Rev. 9.07

FGR-M1 Series

Force-Guided Relay Modules

- Power requirements — Coil operating voltage of 24 VDC
- Contacts are force-guided/mechanically-linked
- Switching capabilities to 6 A
- Full range of 4-pole and 6-pole contact configurations
- Easy installation — The FGR-M1 Series may be mounted on 35 mm DIN rail or surface mounted with two screws

Description

The FGR-M1 Series relays have contacts that are force-guided/mechanically-linked conforming to EN61810-1 and EN50205. For more information on force-guided relays, see the article "Positively Driven/Force-Guided Contacts" on our website at www.sti.com/pdf/820.pdf.

Conforms to EN61810-1 and EN50205

Specifications

ELECTRICAL
Operating Coil
Supply Power: 24 VDC
Current Rating: 15 mA 4 poles; 20.8 mA 6 poles
Power Usage: 360 mW 4 poles; 500 mW 6 poles
Switching Capability
Rated Load: 250 VAC 6 A; 30 VDC 6 A
Max. Switching Voltage: 250 VAC; 125 VDC
Max. Switching Current: 6 A
Max. Drop-Out Time*: 10 mS
MECHANICAL
Mechanical Life: 1 x 10^7 operations min.
Electrical Life: 100,000 operations min.
Mounting with Socket: 35 mm DIN rail or 2 screw holes for panel mounting
Wire Size: Screw terminals accept single 16 or 18 AWG stranded or solid wire
Socket Dimensions: 4-Pole: 72 x 22.5 x 60.5 mm (L x W x H) 6-Pole: 72 x 30 x 60.5 mm (L x W x H)
Weight: 4-Pole: approx. 2.5 oz. (71 g) 6-Pole: approx. 3.2 oz. (91 g)
Vibration: 10 to 55 Hz
ENVIRONMENTAL
Humidity: 35 to 85% RH
Operating Temp: -40 to 185°F (-40 to 85°C)
Approvals: EN61810-1, EN50205, UL 508, CSA 22.2 No. 14

*The Drop-Out Time is the time it takes for the N/O contacts to open after the coil voltage is turned OFF.

Specifications are subject to change without notice.

A Go to the Engineering Guide
For in-depth information on safety standards and use.

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For the Latest Information
On the Internet: **www.sti.com** or **www.omron.ca**

■ Socket Terminal Connections

4-Pole

44532-2010	+0	24 VDC Supply	-1	11	N/C Auxiliary	12	21	N/C Auxiliary	22	33	N/O Control	34	43	N/O Control	44		
44532-2020	+0	24 VDC Supply	-1	11	N/C Auxiliary	12	23	N/O Control	24	33	N/O Control	34	43	N/O Control	44		

6-Pole

44532-2030	+0	24 VDC Supply	-1	11	N/C Auxiliary	12	21	N/C Auxiliary	22	31	N/C Auxiliary	32	43	N/O Control	44	53	N/O Control	54	63	N/O Control	64
44532-2040	+0	24 VDC Supply	-1	11	N/C Auxiliary	12	21	N/C Auxiliary	22	33	N/O Control	34	43	N/O Control	44	53	N/O Control	54	63	N/O Control	64
44532-2050	+0	24 VDC Supply	-1	11	N/C Auxiliary	12	23	N/O Control	24	33	N/O Control	34	43	N/O Control	44	53	N/O Control	54	63	N/O Control	64

■ Ordering

Module with Socket (no LED)

Model	Type	Control Contacts	Auxiliary Contacts	Part No.
FGRMS22-24	4-Pole	2 N/O	2 N/C	44532-2010
FGRMS31-24	4-Pole	3 N/O	1 N/C	44532-2020
FGRMS33-24	6-Pole	3 N/O	3 N/C	44532-2030
FGRMS42-24	6-Pole	4 N/O	2 N/C	44532-2040
FGRMS51-24	6-Pole	5 N/O	1 N/C	44532-2050

Module with Socket and LED Indicator

Model	Type	Control Contacts	Auxiliary Contacts	Part No.
FGRMS22-24-LED	4-Pole	2 N/O	2 N/C	44532-2011
FGRMS31-24-LED	4-Pole	3 N/O	1 N/C	44532-2021
FGRMS33-24-LED	6-Pole	3 N/O	3 N/C	44532-2031
FGRMS42-24-LED	6-Pole	4 N/O	2 N/C	44532-2041
FGRMS51-24-LED	6-Pole	5 N/O	1 N/C	44532-2051

Modules

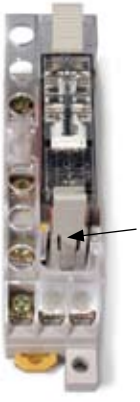
Model	Volume 2 Model*	Type	Control Contacts	Auxiliary Contacts	Part No.
FGRM22-24	G7SA-2A2B	4-Pole	2 N/O	2 N/C	44532-1010
FGRM31-24	G7SA-3A1B	4-Pole	3 N/O	1 N/C	44532-1020
FGRM33-24	G7SA-3A3B	6-Pole	3 N/O	3 N/C	44532-1030
FGRM42-24	G7SA-4A2B	6-Pole	4 N/O	2 N/C	44532-1040
FGRM51-24	G7SA-5A1B	6-Pole	5 N/O	1 N/C	44532-1050

Sockets

Model	Volume 2 Model*	Type	Control Contacts	Auxiliary Contacts	Part No.
FGRS-4	P7SA-10F	4-Pole	n/a	n/a	44532-1704
FGRS-41	P7SA-10F-ND	4-Pole with LED	n/a	n/a	44532-1714
FGRS-6	P7SA-14F	6-Pole	n/a	n/a	44532-1706
FGRS-61	P7SA-14F-ND	6-Pole with LED	n/a	n/a	44532-1716

**Please consult page DD-1 of our companion catalog for products found in Volume 2.*

Socket with LED



Indicator light is ON when power is applied to socket.