



# 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
- Latching Alarm Available (MM1710)
- 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 + 5 Year Warranty

### DESCRIPTION

The MM1700 monitors a frequency input signal and trips 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.

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 amplitude 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

Flows, speed of motors, conveyors, etc., control/limit alarm.

### 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

#### OPEN CIRCUIT VOLTAGE

+12 VDC

#### OPTION P

Pullup resistor to + input  
10 kilohms

#### 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  $\geq 0.4$ )  
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,  $\pm 220$  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 or 60 Hz  
(2.5 W max)  
230 VAC  $\pm 10\%$ , 50 or 60 Hz  
(2.5 W max)

(DC Power Option)

24 VDC  
(limits 21 VDC to 32 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
- 12 VDC Power, Transformer Isolated
- 24 VDC Power, Transformer Isolated

**INPUT**

**Select Units**

- Hz     KHz

**Enter Input**

Zero Scale

Full Scale

**ALARM**

**Alarm Selection - Output**

- Relay     Transistor, O.C.

**AlarmType**

- High     Low

**Alarm Logic**

- Normal - Energize On Alarm
- Reverse - De-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)**

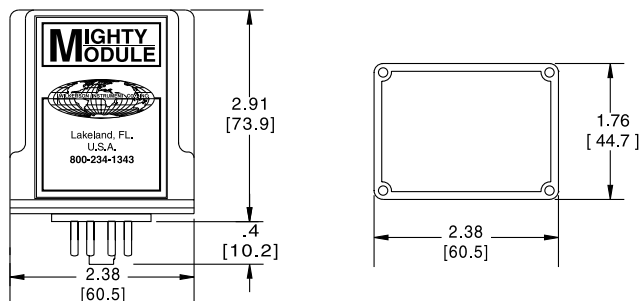
**ACCESSORIES**

**MM1700**

DR1	DIN-Rail, 35 mm Symmetrical, 39 inches (1 meter)	QTY _____
MP011	Plastic Socket,, 11-pin for Flat Surface or PVC 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