

# Internally amplified helicopter accelerometer

## HA101

### SPECIFICATIONS

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

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

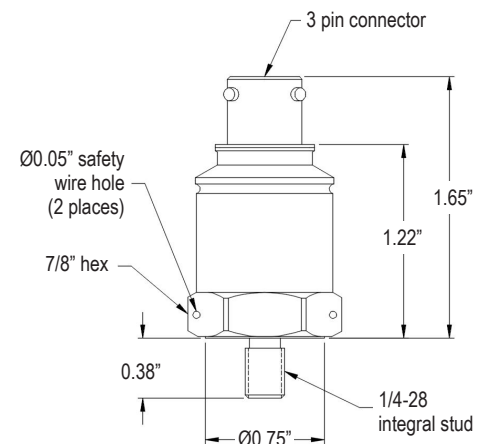
<sup>2</sup> The higher level constant current sources should be used when driving long cables (please consult customer service). A maximum current of 6 mA is recommended for operating temperatures in excess of 100°C.

**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.