

MM4380A

DC INPUT, FIELD RANGEABLE ISOLATED TRANSMITTER

FEATURES

- Allows Inputs to ± 256 V or ± 100 mA
- 15 mV or 0.8 mA Minimum Input Span
- Size, Pinouts and Performance Identical to MM4300 & MM4300A
- User-Settable Input and Output Ranges
- Fully Labeled Jumper Positions for Easy Range Settings
- Provides a Fully Isolated DC Output Proportional to DC Input
- Choice of Power Options
- Permanent Warranty

DESCRIPTION

The MM4380A provides a DC output proportional to a DC input. The output is fully isolated from input, line power and ground. The unit is useful in eliminating ground loops and common mode signals.

Input and output ranges are user-settable. Each may be voltage or current, with or without offset. The output response may be normal or reverse-acting. A fully-labeled set of jumpers selects the input and output ranges. The MM4380A is identical in size and fully interchangeable

with fixed-range modules such as the MM4300 and MM4300A.

All Wilkerson products are designed with RFI filters and lightning protection to reduce susceptibility to electrical noise and damage by lightning. It utilizes a feedback VCO to develop a pulse train with a duty cycle proportional to the input signal amplitude. This pulse train is coupled through a pulse transformer to the output circuitry, where the duty cycle data is converted to a proportional DC output level.

TYPICAL APPLICATIONS

Eliminates ground loops and common mode signals. Use for voltage/current scaling and conversion with isolation for buffering and noise reduction. Single-unit replacement module provides field rangeability for all normal input and output ranges.

SPECIFICATIONS

INPUT RANGE

Limits

- any voltage between -256 and $+256$ VDC
- any current between -100 and $+100$ mAdc

Span

- any voltage span from 15 mV to 256 V
- any current span from 0.8 mA to 100 mAdc

Offset

- can cancel any input offset between -110% and $+110\%$ of span

INPUT IMPEDANCE

- Voltage 1 megohm
- Current 20 ohms

OUTPUT RANGE

Voltage	Current
0/.25 V	0/1 mA
0/1 V	0/4 mA
0/5 V	0/20 mA
1/5 V	4/20 mA
0/10 V	
-5/+5 V	
-10/+10 V	

OUTPUT LOAD

- Voltage 10 mA max. (1 kilohm at 10 V)
- Current >24 V compliance (1200 ohms max. at 20 mA)

OUTPUT RESPONSE

- (User Settable)
- normal or reverse acting (example 10 to 0 VDC)

OUTPUT RIPPLE (Peak-to-Peak)

- $< 0.1\%$ of span

ISOLATION

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

RESPONSE TIME

- < 100 ms

ACCURACY

- $\pm 0.1\%$ of span

LINEARITY

- $\pm 0.05\%$ 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 + $2 \mu\text{V})/^{\circ}\text{C}$ max

POWER

- 115 VAC $\pm 10\%$, 50/60 Hz (2.5w max)
- 230 VAC $\pm 10\%$, 50/60 Hz (2.5W max)
- 24 VAC ** $\pm 10\%$, 50/60 Hz (2.5W max)
- (DC Power Option)
- 24 VDC ** (limits 21-32 VDC) (2.5W max)
- 12 VDC ** (limits 10-16 VDC) (2.5W max)

** Not UL Recognized

ORDERING INFORMATION

POWER

- 115 VAC, 50/60 Hz Power
- 230 VAC, 50/60 Hz Power
- 24 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

Select Output Logic

- Normal Acting
- Reverse Acting

OPTIONS

- Conformal Coating

TAGS

Specify Tag Numbers

Tag number is typed on product label at no charge.

Enter Tag Number(s)

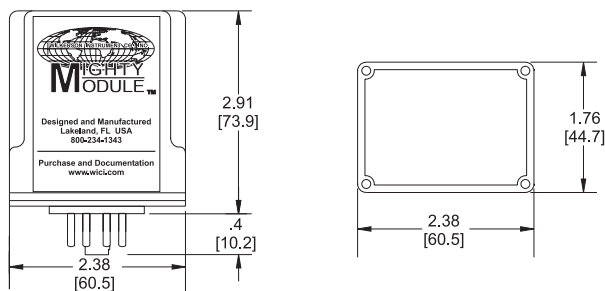
ACCESSORIES

MM4380A

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	Input +
PIN 6	Input -
PIN 7	Output +
PIN 8	Output -