



Instrument Transformers, Inc

A wholly owned subsidiary of GE Digital Energy

Cross Reference RA Part Number PP710

Ground Fault Current Detection Systems

**Model GFM Relay
2.0 to 65 Amp Trip Currents**

ADJUSTABLE OPERATING RANGE:

Trip currents from 2.0 to 65 Amperes (± 15%)

Time delay from instantaneous to 36 cycles

For use with GFM sensors only

INPUT POWER: Self powered

FREQUENCY: 50/60 Hz

AMBIENT TEMPERATURE RANGE:

-30°C to +60°C

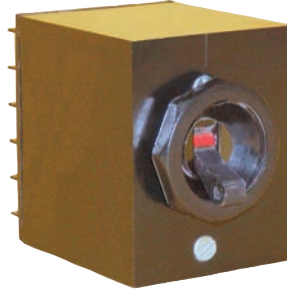
OPERATION:

Positive condition indication

Normal (Reset) - Green ("ON")

Tripped - Red ("OFF")

Manual Reset



Model GFM - 252 & Model 262



Model GFM - 353, 363, 453, and 463

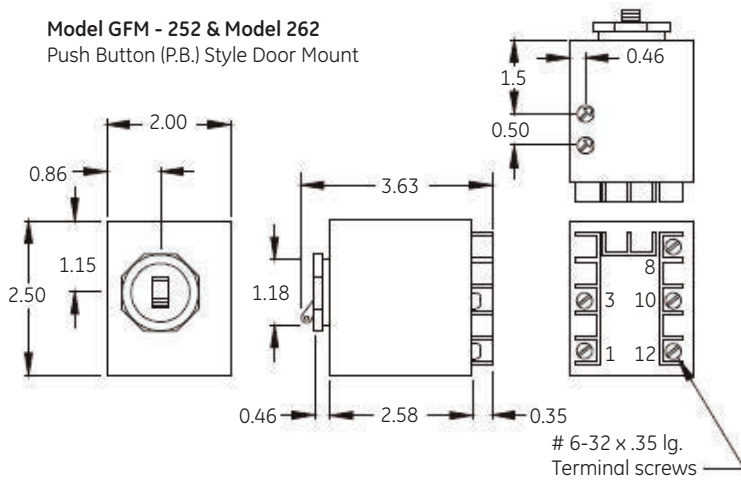


The class 1 model **GFM** Ground Fault protection systems are designed to minimize damage or loss to equipment caused by destructive arcing ground faults. This GFM systems is designed for all polyphase applications and is ideally suited for motor control, motor control centers, and medium voltage starters. System can be wye or delta, ground or resistance grounded. When the ground fault current exceeds a pre-selected condition (current and time setting) the relay trips.

The relay contacts can be connected in the control circuit of a motor starter, to the shunt trip of a circuit breaker or similar disconnecting or alarm devices. The system has an inverse time characteristic to prevent nuisance tripping. The relay tripping current value is field adjustable over the trip current range of the sensor. The adjustable trip time delay relay is field selectable up to 36 cycles.

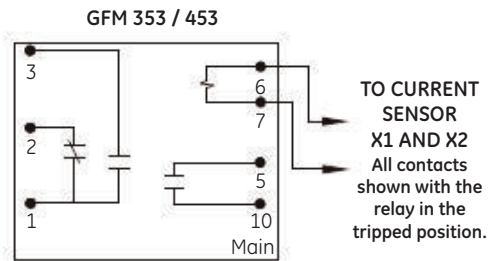
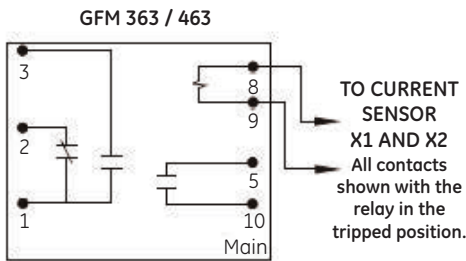
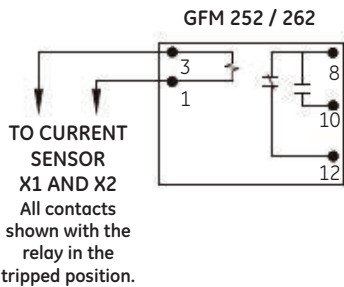
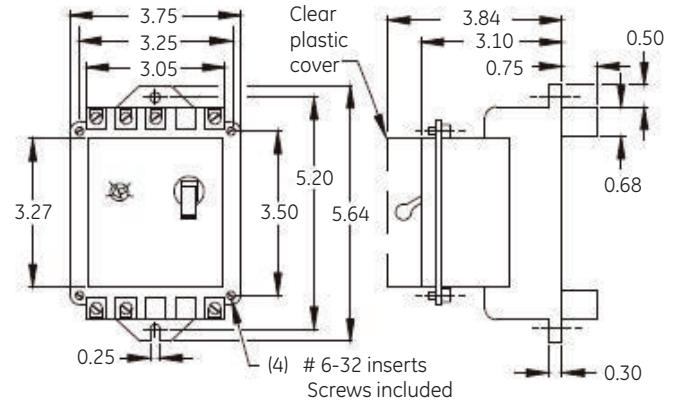
Model GFM - 252 & Model 262

Push Button (P.B.) Style Door Mount



Model GFM - 353, 363, 453, and 463

Rear terminal kit and clear plastic cover standard with door mounting. Main contact rated 30 Amps, 277 volts.



