



# MM4051

## STRAIN GAUGE (BRIDGE) INPUT TRANSMITTER

### FEATURES

- Provides DC Output Proportional to a Strain Gauge Bridge Input
- 0.5 mV/V to 1 V/V Input Span
- Unlimited\* Choice of Input/Output Ranges
- Choice of Power Options
- 10 Year Warranty

### DESCRIPTION

The MM4051 provides an output voltage or current proportional to the output of a strain gauge bridge. It is useful in monitoring load cells, pressure transducers, and other strain gauge sensors.

All Wilkerson products are designed with RFI filters and lightning protection to reduce susceptibility to electrical noise and damage by lightning. The MM4051 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 and data acquisition.

### SPECIFICATIONS

#### INPUT SPAN

0.5 mV/V to 1 V/V

#### EXCITATION STABILITY

±0.005% / °C

#### OPERATING TEMPERATURE

14°F to 140°F / -10°C to 60°C

#### INPUT IMPEDANCE

200 kilohms

#### RESPONSE TIME

≤500 ms

#### 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)

#### OUTPUT RANGE

Voltage

select any range from  
-10 V to +15 V,  
10 mA max load  
(min span 0.2 V)

Current

select any range from  
0 to 50 mA max,  
>24 V compliance  
(1200 ohms max at 20 mA)

#### ACCURACY

±0.1% of span

#### LINEARITY

±0.01% of span

#### COMMON MODE REJECTION

120 dB,  
DC to 60 Hz

Isolation, DC power supply to  
input common: 10 megohms

\* Within specified range limits.

#### EXCITATION

adjustable 4 V to 12 V,  
40 mA max

#### TEMPERATURE STABILITY

±0.02% of span / °C max

**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

**OUTPUT**

**Select Units**

- VDC  mADC

**Enter Output**

Zero Scale

Full Scale

**Select Output Logic**

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

**OPTIONS**

- Conformal Coating

**TAGS**

**Specify Tag Numbers**

Tag number is typed on product label at no charge.

**Enter Tag Number(s)**

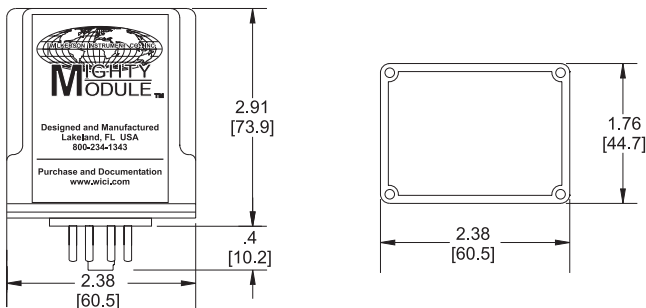
**ACCESSORIES**

**MM4051**

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	No Connection
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	Output +
PIN 10	Output -