

# Underwater accelerometer

## 746

### SPECIFICATIONS

<b>Sensitivity, <math>\pm 5\%</math>, 25°C</b>		100 mV/g
<b>Acceleration range<sup>1</sup></b>		80 g peak
<b>Amplitude nonlinearity</b>		1%
<b>Frequency response:</b>	<b><math>\pm 1</math> dB</b>	2 - 8,000 Hz
	<b><math>\pm 3</math> dB</b>	1 - 15,000 Hz
<b>Resonance frequency, mounted, nominal</b>		30 kHz
<b>Transverse sensitivity, max</b>		5% of axial
<b>Temperature response:</b>	<b>-50°C</b>	-10%
	<b>+80°C</b>	+4%
<b>Power requirement:</b>		
<b>Voltage source</b>		18 - 30 VDC
<b>Current regulating diode<sup>1</sup></b>		2 - 10 mA
<b>Electrical noise, equiv. g, nominal:</b>		
<b>Broadband</b>	<b>2.5 Hz to 25 kHz</b>	50 $\mu$ g
<b>Spectral</b>	<b>10 Hz</b>	10 $\mu$ g/ $\sqrt{\text{Hz}}$
	<b>100 Hz</b>	0.8 $\mu$ g/ $\sqrt{\text{Hz}}$
	<b>1,000 Hz</b>	0.2 $\mu$ g/ $\sqrt{\text{Hz}}$
<b>Output impedance, max</b>		100 $\Omega$
<b>Bias output voltage</b>		10, $\pm 2$ VDC
<b>Grounding</b>		isolated
<b>Hydrostatic pressure</b>		650 psi
<b>Temperature range</b>		-50° to +80°C
<b>Vibration limit</b>		500 g peak
<b>Shock limit</b>		5,000 g peak
<b>Base strain sensitivity</b>		0.005 g/ $\mu$ strain
<b>Dynamic weight</b>		45 grams
<b>Case material</b>		titanium
<b>Mounting</b>		10-32 tapped hole
<b>Integral cabling</b>		J6, 10 ft.

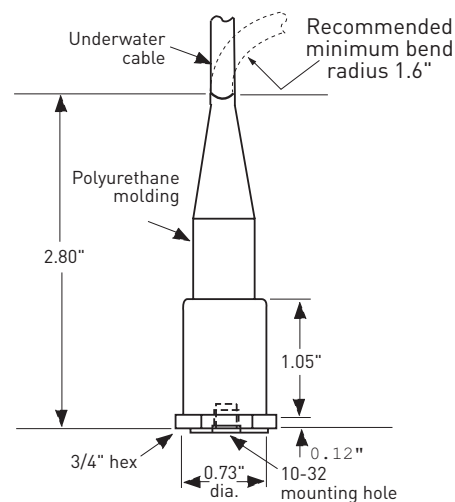
**Notes:** <sup>1</sup> To minimize the possibility of signal distortion when driving long cables with high vibration signals, 24 to 30 VDC powering is recommended. The higher level constant current source should be used when driving long cables.

**Accessories supplied:** SF1 mounting stud; calibration data



### Key features

- High pressure rating
- Wide frequency range
- Manufactured in ISO 9001 facility

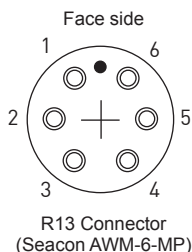


### Connections

Function	Connector
power/signal	center
common	shield

### Pin assignments

Pin #	Cable
1	NC
2	shield/common
3	NC
4	NC
5	B+/signal
6	NC



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

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