

# Intrinsically safe integral cable accelerometer





## 786F-IS

### SPECIFICATIONS

<b>Sensitivity, <math>\pm 5\%</math>, 25°C</b>	100 mV/g
<b>Acceleration range, VDC &gt; 22 V</b>	80 g peak
<b>Amplitude nonlinearity</b>	1%
<b>Frequency response:</b>	$\pm 10\%$ 1 - 8,000 Hz $\pm 3$ dB 0.5 - 13,000 Hz
<b>Resonance frequency</b>	30 kHz
<b>Transverse sensitivity, max</b>	5% of axial
<b>Temperature response:</b>	-25°C -10% +120°C +10%
<b>Power requirement:</b>	
Voltage source	18 - 30 VDC
Current regulating diode	2 - 10 mA
<b>Electrical noise, equiv. g:</b>	
Broadband 2.5 Hz to 25 kHz	700 $\mu$ g
Spectral 10 Hz	10 $\mu$ g/ $\sqrt{\text{Hz}}$
100 Hz	5 $\mu$ g/ $\sqrt{\text{Hz}}$
1,000 Hz	5 $\mu$ g/ $\sqrt{\text{Hz}}$
<b>Output impedance, max</b>	100 $\Omega$
<b>Bias output voltage</b>	12 VDC
<b>Grounding</b>	case isolated, internally shielded
<b>Temperature range</b>	-50° to +120°C
<b>Vibration limit</b>	500 g peak
<b>Shock limit</b>	5,000 g peak
<b>Electromagnetic sensitivity, equiv. g, max</b>	70 $\mu$ g/gauss
<b>Sealing</b>	hermetic
<b>Base strain sensitivity, max</b>	0.0002 g/ $\mu$ strain
<b>Hydrostatic pressure</b>	100 psi
<b>Sensing element design</b>	PZT, shear
<b>Weight</b>	90 grams (excluding cable)
<b>Case material</b>	316L stainless steel
<b>Mounting</b>	1/4-28 UNF tapped hole
<b>Integral cabling</b>	J9T2A, 16 ft., blunt cut

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

### Certifications

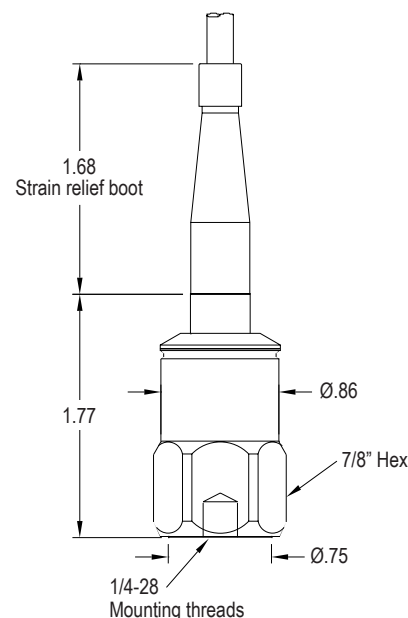
 <p>Class I, Div 1 Groups A, B, C, D Class II, Div 1 Groups E, F, G Class III Class I Zone 0 AEx/Ex ia IIC T4 Ta = -50°C to 120°C</p>	 <p>II 1 G Ex ia IIC T4 Ga Ta = -50°C to 120°C</p>	
		
<p>Must be installed per document 12879. For application in explosive atmospheres caused by gases, vapours or mists 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.</p>		

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



### 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