

# FGR-MI 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.



#### Specifications

#### ELECTRICAL

turned OFF.

ELECT	RICAL
Opera	ting Coil
Sup	ply Power: 24 VDC
Curr	rent Rating: 15 mA 4 poles;
20.8	3 mA 6 poles
Pow	er Usage: 360 mW 4 poles;
500	mW 6 poles
Switch	ning Capability
Rate	ed Load: 250 VAC 6 A; 30 VDC 6 A
Max	x. Switching Voltage: 250 VAC; 125 VDC
Max	a. Switching Current: 6 A
Max	a. Drop-Out Time*: 10 mS
MECH	ANICAL
Mec	hanical Life: 1 x 10 <sup>7</sup> operations min.
Elec	trical Life: 100,000 operations min.
Mou	Inting with Socket: 35 mm DIN rail or
2 sc	rew holes for panel mounting
Wire	e Size: Screw terminals accept single 16
or 1	8 AWG stranded or solid wire
Soc	ket Dimensions:
4-Pc	ole: 72 x 22.5 x 60.5 mm (L x W x H)
6-Pc	ole: 72 x 30 x 60.5 mm (L x W x H)
Wei	ght:
4-Pc	ole: approx. 2.5 oz. (71 g)
6-Pc	ole: approx. 3.2 oz. (91 g)
Vibr	ation: 10 to 55 Hz
ENVIR	ONMENTAL
Hum	nidity: 35 to 85% RH
Ope	rating Temp: -40 to 185°F (-40 to 85°C)
App	rovals: EN61810-1, EN50205, UL 508,
CSA	22.2 No. 14
*The D	rop-Out Time is the time it takes for the
N/O co	ntacts to open after the coil voltage is

OMRON



# Socket Terminal Connections

#### **4-Pole**

44532-2010	•	24 VDC Supply	0	N/C Auxiliary	Ø	4	N/C Auxiliary	Ø	3	N/O Control	3	<b>B</b>	N/O Control	•
44532-2020	•	24 VDC 🕣 Supply	0	N/C Auxiliary	Ð	Ø	N/O Control	2	3	N/O Control	34	<b>B</b>	N/O Control	4

#### 6-Pole

44532-2030	•	24 VDC Supply	0	N/C Auxiliary	Ø	4	N/C Auxiliary	Ø	6	N/C Auxiliary		<b>B</b>	N/O Control	0	63	N/O Control	6	63	N/O Control	64
44532-2040	1	24 VDC <b>1</b> Supply	0	N/C Auxiliary	Ø	4	N/C Auxiliary		3	N/O Control	34	<b>B</b>	N/O Control	•	63	N/O Control	6	63	N/O Control	64
44532-2050	•	24 VDC <b>1</b> Supply	0	N/C Auxiliary	Ø	Ø	N/O Control	2	3	N/O Control	34	<b>B</b>	N/O Control	0	6	N/O Control	6	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/0	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	44532-2020
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	Туре	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**

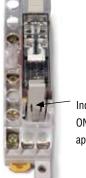
Model	Volume 2 Model*	Туре	Control Contacts	Auxiliary Contacts	Part No.
FGRM22-24	G7SA-2A2B	4-Pole	2 N/O	2 N/C	44532-1010
FGRM31-24	G7SA-3A1B	4-Pole	3 N/O	1 N/C	44532-1020
FGRM33-24	G7SA-3A3B	6-Pole	3 N/O	3 N/C	44532-1030
FGRM42-24	G7SA-4A2B	6-Pole	4 N/O	2 N/C	44532-1040
FGRM51-24	G7SA-5A1B	6-Pole	5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

### **Sockets**

	Volume 2		Control	Auxiliary	
Model	Model*	Туре	Contacts	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.