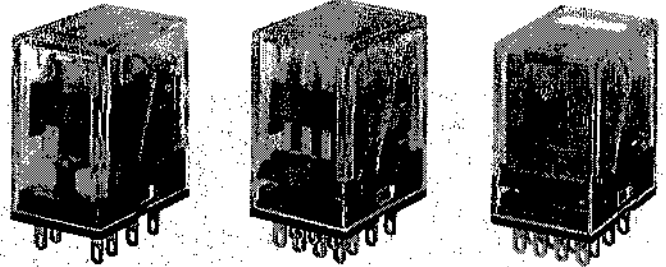


New Latching Levers for Circuit Checking Added to Our Best-selling MY General-purpose Relays

- Now lead-free to protect the environment.
- VDE certification (Germany).
- Different colors of coil tape for AC and DC models to more easily distinguish them.
- MY(S) models with latching levers added for easier circuit checking.



Refer to the Common Relay Precautions.

Model Number Structure

Classification	Structure Number of poles	Relays with Plug-in Terminals			PCB terminals	Case-surface mounting
		With operation indicator	Without operation indicator	With latching lever		
Standard models (compliant with Electrical Appliances and Material Safety Act)	2	MY2N*	MY2*	MY2IN(S)*	MY2-02	MY2F
	Bifurcated	MY2ZN	MY2Z			
		MY3N	MY3		MY3-02	MY3F
	4	MY4N*	MY4*	MY4IN(S)*	MY4-02	MY4F
Models with diode for coil surge absorption (DC coil specification only)	Bifurcated	MY4ZN*	MY4Z*	MY4ZIN(S)*	MY4Z-02	MY4ZF
		MY2N-D2*	MY2-D*	MY2IN-D2(S)*		
	3	MY2ZN-D2	MY2Z-D			
	4	MY3N-D2	MY3-D			
Models with CR circuit for coil surge absorption (AC coil specification only)	Bifurcated	MY4N-D2*	MY4-D*	MY4IN-D2(S)*		
		MY4ZN-D2*	MY4Z-D*	MY4ZIN-D2(S)*		
	2	MY2N-CR*	MY2-CR*			
	4	MY4N-CR*	MY4-CR*	MY4IN-CR(S)*		
Models with high contact reliability	Bifurcated	MY4ZN-CR*	MY4Z-CR*	MY4ZIN-CR(S)*		
			MY4Z-CBG			
Plastic sealed models	Bifurcated	MYQ4N	MYQ4		MYQ4-02	
			MYQ4Z		MYQ4Z-02	
Latching models (coil latching)	2		MY2K		MY2K-02	
Hermetic models	Bifurcated		MY4H		MY4H-0	
			MY4ZH		MY4ZH-0	

- Note:**
1. The models in this table are UL/CSA certified. This is indicated with a certification mark on the products. (This does not include models with high contact reliability or plastic sealed, latching, or hermetically sealed models.)
 2. Models with an asterisk (*) next to them are new versions.
 3. The standard models with plug-in terminals, models with coil surge absorption diodes, and models with coil surge absorption CR circuits were used in combination with the PYF-E and PYFS (2-pole and 4-pole) for the EC Declaration of Conformity. These products display the CE Marking.
 4. Products cannot be manufactured for the cells with a diagonal line. Ask your OMRON representative for details on manufacturing products for cells containing "—" in the above table.

Refer to *Connection Socket and Mounting Bracket Selection Table* on page 32 in *Options* for information on the possible combinations of Models with Plug-in Terminals and Sockets.

Miniature Power Relays: MY4



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

Ordering Information

Classification	Model	Rated voltage (V)	
		Standard products	Made-to-order items
Standard models	MY4	24, 100/110, or 200/220 VAC	12, 110/120, or 220/240 VAC
		12, 24, 48, or 100/110 VDC	
Models with built-in operation indicators	MY4N	24, 100/110, 110/120, 200/220, or 220/240 VAC	12 VAC
		12, 24, 48, or 100/110 VDC	
Models with built-in diodes	MY4-D	12, 24, 48, or 100/110 VDC	
Models with built-in diodes and operation indicators	MY4N-D2	12, 24, or 100/110 VDC	48 VDC
Models with built-in CR circuits	MY4-CR	100/110 or 200/220 VAC	110/120 or 220/240 VAC
Models with built-in CR circuits and operation indicators	MY4N-CR	100/110, 110/120, or 200/220 VAC	220/240 VAC

Note: 1. Ask your OMRON representative for details on the time required to deliver made-to-order products.
2. Ask your OMRON representative for details on product specifications and the ability to manufacture products with voltages other than the above coil specifications.
3. The above models and specifications are new versions in the MY Series.

