

# Internally amplified helicopter accelerometer

## HA101

### SPECIFICATIONS

Sensitivity, $\pm 5\%$ , 25°C		20 mV/g
Acceleration range		250 g peak
Amplitude nonlinearity		1%
Frequency response:	$\pm 5\%$	1.0 - 4,000 Hz
	$\pm 10\%$	0.7 - 6,000 Hz
	$\pm 3$ dB	0.4 - 12,000 Hz
Resonance frequency, mounted, nominal		30 kHz
Transverse sensitivity, max		5% of axial
Temperature response:	-55°C	-20%
	+120°C	+10%
Power requirement:	Voltage source <sup>1</sup>	18 - 30 VDC
	Current regulating diode <sup>2</sup>	2 - 10 mA
Electrical noise, equiv. g, nominal:		
Broadband	2.5 Hz to 25 kHz	1,600 $\mu$ g rms
Spectral	10 Hz	18 $\mu$ g/ $\sqrt{\text{Hz}}$
	100 Hz	10 $\mu$ g/ $\sqrt{\text{Hz}}$
	1,000 Hz	9 $\mu$ g/ $\sqrt{\text{Hz}}$
Output impedance, max		100 $\Omega$
Bias output voltage, nominal		12 VDC
Grounding		case isolated
Temperature range		-50° to +120°C
Vibration limit		250 g peak
Shock limit		1,000 g peak
Electromagnetic sensitivity, equiv. g		70 $\mu$ g/gauss
Weight		78 grams
Case material		stainless steel
Mounting		1/4-28 x 0.38" integral stud
Output connector		3-pin, MIL-C-26482 style
Mating connector		R4
Recommended cabling		two conductor shielded

**Notes:** <sup>1</sup> To minimize the possibility signal distortion for high vibration signals, 24 to 30 VDC powering is recommended.

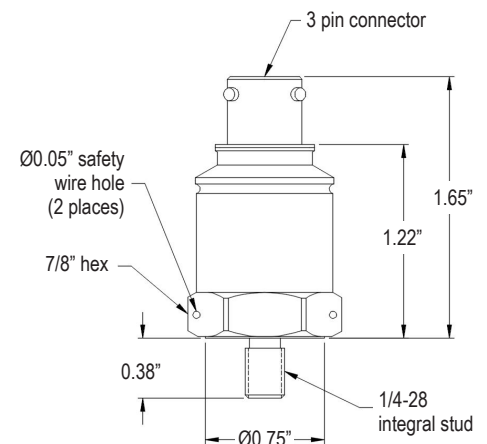
<sup>2</sup> The higher level constant current sources should be used when driving long cables (please consult customer service). A maximum current of 6 mA is recommended for operating temperatures in excess of 100°C.

**Accessories supplied:** Calibration data



### Key features

- 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.