Class I Div 2 certified integral cable accelerometer

786F-D2

Wilcoxon
SENSING TECHNOLOGIES

SPECIFICATIONS

Sensitivity, ±5%, 25°C		100 mV/g
Acceleration range		80 g peak
Amplitude nonlinearity		1%
Frequency response, nominal:	**±10%**	1 - 8,000 Hz
	±3 dB	0.5 - 13,000 Hz
Resonance frequency		30 kHz
Transverse sensitivity, max		5% of axial
Temperature response:	**–50°C**	–5%
	+120°C	+5%
Power requirement:		
Voltage source		18 - 28 VDC
Current regulating diode		2 - 10 mA
Electrical noise, equiv. g:		
Broadband	**2.5 Hz to 25 kHz**	700 µg
Spectral	**10 Hz**	10 µg/√Hz
	100 Hz	5 µg/√Hz
	1,000 Hz	5 µg/√Hz
Output impedance, max		100 Ω
Bias output voltage		12 VDC
Grounding		case isolated, internally shielded
Temperature range		–50° to +120°C
Vibration limit		500 g peak
Shock limit, min		5,000 g peak
Electromagnetic sensitivity, equiv. g, max		70 µg/gauss
Sealing		hermetic
Base strain sensitivity, max		0.0002 g/µstrain
Hydrostatic pressure		100 psi
Sensing element design		PZT, shear
Weight		90 grams (excluding cable)
Case material		316L stainless steel
Mounting		1/4-28 UNF tapped hole
Integral cabling		Class I Div 2 suitable cable, shielded, twisted pair

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

Key features

- Class I, Div 2/Zone 2 certified - non-incendive
- Usable in submerged applications up to 30 ft.
- Manufactured in ISO 9001 facility

1.5" minimum bend diameter
2.8"
Teflon® cable
Hermetically sealed feed-through assembly
0.86" ± 0.2
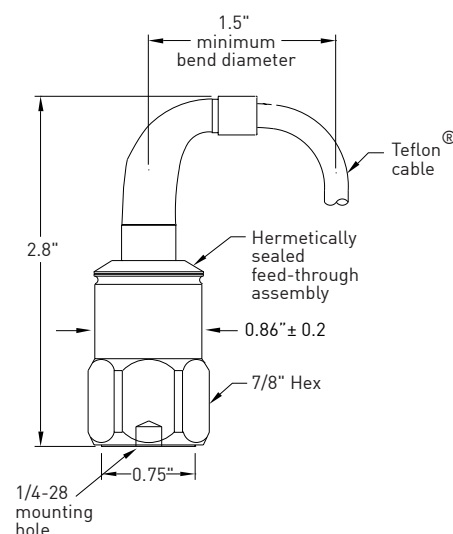7/8" Hex
0.75"
1/4-28 mounting hole

Certifications

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

Ex II 3 G
Ex nA IIC T4 Gc

CE

Must be installed per 13029. • Ambient temperature range depends on the type cable used during installation. • Cable with FEP jacket, Ta=-50°C to +120°C. • Cable with Santoprene jacket, Ta=-45°C to +115°C.

Connections

Function	Cable conductor
power/signal	white
common	black
case	shield

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

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