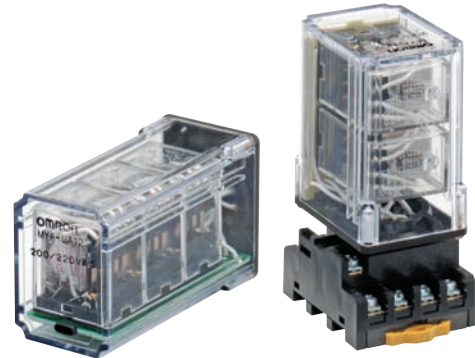



Ideal for Centralized Alarms for Control Circuits

- The MYA combines MY4 Miniature Power Relays to achieve various alarm functions.
- The compact, plugin design saves space and simplifies replacement during maintenance and inspection.
- In terms of applications, there are four groups of models so that you can select the best model for your application.
- Certification for Lloyd's Standards (excluding the MYA-LA12 and MYA-LB12).



 Refer to the *Common Relay Precautions*.

Ordering Information

When your order, specify the rated voltage.

Relay Circuit Units

Number of relays	Operation	Alarm contacts	Classification	Model	Rated voltage (V)
2	Non-locking	a	With auxiliary contacts	MYA-NA2	AC: 24, 100/110, or 200/220 DC: 12, 24, 48, or 100/110
			Without auxiliary contacts	MYA-NA1	AC: 24, 100/110, or 200/220 DC: 12, 24, or 100/110
		b	With auxiliary contacts	MYA-NB2	AC: 24, 100/110, or 200/220 DC: 24 or 100/110
			Without auxiliary contacts	MYA-NB1	AC: 100/110 or 200/220 DC: 24
	Lock-in	a	With auxiliary contacts	MYA-LA2	AC: 24, 100/110, or 200/220 DC: 12, 24, 48, or 100/110
			Without auxiliary contacts	MYA-LA1	AC: 24, 100/110, or 200/220 DC: 24, 48, or 100/110
		b	With auxiliary contacts	MYA-LB2	AC: 24, 100/110, or 200/220 DC: 24 or 100/110
			Without auxiliary contacts	MYA-LB1	AC: 100/110 or 200/220 DC: 24
3		a	Without auxiliary contacts (With fault recovery reset confirmation circuit)	MYA-LA12	AC: 24, 100/110, or 200/220 DC: 12, 24, 48, or 100/110
		b		MYA-LB12	AC: 100/110 or 200/220 DC: 12, 24, 48, or 100/110

Ratings and Specifications

Ratings

Operating Coils

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	6	214.1	183	12.2	0.04	0.08	30% min.*2	110%	Approx. 1.0 to 1.2 (at 60 Hz)
	12	106.5	91	46	0.17	0.33			
	24	53.8	46	180	0.69	1.30			
	50	25.7	22	788	3.22	5.66			
	100/110	11.7/12.9	10/11	3,750	14.54	24.6			
DC	6	150		40	0.17	0.33	10% min.*3	110%	Approx. 0.9 to 1.1 (at 60 Hz)
	12	75		160	0.73	1.37			
	24	36.9		650	3.20	5.72			
	48	18.5		2,600	10.60	21.00			
	100/110	9.1/10		11,000	45.60	86.20			

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, ±15% for DC rated current, and ±15% for DC coil resistance. The AC coil resistance values are reference values only.

2. Performance characteristics are based on a coil temperature of 23°C.

3. The rated current, power consumption, and coil resistance are for one internal relay. When you calculate the power supply capacity, there are two or three internal relays, so the rated current and power consumption would be two or three times the given values and the coil resistance would be 1/3 or 1/2 of the given values.

*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% min.

To ensure release, use a value that is 30% of the rated value or lower.

*3. There is variation between products, but actual values are 10% min.

To ensure release, use a value that is 10% of the rated value or lower.

