



MM1200

THERMOCOUPLE INPUT LIMIT ALARM

FEATURES

- Provides a DPDT Relay Contact Closure at a Preset Thermocouple Input
- Cold Junction Compensated
- Standard Fail-Safe Operation
- Red and Green LED Alarm Status Indicators
- Adjustable Deadband
- Latching Alarm Available (MM1210)
- 5 mV Minimum Input Span
- Unlimited* Choice of Input / Output Ranges
- Upscale Burnout Protection (Downscale Available)
- Choice of Power Options
- 10 Year Warranty

DESCRIPTION

The MM1200 monitors any thermocouple 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 the alarm status.

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 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.

Cold junction compensation is provided by a solid state temperature sensor embedded in the thermocouple terminal strip. All Wilkerson products are designed with RFI filters and lightning

protection to reduce susceptibility to electrical noise and damage by lightning.

Upscale burnout protection is provided as standard. In the event the thermocouple opens, the module behaves as though the input goes offscale high. Option B provides downscale burnout protection (module behaves as though the input goes low).

TYPICAL APPLICATIONS

Heater/cooler control, HI/LO temperature alarm.

SPECIFICATIONS

INPUT RANGE

select any type thermocouple
(min span 5 mV)

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 max

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

ACCURACY

$\pm 0.1\%$ of span

TRANSISTOR OUTPUT (Option V)

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

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 + 1.3 $\mu\text{V})/^\circ\text{C}$ max

POWER

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

- J TC
- K TC
- R TC
- S TC
- T TC
- E TC
- N TC
- B TC
- Other - Specify Notes

Open Sensor Response

- Upscale Downscale

ALARMS

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

TAGS

Specify Tag Numbers

Tag number is typed on product label at no charge.

Enter Tag Number(s)

OPTIONS

- Conformal Coating

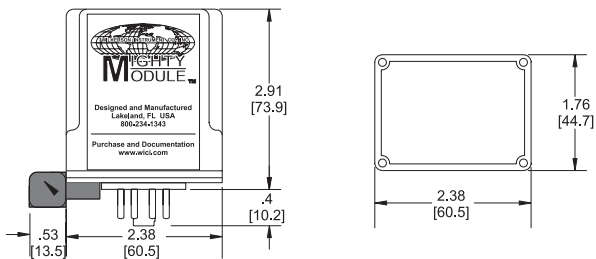
ACCESSORIES

MM1200

| | | |
|-------------|--|-----------|
| 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

| | |
|-------------|---------------------|
| PIN 1 | Power AC L1 or DC + |
| PIN 2 | No Connection |
| PIN 3 | Power AC L2 or DC - |
| T/C Input + | T/C Terminal + |
| T/C Input - | T/C Terminal - |
| 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 |