



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 + 5 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

INPUT IMPEDANCE

200 kilohms

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)

EXCITATION

adjustable 4 V to 12 V,
40 mA max

EXCITATION STABILITY

±0.005% / °C

RESPONSE TIME

≤500 ms

ACCURACY

±0.1% of span

LINEARITY

±0.01% of span

COMMON MODE REJECTION

120 dB,
DC to 60 Hz

TEMPERATURE STABILITY

±0.02% of span / °C max

OPERATING TEMPERATURE

14°F to 140°F / -10°C to 60°C

POWER

115 VAC ±10%, 50 or 60 Hz
230 VAC ±10%, 50 or 60 Hz
(2.5 W max)

(DC Power Option)

24 VDC
(limits 21 VDC to 32 VDC)
(2.5 W max)

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
- 12 VDC Power, Transformer Isolated
- 24 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)

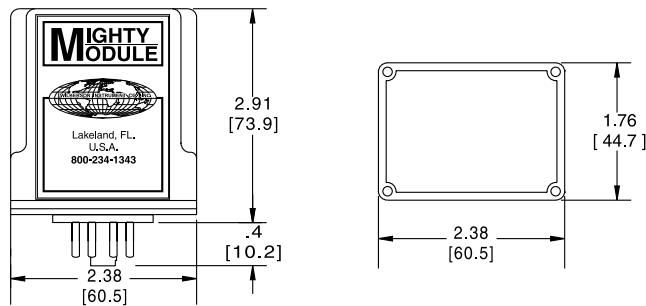
ACCESSORIES

MM4051

DR1	DIN-Rail, 35 mm Symmetrical, 39 inches (1 meter)	QTY _____
MP011	Plastic Socket, 11-pin for Flat Surface or PVC 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 -