Contact Ratings

Item	Load	
	Resistive load	Inductive load (cos φ = 0.4, L/R = 7 ms)
Contact structure	Single contacts (MY Series)	
Contact materials	Ag (MY Series)	
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	
Maximum switching capacity (reference value)	660 VA, 72 W	176 VA, 36 W
Failure rate (P level)(reference value*)	1 mA at 1 VDC	

* The failure rate is based on an operating frequency of 120 operations/min. The contact ratings are different for the MYA-NA1, MYA-NB1, and MYA-LB12. Contact your OMRON sales representative for further information.

Characteristics

Contact resistance *1	50 mΩ max.
Operating time *2	20 ms max.
Release time *2	20 ms max.
Maximum operating frequency	1,800 operations/hr (under rated load)
Insulation resistance *3	100 MΩ min.
Dialectic strength	Between contacts of different polarity 1,000 VAC at 50/60 Hz for 1 minute
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. (at approx. 18,000 operations/hr)
	Electrical *4 200,000 operations min. (at the rated load and approx. 1,800 operations/hr)
Ambient operating temperature	-10 to 40°C (with no icing or condensation)
Ambient operating humidity	5% to 85%
Weight	Approx. 100 to 150 g

Note: The values given in the table are initial values.

The contact resistance is the value for one set of contacts.

*1. The contact resistance was measured with 1 A at 5 VDC using the voltage-drop method.

*2. Measurement conditions: At rated operating voltage, not including contact bounce.

Ambient temperature condition: 23°C

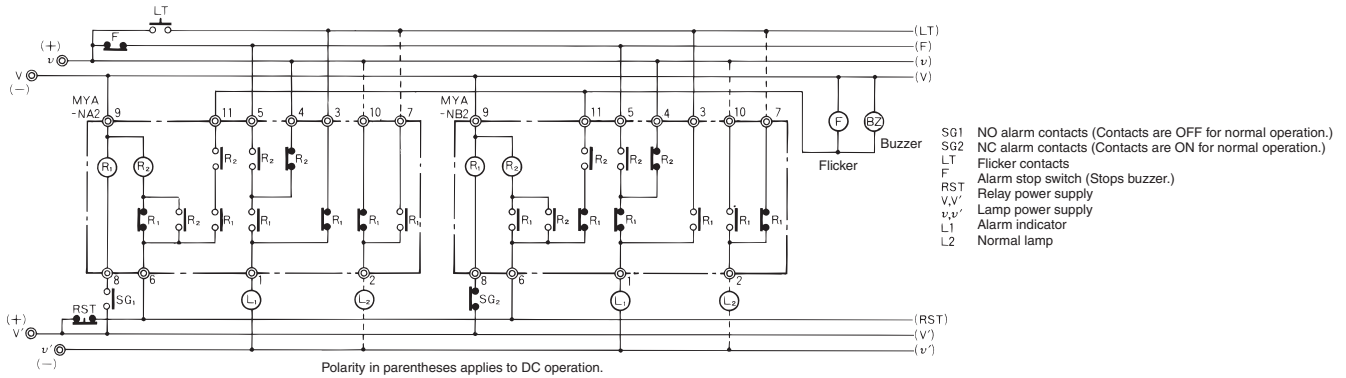
*3. Measurement conditions: Measurement of the same points as for the dielectric strength at 500 VDC.

