



# MM1000

## DC INPUT SINGLE ALARM FIXED RANGE, DPDT RELAY

### FEATURES

- Provides a DPDT Relay Contact Closure at a Preset DC Input
- Standard Fail-Safe Operation
- Red and Green LED Alarm Status Indicators
- Adjustable Deadband
- 50 mV or 1 mA Minimum Input Span
- Unlimited\* Choice of Input Ranges
- Choice of Power Options
- 10 + 5 Year Warranty

### DESCRIPTION

The MM1000 monitors a DC input signal and trips a dpdt, 5 A relay when the input exceeds the desired level. Normal operation has the relay energized for the non-alarm condition and de-energized for an alarm condition. This provides a fail-safe alarm condition for loss of power to the module. Option R reverses this

module of operation. The alarm has a set of red/green LEDs to indicate alarm status.

The MM1000 deadband adjustment allows a deadband of 0.5% to 100% of span to be set into the module. The deadband is symmetrical about the setpoint.

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

#### TYPICAL APPLICATIONS

DC Motor/current limit, level/position control, HI/LO pressure alarm, power demand warning.

### SPECIFICATIONS

#### INPUT RANGE

Voltage  
select any range between  
±250 V max  
(min span 50 mV)

Current  
select any range between  
±5 A max (min span 1 mA)

#### INPUT IMPEDANCE

Voltage  
200 kilohms

Current

Current Input	Input Shunt Value
1 mA	100 Ohm
10 mA	10 Ohm
20 mA	5 Ohm
4/20 mA	61.9 Ohm
100 mA	1 Ohm
1 A	0.1 Ohm
5 A	0.01 Ohm

#### SETPOINT

0 to 100% of span

#### DEADBAND

0.5% to 100% of span

#### RELAY CONTACTS (dpdt)

Resistive Load  
5 A max, 150 W max,  
220 VAC max, 30 VDC

Inductive Load  
(Power factor ≥ 0.4)  
2.5 A max, 75 W max,  
220 VAC max, 30 VDC max

#### TRANSISTOR OUTPUT

Open-collector output sink  
30mA, 30 V supply max

#### RESPONSE TIME

(Range Dependent)  
20 ms typical

#### ACCURACY

±0.01% of span

#### LINEARITY (Option T)

±0.01% 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

±(0.02% of span  
+ 30 μV)/°C max

#### POWER

115 VAC ±10%, 50/60 Hz  
(2.5 W max)

230 VAC ±10%, 50/60 Hz  
(2.5 W max)

(DC Power Option)  
24 VDC (limits 21-32 VDC)

Isolation, DC power supply to  
input common: 10 megohms

\* Within specified range limits.

**ORDERING INFORMATION**

**POWER**

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

**INPUT**

**Select Units**

- VDC  mADC

**Enter Input**

Zero Scale

Full Scale

**ALARMS**

**Alarm Selection - Output**

- Relay
- Transistor, O.C.

**Alarm Type**

- High  Low

**Alarm Logic**

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

**Enter Setpoint Input Level**

Setpoint 1

**OPTIONS**

- Conformal Coating

**TAGS**

**Specify Tag Numbers**

Tag number is typed on product label at no charge.

**Enter Tag Number(s)**

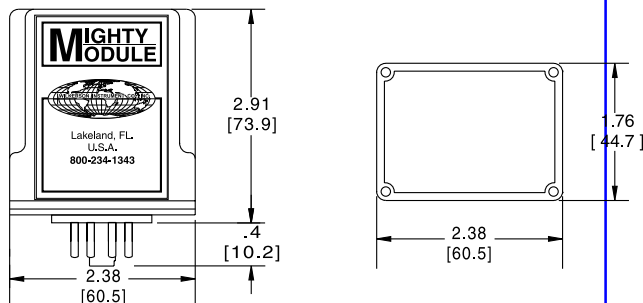
**ACCESSORIES**

**MM1000**

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	No Connection
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