



MM1500

STRAIN GAUGE (BRIDGE) INPUT SINGLE ALARM

FEATURES

- Provides a DPDT Relay Contact Closure at a Preset Strain Gauge Bridge Input
- 0.5 mV/V to 1 V/V Input Span
- Standard Fail-Safe Operation
- Red and Green LED Alarm Status Indicators
- Unlimited* Choice of Input / Output Ranges
- Choice of Power Options
- 10 Year Warranty

DESCRIPTION

The MM1500 monitors the DC input signal from a strain gauge bridge 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.

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 to the module must be momentarily interrupted to reset the alarm.

All Wilkerson products are designed

with RFI filter and lightning protection to reduce susceptibility to electrical noise and damage by lightning. They also provide a well regulated excitation voltage for the strain gauge and a high quality differential preamplifier to condition the low level output from the bridge.

TYPICAL APPLICATIONS

Weight and pressure control, monitoring or warning.

SPECIFICATIONS

INPUT SPAN

0.5 mV/V to 1 V/V

INPUT IMPEDANCE

200 kilohms

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

TRANSISTOR OUTPUT

(Option V)

2.5 A max, 75 W max, 220 VAC max, 30 VDC max relay driver (12 V coil, ≥ 220 ohms) or open-collector outputs sink 100 mA, 30 V supply max

EXCITATION

adjustable 4 V to 12 V, 40 mA max load

EXCITATION STABILITY

$\pm 0.005\%/^{\circ}\text{C}$

RESPONSE TIME

≤ 500 ms

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/ $^{\circ}\text{C}$ 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.

** Due to pins available, only one set of contacts are available for relay set #2. Specify NO (Normally Open) or NC (Normally Closed).

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

- mV/V mV

Enter Input

Zero Scale

Full Scale

Enter Excitation Voltage

Excitation

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

OPTIONS

- Conformal Coating

TAGS

Specify Tag Number

Tag number is typed on product label at no charge.

Enter Tag Number(s)

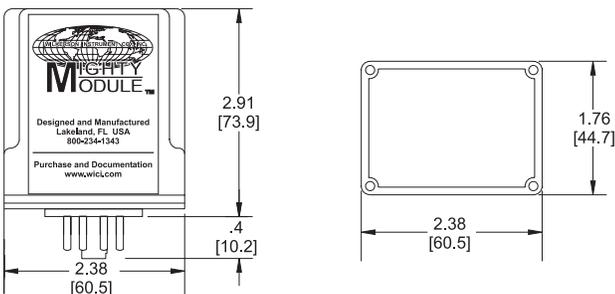
ACCESSORIES

MM1500

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. (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	Relay Set 2 NO or NC
PIN 3	Power AC L2 or DC -
PIN 4	Input + Signal
PIN 5	Input - Signal
PIN 6	No Connection
PIN 7	+ Excitation
PIN 8	- Excitation
PIN 9	Relay 1 NO
PIN 10	Relay 1 C
PIN 11	Relay 1 NC



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