*4. Ambient temperature condition: 23°C

Operation

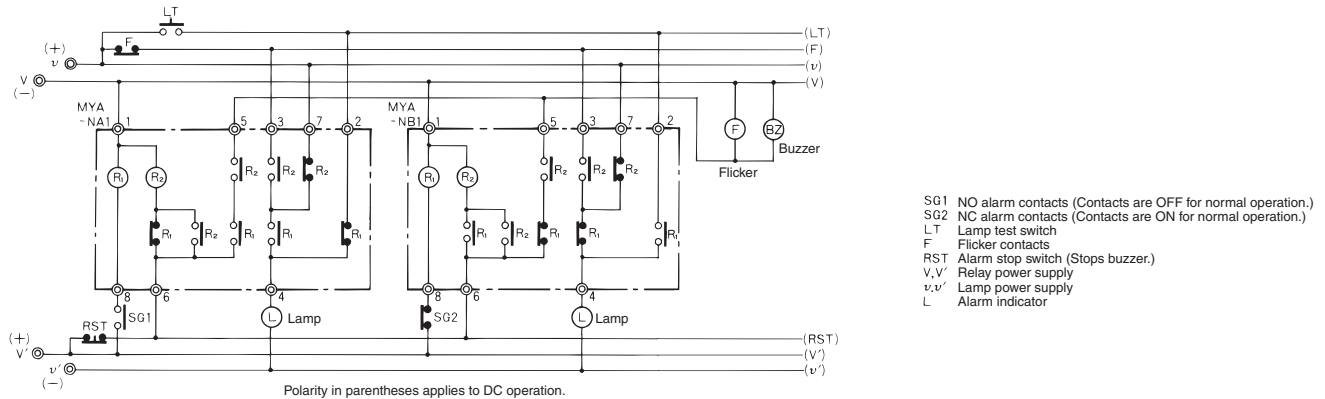
Internal Connections and Timing Charts

MYA-NA2 and MYA-NB2 (Non-locking) (With auxiliary contacts)



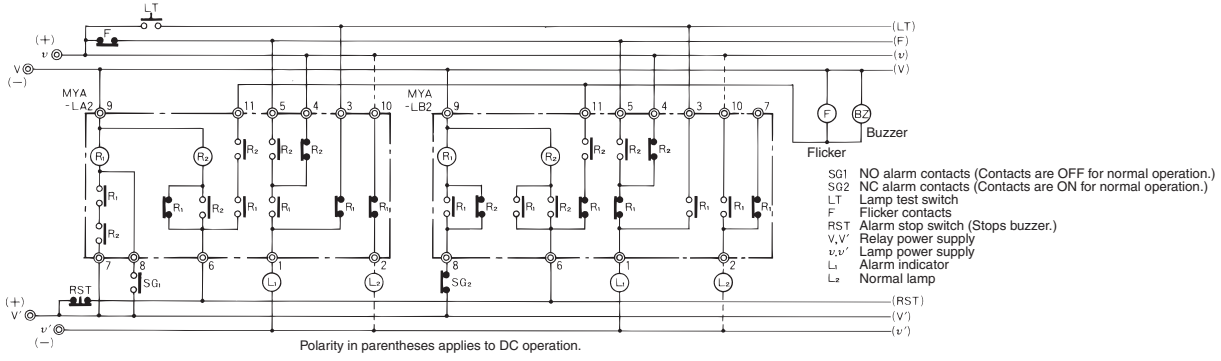
Model	Method	Condition Classification	1		2		Lamp test
			Normal	Alarm self-recovery	Buzzer Alarm	Alarm stopped. self-recovery	
MYA-NA2 MYA-NB2	Non-locking	Alarm input		█		█	
		Operation indicator	█	█	█	█	█
		Alarm indicator		█		█	█
		Buzzer		█	█	█	

MYA-NA1 and MYA-NB1 (Non-locking) (Without auxiliary contacts)



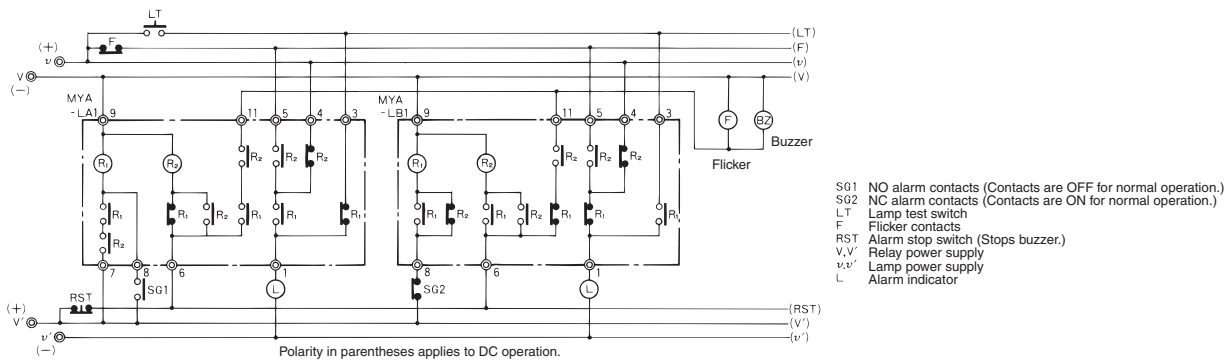
Model	Method	Condition Classification	1		2		Lamp test
			Normal	Alarm self-recovery	Buzzer Alarm	Alarm stopped. self-recovery	
MYA-NA1 MYA-NB1	Non-locking	Alarm input		█		█	
		Alarm indicator		█		█	█
		Buzzer		█	█	█	

