MM1520

STRAIN GAUGE (BRIDGE) INPUT DUAL ALARM

FEATURES

- **Provides Relay Contact Closures at Preset Strain Gauge Bridge Input**
- **0.5 mV/V to 1 V/V Input Span**
- **Fail-Safe, Latching and Adjustable Deadband Available**
- **Red and Green LED Alarm Status Indicators**
- **Unlimited* Choice of Input Ranges**
- **Choice of Power Options**
- **10 Year Warranty**

DESCRIPTION

The MM1520 monitors the DC input signal from a strain gauge bridge and provides two sets of spdt, 5 A alarm relays with two independently adjustable setpoints. Each setpoint has a set of red/green LEDs to indicate alarm status. When the input is between the setpoints, the relays are normally de-energized. When the signal exceeds a particular setpoint, the relay becomes energized. To provide a "fail-safe" operation (loss of power resulting in an alarm state), select Option R. The module can be supplied as a HI/HI, HI/LO, or LO/LO alarm (HI/LO supplied if not specified).

Standard deadband on both alarms is fixed at 0.5% of span. (Option A provides adjustable deadband of 0.5% to 100% of span.) Option D, latching alarms, 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 filters and lightning protection to reduce susceptibility to electrical noise and damage by lightning. It also provides 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
each alarm 0 to 100% of span

DEADBAND
Standard
fixed 0.5% of span
(Option A)
0.5% to 100% of span
(Option D)
Latching. Interrupt power to reset.

RELAY CONTACTS (spdt)**
Resistive Load
5 A max, 150 W max,
240 VAC max, 30 VDC max
Inductive Load
1/8 HP max at 120/240 VAC

TRANSISTOR OUTPUT (Option V)
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
±0.005% / °C

RESPONSE TIME
≤500 ms

ACCURACY
±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
±0.02% of span/°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)
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. 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
- ☐ High/High
- ☐ Low/Low

Alarm Logic

- ☐ Normal - Energize on Alarm
- ☐ Reverse - De-Energize on Alarm

Enter Setpoint - Input Level

☐ Setpoint 1

☐ Setpoint 2

Adjustable Deadband (Option A)

☐ Yes ☐ No

OPTIONS

☐ Conformal Coating

TAGS

Specify Tag Numbers

Tag number is typed on product label at no charge.

Enter Tag Number(s)

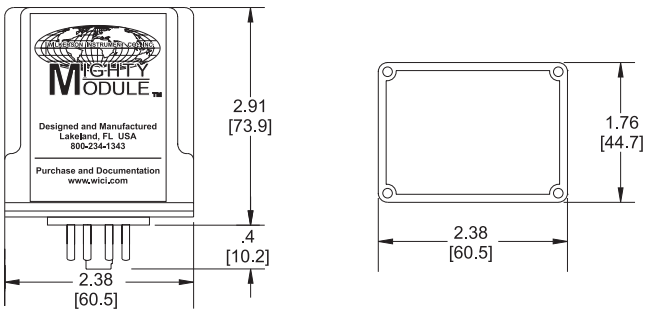
ACCESSORIES

MM1520

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 2 C
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 or NC
PIN 10	Relay 1 C