Ratings and Specifications

Ratings

Operating Coil (Standard Models)

Item	Rated voltage (V)	Rated current (mA)		Coil resistance (Ω)	Coil inductance (H)		Must-operate voltage (V)	Must-release voltage (V)	Maximum voltage (V)	Power consumption (VA, W)
		50 Hz	60 Hz		Armature OFF	Armature ON				
AC	12	106.5	91	46	0.17	0.33	80% max.*1	30% min.*2	110% of rated voltage	Approx. 1.0 to 1.2 (at 60 Hz)
	24	53.8	46	180	0.69	1.3				
	100/110	11.7/12.9	10/11	3,750	14.54	24.6				
	110/120	9.9/10.8	8.4/9.2	4,430	19.2	32.1				Approx. 0.9 to 1.1 (at 60 Hz)
	200/220	6.2/6.8	5.3/5.8	12,950	54.75	94.07				
DC	220/240	4.8/5.3	4.2/4.6	18,790	83.5	136.4	80% max.*1	10% min.*2	110% of rated voltage	
	12	72.7		165	0.73	1.37				
	24	36.3		662	3.2	5.72				
	48	17.6		2,725	10.6	21.0				Approx. 0.9
	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 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.

Contact Ratings

Item	Load	Inductive load (cos φ = 0.4, L/R = 7 ms)	
		Resistive load	Inductive load
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 configuration		4PDT	
Contact structure		Single	
Contact materials		Au cladding + Ag alloy	

Item	Type	Standard models	Model with built-in operation indicator, diode, or CR circuit
Ambient operating temperature*1		-55 to 70° C	-55 to 60° C*2
Ambient operating humidity		5% to 85%	

*1. With no icing or condensation.

*2. This limitation is due to the diode junction temperature and elements used.

Characteristics

Item	Type	Standard models	Models with built-in operation indicators	Models with built-in CR circuits	Models with built-in diodes	Model with built-in operation indicator and diode	Model with built-in operation indicator and CR circuit
Contact resistance ^{*1}		50 mΩ max.					
Operation time ^{*2}		20 ms max.					
Release time ^{*2}		20 ms max.					
Maximum operating frequency	Mechanical	18,000 operations/h					
	Rated load	1,800 operations/h					
Insulation resistance ^{*3}		100 MΩ min.					
Dielectric strength	Between coil and contacts	2,000 VAC at 50/60 Hz for 1 min.					
	Between contacts of different polarity						
	Between contacts of the same polarity	1,000 VAC at 50/60 Hz for 1 min.					
Vibration resistance	Destruction	10 to 55 to 10 Hz, 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	Mechanical	AC: 50,000,000 operations min. DC: 100,000,000 operations min. (switching frequency: 18,000 operations/h)					
	Electrical ^{*4}	200,000 operations min. (rated load, switching frequency: 1,800 operations/h)					

Item	Number of poles	4 poles
Failure rate P value (reference value) ^{*5}	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.

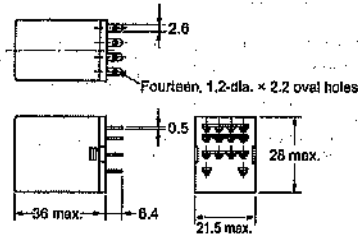
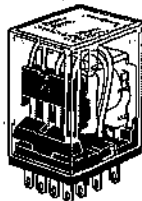
*4. Ambient temperature condition: 23° C

