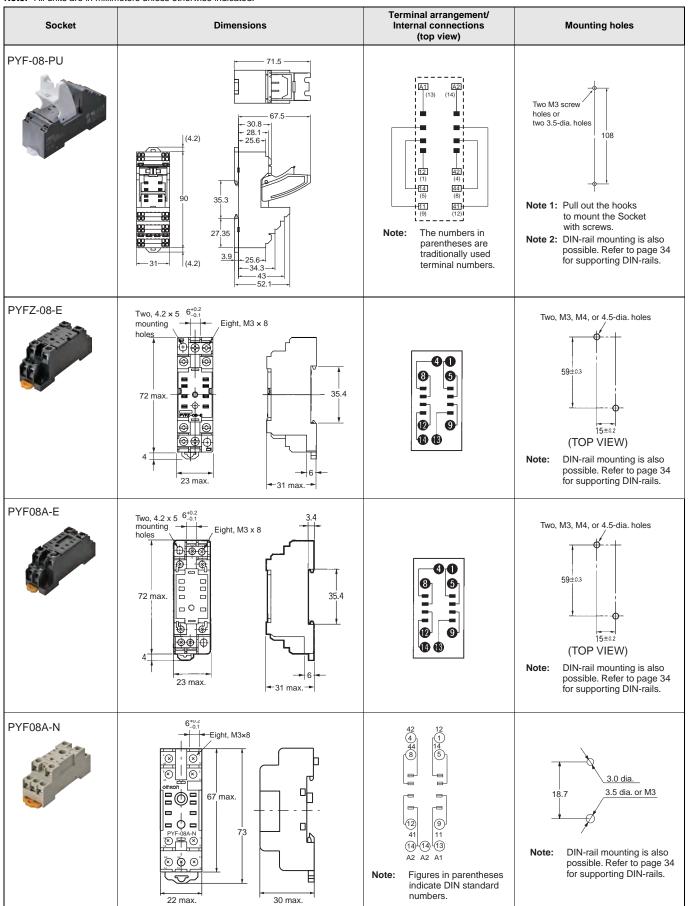
Relays with PCB Terminals (PYD-02)