MYA-LA2 and MYA-LB2 (Lock-in) (With auxiliary contacts)



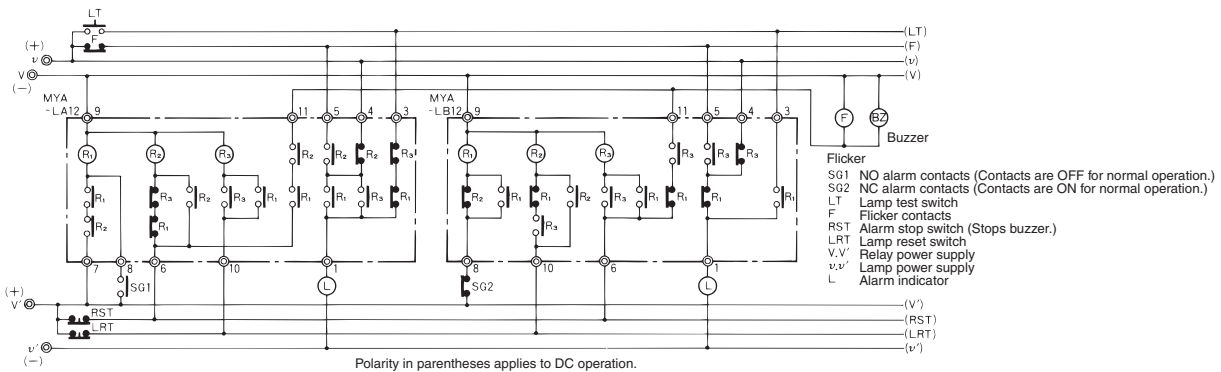
Model	Method	Condition Classification	1			2			Lamp test
			Normal	Alarm self-recovery	Buzzer stopped.	Buzzer Alarm stopped.	Alarm self-recovery		
MYA-LA2 MYA-LB2	Lock-in	Alarm input		█			█		
		Operation indicator	█			█			
		Alarm indicator		█	█		█		█
		Buzzer			█		█		

MYA-LA1 and MYA-LB1 (Lock-in) (Without auxiliary contacts)



Model	Method	Condition Classification	1			2			Lamp test
			Normal	Alarm self-recovery	Buzzer stopped.	Buzzer Alarm stopped.	Alarm self-recovery		
MYA-LA1 MYA-LB1	Lock-in	Alarm input		█			█		
		Alarm indicator		█	█		█		█
		Buzzer			█		█		

MYA-LA12 and MYA-LB12 (Lock-in) (Without auxiliary contacts)

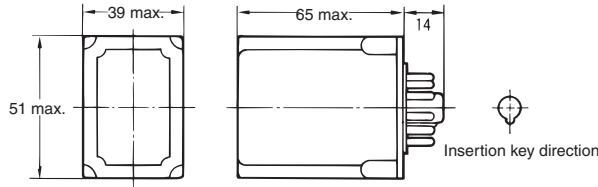
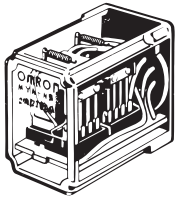


