

Compact sensor with integral cable

780FM-2-J88C

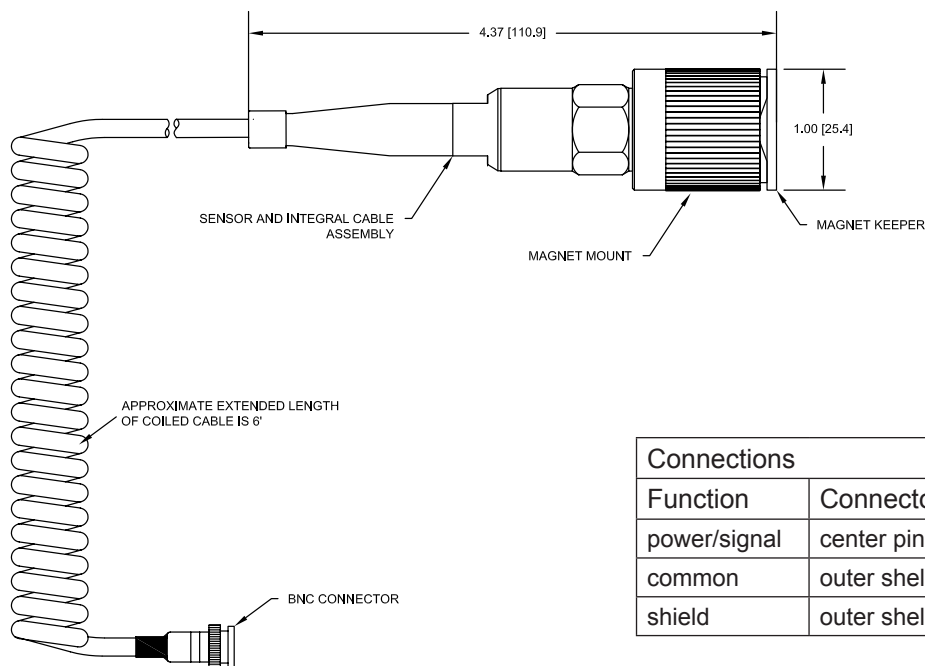


The top-exit Wilcoxon 100 mV/g integral cable sensor is designed for walkaround predictive maintenance applications. The general purpose accelerometer is ideal for monitoring machine vibration on a wide range of rotating equipment such as motors, pumps, fans, compressors, turbines and generators. The sensing element is housed in a case-isolated Faraday shield, providing maximum protection from RF interference. BNC termination provides easy connection to portable data collectors or handheld vibration meters. A 316L stainless steel casing provides rugged durability for most extreme environments. The durable J88C coiled cable stretches up to six feet for quick and easy monitoring. An included two-pole, 40 pound force pull-strength magnet provides maximum flexibility in the field.

Key features

- Designed for walkaround programs
- Rugged design
- Corrosion resistant
- Hermetically sealed
- Case isolated
- ESD-protected
- Manufactured in an approved ISO 9001 facility

Certifications



Connections	
Function	Connector pin
power/signal	center pin
common	outer shell
shield	outer shell

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

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SPECIFICATIONS

	English	Metric
Sensitivity, 25° C	100 mV/g	10.2 mV/in/sec ²
Sensitivity tolerance	±15%	±15%
Acceleration range	80 g peak	784.5 m/sec ² peak
Amplitude nonlinearity	1%	1%
Frequency response:		
±5%	60 - 36,000 CPM	1 - 6,000 Hz
±10%	42 - 480,000 CPM	0.7 - 8,000 Hz
±3 dB	24 - 720,000 CPM	0.4 - 12,000 Hz
Resonance frequency	1,800 kCPM	30 kHz
Transverse sensitivity, max	5% of axial	5% of axial
Temperature effect on sensitivity:		
-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	500 µg	4.9 mm/sec ²
Spectral 10 Hz	7 µg/√Hz	6.8 x 10 ⁻² mm/sec ²
100 Hz	4 µg/√Hz	3.9 x 10 ⁻² mm/sec ²
1000 Hz	2 µg/√Hz	1.9 x 10 ⁻² mm/sec ²
Output impedance, max	100 Ω	100 Ω
Bias output voltage	12 VDC	12 VDC
Grounding	case isolated, internally shielded	
Temperature range:		
Sensor head	-58 to +248° F	-50 to +120° C
Cable	-40 to +176° F	-40 to +80° 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 µg/gauss	6.9 x 10 ⁻⁴ m/sec ² /gauss
Sealing	hermetic	
Base strain sensitivity, max	0.0002 g/µstrain	1.9 x 10 ⁻³ m/sec ² /µstrain
Hydrostatic pressure	100 psi	100 psi
Sensing element design	PZT, shear	PZT, shear
Weight	5.30 oz	150.5 g
Case material	316L stainless steel	316L stainless steel
Mounting	1/4-28 UNF tapped hole	1/4-28 UNF tapped hole
Integral cable	J88C	J88C

Contact

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Accessories supplied:

- Calibration data (level 2)
- Two-pole 40 lbf magnet

Note: Frequency response and spectral noise values are typical.

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