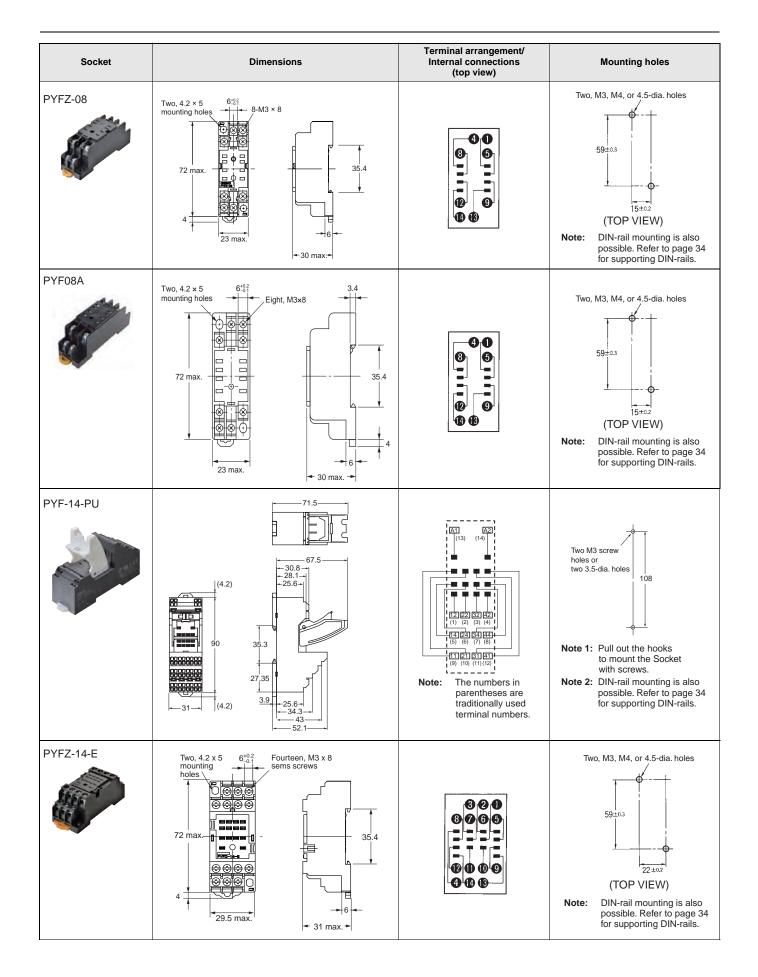


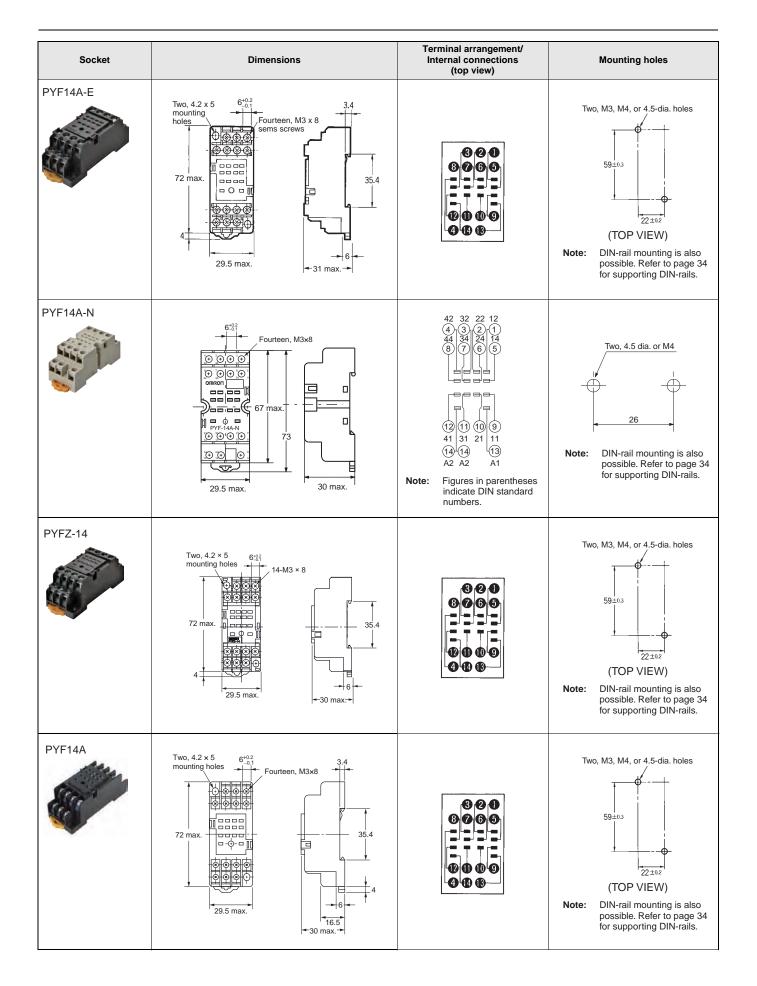
Dimensions

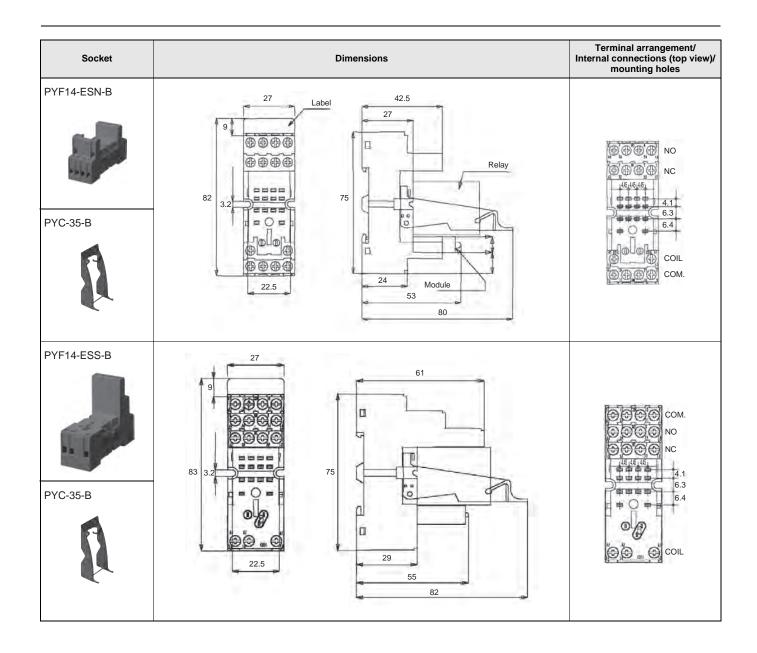
Note: All units are in millimeters unless otherwise indicated.

