

Intrinsically safe integral cable accelerometer






786F-IS

SPECIFICATIONS

Sensitivity, $\pm 5\%$, 25°C		100 mV/g
Acceleration range, VDC > 22 V		80 g peak
Amplitude nonlinearity		1%
Frequency response:	$\pm 10\%$	1 - 8,000 Hz
	± 3 dB	0.5 - 13,000 Hz
Resonance frequency		30 kHz
Transverse sensitivity, max		5% of axial
Temperature response:	-25°C	-10%
	+120°C	+10%
Power requirement:		
Voltage source		18 - 30 VDC
Current regulating diode		2 - 10 mA
Electrical noise, equiv. g:		
Broadband	2.5 Hz to 25 kHz	700 μ g
	10 Hz	10 μ g/ $\sqrt{\text{Hz}}$
	100 Hz	5 μ g/ $\sqrt{\text{Hz}}$
	1,000 Hz	5 μ g/ $\sqrt{\text{Hz}}$
Spectral		
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		5,000 g peak
Electromagnetic sensitivity, equiv. g, max		70 μ g/gauss
Sealing		hermetic
Base strain sensitivity, max		0.0002 g/ μ strain
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		J9T2A, 16 ft., blunt cut

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

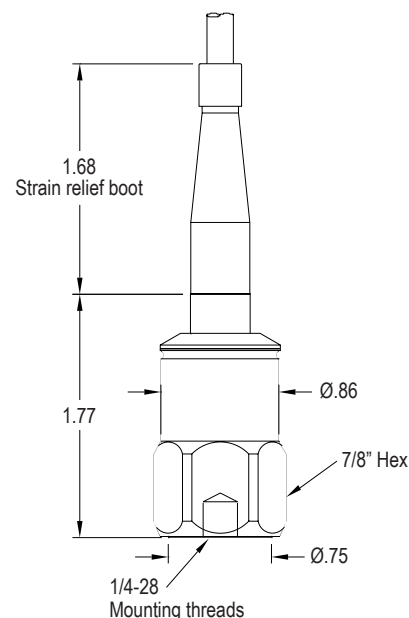
Certifications

	Class I, Div 1 Groups A, B, C, D		II 1 G	
	Class II, Div 1 Groups E, F, G		Ex ia IIC T4 Ga	
	Class III		Ta = -50°C to 120°C	
	Class I Zone 0 AEx/Ex ia IIC T4			
		 		
Must be installed per document 12879. For application in explosive atmospheres caused by gases, vapours or mists and where the use of apparatus of category 1G is required, electrostatic charges on the cable and non-metallic parts of the enclosure shall be avoided. The ambient temperature range for these applications is -40°C to +80°C.				



Key features

- Class I, Div 1/Zone 1 certified intrinsically safe
- 100 psi pressure rating
- Manufactured in ISO 9001 facility



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.