



MM1600

AC INPUT SINGLE ALARM

FEATURES

- Provides a DPDT Relay Contact Closure at a Preset AC Input
- Standard Fail-Safe Operation
- Red and Green LED Alarm Status Indicators
- Adjustable Deadband
- Latching Alarm Available (MM1610)
- 50 mV or 1 mA Minimum Input Span
- Unlimited* Choice of Input / Output Ranges
- Choice of Power Options
- 10 Year Warranty

DESCRIPTION

The MM1600 and MM1610 monitor an AC input signal and trip a dpdt, 5 A relay when the input exceeds the desired level. Normal operation has the relay energized for the non-alarm condition and de-energized for an alarm condition. This provides a “fail-safe” alarm condition for loss of power to the module. The alarm has a set of red/green LEDs to indicate alarm status.

A deadband adjustment allows a deadband of 0.5% to 100% of span to be set into the module. The deadband is symmetrical about the setpoint.

With the latching option, the alarm has no deadband control. Once the limit has been reached the alarm latches and power to the module must be momentarily interrupted to reset the alarm.

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

TYPICAL APPLICATIONS

AC motor/current limit, AC power status or demand warning.

SPECIFICATIONS

INPUT RANGE

Voltage
select any range from
0 to 250 V rms 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 Input Value	Current Shunt Value
1 mA	100 OHM
10 mA	10 OHM
20 mA	5 OHM
100 mA	1 OHM
1 A	0.1 OHM

SETPOINT

0 to 100% of span

DEADBAND

0.5% to 100% of span

RELAY CONTACTS (dpdt)

Resistive Load:
5 A max, 150 W max,
220 VAC max, 30 VDC max

Inductive Load:
(Power factor ≥ 0.4):
2.5 A max, 75 W max,
220 VAC max, 30 VDC max

TRANSISTOR OUTPUT (Option V)

relay driver (12 V coil ≥ 220 ohms)
or open-collector outputs sink
100 mA, 30 V supply max

RESPONSE TIME

1 sec typical

ACCURACY

$\pm 0.5\%$ 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/°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)~~

~~12 VDC (limits 10-16 VDC)~~

Isolation, DC power supply to input common: 10 megohms

* Within specified range limits.

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

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

ALARMS

Alarm Selection Output

- Relay Transistor, O.C.

Alarm Type

- High Low

Alarm Logic

- Normal - De-energize on Alarm
- Reverse - Energize on Alarm

Enter Setpoint - Input Level

Setpoint 1

OPTIONS

- Conformal Coating

TAGS

Specify Tag Numbers

Tag number is typed on product label at no charge.

Enter Tag Number(s)

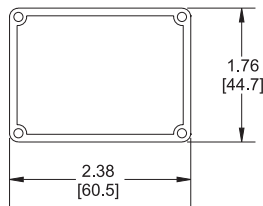
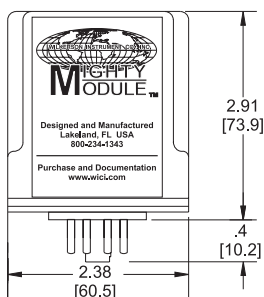
ACCESSORIES

MM1600

DR1	DIN-Rail, 35 mm Symmetrical, 39 inches (1 meter)	QTY _____
MP011	Plastic Socket, 11-pin Panel Mount or PVC Snap Track	QTY _____
TRK48	PVC Snap-Track, 4 ft. (MP008, MP011 & DMP8500)	QTY _____
DMP011	DIN-Rail Mounting Socket, 11-pin, 35 mm Symmetrical Rail	QTY _____
CLP1	Holddown Assembly for MP008 and MP011	QTY _____
HKB-HK2D-11	Explosion-Proof Housing with MP011 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	Input Signal
PIN 5	Input Common
PIN 6	Relay Set 1 NO
PIN 7	Relay Set 1 C
PIN 8	Relay Set 1 NC
PIN 9	Relay Set 2 NO
PIN 10	Relay Set 2 C
PIN 11	Relay Set 2 NC



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