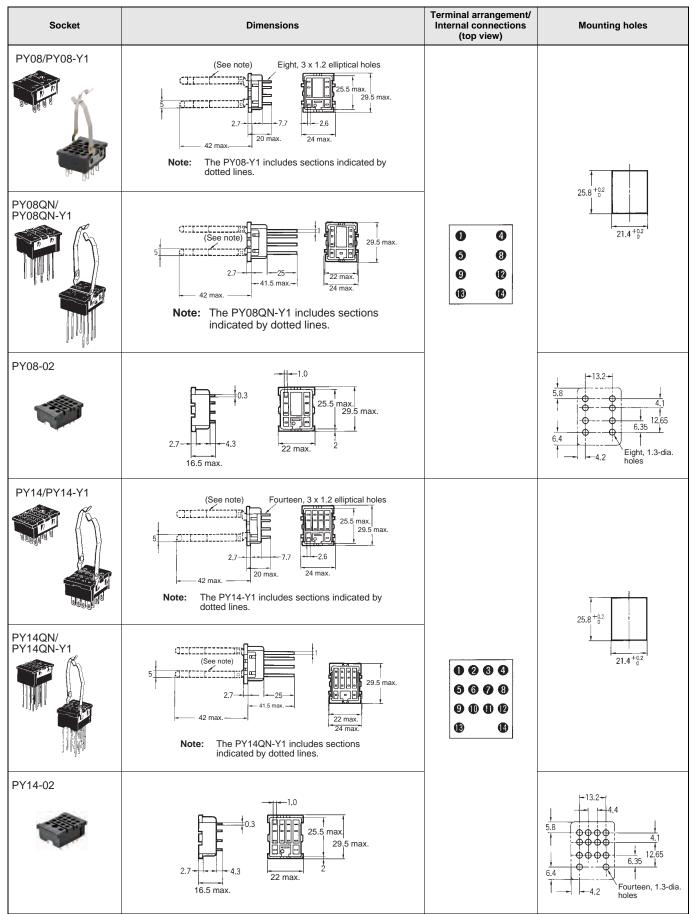
(Unit: mm)











Note: Use a panel with plate thickness of 1 to 2 mm for mounting the Sockets.

Short Bars for Relay Sockets and PYFZ/PYF Sockets Short Bars for crossover wiring within one Socket or between Sockets

Application	Pitch	Applicable model	Appearance and dimensions (mm)	L (Length)	No. of poles	Model *	Specifications	
	7.75			L 3.90	15.1	2	PYDN-7.75-020	
For Contact terminals				22.85	3	PYDN-7.75-030		
(common)	mm			30.6	4	PYDN-7.75-040		
		PYF-□-PU		2.25 154.6	154.6	20	PYDN-7.75-200	Max. carry current: 20 A
For Coil terminals	31.0 mm	- PYF-□-PU	3.90 12 18.5 2.25 224.35 1.57	224.35	8	PYDN-31.0-080	Minimum order: 10	

*Replace the box (
) in the model number with the specification code for the covering color. B: Black, S: Blue, R: Red Note: When using short bar to coil terminals of PYF-D-PU, make sure to use PYDN-31.0-080
(31mm).

Labels

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

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

Short Bars for within the Same Socket

Pitch	Applicable model	Appearance	Dimensions (mm)	No. of poles	Model *	Specifications
7	PYFZ-14	MA.		2	PYD-020B□	Max. carry current: 20 A (18 A at 70°C) Ambient operating temp.: -40 to 70°C (with no icing or condensation) Ambient operating humidity: 45% to 85% (with
mm	PYF14A	The		3	PYD-030B	no icing or condensation) Conductor material: Brass Conductor surface treatment: Nickel plating Qty per package: 50/bag

* Replace the box (
) in the model number with the specification code for the covering color. B: Black, Y: Yellow

