

Wilcoxon Research model 780A-IS Intrinsically safe certified accelerometer

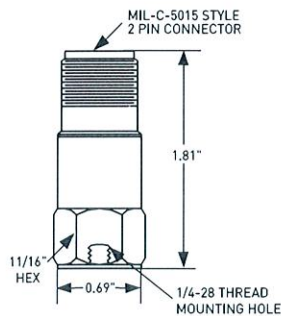


Features

- Rugged design
- Corrosion resistant
- Hermetic seal
- Case isolated
- ESD protection
- Reverse wiring protection
- EMI / RFI shielded

Benefits

- Able to fit in small spaces
- Cross wiring will not harm sensor
- Prevents ground loops in permanent mount applications
- Can be hosed down or submersed with proper connector
- Magnet or permanent mount applications



Dynamic

Sensitivity 25° C, ± 5%.....	100 mV/g
Acceleration range	80 g peak
Amplitude nonlinearity.....	1%
Frequency response:	
± 5%.....	1 - 7,000 Hz
± 10%.....	0.7 - 9,000 Hz
± 3 dB	0.4 - 14,000 Hz
Resonance frequency.....	30 kHz
Transverse sensitivity, max.....	5% of axial
Temperature response:	
-25° C.....	-10%
+120° C.....	+10%

Electrical

Power requirement:	
Voltage source	18 - 30 VDC
Current regulating diode	2 - 10 mA
Electrical noise, equiv g:	
Broadband 2.5 Hz to 25 kHz	500 µg
Spectral	
10 Hz	7 µg/√Hz
100 Hz	4 µg/√Hz
1000 Hz	2 µg/√Hz
Output impedance, max.....	100 Ω
Bias output voltage	12 VDC
Grounding.....	case isolated, internally shielded

Environmental

Temperature range	-50 to 120° C
Vibration limit.....	500 g peak
Shock limit	5,000 g peak
Electromagnetic sensitivity, equiv g, max	70 µg/gauss
Sealing	hermetic
Base strain sensitivity, max	0.0002 g/µstrain

Physical

Sensing element design.....	PZT, shear
Weight.....	62 g
Case material.....	316L stainless steel
Mounting	1/4-28 UNF tapped hole
Output connector	2 pin, MIL-C-5015 style
Mating connector	R6 type
Recommended cabling	J10 / J9T2A

Connections

Function	Connector pin
ground	shell
power / signal	A
common	B

Accessories supplied: SF6 mounting stud (International customers specify mounting requirements); calibration data (level 2)

Optional required accessories available: ISBS-STD-08: MTL 7728+ safety barrier

Note: Frequency response and spectral noise values are typical

Class I, Div 1 Groups A, B, C, D
 Class II, Div 1 Groups E, F, G
 Class III, Div 1
 Class I, Zone 0, Ex ia IIC T4
 Class I, Zone 0, Aex ia IIC T4

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For hazardous area locations, sensor must be installed in accordance with installation instructions or local code requirements. Electrical safety barrier required for hazardous area installations.

