

FREQUENCY MONITOR

DARE frequency sensors are used in aircraft, ground support equipment, and industrial applications where system equipment is sensitive and subject to damage by fluctuations in power line frequency. Frequency sensors connect and disconnect the frequency sensitive equipment from power sources and generators during changes in frequency to avoid damage and false operations. Frequency sensors can be used to de-energize electrical systems or activate alarm devices when power line frequency varies from the specified frequency.



DESIGN FEATURES

- AC or DC input power
- 50 Hz, 60 Hz, or 400 Hz operation
- Supplementary (other than sensing) power not required to operate
- Solid state outputs
- Relay outputs from SPDT to 4PDT up to 25 amps
- Custom configurations available
- Wide variety of finishes, enclosures, connectors, and mounting arrangement

OPERATION

The frequency sensor monitors line frequency. In fixed or adjustable trip point units, the circuit continuously senses the input or line frequency. When the frequency reaches a specific set trip point (eg. 380 Hz \pm 1%), the circuit pulls in on increasing frequency or drops out on decreasing frequency, switching the output relay contacts. In band pass fixed or adjustable units, the circuit also continuously senses the input frequency. When the input frequency is within the band pass (eg. 380 - 420 Hz \pm 1%), the output relay energizes. When the input frequency is below the lower end of the band pass (eg. 380 Hz \pm 1%) or above the higher end (eg. 420 Hz \pm 1%), the output relay de-energizes and remains in this state until input frequency returns to the limits of band pass.

GENERAL SPECIFICATIONS

ELECTRICAL Input (Operating)		ENVIRONMENTAL CHARACTERISTICS	
Nominal Voltage:	115/220/440 VRMS or 28 Vdc	Temperature:	Per MIL-STD-810, Methods 501, 502
Nominal Frequency:	50/60/400 Hz \pm 20%	Operating:	-55°C to +125°C -or- -40°C to +85°C
Voltage Transients:	MIL-STD-704, Limits 1, 2, 3	Storage:	-65°C to +150°C
Input (Sense)		Vibration:	Per MIL-STD-810, Method 514 Procedure I 10-2000 Hz., 20 G's
Voltage Operation Band:	115, 220 Vrms \pm 20% wye	Acceleration:	Per MIL-STD-810, Method 513 Procedure I and II, \pm 10 G's
Frequency Operation Band:	50/60/400 Hz \pm 20%	Shock:	Per MIL-STD-810, Method 516 Procedure I, 50 G's - 11 ms
Set Point Accuracy	\pm 1%	Humidity:	Per MIL-STD-810, Method 507, Procedure II
Time Delay:	As Required*	Altitude:	Per MIL-STD-810, Method 504 Category 6 Equipment, Sea Level to 70,000 Ft.
Output Contacts		CONSTRUCTION	
Configuration:	SPDT up to 4PDT	Enclosure	Hermetically sealed and encapsulated (See drawings of basic styles):
Contact Rating @ 28 VDC		Connector	Glass to metal seal, solder hook, or MS3113H type connector (See wiring diagram of typical pin-out connections)
Resistive:	2 A 5A 10 A 25A	Finish:	Various finishes available
Inductive:	.75 A 3A 6 A 12A		
Contact Life:	50,000 operations, minimum		
Contact Resistance, Initial:	.075 ohms, maximum		
Dielectric Strength:	1000 VRMS @ 60 Hz		
Insulation Resistance	100 meagohms @ 500 Vdc		

- These parameters can be custom specified to ensure maximum performance and reliability for any application
- Contact factory for special requirements