Short Bars for Adjacent Sockets

Pitch	Applicable model	Appearance	Dimensions (mm)	No. of poles	Model *	Specifications
22	PYFZ-08		-22-+ 	2	PYD-025B□	Max. carry current: 20 A (18 A at 70°C) Ambient operating temp.: -40 to 70°C (with no icing or condensation) Ambient operating humidity: 45% to 85% (with
mm	PYF08A			8	PYD-085B□	no icing or condensation) Conductor material: Brass Conductor surface treatment: Nickel plating Qty per package: 10/bag
29	PYFZ-14			2	PYD-026B□	Max. carry current: 20 A (18 A at 70°C) Ambient operating temp.: -40 to 70°C (with no icing or condensation) Ambient operating humidity: 45% to 85% (with
mm	PYF14A	PYF14A		8	PYD-086B□	no icing or condensation) Conductor material: Brass Conductor surface treatment: Nickel plating Qty per package: 10/bag

* Replace the box (
) in the model number with the specification code for the covering color. B: Black, S: Blue, R: Red

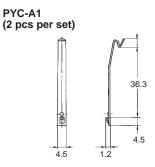
32

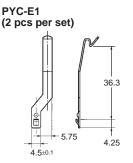
Safety Precautions

Maximum Carry Current

- Do not allow the total current for all shorted contact form to exceed the maximum carry current of the Short Bar.
- Do not exceed the maximum carry current of the relay contacts for individual contact form.
 If you use more than one Socket, use End Plates (PFP-M).

Hold-down Clips



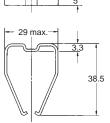


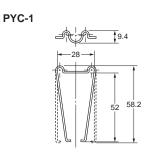
For sockets PYF14-ESN/-ESS

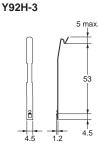
Model	Description		
PYC-0	Metal spring clip (Used with Relay only)		
PYC 35	Plastic holding clip (Used with Relay only)		
PYC TR1	Thermoplastic writable label		

Note: For total dimensions with plastic clip please refer to drawings of the sockets.





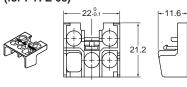




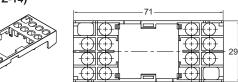
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Terminal Covers for PYFZ-08/PYFZ-14 Sockets

PYCZ-C08 (for PYFZ-08)



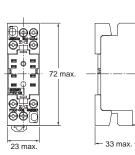
PYCZ-C14 (for PYFZ-14)



Dimensions with terminal cover

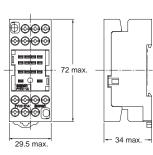
PYCZ-C08





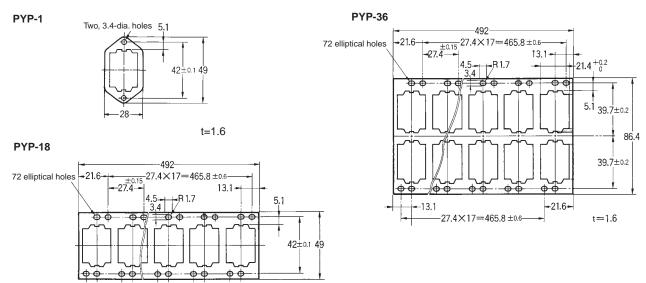
PYCZ-C14





(Unit: mm)

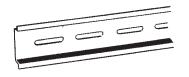
Mounting Plates for Back-connecting Sockets

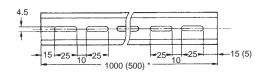


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DIN-rails and Accessories Supporting DIN-rails

PFP-50N/PFP-100N





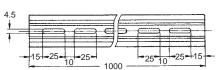
Note: The figure in the parentheses is for PFP-50N.

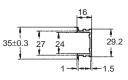
35±0.3 27±0.15

7.3±0.15

PFP-100N2

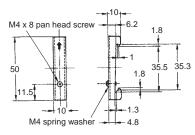






End Plate PFP-M

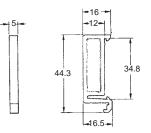






Spacer

PFP-S



Safety Precautions

Refer to the Common Relay Precautions.

Refer to *Products Related to Common Sockets and DIN Tracks* for precautions on the applicable Sockets. Refer to *PYF-DPU/P2RF-DPU* for precautions on Push-In Plus Terminal Block Sockets.

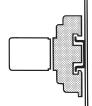
Precautions for Correct Use

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 attach Flange-mounted models (MY□F) and tighten the screws securely (tightening torque: 0.98 N•m).

Using MY-series Relays with 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 poor contact. In this case, we recommend using the MY4Z-CBG Series, which has high contact reliability for microloads (Refer to page 15.)

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.

Latching Levers

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

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.

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