

The single axis accelerometer AP78 and tri-axial version AP79 are specifically designed for under water use. The hermetically sealed housing and integral cable entry ensure trouble-free operation up to a depth of 50 meters. The well designed shear construction allows these sensors to be used over a wide linearity range and up to relatively high shock levels. The standard length of the integral cable is 2 meters but any length up to 30 meters can be delivered on order.

## Underwater accelerometers

AP78



AP2078



AP79



Parameter	Unit	AP78	AP2078	AP79
Charge sensitivity (+/- 10%)	pC/g	10	-	2*
	pC/ms <sup>2</sup>	1.02	-	0.2
Voltage sensitivity (+/- 10%)	mV/g	-	10	-
	mV/ms <sup>2</sup>	-	1.02	-
Amplitude range	g rms	5,000	500	2,500
Resolution (1 Hz to 10 kHz)	g rms	-	<0.0005	-
Mechanical shock limit	g peak	10,000	1,500	5,000
Frequency range (+/- 1 dB)	Hz	0.5 to 15,000	0,5 to 15,000	0.5 to 15,000
Resonant frequency	kHz	>45	>45	>50
Max. underwater depth	meter	50	50	50
Transverse sensitivity	%	<3	<5	<5
Base strain sensitivity	g/μm	<0.005	<0.005	<0.0005
Temperature range	°C	-60 to +150	-40 to +125	-60 to +150
Insulation resistance	MΩ	>10,000	-	>10,000
Capacitance	pF	1,000	-	1,000
Isolated base		No	No	No
Excitation voltage	Volt DC	-	+15 to +30	-
Constant current	mA	-	2 to 20	-
Output impedance	Ω	-	<500	-
Output bias voltage	Volt DC	-	+10 to +13	-
Settling time	second	-	4	-
Construction		Shear	Shear	Shear
Piezo material		ZTP19	ZTP19	ZTP19
Sensor connector		-	-	-
Integral cable length	meter	2	2	2
Connecting cable		-	-	-
Cable connector		10-32 UNF	BNC	3x 10-32 UNF
Side/Top connection		Top	Top	Top
Mounting method		M5	M5	M3 bold
Housing material		Titanium	Titanium alloy	Titanium
Weight without cable	gram	10	15	6

Tri-axial  
\* Charge sensitivity +/- 20%

