

# Low-frequency vector sensor

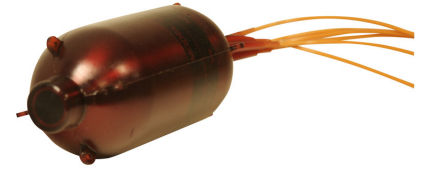
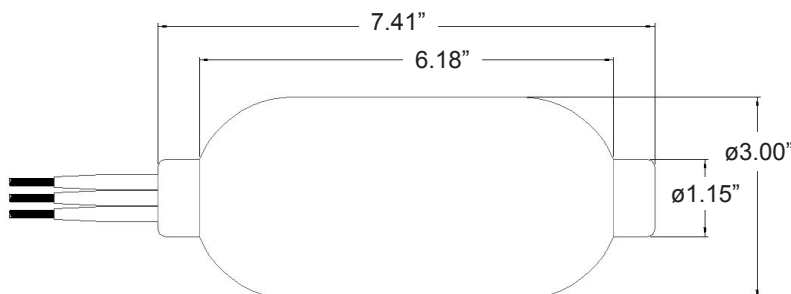
## VS-101

### SPECIFICATIONS

<b>Output sensitivity:</b>	
Accelerometer	6.0 V/g
Hydrophone	-162 dB re 1.0 V/ $\mu$ Pa
<b>Full scale input range:</b>	
Accelerometer	0.5 g peak
Hydrophone	200 Pa peak
<b>Frequency response, <math>\pm 3</math> dB</b>	3.0 Hz - 2.0 kHz
<b>Transverse sensitivity, max</b>	2%
<b>Temperature accuracy</b>	$\pm 1.0^\circ\text{C}$
<b>Power requirement:</b>	
Voltage	3.3 - 9.0 VDC
Current, nominal	30 mA
<b>Output type, differential</b>	1.5 V bias
<b>Output impedance, max</b>	50 $\Omega$
<b>Pressure range:</b>	
Operational, max	1,000 psi
Absolute max	1,500 psi
<b>Operating temperature</b>	$-10^\circ$ to $+60^\circ\text{C}$
<b>Diameter</b>	3.00 in.
<b>Length</b>	7.41 in.
<b>Buoyancy in water</b>	-2%
<b>Weight, without cables</b>	700 grams
<b>Cable<sup>1</sup></b>	6 cables, 15 ft. each
<b>External material</b>	polyurethane

**Notes:** <sup>1</sup> Cable: twisted, shielded pair, polyurethane jacket.

**Options:** Connector; cable length



### Key features

- Three orthogonal axis accelerometers and one omnidirectional hydrophone
- Four channel combination provides an approximately 4.8 dB improvement in signal to noise ratio
- Pitch and roll, heading, temperature, health check
- Preamplifier and differential output
- Micro-controller with RS485 link
- Manufactured in ISO 9001 facility

Pin out		
Cable	Lead color	Function
X	white black shield	X SIG + X SIG - X SHIELD
Y	white black shield	Y SIG + Y SIG - Y SHIELD
Z	white black shield	Z SIG + Z SIG - Z SHIELD
H	white black shield	H SIG + H SIG - H SHIELD
DIG	white black shield	DIG + DIG - DIG SHIELD
PWR	white black shield	PWR + PWR - PWR SHIELD

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