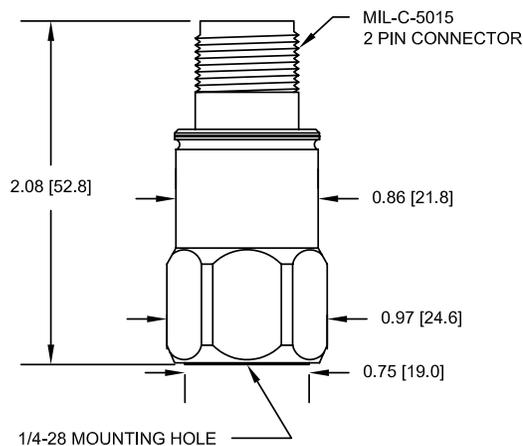


Wilcoxon Research®

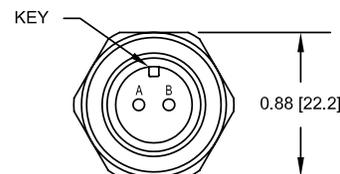
# General purpose accelerometer 786A



The top-exit Wilcoxon Research® 100 mV/g broadband sensor provides longlasting reliability with MTBF 25 years. The general purpose accelerometer is ideal for monitoring machine vibration on a wide range of rotating equipment such as motors, pumps, fans, compressors, turbines and generators. 316L stainless steel casing provides rugged durability for most extreme environments. The sensing element is housed in a case-isolated Faraday shield, providing maximum protection from ground loops and RF interference. Certified versions are available for use in hazardous areas.



Connections	
Function	Connector pin
power/signal	A
common	B
ground	shell



786 series models	
Model	Description
786A-IS	Certified for Class I Div 1 areas
786A-D2	Certified for Class I Div 2 areas

## Key features

- Case isolated
- Hermetically sealed
- ESD-protected
- EMI/RFI shielded
- Reverse wiring protection
- Manufactured in an approved ISO 9001 facility

## Certifications



Optional certified versions available for use in hazardous areas

- Class I Div 1 (Zone 0/1)
- Class I Div 2 (Zone 2)



## Meggitt Sensing Systems

### Our energy product competencies and services

Machinery protection | Condition monitoring | Integrated performance monitoring | Partial discharge monitoring | Sensors for extreme environments  
Ignition systems | Flame detection and analysis | **Industrial monitoring solutions** | Nuclear products

98692 Rev D.2 08/15

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smart engineering for  
extreme environments

Wilcoxon Research®

# General purpose accelerometer 786A

## Specifications

	English	Metric
<b>Sensitivity, ± 5%, 25° C</b>	100 mV/g	10.2 mV/m/sec <sup>2</sup>
<b>Acceleration range, VDC &gt;25 V</b>	80 g peak	784 m/sec <sup>2</sup>
<b>Amplitude nonlinearity</b>	1%	1%
<b>Frequency response</b>		
± 5%	180 - 300,000 CPM	3 - 5,000 Hz
± 10%	60 - 540,000 CPM	1 - 9,000 Hz
± 3 dB	30 - 840,000 CPM	0.5 - 14,000 Hz
<b>Resonance frequency</b>	1.80 kCPM	30 kHz
<b>Transverse sensitivity, max</b>	5% of axial	5% of axial
<b>Temperature response</b>		
-25° C	-10%	-10%
+120° C	+10%	+10%
<b>Voltage source</b>	18 - 30 VDC	18 - 30 VDC
<b>Current regulating diode</b>	2 - 10 mA	2 - 10 mA
<b>Electrical noise, equiv g</b>		
Broadband 2.5 Hz to 25 kHz	700 µg	6.9 x 10 <sup>-3</sup> m/sec <sup>2</sup>
Spectral		
10 Hz	10 µg/√Hz	9.8 x 10 <sup>-5</sup> m/sec <sup>2</sup> /√Hz
100 Hz	5 µg/√Hz	4.9 x 10 <sup>-5</sup> m/sec <sup>2</sup> /√Hz
1000 Hz	5 µg/√Hz	4.9 x 10 <sup>-5</sup> m/sec <sup>2</sup> /√Hz
<b>Output impedance, max</b>	100 Ω	100 Ω
<b>Bias output voltage</b>	12 VDC	12 VDC
<b>Grounding</b>	case isolated, internally shielded	case isolated, internally shielded
<b>Temperature range</b>	-58 to +248° F	-50 to +120° C
<b>Vibration limit</b>	500 g peak	4,900 m/sec <sup>2</sup> peak
<b>Shock limit</b>	5,000 g peak	49,000 m/sec <sup>2</sup> peak
<b>Electromagnetic sensitivity, equiv g, max</b>	70 µg/gauss	6.9 x 10 <sup>-4</sup> m/sec <sup>2</sup> /gauss
<b>Sealing</b>	hermetic	hermetic
<b>Base strain sensitivity, max</b>	0.0002 g/µstrain	1.9 x 10 <sup>-3</sup> m/sec <sup>2</sup> /µstrain
<b>Sensing element design</b>	PZT, shear	PZT, shear
<b>Weight</b>	3.17 oz	90 g
<b>Case material</b>	316L stainless steel	316L stainless steel
<b>Mounting</b>	1/4-28 UNF tapped hole	1/4-28 UNF tapped hole
<b>Mating connector</b>	MIL-5015 style	MIL-5015 style
<b>Recommended cabling</b>	J10/J9T2A	J10/J9T2A

Accessories supplied: SF6 mounting stud, calibration data (level 2)

Note: Due to continuous process improvement, specifications are subject to change without notice.

This document is cleared for public release.

## Contact

### Meggitt Sensing Systems

20511 Seneca Meadows Parkway  
Germantown MD 20876, USA  
Tel: +1 (301) 330 8811  
Fax: +1 (301) 330 8873  
wilcoxon@meggitt.com  
www.wilcoxon.com  
www.meggitt.com

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