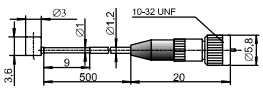
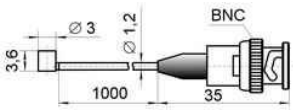
The APTech range of miniature accelerometers is designed to offer good stability, large dynamic range and very small dimensions. In all situations where mass-loading of the test-object has to be considered, Type AP19 or AP33 is the best choice. AP31 and AP2031 have an integral M5 mounting-stud, all other miniature versions are designed for glue- or wax-mounting.

High frequency / miniature-accelerometers

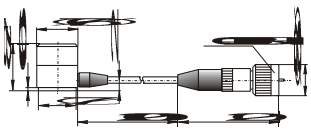
Parameter	Unit	AP19	AP2019	AP30	AP2030
Charge sensitivity (+/- 10%)	pC/g	0.25*	-	1.1	-
	pC/ms²	0.03	-	0.1	-
Voltage sensitivity (+/- 10%)	mV/g	-	0.5	-	3
	mV/ms²	-	0.05	-	0.3
Amplitude range	g rms	20,000	7,000	10,000	1,500
Resolution (1 Hz to 10 kHz)	g rms	-	0.005	-	0.002
Mechanical shock limit	g peak	40,000	40,000*	20,000	3,000
Frequency range (+/- 1 dB)	Hz	0.5 to 30,000	5 to 22,000	0.5 to 20,000	0.5 to 20,000
Resonant frequency	kHz	>100	>100	>60	>60
Transverse sensitivity	%	<5	<5	<3	<3
Base strain sensitivity	g/µm	<0.005	<0.005	<0.005	<0.005
Temperature range	°C	-60 to +150	-40 to +125	-60 to +150	-40 to +125
Insulation resistance	MΩ	>10,000	-	>10,000	-
Capacitance	pF	500 to 700	-	500 to 700	-
Isolated base		No	No	Yes	Yes
Excitation voltage	Volt DC	-	+15 to +30	-	+15 to +30
Constant current	mA	-	2 to 20	-	2 to 20
Output impedance	Ω	-	<500	-	<500
Output bias voltage	Volt DC	-	+8 to +11	-	+8 to +11
Settling time	second	-	4	-	4
Construction		Shear	Shear	Shear	Shear
Piezo material		ZTP19	ZTP19	ZTP19	ZTP19
Sensor connector		-	-	-	-
Integral cable length	meter	1	1	2	2
Connecting cable		-	-	-	-
Cable connector		10-32 UNF	BNC	10-32 UNF	BNC
Side/Top connection		Side	Side	Side	Side
Mounting method		Adhesive	Adhesive	Adhesive	Adhesive
Housing material		Titanium	Titanium	Titanium	Titanium
Weight without cable	gram	0.14	0.18	1.3	1.6
Notes		* Charge sensitivity +/- 20%	* max shock for connector 10,000 g		



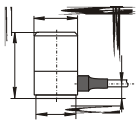
AP19



AP2019



AP30



AP2030

Rev.2009.5