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

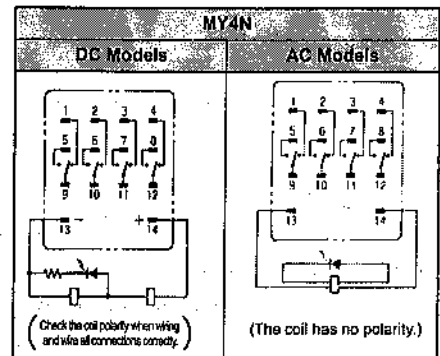
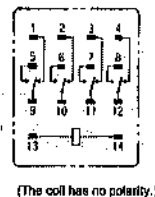
Dimensions

(Unit: mm)

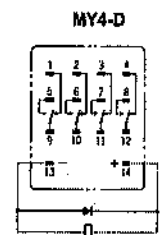
MY4, MY4N, MY4-D, MY4N-D2,
MY4-CR, and MY4N-CR



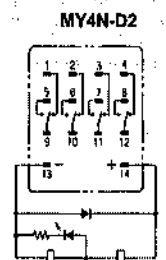
Terminal Arrangement/
Internal Connections
(Bottom View)
Standard Models



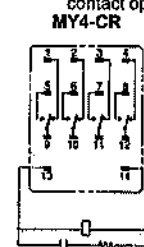
- Note: 1. An AC model has coil disconnection self-diagnosis.
2. For the DC models, check the coil polarity when wiring and wire all connections correctly.
3. The indicator is red for AC and green for DC.
4. The operation indicator indicates the energization of the coil and does not represent contact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



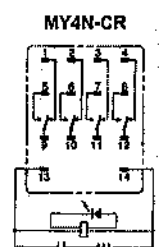
(Check the coil polarity when wiring and wire all connections correctly.)



(Check the coil polarity when wiring and wire all connections correctly.)



(The coil has no polarity.)



(The coil has no polarity.)

Miniature Power Relays with Latching Levers: MY(S)



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

Ordering Information

Classification	Contact configuration	Model	Rated voltage (V)
Models with built-in operation indicators	2	MY2IN (S)	100/110 or 200/220 VAC
			12, 24, or 48 VDC
	4	MY4IN (S)	100/110 or 200/220 VAC
			12, 24, or 48 VDC
Models with built-in diode for coil surge absorption	4 bifurcated	MY4ZIN (S)	100/110 or 200/220 VAC
			12, 24, or 48 VDC
	2	MY2IN-D2 (S)	12, 24, or 48 VDC
	4	MY4IN-D2 (S)	12, 24, or 48 VDC
Models with built-in CR circuit for coil surge absorption	4 bifurcated	MY4ZIN-D2 (S)	12, 24, or 48 VDC
	4	MY4IN-CR (S)	100/110 or 200/220 VAC
	4 bifurcated	MY4ZIN-CR (S)	100/110 or 200/220 VAC

- Note: 1. Ask your OMRON representative for delivery times.
 2. Ask your OMRON representative for details on product specifications and the ability to manufacture products with voltages other than the above coil specifications.
 3. Be sure to clearly indicate the rated voltage and add "(S)" when you place your order.
 Example: MY2IN 110/110 VAC (S)

Ratings and Specifications

Ratings

Operating Coil

Item		Rated current (mA)		Coil resistance (Ω)	Coil inductance (H)		Must-operate voltage (V)	Must-release voltage (V)	Maximum voltage (V)	Power consumption (VA, W)
		50 Hz	60 Hz		Armature OFF	Armature ON				
AC	100/110	11.7/12.9	10/11	3,750	14.54	24.6	80% max.*1	30% min.*2	110% of rated voltage	Approx. 0.9 to 1.1 (at 60 Hz)
	200/220	6.2/6.8	5.3/5.8	12,950	54.75	94.07				
DC	12	75		160	0.73	1.37		10% min.*2		Approx. 0.9
	24	37.7		636	3.2	5.72				
	48	18.8		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 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.

