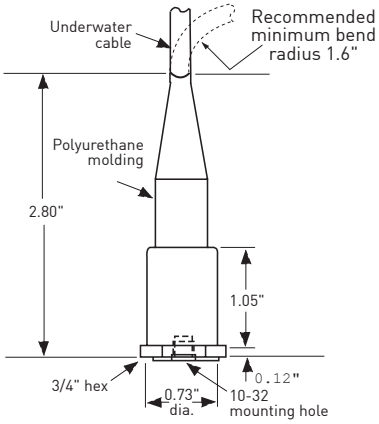
Wilcoxon Research

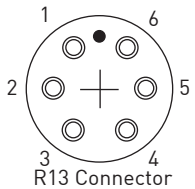
Model 746
Underwater accelerometer

Features
- High sensitivity
- Wide frequency range
- High pressure rating
- Ground isolated-eliminates ground loops
- Reverse wiring protection



Pin assignments	
Pin #	Cable
1	nc
2	shield/common
3	nc
4	nc
5	b+/signal
6	nc

Face side



R13 Connector
(Seacon AWM-6-MP)

Dynamic

Sensitivity, ±5%, 25°C	100 mV/g
Acceleration range[1]	50 g peak
Amplitude nonlinearity	1%
Frequency response:	
±1 dB	2 - 8,000 Hz
±3 dB	1 - 15,000 Hz
Resonance frequency, mounted, nominal	30 kHz
Transverse sensitivity, max.	5% of axial
Temperature response:	
–50°C	–10%
+80°C	+4%

Electrical

Power requirement: voltage source		18 - 30 VDC
current regulating diode[1]		2 - 10 mA
Electrical noise, equiv. g, nominal:		
Broadband	2.5 Hz to 25 kHz	50 µg
Spectral	10 Hz	10 µg/√Hz
	100 Hz	0.8 µg/√Hz
	1000 Hz	0.2 µg/√Hz
Output impedance, max.		100 Ω
Bias output voltage		10, ±2 VDC
Grounding		isolated

Environmental

Hydrostatic pressure	650 psi
Temperature range	–50 to 80°C
Vibration limit	500 g peak
Shock limit	5,000 g peak
Base strain sensitivity	0.005 g/µstrain

Physical

Dynamic weight	45 grams
Case material	titanium
Mounting	10 - 32 tapped hole
Integral cabling	J6, 10 ft.

Connector	Function
Center	power/signal
Shield	common

Notes: [1]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 (please consult Wilcoxon customer service).

Options: Customer specified cable length, connectors, sensitivity, filtering.

Accessories supplied: SF1 mounting stud; calibration data

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Due to continued research and product development, Wilcoxon Research reserves the right to amend this specification without notice.