Wilcoxon Research

Models 786F-IS
Intrinsically safe certified integral cable accelerometer

Dynamic

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		-10%
+120°C		+10%

Electrical

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
	1000 Hz	5 µg/√Hz
Output impedance, max.		100 Ω
Bias output voltage		12 VDC
Grounding		case isolated, internally shielded

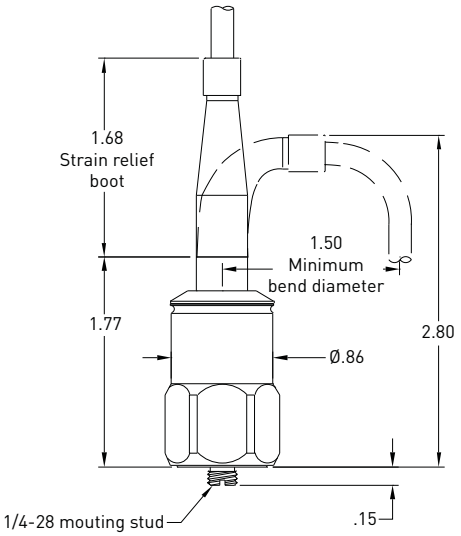
Environmental

Temperature range	–50 to 120°C
Vibration limit	500 g
Shock limit, min.	5,000 g
Electromagnetic sensitivity, equiv. g, max	70 µg/gauss
Sealing	hermetic
Base strain sensitivity, max	0.0002 g/µstrain
Hydrostatic pressure	100 psi

Physical

Sensing element design	PZT ceramic / shear
Weight	90 grams, excluding cable
Case material	316L stainless steel
Mounting	1/4 - 28 UNF tapped hole
Mating connector	not applicable
Integral cabling	J9T2A, 16 ft., blunt cut

Features
- Hazardous area certified - intrinsically safe
- Corrosion resistant
- Hermetic seal
- Case isolated
- ESD protection
- Reverse wiring protection



Function	786F cable conductor
Power/signal	white
Common	black
Case	shield

Class I, Div 1 Groups A, B, C, D
Class II, Div 1 Groups E, F, G
Class III, Div 1
Class I, Zone 0, Ex ia IIC T4
Class I, Zone 0, Aex ia IIC T4

Ga Ex ia IIC T4

For hazardous area locations, sensor must be installed in accordance with installation instructions or local code requirements. Electrical safety barrier required for hazardous area installations.

Accessories supplied: SF6 mounting stud (International customers specify mounting requirements); calibration data (level 2).
Optional required accessories available:
ISBS-STD-08: MTL 7728 + safety barrier

Wilcoxon Research Inc
20511 Seneca Meadows Parkway
Germantown, MD 20876
USA

Tel: 301 330 8811
Fax: 301 330 8873
Email: wilcoxon@meggitt.com

www.meggitt.com

MEGGiTT
smart engineering for extreme environments

98885 Rev.C 10/09

Due to continued research and product development, Wilcoxon Research reserves the right to amend this specification without notice.