Contact Ratings

Item	Number of poles Load	2 poles		4 poles		4 poles (bifurcated)	
		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	5 A at 250 VAC 5 A at 30 VDC	2 A at 250 VAC 2 A at 30 VDC	3 A at 250 VAC 3 A at 30 VDC	0.8 A at 250 VAC 1.5 A at 30 VDC	3 A at 250 VAC 3 A at 30 VDC	0.8 A at 250 VAC 1.5 A at 30 VDC	
Rated carry current	10 A*		5 A*				
Maximum contact voltage	250 VAC, 125 VDC						
Maximum contact current	10 A		5 A				
Contact configuration	Single		Single		Bifurcated		
Contact materials	Ag		Au cladding + Ag alloy		Au cladding + Ag alloy		

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

Item	Type	Model with built-in operation indicator, diode, or CR circuit
Ambient operating temperature*		-55 to 60° C*
Ambient operating humidity		5% to 85%

*1. With no icing or condensation.

*2. This limitation is due to the diode junction temperature and elements used.

Characteristics

Item	Type	2 poles	4 poles	4 poles (bifurcated)
Contact resistance*1		100 mΩ max.		
Operation time*2		20 ms max.		
Release time*3		20 ms max.		
Maximum operating frequency	Mechanical	18,000 operations/h		
	Rated load	1,800 operations/h		
Insulation resistance*3		1,000 MΩ min.		
Dielectric strength	Between coil and contacts			
	Between contacts of different polarity	2,000 VAC at 50/60 Hz for 1 min.		
	Between contacts of the same polarity	1,000 VAC at 50/60 Hz for 1 min.		
Vibration resistance	Destruction	10 to 55 to 10 Hz, 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	Mechanical	AC: 50,000,000 operations min., DC: 100,000,000 operations min. (switching frequency: 18,000 operations/h)		20,000,000 operations min. (switching frequency: 18,000 operations/h)
	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)	100,000 operations min. (rated load, switching frequency: 1,800 operations/h)
Failure rate P value (reference value)*5		1 mA at 5 VDC	1 mA at 1 VDC	100 μA 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: When rated operating power is applied and ambient temperature is 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.

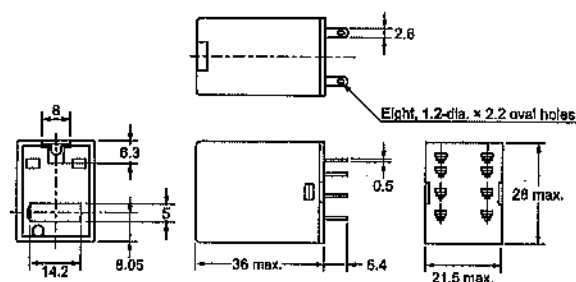
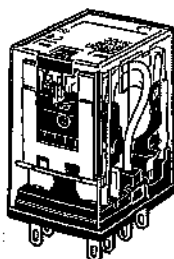
Dimensions

(Unit: mm)

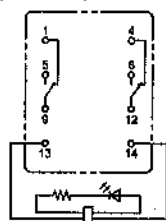
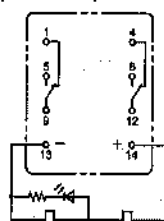
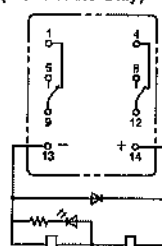
List of Models

MY2IN (S)

MY2IN-D2 (S)



Terminal Arrangement/Internal Connections (Bottom View)

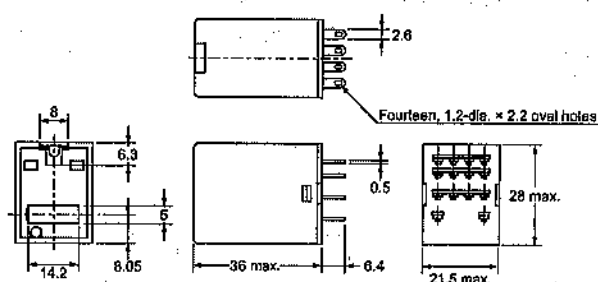
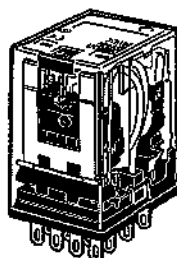
MY2IN(S)
(AC Model)MY2IN(S)
(DC Models)MY2IN-D2(S)
(DC Models Only)