CALL 1-800-FON-DARE

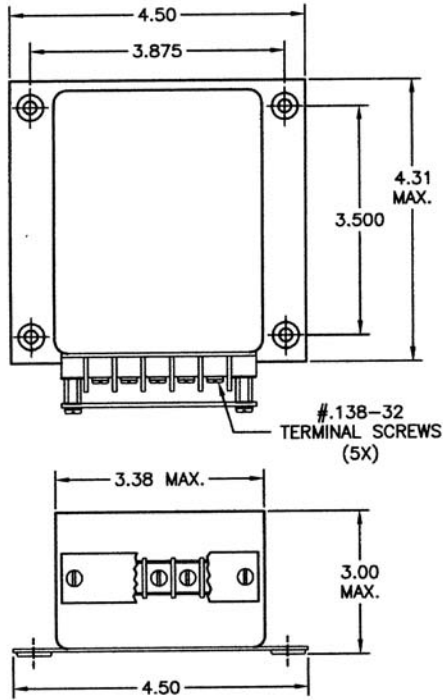


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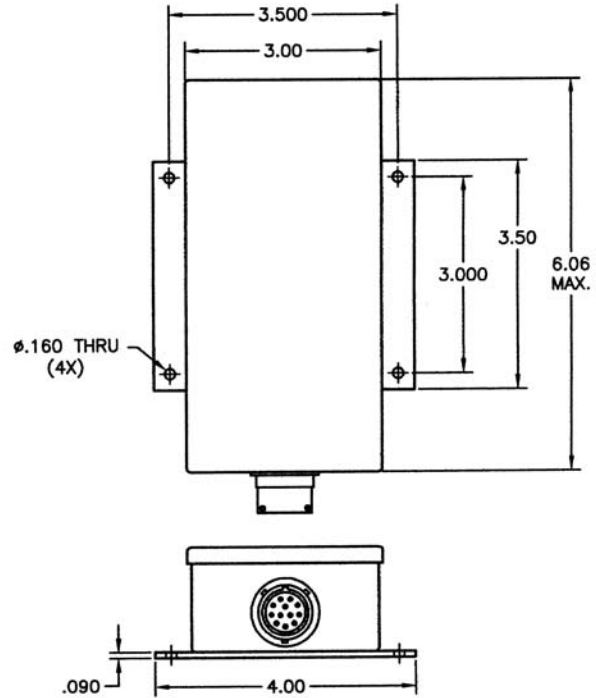
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**FREQUENCY
 MONITOR**

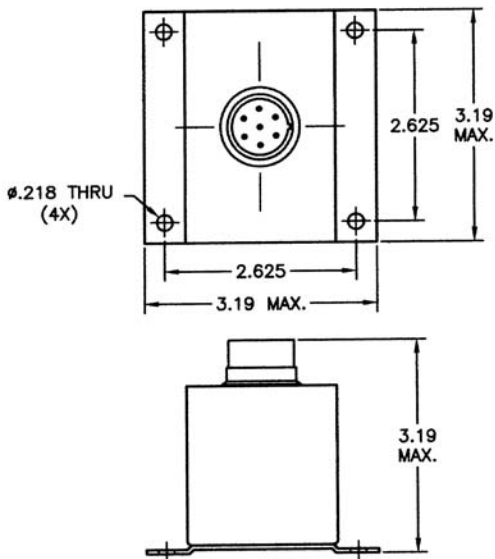
STANDARD ENCLOSURE STYLES



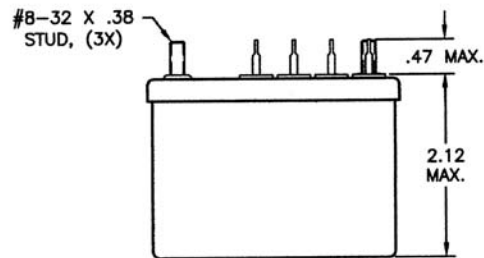
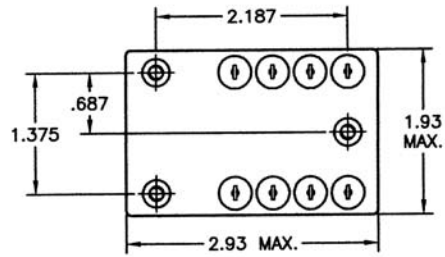
MODEL "A"



MODEL "B"



MODEL "C"



MODEL "D"

Contact Factory for Additional Styles & Options

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