Model	Method	Condition Classification	1				2				Lamp test
			Normal	Alarm self-recovery	Buzzer stopped.	Lamp reset	Buzzer Alarm stopped.	Alarm self-recovery	Lamp reset		
MYA-LA12 MYA-LB12	Lock-in	Alarm input		█				█			
		Alarm indicator		█	█			█		█	
		Buzzer			█			█			

Dimensions

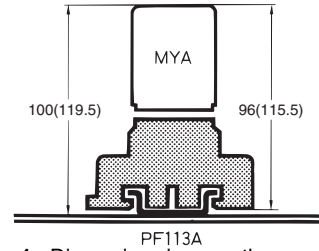
Relay Circuit Units

MYA-NA1, MYA-NB1, MYA-NA2, MYA-NB2, MYA-LA1, MYA-LB1, MYA-LA2, and MYA-LB2



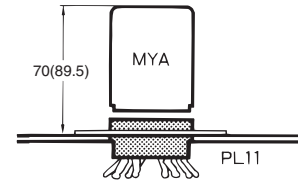
Socket Mounting Height

Front-mounting Sockets



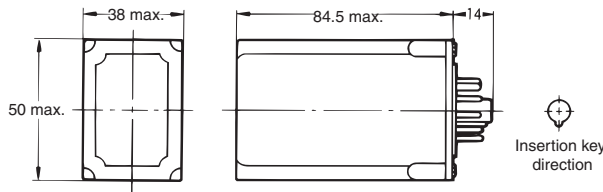
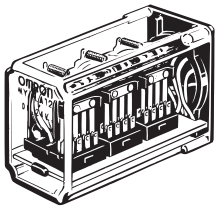
Note: 1. Dimensions in parentheses are for the MYA-LA12 and MYA-LB12.
2. The PF113A can be mounted on a track or with screws.

Back-mounting Sockets



Note: Dimensions in parentheses are for the MYA-LA12 and MYA-LB12.

MYA-LA12 and MYA-LB12



Connecting Sockets

Model	Socket	Front-mounting Sockets		Back-mounting Sockets		
		Track or screw mounting		Screw mounting only		
		—	Solder terminals	Wrapping terminals	PCB terminals	
MYA-NA1 MYA-LA1 MYA-LB1 MYA-NA2 MYA-NB2	MYA-NB1 MYA-LA2 MYA-LB2 MYA-LA12 MYA-LB12	PF083A	PL08	PL08-Q	PLE08-0	
		PF113A	PL11	PL11-Q	PLE11-0	

Relay Brackets

Applicable Sockets Number of internal relays	Front-mounting Sockets	Back-mounting Sockets
2	PFC-A6	PLC-7
3	PFC-A7	PLC-8

Safety Precautions

Refer to *Common Relay Precautions* for general precautions.

Precautions for Correct Use

Installation

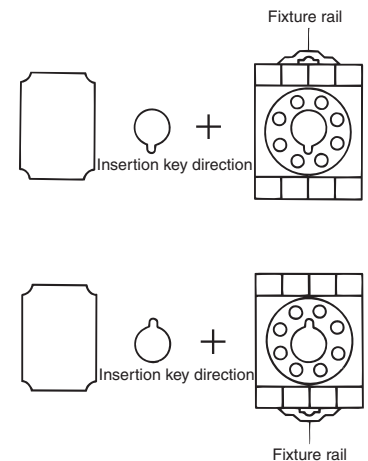
All of the Relay Circuit Units plug in. Use the specified Sockets or Relay Brackets (sold separate) and mount the Units securely.

Power Supply

For all models, the relays and lamps have a common power supply or share separate power supplies.

Socket Mounting Direction

- Standard Relay Circuit Units
For standard Relay Circuit Units, the insertion key faces toward the bottom. Attach the PF083A or PF113A Socket with the fixture rail facing upward.
- MYA-□-U Relay Circuit Units
For MYA-□-U Relay Circuit Units, the insertion key faces toward the top. Attach the PF083A or PF113A Socket with the fixture rail facing downward.



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2024.1

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