



FR1000

DC INPUT, FIELD RANGEABLE SINGLE ALARM, DPDT RELAY LATCHING OR NON-LATCHING

FEATURES

- Allows Inputs to ± 256 V or ± 100 mA
- 16 mV or 0.8 mA Minimum Input Span
- Red and Green LED Alarm Status Indicators
- Adjustable Deadband
- Provides Relay Contact Closures at Preset DC Input
- Configure as HI or LO Alarm
- Alarm Normal or Reverse Acting
- Configure as Latching Alarm
- Fully Labeled Jumper Positions for Easy Range and Configuration Settings
- Choice of Power Options
- Size, Pinouts, and Performance Identical to MM1000
- Permanent Warranty

DESCRIPTION

The FR1000 monitors a DC input signal and provides one dpdt, 5 A alarm relay with an independently adjustable setpoint. The setpoint has a set of red/green LEDs to indicate alarm status. The configuration of the alarm relay is user-settable as follows:

High or Low - High selects alarm on an increasing signal. Low selects alarm on a decreasing signal.

Normal or Reverse - Normal position selects fail-safe operation (loss of power

will result in alarm condition). The relay is energized in the non-alarm condition. When the setpoint is exceeded, the relay de-energizes. Selecting the reverse position reverses this logic.

Deadband or Latching - Deadband selects the independently adjustable deadband control. Deadband for the alarm is adjustable from 0.1% to 100% of the input span. The deadband is symmetrical about the setpoint. With latching selected, the alarm will latch when the setpoint is exceeded, and can

not be reset unless the input no longer exceeds the setpoint. Reset may be accomplished by remote contact closure or by momentary power interruption. (Several reset inputs may be tied to one reset contact, but note that all negative inputs will be tied together.)

All Wilkerson products are designed with RFI filters and lightning protection to reduce susceptibility to electrical noise and damage by lightning.

SPECIFICATIONS

INPUTS

Limits

select any voltage between
-256 and +256 VDC

select any current between
-100 and +100 mA

Span (Selectable Ranges)

Voltage	Current
16-32 mV	.8-1.6 mA
32-64 mV	1.6-3.2 mA
64-128 mV	3.2-6.4 mA
128-256 mV	6.4-12.8 mA
256-512 mV	12.8-25 mA
.5-1 V	25-50 mA
1-2 V	50-100 mA
2-4 V	
4-8 V	
8-16 V	
16-32 V	
32-64 V	
64-128 V	
128-256 V	

INPUT OFFSET

$\pm 0, 25, 50, 75, 100\%$ of F.S.

INPUT IMPEDANCE

Voltage
1 megohm

Current
20 ohms

SETPOINT

0 to 100% of span

DEADBAND

0.1% to 100% of span

LATCHING ALARM

Reset by remote contact closure or by momentary power interruption

RELAY CONTACTS

One dpdt
Resistive Load
5 A max, 150 W max,
240 VAC max, 30 VDC max
Inductive Load
 $\frac{1}{8}$ HP max at 120/240 VAC

RESPONSE TIME

20 ms typical

ACCURACY

$\pm 0.1\%$ of span

COMMON MODE REJECTION

120 dB, DC to 60 Hz

OPERATING TEMPERATURE

14°F to 140°F/-10°C to 60°C

TEMPERATURE STABILITY

$\pm(0.02\%$ of span +30 $\mu\text{V})/^\circ\text{C}$
max

POWER

115 VAC $\pm 10\%$, 50 or 60 Hz
(2.5 W max)
230 VAC $\pm 10\%$, 50 or 60 Hz
(2.5 W max)
24 VAC $\pm 10\%$, 50 or 60 Hz
(2.5 W max)

(DC Power Option)

24 VDC (limits 21- 32 VDC)
(2.5 W max)

Isolation, DC power supply to
input common: 100 megohm

ORDERING INFORMATION

POWER

- 115 VAC, 50/60 Hz Power
- 230 VAC, 50/60 Hz Power
- 24 VAC, 50/60 Hz Power
- 24 VDC, Power, Transformer Isolated

INPUT

Select Units

- VDC mADC

Enter Input

Zero Scale

Full Scale

ALARMS

Alarm Type

- High Low

Alarm Logic

- Normal - Energize On Alarm
- Reverse - De-energize On Alarm

Enter Setpoint Input Level

Setpoint 1

Latching Mode

- Latching Non-Latching

OPTIONS

- Conformal Coating

TAGS

Specify Tag Numbers

Tag number is typed on product label at no charge.

Enter Tag Number(s)

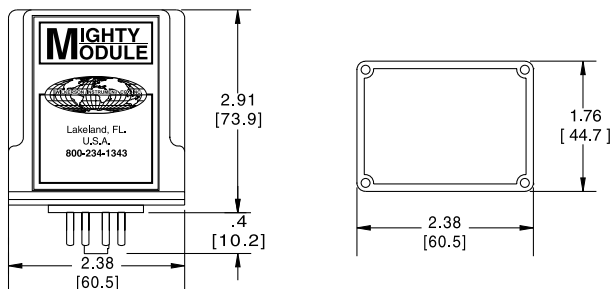
ACCESSORIES

FR1000

DR1	DIN-Rail, 35 mm Symmetrical, 39 inches (1 meter)	Qty_____
MP011	Plastic Socket, 11-Pin, for Flat Surface or PVC Track	Qty_____
TRK48	PVC Snap-Track, 4 ft, for MP008, MP011, & DMP8500	Qty_____
DMP011	DIN-Rail Mounting Socket, 11-Pin, 35 mm Symmetrical Rail	Qty_____
CLP1	Holddown Assembly for MP008 and MP011	Qty_____
HKB-HK2D-11	Explosion-Proof Housing with MP011 Installed	Qty_____

DIMENSIONS

Inches [mm]



CONNECTIONS

- PIN 1 Power AC L1 or DC +
- PIN 2 Latch Reset
- PIN 3 Power AC L2 or DC -
- PIN 4 Input +
- PIN 5 Input -
- PIN 6 Relay Set 1 NO
- PIN 7 Relay Set 1 C
- PIN 8 Relay Set 1 NC
- PIN 9 Relay Set 2 NO
- PIN 10 Relay Set 2 C
- PIN 11 Relay Set 2 NC