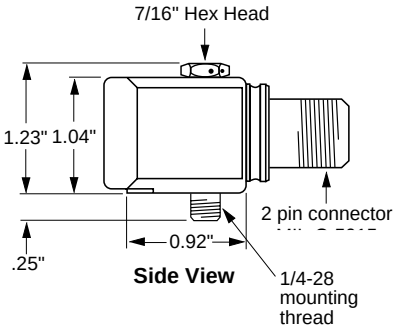
w i l c o x o n

Model 787A-IS
Intrinsically Safe Certified Low Profile Accelerometer

FEATURES

- Intrinsically Safe Certified
- Hermetic design
- Ground isolated
- ESD protection
- Reverse wiring protection
- Mounts in any orientation



DYNAMIC

Sensitivity, ±10%, 25°C	100 mV/g
Acceleration Range	80 g peak
Amplitude Nonlinearity	1%
Frequency Response:	
±10%	1.0 - 5,000 Hz
±3 dB	0.7 - 10,000 Hz
Resonance Frequency	22 kHz
Transverse Sensitivity, max	5% of axial
Temperature Response:	
-50°C	-5%
+120°C	+5%

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	700 μg
Spectral	10 Hz	10 μg/√Hz
	100 Hz	5 μg/√Hz
	1000 Hz	5 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
Shock Limit, min.	5,000 g
Electromagnetic Sensitivity, equiv. g, max	70 μg/gauss
Sealing	Hermetic
Base Strain Sensitivity, max	0.002 g/μstrain

PHYSICAL

Sensing Element Design	PZT ceramic / shear
Weight	145 grams
Case Material	316L stainless steel
Mounting	1/4 - 28 captive hex head screw with 0.046" diameter safety wire hole
Output Connector	2 pin, MIL-C-5015 style
Mating Connector	R6 type
Recommended Cabling	J10 / J9T2A

CONNECTOR PIN	FUNCTION	CABLE CONDUCTOR COLOR
SHELL	ground	Shield
A	power/ signal	White
B	common	Black

ACCESSORIES SUPPLIED: #80165-01 captive hex head screw; Calibration data (level 2).

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
EEx ia IIC T4

ISO 9001

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Due to continued research and development, Wilcoxon Research reserves the right to amend this specification without notice.

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