



# MM4010

## DC INPUT NON-ISOLATED TRANSMITTER

### FEATURES

- Provides DC Output Proportional to DC Input
- NOT Isolated (for Isolated I/O use MM4380A, MM4300 or MM4300A)
- 50 mV or 1 mA Minimum Input Span
- Unlimited\* Choice of Input / Output Ranges
- Choice of Power Options
- 10 Year Warranty

### DESCRIPTION

The MM4010 provides a DC Output voltage proportional to a DC input signal. It is useful in converting a voltage to a current, a current to a voltage, or for scaling signal levels from one amplitude to another.

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

### TYPICAL APPLICATIONS

Voltage/current scaling or level conversion, buffering, noise reduction.

### SPECIFICATIONS

#### INPUT RANGE

Voltage  
select any range between  $\pm 10$  V max\*\*

Current  
select any range between  $\pm 5$  A max (min span 1 mA)

#### INPUT IMPEDANCE

Voltage  
200 kilohms

Current

Current Input	Input Shunt Value
1 mA	100 Ohm
10 mA	10 Ohm
20 mA	5 Ohm
4/20 mA	61.9 Ohm
100 mA	1 Ohm
1 A	0.1 Ohm
5 A	0.01 Ohm

#### 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)

#### ISOLATION

Breakdown, Power / Circuitry  
> 1500 VAC rms

#### RESPONSE TIME (Range Dependent)

$\leq 100$  ms  
WR  $\leq 200$  ms

#### ACCURACY

$\pm 0.1\%$  of span

#### LINEARITY

$\pm 0.01\%$  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

$\pm(0.02\%$  of span + 30  $\mu$ V)/°C max

#### POWER

115 VAC  $\pm 10\%$ , 50/60 Hz (2.5 W max)  
230 VAC  $\pm 10\%$ , 50/60 Hz (2.5 W max)

(DC Power Option)

24 VDC (limits 21-32 VDC) (2.5 W max)  
12 VDC (limits 10-16 VDC) (2.5 W max)

Isolation, DC power supply to input common: 10 megohms.

\* Within specified range limits.

\*\* For input values greater than  $\pm 10$ V use MM4380A wide-ranging isolated transmitter.

**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**

- VDC  mADC

**Enter Input**

Zero Scale

Full Scale

**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)**

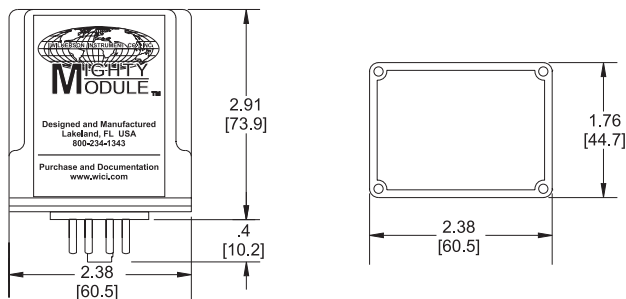
**ACCESSORIES**

**MM4010**

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 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	No Connection
PIN 5	Signal Input +
PIN 6	Signal Input -
PIN 7	Signal Output +
PIN 8	Signal Output -