



MM4003

POTENTIOMETER POSITION INPUT TRANSMITTER

FEATURES

- Provides DC Output Proportional to a Potentiometer Position Input
- Potentiometer Values from 100 ohms to 100 kilohms
- Unlimited* Choice of Input / Output Ranges
- Fully Isolated Output Available
- Choice of Power Options
- 10 Year Warranty

DESCRIPTION

The MM4003 provides an output voltage or current proportional to the slide position of a potentiometer. It is useful in monitoring valve or actuator position and for creating test signals.

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

Any value potentiometer from 100 ohms to 100 kilohms can be used. The module utilizes a stable 1 V power supply to excite the potentiometer. As the potentiometer is rotated, the slide voltage is proportional to the wiper position.

TYPICAL APPLICATIONS

Tank level, valve or actuator position control, monitoring and data acquisition, creating test signals.

SPECIFICATIONS

INPUT POTENTIOMETER RESISTANCE

any value from 100 ohms to 100 kilohms

SPAN ADJUSTMENT

70% to 100% of pot rotation

OFFSET ADJUSTMENT

0 to 25% of pot rotation

INPUT IMPEDANCE

>10 megohms

EXCITATION

1 V, 10 mA max load

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)

18 V compliance for ISO option if full-scale output >20 mA

RESPONSE TIME (Range Dependent)

≤ 100 ms

ACCURACY

±0.1% of span

LINEARITY

±0.01% of span

COMMON MODE REJECTION

120 dB, DC to 60 Hz

ISOLATION (Optional)

Output / Input

>500 megohms

Breakdown Voltage

>1000 VAC rms

Breakdown, Power / Circuitry

>1500 VAC rms

OUTPUT RIPPLE (Peak-to-Peak)

<0.1% of span

LINEARITY

±0.05% of span

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.

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

Specify Input

Potentiometer input products are calibrated assuming 0 to 100% rotation. Final calibration should be done using the actual system potentiometer.

OUTPUT

Select Units

- VDC mADC

Enter Output

Zero Scale

Full Scale

OPTIONAL

- Conformal Coating

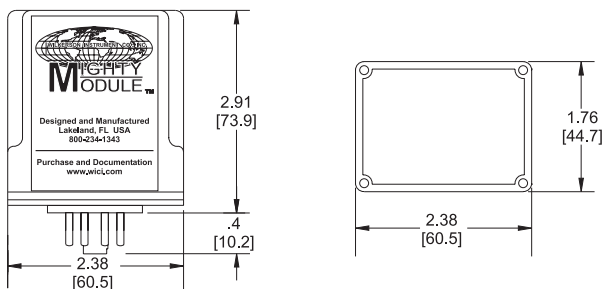
ACCESSORIES

MM4003

DR1	DIN-Rail, 35 mm Symmetrical, 39 inches (1 meter)	QTY _____
MP008	Plastic Socket, 8-pin Panel Mount or PVC Snap Track	QTY _____
TRK48	PVC Snap-Track, 4 ft. for MP008, MP011 & DMP8500	QTY _____
DMP008	DIN-Rail Mounting Socket, 8-pin, 35 mm Symmetrical	QTY _____
CLP1	Holddown Assembly for MP008 and MP011	QTY _____
HKB-HK2D-8	Explosion-Proof Housing with MP008 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 Zero
PIN 5	Input Wiper
PIN 6	Input FS
PIN 7	Output +
PIN 8	Output -



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