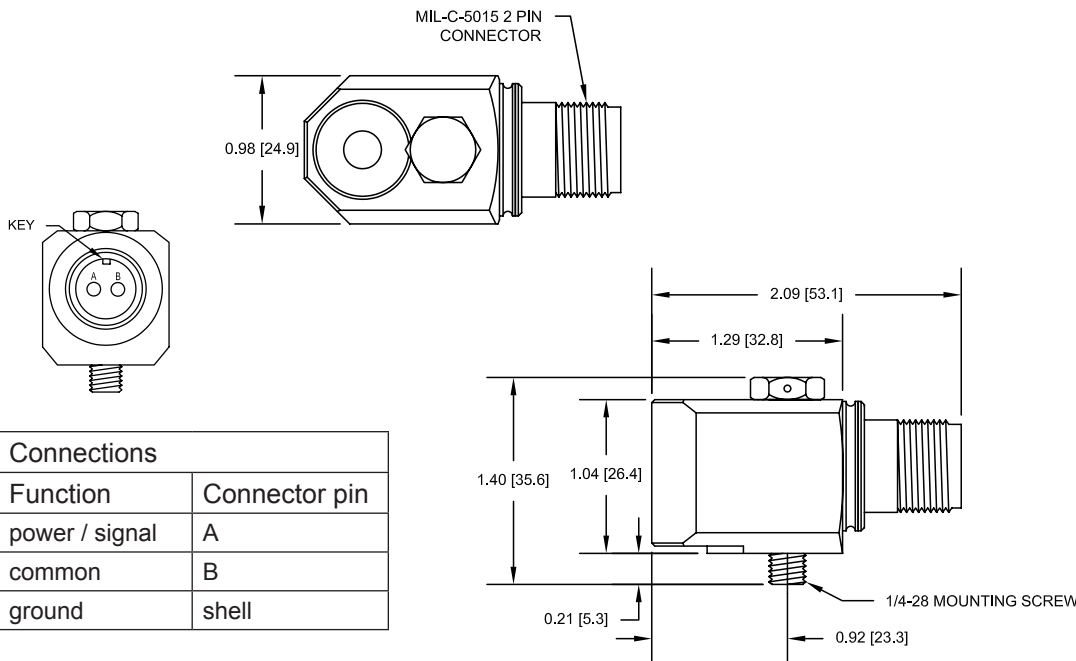


Class I, Div 2 certified accelerometer 787A-D2



Wilcoxon's side-exit 100 mV/g broadband sensor is ideal for monitoring machine vibration on a wide range of rotating equipment including motors, pumps, fans, compressors, turbines and generators. A 316L stainless steel casing provides rugged durability for the most extreme environments. The sensing element is housed in a case-isolated Faraday shield, providing maximum protection from ground loops and RF interference.

The 787A-D2 is classified for usage in Class I Division 2/Zone 2 locations where ignitable gases, vapors or liquids are handled, processed or used but are not usually present during normal operation and can only escape through accidental rupture, breakdown or leaks.



Key features

- Mounts in any orientation
- Hermetically sealed
- ESD-protected
- Reverse wiring protection
- Class I, Div 2/Zone 2 certified, non-incendive
- Manufactured in an approved ISO 9001 facility

Certifications



Class I, Div 2 Groups A, B, C, D
Class I, Zone 2
AEx/Ex nA II T4
Tamb: -50°C to 120°C



II 3 G
Ex nA IIC T4 Gc
-50°C ≤ Tamb ≤ 120°C

For hazardous area locations, sensor must be installed in accordance with installation instructions or local code requirements. Special conditions for safe use: ambient temperature range is dependent on the cable type used:

FEP (Teflon): -50°C to 120°C
Santoprene: -45°C to 115°C



Note: Due to continuous process improvement, specifications are subject to change without notice. This document is cleared for public release.

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Wilcoxon Sensing Technologies
An Amphenol Company

Class I, Div 2 certified accelerometer 787A-D2

SPECIFICATIONS

	English	Metric
Sensitivity, $\pm 5\%$, 25° C	100 mV/g	9.8 mV/m/sec ²
Acceleration range, VDC >25 V	80 g peak	784 m/sec ²
Amplitude nonlinearity	1%	1%
Frequency response:		
$\pm 10\%$	60 - 300,000 CPM	1 - 5,000 Hz
± 3 dB	30 - 600,000 CPM	0.5 - 10,000 Hz
Resonance frequency	1.32 kCPM	22 kHz
Transverse sensitivity, max	5% of axial	5% of axial
Temperature response:		
-25° C	-10%	-10%
+120° C	+10%	+10%
Voltage source	18 - 30 VDC	18 - 30 VDC
Current regulating diode	2 - 10 mA	2 - 10 mA
Electrical noise, equiv g:		
Broadband 2.5 Hz to 25 kHz	700 μ g	6.9×10^{-3} m/sec ²
Spectral 10 Hz	10 μ g/ $\sqrt{\text{Hz}}$	9.8×10^{-5} m/sec ² / $\sqrt{\text{Hz}}$
100 Hz	5 μ g/ $\sqrt{\text{Hz}}$	4.9×10^{-5} m/sec ² / $\sqrt{\text{Hz}}$
1000 Hz	5 μ g/ $\sqrt{\text{Hz}}$	4.9×10^{-5} m/sec ² / $\sqrt{\text{Hz}}$
Output impedance, max	100 Ω	100 Ω
Bias output voltage	12 VDC	12 VDC
Grounding	case isolated, internally shielded	
Temperature range	-58 to +248° F	-50 to +120° C
Vibration limit	500 g peak	4,900 m/sec ² peak
Shock limit	5,000 g peak	49,000 m/sec ² peak
Electromagnetic sensitivity, equiv g, max	70 μ g/gauss	6.9×10^{-4} m/sec ² /gauss
Sealing	hermetic	hermetic
Base strain sensitivity, max	0.002 g/ μ strain	
Sensing element design	PZT, shear	PZT, shear
Weight	5.11 oz	145 g
Case material	316L stainless steel	316L stainless steel
Mounting	1/4-28 captive hex head screw, 0.046" diameter safety wire hole	
Output connector	2 pin, MIL-C-5015 style	
Recommended cabling	J9T2A/J9F	

Contact

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Accessories supplied:

- 1/4-28 captive hex head screw
- Calibration data (level 2)

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