



MM4001

RTD INPUT TRANSMITTER

FEATURES

- Provides DC Output Proportional to an RTD Input
- 3-Wire or 2-Wire, 10 ohms to 2000 ohms RTDs
- Unlimited* Choice of Input / Output Ranges
- Linearized for Platinum RTDs
- Fully Isolated Output Available
- Choice of Power Options
- 10 + 5 Year Warranty

DESCRIPTION

The MM4001 provides an output voltage or current proportional to an RTD input signal. It is useful in measuring temperatures with a variety of RTDs.

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

The module utilizes a single constant current source to excite the RTD. An accurate and stable lead wire compensation circuit uses the third lead of the 3-wire RTD to compensate for the RTD lead resistance.

TYPICAL APPLICATIONS

Temperature control, monitoring, and data acquisition.

SPECIFICATIONS

RTD INPUT

3-Wire or 2-Wire,
10 ohms to 2000 ohms

INPUT RANGE

select any range within RTD limit
[min span 25°F/14°C (100°F/55°C with
10 ohms RTD)]

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

EXCITATION CURRENT

10 ohms	10 mA
100 ohms	5 mA
1000 ohms	0.5 mA
2000 ohms	0.2 mA

ISOLATION (Optional)

Output / Input
>500 megohms
Breakdown Voltage
>1000 VAC rms
Breakdown, Power / Circuitry
>1500 VAC rms

OPEN SENSOR OUTPUT

≥full scale

ACCURACY

±0.1% of span

LINEARITY

±0.05% of span
(Pt RTD, output vs temp)
±0.05% of span, (temp ≥32°F/0°C)
±0.15% of span, (temp <32°F/0°C)
(others, output vs res)
±0.01% of span

COMMON MODE REJECTION

120 dB, DC to 60 Hz

OUTPUT RIPPLE (Peak-to-Peak)

<0.1% of span

OPERATING TEMPERATURE

14°F to 140°F/-10°C to 60°C

TEMPERATURE STABILITY

±0.02% of span or 0.025°C/°C,
whichever is greater

POWER

115 VAC ±10%, 50 or 60 Hz
(2.5 W max)

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

- Deg C Deg F

Enter Input

Zero Scale

Full Scale

Select Sensor

- 100 ohm Pt., .00385 Alpha
- 100 ohm Pt., .00392 Alpha
- 100 ohm Pt., .00375 Alpha
- 1000 ohm Pt., .00385 Alpha
- 1000 ohm Pt., .00392 Alpha
- 10 ohm Cu.
- Other - Specify in Notes

Open Sensor Response

- Upscale Downscale

OUTPUT

Select Units

- VDC mADC

Enter Output

Zero Scale

Full Scale

OPTIONS

- Conformal Coating

TAGS

Specify Tag Numbers

Tag number is typed on product label at no charge.

Enter Tag Number(s)

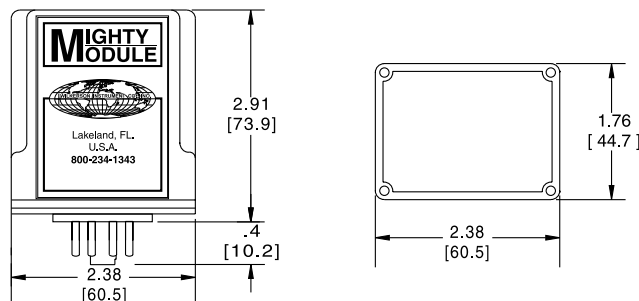
ACCESSORIES

MM4001

DR1	DIN-Rail, 35 mm Symmetrical, 39 inches (1 meter)	QTY _____
MP008	Plastic Socket, 8-pin or Flat Surface PVC Track	QTY _____
TRK48	PVC Snap-Track, 4 ft. for MP008, MP011 & DMP8500	QTY _____
DMP008	DIN-Rail Mounting Socket, 8-pin, 35 mm Symmetrical Rail	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 RTD Lead Compensation
- PIN 5 RTD -
- PIN 6 RTD +
- PIN 7 Output +
- PIN 8 Output -