HOW TO ORDER RELAYS

GFM -	X	X	X	Part Number
Case Style	2	3	4	P.B. Style - Door Mount Panel Mount Door Mount
Time Delay	5	6		Instantaneous Adjustable Time Delay up to 36 Cycles
Output Contacts	2	3		10A Form C Contacts (Case Style 2 Only) 10A Form C Contacts Plus 30A N.O. Contact (On Case Styles 3 & 4 Only)



Ground Fault Current Detection Systems

Model GFM Sensor (For use with GFM relays only)

2.0 to 65 Amp Trip Currents

Toroidal, Rectangular, & 3 Hole Sensors

FREQUENCY: 50/60 Hz.

TRIP CURRENT TOLERANCE: ± 15%

INSULATION LEVEL:

600 Volt, 10 kV BIL

TERMINALS:

Terminals are brass studs No. 8-32.

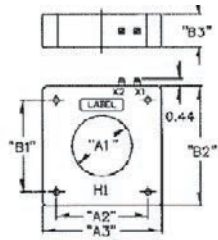
Type GFM Ground Fault Current Sensors are available in three different case styles and a variety of sizes and trip current ranges to match the GFM Relay. The physical size of the sensor window should be carefully determined by the physical size and configuration of the power conductors. The Ground Fault Sensor will respond only to ground faults which occur between the position of the sensor and the load.



RECTANGULAR SENSORS



TOROIDAL SENSORS



MODEL NUMBER	TRIP CURRENT	SENSOR DIMENSIONS					
		"A1"	"A2"	"A3"	"B1"	"B2"	"B3"
GFM 041 X 071	6 TO 30	4.1	6.4	7.3	7.1	10.0	10.9
* GFM 080 X 117SC	15 TO 65	8.0	9.5	11.1	11.7	14.5	15.4
GFM 080 X 141	9 TO 39	8.0	9.5	11.1	14.1	17.0	17.9

* Model GFM 080 X 117SC is split core (take-apart style) for assembly to existing electrical installations without the need for dismantling the primary bus or cables.

CAUTION:

Proper safety precautions must be followed during installation by a trained electrician. It is recommended that the incoming power be de-energized before installation. The sensor must have its secondary terminals short circuited or the relay connected before energizing the primary circuit.

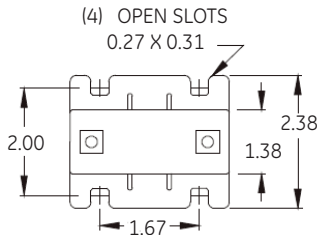


3 HOLE SENSORS
(1-CORE)

MODEL NUMBER	TRIP CURRENT	SENSOR DIMENSIONS					
		"A1"	"A2"	"A3"	"B1"	"B2"	"B3"
** GFM 094	2.0 TO 8.5	0.94	N/A	2.67	N/A	2.75	2.38
** GFM 125	2.7 TO 14	1.25	N/A	2.67	N/A	2.75	2.38
** GFM 156	4.5 TO 18	1.56	N/A	3.53	N/A	3.77	2.15
GFM 200	3.5 TO 14.5	2.00	3.19	4.00	N/A	4.00	1.75
GFM 250	3.5 TO 11	2.50	3.75	4.63	N/A	5.10	3.00
GFM 375	4 TO 12	3.75	4.75	5.96	4.75	6.31	3.00
GFM 375D	*	3.75	4.75	5.96	4.75	6.31	3.00
GFM 425	5 TO 18	4.25	5.44	6.73	5.43	6.73	1.28
GFM 462	4 TO 12	4.62	5.75	7.00	5.75	7.12	4.00
GFM 813	4 TO 12	8.13	8.50	11.10	8.50	11.47	3.00

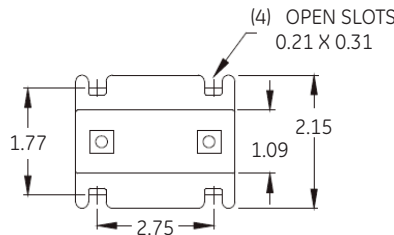
*Dual trip current ranges 3.5 to 11 and 10 to 36.

** Mounting bracket kits are available for all toroidal sensors except the Model GFM 094, GFM 125, and GFM 156, which have molded mounting feet.

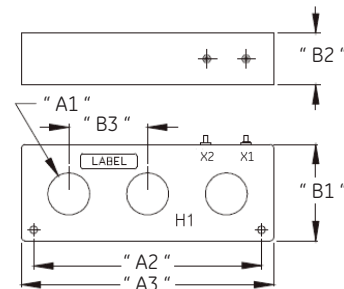


GMF 094
GMF 125

MODEL NUMBER	BRACKET KIT
GFM 200	0221B01976
GFM 250	0221B00541
GFM 375	0221B00259
GFM 375D	0221B00259
GFM 425	0221B00187
GFM 462	0221B01525
GFM 813	0221B00259



GMF 156



MODEL NUMBER	TRIP CURRENT	SENSOR DIMENSIONS					
		"A1"	"A2"	"A3"	"B1"	"B2"	"B3"
GFM 3P205 X 050	4.5 TO 16	*	7.60	8.50	3.70	2.00	2.75
**GFM 3P208	5 TO 20	2.08	8.24	9.00	3.94	2.00	2.75
GFM 3P212	7 TO 25	2.12	11.72	12.80	4.87	2.63	4.00

* The Model GFM 3P205 X 050 has a rectangle window 2.05 " X 0.50".

** UL Listed Only - No CSA Approval

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