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

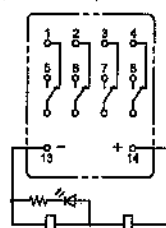
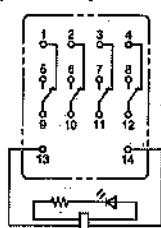
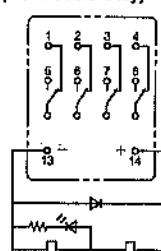
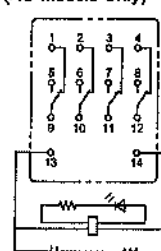
MY4 (Z) IN (S)

MY4 (Z) IN-D2 (S)

MY4 (Z) IN-CR (S)



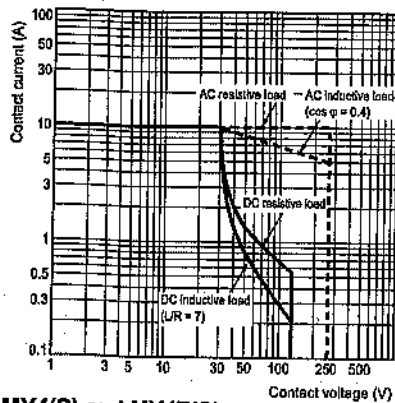
Terminal Arrangement/Internal Connections (Bottom View)

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

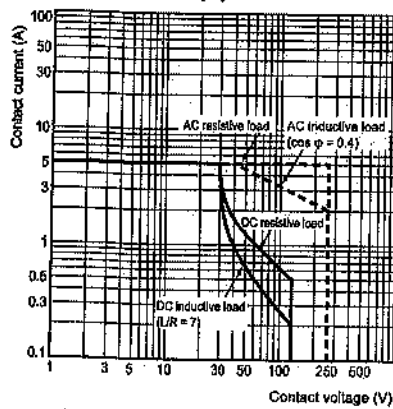
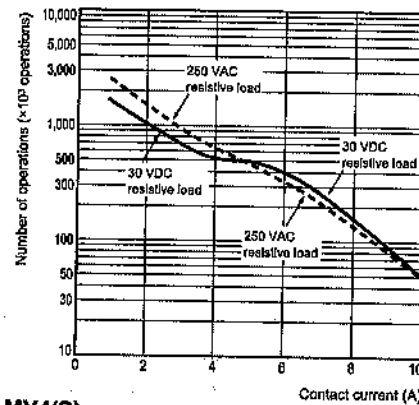
Note: For the DC models, check the coil polarity when wiring and wire all connections correctly.

Engineering Data MY(S)

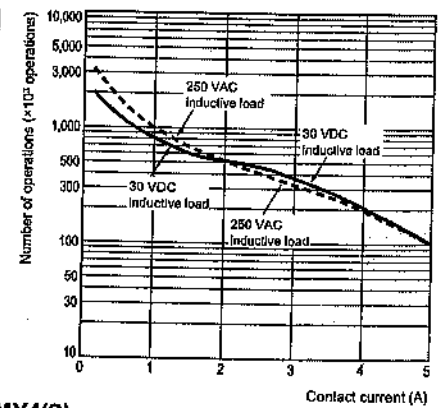
Engineering Data

Maximum Switching Capacity
MY2(S)

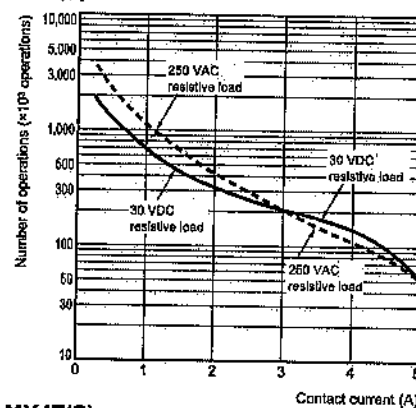
MY4(S) and MY4Z(S)

Endurance Curve
MY2(S)

