



MM6010

AC INPUT ISOLATED TRANSMITTER

FEATURES

- Provides DC Output Proportional to AC Input Voltage or Current
- Fully Isolated Output
- 50 mV or 1 mA Minimum Input Span
- Unlimited* Choice of Input / Output Ranges
- Choice of Power Options
- 10 Year Warranty

DESCRIPTION

The MM6010 provides a DC output voltage or current proportional to an AC input signal. It is useful in measuring AC voltages or currents and converting them to DC levels for driving controllers, recorders, meters, or other instruments. All Wilkerson Products are designed with RFI filters and lightning protection to reduce susceptibility to electrical noise and damage by lightning. It utilizes a precision rectifier system to provide

accurate and stable rectification of the AC input signal. The module provides an output signal proportional to the average level of the input signal. It is calibrated assuming a sinusoidal input signal will be applied. Other calibrations are available.

The MM6010 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 level in the input level circuit.

TYPICAL APPLICATIONS

Monitoring power line or power supply voltages and currents. Measuring the output of self-generating process sensors or transducers which generate AC current and measuring current consumption of electrical devices such as motors, pumps or heaters.

SPECIFICATIONS

INPUT RANGE

Voltage

select any range from
0 to 250 V max
(min span 50 mV)

Current

select any range from
0 to 1 A rms max**
(min span 1 mA, internal shunt)

INPUT FREQUENCY

40 Hz to 1 kHz sine wave

INPUT IMPEDANCE

Voltage

200 kilohms

Current

Current Input	Current Shunt Value
1 mA	100 Ohm
10 mA	10 Ohm
20 mA	5 Ohm
100 mA	1 Ohm
1 A	0.1 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, (min span 1 mA)
18 V compliance***
if full scale output >20 mA

RESPONSE TIME

1 sec typical

ACCURACY

±0.5% of span

LINEARITY

±0.5% of span

COMMON MODE REJECTION

120 dB, DC to 60 Hz

ISOLATION

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

OUTPUT RIPPLE (Peak-to-Peak)

±0.05% of span

OPERATING TEMPERATURE

14°F to 140°F/-10°C to 60°C

TEMPERATURE STABILITY

±0.02% of span/°C

POWER

115 VAC ±10%, 50/60 Hz
(2.5 W max)

230 VAC ±10%, 50/60 Hz
(2.5 W max)

(DC Power Option)

24 VDC (limits 21-32 VDC)

12 VDC (limits 10-16 VDC)

Isolation, DC power supply to
input common: 10 megohms

* Within specified range limits.

** For input values greater than 1A rms select appropriate external shunt resistor and use with 0-500 mV rms input.

*** Compliance: The sum of all voltage drops in the output loop cannot exceed 18V at rated current (900 ohms at 20 mA).

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

- VAC mAAC AAC

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)

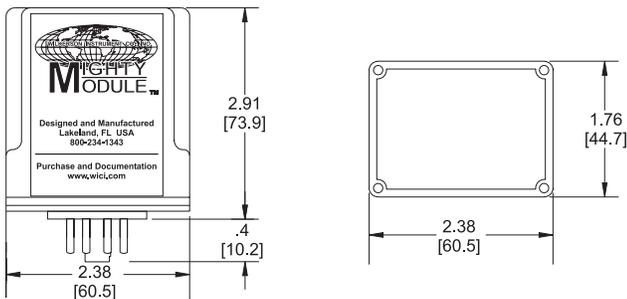
ACCESSORIES

MM6010

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. (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 3	Power AC L2 or DC -
PIN 5	Input Signal
PIN 6	Input Common
PIN 7	Output +
PIN 8	Output -



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