



MM1020

DC INPUT DUAL ALARM

TWO SPDT RELAYS, FIXED RANGE

FEATURES

- Provides Relay Contact Closures at Preset DC Input
- Fail-Safe, Latching and Adjustable Deadband Available
- Red and Green LED Alarm Status Indicators
- 50 mV or 1 mA Minimum Input Span
- Unlimited* Choice of Input Ranges
- Wide Range Input Available
- Choice of Power Options
- 10 Year Warranty

DESCRIPTION

The MM1020 monitors a DC input signal and provides two sets of spdt, 5 A alarm relays with two independently adjustable setpoints. Each setpoint has a set of red/green LEDs to indicate alarm status. When the input is between the setpoints, the relays are normally de-energized. When the signal exceeds a particular setpoint, the relay becomes energized. To provide

a “fail-safe” operation (loss of power resulting in an alarm state), select Option R. The module can be supplied as a HI/HI, HI/LO, or LO/LO alarm (HI/LO supplied if not specified).

Standard deadband on both alarms is fixed at 0.5% of span. (Option A provides adjustable deadband of 0.5% to 100% span.) Option D, latching alarms, 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

DC motor/current limit, level/position control, HI/LO pressure alarm, power demand warning, etc.

SPECIFICATIONS

INPUT RANGE

Voltage
select any range between
±250 V max (min span
50 mV)

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

INPUT IMPEDANCE

Voltage
200 kilohms

Current

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	0.1 Ohm

SETPOINT

Each alarm 0 to 100% of span

DEADBAND

Standard
fixed 0.5% of span

(Option A)
0.5% to 100% of span
(Option D)
Latching. Interrupt power to
reset.

RELAY CONTACTS (spdt)

Resistive Load
5 A max, 150 W max,
240 VAC max, 30 VDC max
Inductive Load
1/8 HP max at 120/240 VAC

TRANSISTOR OUTPUT (Option V)

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

RESPONSE TIME

(Range Dependent)
20 ms typical
WR ≤ 200 ms

ACCURACY

±0.1% of span

LINEARITY (Option T)

±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

±(0.02% of span +30 μV)/°C
max

POWER

115 VAC ±10%, 50 or 60 Hz
(2.5 W max)
230 VAC ±10%, 50 or 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 kilohms

* 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

ALARMS

Alarm Selection - Output

- Relay
- Transistor, O.C.

Alarm Type

- High/Low
- High/High
- Low/Low

Alarm Logic

- Normal - Energize On Alarm
- Reverse - De-energize On Alarm

Enter Setpoint Input Level

Setpoint 1

Setpoint 2

Adjustable Deadband (Option A)

- Yes No

OPTIONS

- Conformal Coating

TAGS

Specify Tag Numbers

Tag number is typed on product label at no charge.

Enter Tag Number(s)

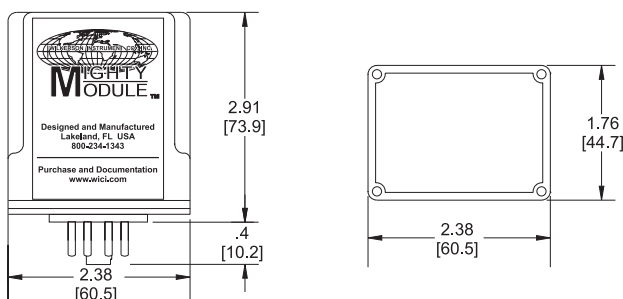
ACCESSORIES

MM1020

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, for 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 +
PIN 5	Input -
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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