



MM1700

FREQUENCY INPUT SINGLE ALARM

FEATURES

- Provides a DPDT Relay Contact Closure at a Preset Frequency Input
- Standard Fail-Safe Operation
- Red and Green LED Alarm Status Indicators
- Adjustable Deadband
- Frequency Limit 60 kHz
- 50 mV to 100 V Peak Input Sensitivity
- Adjustable Threshold for Low Level Noise Rejection
- Unlimited* Choice of Input Ranges
- Input Pullup Resistor Available
- Choice of Power Options
- 10 Year Warranty

DESCRIPTION

The MM1700 monitors a frequency input signal and trips a DPDT, 5 A relay when the input reaches the desired frequency. Alarms may be High acting (alarm trips on an increasing input frequency) or Low acting (alarm trips on an decreasing input frequency). 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.

The wide range of input sensitivity allows the MM1700 to be driven from low level magnetic pickups as well as logic level signals. A threshold adjustment sets the minimum input tamplitude the module will process. This allows the user to trade off sensitivity versus noise rejection. An optional

pullup resistor (Option P) permits use with contact-closure or open-collector inputs.

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

TYPICAL APPLICATIONS

Flow rate, motor speed, conveyor speed, power line frequency on portable generators.

SPECIFICATIONS

INPUT RANGE

select any range from 0 to 10 Hz min to 0 to 60 kHz max

INPUT SENSITIVITY

any voltage from 50 mV to 100 V peak

INPUT IMPEDANCE

100 kilohms

OPTION P

Pullup resistor to + input 10 kilohms to +12 VDC

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

ACCURACY

$\pm 0.1\%$ of span

TRANSISTOR OUTPUT

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

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.

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

- Hz KHz

Enter Input

Full Scale

ALARM

Alarm Selection - Output

- Relay Transistor, O.C.

AlarmType

- 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)

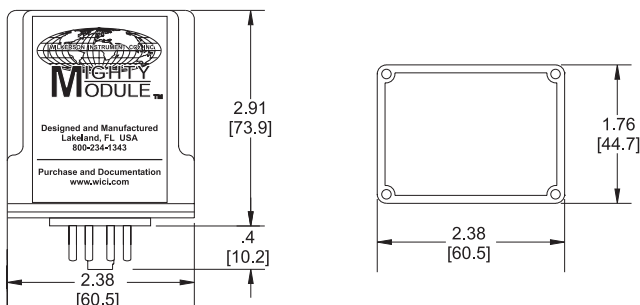
ACCESSORIES

MM1700

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 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 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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