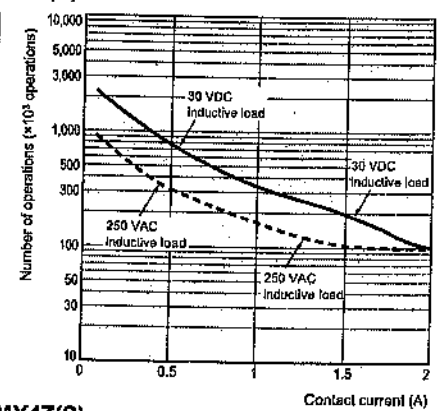
MY2(S)



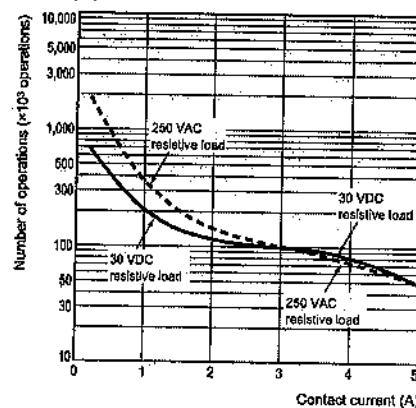
MY4(S)



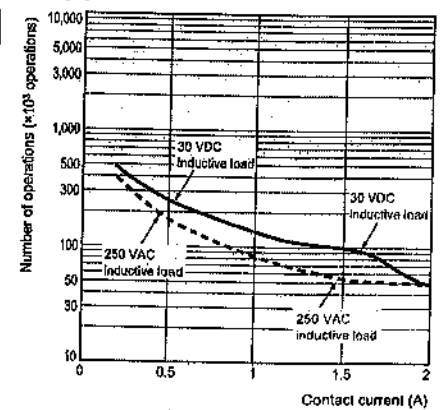
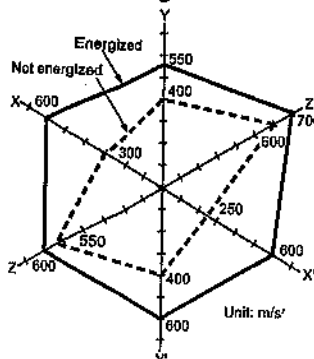
MY4(S)



MY4Z(S)



MY4Z(S)

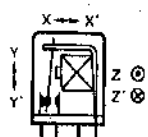
Common Specifications for MY2, MY3, MY4, MY4Z, MY□-02, MY□F, and MY(S)
Malfunctioning Shock

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



Detailed Information on Models Certified for Safety Standards, MY2, MY4, MY4Z, and MY(S) Newly Released Models

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

Model	Number of poles	Coil ratings	Contact ratings	File No.	Certified number of operations
MY□ (newly released models)	2	6, 12, 24, 48/50, 100/110, 110/120, 200/220, and 220/240 VAC	10 A, 250 VAC ($\cos \phi = 1$) 10 A, 30 VDC ($L/R = 0$ ms)	6692 (VDE0435)	MY2: 10,000 operations MY4: 100,000 operations MY4Z: 50,000 operations (AC)
	4	6, 12, 24, 48, 100/110, and 125 VDC	5 A, 250 VAC ($\cos \phi = 1$) 5 A, 30 VDC ($L/R = 0$ ms)		

UL508-certified Models (File No. 41515)

Model	Number of poles	Coil ratings	Contact ratings	File No.	Certified number of operations
MY□ (newly released models)	2	6 to 240 VAC 6 to 125 VDC	10 A, 30 VDC (general-purpose) 10 A, 250 VAC (general-purpose)	E41515 (UL508)	6,000 operations
	4		5 A, 250 VAC (general-purpose) 5 A, 30 VDC (general-purpose)		

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

Model	Number of poles	Coil ratings	Contact ratings	File No.	Certified number of operations
MY□ (newly released models)	2	6 to 240 VAC 6 to 125 VDC	10 A, 30 VDC 10 A, 250 VAC	LR31928 (CSA C22.2) (No. 14)	6,000 operations
	4		5 A, 250 VAC (same polarity) 5 A, 30 VDC (same polarity)		

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

Model	Number of poles	Coil ratings	Contact ratings	File No.	Certified number of operations
MY□ (newly released models)	2	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)	98/10014	MY2: 50,000 operations MY4: 50,000 operations
	4		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)		