

# Industrial accelerometers

## 766 series

### SPECIFICATIONS





<b>Sensitivity, <math>\pm 5\%</math>, 25°C</b>		100 mV/g
<b>Acceleration range</b>		80 g peak
<b>Amplitude nonlinearity</b>		1%
<b>Frequency response<sup>1</sup>:</b>	<b><math>\pm 5\%</math></b>	2.0 - 10,000 Hz
	<b><math>\pm 10\%</math></b>	1.0 - 12,000 Hz
	<b><math>\pm 3</math> dB</b>	0.6 - 15,000 Hz
<b>Resonance frequency, mounted, nominal</b>		33 kHz
<b>Transverse sensitivity, max</b>		5% of axial
<b>Temperature response:</b>	<b>-50°C</b>	-10%
	<b>+120°C</b>	+8%
<b>Power requirement:</b>	<b>Voltage source</b>	18 - 30 VDC
	<b>Current regulating diode<sup>2</sup></b>	2 - 10 mA
<b>Electrical noise, equiv. g, nominal:</b>		
<b>Broadband</b>	<b>2.5 Hz to 25 kHz</b>	550 $\mu$ g
<b>Spectral</b>	<b>10 Hz</b>	10 $\mu$ g/ $\sqrt$ Hz
	<b>100 Hz</b>	5.0 $\mu$ g/ $\sqrt$ Hz
	<b>1,000 Hz</b>	5.0 $\mu$ g/ $\sqrt$ Hz
<b>Output impedance, max</b>		100 $\Omega$
<b>Bias output voltage, nominal</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</b>		10 $\mu$ g/gauss
<b>Base strain sensitivity</b>		0.0005 g/ $\mu$ strain
<b>Sensing element design</b>		PZT, shear
<b>Weight</b>		78 grams
<b>Case material</b>		316L stainless steel
<b>Mounting</b>		1/4-28 tapped hole
<b>Output connector</b>		3 pin, MIL-C-26482 style
<b>Mating connector</b>		R4
<b>Recommended cabling</b>		J9T2, two conductor shielded, Tefzel <sup>®</sup> jacket, 30 pF/ft

**Notes:** <sup>1</sup> The high end frequency response disregards minor localized aberrations.

<sup>2</sup> A maximum current of 6 mA is recommended for operating temperatures in excess of 100°C.

**Accessories supplied:** SF6 mounting stud; calibration data

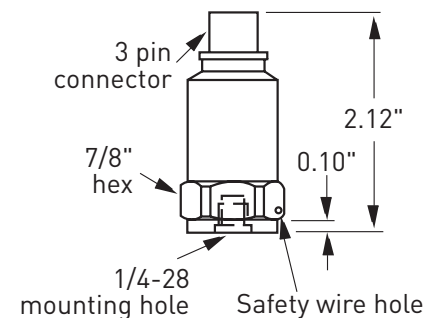
### Certifications

All 766 models	766E	766-33	766-35	
	 Class I, II, III, T4 Div 1 Groups A, B, C, D, E, F, G Div 2 Groups A, B, C, D, F, G	 Class I, Div 1 Groups A, B, C, D	 Ex ia IIC T4 Ga Tamb: -50°C to 120°C	For group IIC applications the transducer must not be subjected to an acceleration greater than 4300g and must be mechanically protected so that it is not subjected to impacts greater than 4J energy. For group IIB and group IIA applications the transducer must not be subjected to acceleration greater than 7500g.



### Key features

- Hazardous area certified versions available (models 766E, 766-33, 766-35)
- Manufactured in ISO 9001 facility



Connections	
Function	Connector pin
case	A
common	B
power/signal	C

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