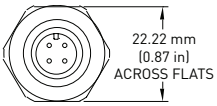
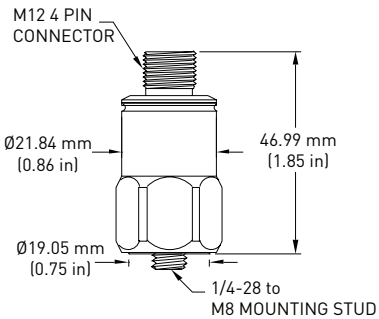
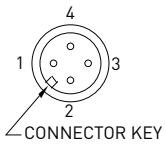
Wilcoxon Research model 786-500-M12
General purpose low frequency accelerometer

Features
- M12 connector
- Rugged design
- High sensitivity
- Hermetic seal
- ESD protection
- Reverse wiring protection

Benefits
- Clear signals at low vibration levels
- Extended low end frequency response
- Improved signal to noise ratio versus other general purpose accelerometers
- A single sensor can detect both low and high speed vibrations
- Optimized to detect vibration on slow turning machinery like cooling tower fans and slow speed gearboxes







Dynamic

Sensitivity, ± 5%, 25° C	500 mV/g
Acceleration range, VDC ›22V	10 g peak
Amplitude nonlinearity	1%
Frequency response[1]:	
± 5%	0.7 - 5,000 Hz
±10%	0.5 - 9,000 Hz
± 3 dB	0.2 - 14,000 Hz
Resonance frequency	30 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[1]:	
Broadband 2.5 Hz to 25 kHz	250 µg
Spectral 10 Hz	2.5 µg/√Hz
100 Hz	1.5 µg/√Hz
1000 Hz	1.5 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 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	90 g
Case material	316L stainless steel
Mounting	1/4-28 UNF tapped hole
Mating connector	M12 style, 4 or 5 pin
Recommended cabling	J10 / J9T2A

Connections

Function	Connector pin
ground	shell
power / signal	1
common	2
N/C	3
N/C	4

Accessories supplied: SF6M mounting stud; calibration data (level 2)

Note: [1]Frequency response limits and spectral noise values are typical

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