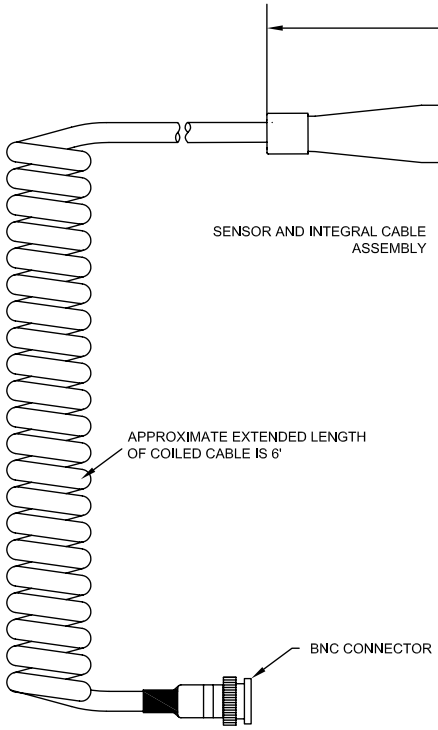
Wilcoxon Research®

Compact sensor with integral cable

780FM-2-J88C

The top-exit Wilcoxon Research® 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.



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

Key features

- Designed for walkaround programs
- Rugged design
- Corrosion resistant
- Hermetically sealed
- Case isolated
- ESD-protected
- Manufactured in an approved ISO 9001 and AS9100 facility

Certifications

CE

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

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MEGGiTT
smart engineering for
extreme environments

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Specifications

		English	Metric
Sensitivity, 25° C		100 mV/g	100 mV/g
Sensitivity tolerance		±15%	±15%
Acceleration range		80 g peak	80 g 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%
Power requirement	**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	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	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

Accessories supplied: two-pole 40 lbf magnet, calibration data (level 2)
Note: Frequency response and spectral noise values are typical
Note: Due to continuous process improvement, specifications are subject to change without notice.

This document is cleared for public release.

Contact

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