



MM4310

DC INPUT, LOW INPUT SPAN FIXED RANGE, ISOLATED TRANSMITTER

FEATURES

- Provides a Fully Isolated DC Output Proportional to DC Input
- 10 mV Minimum Input Span
- Unlimited* Choice of Input/ Output Ranges
- Choice of Power Options
- 10 Year Warranty

DESCRIPTION

The MM4310 provides a DC output, fully isolated from input, line power and ground, proportional to a DC input. It is useful in eliminating ground loops and common mode signals.

The MM4310 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. It utilizes pulse width modulation to develop a pulse train with a duty cycle proportional to the input signal amplitude. This pulse train is coupled through a pulse transformer where the duty cycle data is converted to a proportional DC level in the output circuits.

TYPICAL APPLICATIONS

Eliminates ground loops and large common mode signals. Use for voltage/ current scaling and conversion with isolation for buffering and noise reduction.

SPECIFICATIONS

INPUT RANGE

Voltage
select any range between
 ± 20 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 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 if full-scale
output > 20 mA

OUTPUT RIPPLE (Peak-to-Peak)
<0.1% of span

ISOLATION

Breakdown, Output / Input
>500 megohms
>1000 VAC rms

Breakdown, Power / Circuitry
>1500 VAC rms

RESPONSE TIME

(Range Dependent)
 ≤ 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 +1.3 uV)/°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.

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

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)

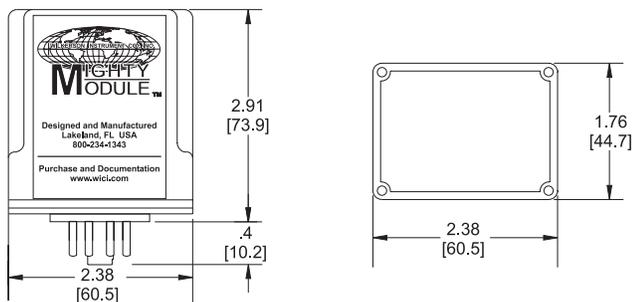
ACCESSORIES

MM4310

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 or DC+
PIN 2	No Connection
PIN 3	Power AC 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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