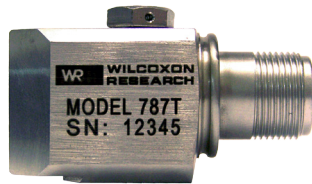
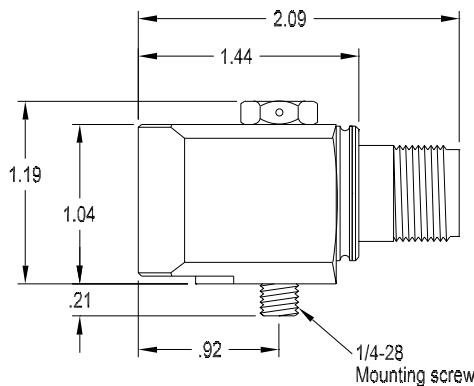
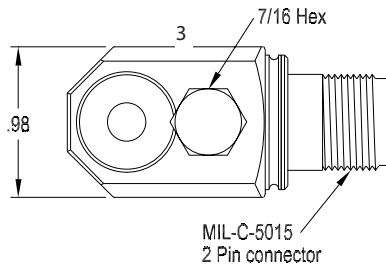


Wilcoxon Research model 787T General purpose accelerometer with internal temperature sensor



Features

- Measures both acceleration and temperature
- Rugged design
- Corrosion resistant
- Hermetic seal
- Case isolated
- ESD protection
- Reverse wiring protection



Dynamic

Sensitivity, $\pm 5\%$, 25° C.....	100 mV/g
Acceleration range, VDC >25V	80 g peak
Amplitude nonlinearity	1%
Frequency response:	
$\pm 5\%$	1 - 5,000 Hz
$\pm 10\%$	0.7 - 10,000 Hz
± 3 dB.....	0.5 - 12,000 Hz
Resonance frequency.....	22 kHz
Transverse sensitivity, max.....	5% of axial
Temperature response:	
-25° C.....	-10%
+120° C.....	+10%

Temperature sensor

Output sensitivity	10 mV/°C
Measurement range.....	2 to 120° C

Electrical

Power requirement:	
Voltage source ¹	18 - 30 VDC
Current regulating diode ^{1,2}	2 - 10 mA
Electrical noise, equiv. g:	
Broadband 2.5 Hz to 25 kHz	700 μ g
10 Hz.....	10 μ g/ \sqrt Hz
100 Hz.....	5 μ g/ \sqrt Hz
1000 Hz.....	5 μ g/ \sqrt Hz
Spectral	100 Ω
Output impedance, max.	12 VDC
Bias output voltage, nominal.	case isolated, internally shielded
Grounding	

Environmental

Temperature range.....	-50 to 120° C
Vibration limit.....	500 g peak
Shock limit.....	5,000 g peak
Electromagnetic sensitivity, equiv. g, max	70 μ g/gauss
Sealing	hermetic
Base strain sensitivity, max.....	0.002 g/ μ strain

Physical

Sensing element design.....	PZT, shear
Weight.....	145 g
Case material.....	316L stainless steel
Mounting.....	1/4-28 captive screw with 0.046" dia safety wire hold
Output connector.....	3 pin, MIL-C-5015 style
Mating connector.....	3 socket, MIL-C-5015 style
Recommended cabling	3 conductor, shielded

Connections

Function	Connector pin shell
ground	A
accelerometer power / signal	B
accelerometer and temperature sensor common	C
temperature sensor signal	

Accessories supplied: 1/4-28 captive screw; optional M6 captive screw

Notes: ¹ To minimize the possibility of signal distortion during high vibration signals, 24 to 28 VDC powering is recommended. The higher level constant current source should be used when driving long cables (please consult the manufacturer).
² A maximum current of 6 mA is recommended for operating temperatures in excess of 100° C.

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