



MM4050

DC INPUT, LOW INPUT SPAN, FIXED RANGE NON-ISOLATED DC TRANSMITTER

FEATURES

- Provides DC Output Proportional to DC Input
- NOT Isolated (for Isolated I/O use MM4310 or MM4380A)
- 10 mV Minimum Input Span
- Unlimited* Choice of Input / Output Ranges
- Choice of Power Options
- 10 Year Warranty

DESCRIPTION

The MM4050 provides a DC output voltage or current 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 and for increasing drive capability.

The MM4050 contains a superior input amplifier for narrow span inputs down to 10 mV.

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

TYPICAL APPLICATIONS

Use for voltage / current scaling or level conversion, buffering and noise reduction.

SPECIFICATIONS

INPUT RANGE

Voltage
select any range between
 ± 10 V max** (min span 10 mV)

Current
select any range between
 ± 5 A max (min span 1 mA
internal shunt)

INPUT IMPEDANCE

Voltage
200 kilohms

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 between
-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)
 ≤ 100 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 +1.3 μ 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 ± 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)

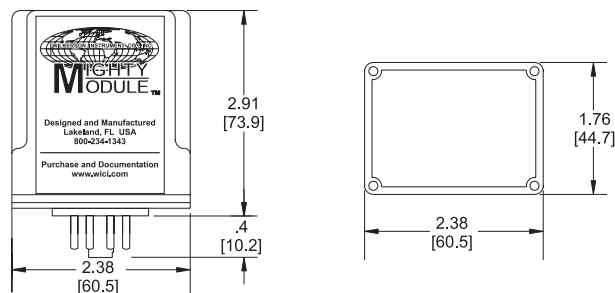
ACCESSORIES

MM4050

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	-



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