



# MM1400

## RTD INPUT SINGLE ALARM

### FEATURES

- Provides a DPDT Relay Contact Closure at a Preset RTD Input
- 3-Wire or 2-Wire, 10 ohms to 2000 ohms RTDs
- Standard Fail-Safe Operation
- Red and Green LED Alarm Status Indicators
- Adjustable Deadband
- Latching Alarm Available (MM1410)
- Unlimited\* Choice of Input Ranges
- Choice of Power Options
- 10 Year Warranty

### DESCRIPTION

The MM1400 monitors an RTD 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. The alarm has a set of red/green LEDs to indicate alarm status.

For the MM1400, a 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.

With the latching alarm option, the alarm has no deadband control. Once the limit has been reached, the alarm latches and power must be momentarily interrupted to reset the alarm.

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

### TYPICAL APPLICATIONS

Temperature control, monitoring or warning for HVAC, pumps, motors, etc.

### SPECIFICATIONS

#### RTD INPUT

3-Wire or 2-Wire,  
10 ohms to 2000 ohms

#### INPUT RANGE

select any range within RTD limit  
[min span 25°F/14°C  
(100°F/55°C with 10 ohms RTD)]

#### EXCITATION CURRENT

10 ohms	10 mA
100 ohms	5 mA
1000 ohms	0.5 mA
2000 ohms	0.2 mA

#### SETPOINT

0 to 100% of span

#### DEADBAND

0.5% to 100% of span

#### OPEN SENSOR OUTPUT

≥ full scale

#### ACCURACY

±0.1% of span or 0.02 ohms,  
whichever is greater

#### COMMON MODE REJECTION

120 dB, DC to 60 Hz

#### RELAY CONTACTS (dpdt)

Resistive Load  
5 A max, 150 W max, 220 VAC max, 30 VDC max  
Inductive Load  
(Power Factor ≥ 0.4)  
2.5 A max, 75 W max, 220 VAC max, 30 VDC max

#### TRANSISTOR OUTPUT

(Option V)  
relay driver (12V coil, ≥220 ohms)  
or open-collector outputs sink  
100 mA, 30 V supply max

#### OPERATING TEMPERATURE

14°F to 140°F/-10°C to 60°C

#### TEMPERATURE STABILITY

±0.02% of span or 0.025°C/°C,  
whichever is greater

#### 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)  
12 VDC (limits 10-16 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
- 24 VDC, Power, Transformer Isolated
- 12 VDC, Power, Transformer Isolated

**INPUT**

**Select Units**

- Deg C  Deg F

**Enter Input**

Zero Scale

Full Scale

**Select Sensor**

- 100 ohm Pt., .00385 Alpha
- 100 ohm Pt., .00392 Alpha
- 100 ohm Pt., .00375 Alpha
- 1000 ohm Pt., .00385 Alpha
- 1000 ohm Pt., .00392 Alpha
- 10 ohm Cu.
- Other - Specify in Notes

**ALARMS**

**Specify Alarm Header Option**

- 11-Pin  20-Pin

**Alarm Selection - Output**

- Relay
- Transistor, O.C.

**Alarm Type**

- High
- Low

**Alarm Logic**

- Normal - De-Energize On Alarm
- Reverse - 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)**

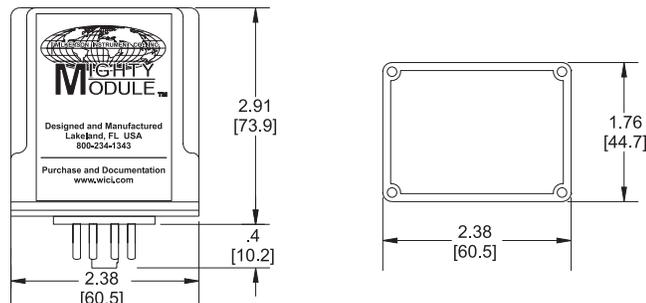
**ACCESSORIES**

**MM1400**

DR1	DIN-Rail, 35 mm Symmetrical, 39 inches (1 meter)	QTY _____
MP011	Plastic Socket, 11-pin Panel Mount or PVC Snap 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**

**11 PIN (Option E)**

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

**20 PIN**

PIN 1	Power AC L1 or DC +	PIN 15	Relay Set 1 NC
PIN 3	Power AC L2 or DC -	PIN 17	Relay Set 2 NO
PIN 9	RTD	PIN 18	Relay Set 2 C
PIN 11	RTD	PIN 19	Relay Set 2 NC
PIN 13	Relay Set 1 NO	PIN 20	RTD Compensating Lead
PIN 14	Relay Set 1 C		



2915 Parkway Street  
Lakeland, FL 33811-1391 · USA

**800-234-1343**

Tel: 863-647-2000 · Fax: 863-644-5318  
www.wici.com · Email: sales@wici.com