

AP47 is a high sensitivity charge mode accelerometer designed for low frequency seismic applications while AP50, AP2050 and AP98-500 combine relatively high sensitivity with a large frequency range. AP2050 is optimized for measurement of building vibrations where low noise level is important.

## High sensitivity accelerometers

### AP47 -NEW-

Sensitivity	8,000 pC/g 815 pC/ms <sup>2</sup>
Type:	Charge
Amplitude range:	10 g rms
Frequency range:	5 to 700 Hz
Weight:	1,200 g

### AP50

Sensitivity	600 pC/g 61.2 pC/ms <sup>2</sup>
Type:	Charge
Amplitude range:	200 g rms
Frequency range:	0.5 to 1,000 Hz
Weight:	36 g

### AP2050

Sensitivity	600 mV/g 61.2 mV/ms <sup>2</sup>
Type:	IEPE
Amplitude range:	8 g rms
Frequency range:	0.5 to 5,000 Hz
Weight:	65 g





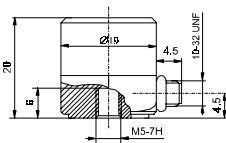
### AP98-500

Sensitivity	500 mV/g 51 mV/ms <sup>2</sup>
Type:	IEPE
Amplitude range:	10 g rms
Frequency range:	0.5 to 12,000 Hz
Weight:	25 g

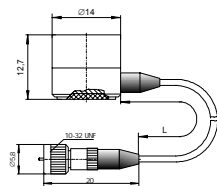


APTech general purpose accelerometers are designed to cover of a wide range of applications without the need of having another sensor for each measurement-job. The sensors are optimised for wide frequency- and amplitude range while having medium range dimensions and weight. The annular shear construction makes these accelerometers relatively insensitive to external influences such as changes in temperature, base-strain and magnetic fields. Type AP90 has been specifically designed for leak detection on pipelines. Types AP37 and AP2037 are ideally suited for control-loop applications in vibration excitation systems.

General purpose accelerometers		AP57	AP77	AP90	AP98-100
					
<b>Parameter</b>	<b>Unit</b>				
Charge sensitivity (+/- 10%)	pC/g	80	20	80	-
	pC/ms <sup>2</sup>	8.16	2.04	8.16	-
Voltage sensitivity (+/- 10%)	mV/g	-	-	-	100
	mV/ms <sup>2</sup>	-	-	-	10.2
Amplitude range	g rms	2000	5000	2000	50
Resolution	g rms	-	-	-	0.0003
Mechanical shock limit	g peak	4000	10,000	4000	1000
Frequency range (+/- 1 dB)	Hz	0.5 to 8000	0.5 to 12,000	0.5 to 8000	0.5 to 12,000
Resonant frequency	kHz	>20	>35	>20	>40
Transverse sensitivity	%	<5	<5	<5	<5
Base strain sensitivity	g/μm	<0.005	<0.005	<0.005	<0.005
Temperature range	°C	-60 to +150	-60 to +150	-60 to +150	-60 to +125
Insulation resistance	MΩ	>10,000	>10,000	>10,000	-
Capacitance	pF	700 to 1000	600 to 800	700 to 1000	-
Isolated base		No	Optional	No	No
Excitation voltage	Volt DC	-	-	-	+22 to +30
Constant current	mA	-	-	-	2 to 20
Output impedance	Ω	-	-	-	<500
Output bias voltage	Volt DC	-	-	-	+9 to +13
Settling time	second	-	-	-	5
Construction		Shear	Shear	Shear	Shear
Piezo material		ZTP19	ZTP19	ZTP19	ZTP19
Sensor connector		10-32 UNF	-	-	10-32 UNF
Integral cable length	meter	-	2	2	-
Connecting cable		AK04	-	-	AK10
Cable connector		10-32 UNF	10-32 UNF	10-32 UNF	BNC
Side/Top connection		Side	Side	Top	Top
Mounting method		M5	Adhesive	M5	M5
Housing material		Titanium	Titanium	Titanium	S.Steel
Weight without cable	gram	32	10	42	40
Notes				Leak detection sensor	

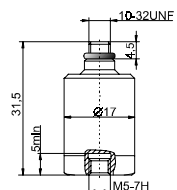


AP57



AP77

AP90



AP98-100

AP48, AP49 and AP50 offer a relatively high charge sensitivity and excellent low frequency response for measurement of low frequency, low level vibration signals. AP2050 and AP98-500 have built-in electronics allowing relatively long and inexpensive cables to be used between the accelerometer and measuring equipment. Type AP2050 is optimised for measurement of building vibrations where a low noise level is extremely important.

### High sensitivity- seismic- accelerometers

AP48

AP49

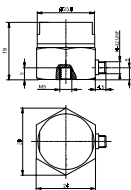
AP50

AP2050

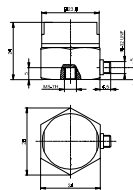
AP98-500



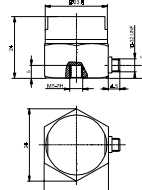
Parameter	Unit	AP48	AP49	AP50	AP2050	AP98-500
Charge sensitivity (+/- 10%)	pC/g	200	400	600	-	-
	pC/ms <sup>2</sup>	20.4	40.8	61.2	-	-
Voltage sensitivity (+/- 10%)	mV/g	-	-	-	600	500
	mV/ms <sup>2</sup>	-	-	-	61.2	51
Amplitude range	g rms	1000	400	200	8	10
Resolution	g rms	-	-	-	<0.0002	<0.0003
Mechanical shock limit	g peak	2000	800	400	25	1000
Frequency range (+/- 1 dB)	Hz	0.5 to 2000	0.5 to 1200	0.5 to 800	0.5 to 400	0.5 to 12,000
Resonant frequency	kHz	>6	>4	>3	>1	>40
Transverse sensitivity	%	<5	<5	<5	<5	<5
Base strain sensitivity	g/μm	<0.001	<0.001	<0.001	<0.001	<0.005
Temperature range	°C	-60 to +150	-60 to +150	-60 to +150	-60 to +125	-60 to +125
Insulation resistance	MΩ	>1000	>1000	>1000	-	-
Capacitance	pF	5000 to 7000	5000 to 7000	5000 to 7000	-	-
Isolated base		No	No	No	No	No
Excitation voltage	Volt DC	-	-	-	+15 to +30	+20 to +30
Constant current	mA	-	-	-	2 to 20	2 to 20
Output impedance	Ω	-	-	-	<500	<500
Output bias voltage	Volt DC	-	-	-	+8 to +11	+11 to +13
Settling time	second	-	-	-	5	5
Construction		Shear	Shear	Shear	Shear	Shear
Piezo material		ZTP19	ZTP19	ZTP19	ZTP19	ZTP19
Sensor connector		10-32 UNF	10-32 UNF	10-32 UNF	TNC	10-32 UNF
Integral cable length	meter	-	-	-	-	-
Connecting cable		AK04	AK04	AK04	AK20	AK10
Cable connector		10-32 UNF	10-32 UNF	10-32 UNF	BNC	BNC
Side/Top connection		Side	Side	Side	Side	Top
Mounting method		M5	M5	M5	M5	M5
Housing material		Titanium	Titanium	Titanium	Titanium	S.Steel
Weight without cable	gram	40	45	50	110	40
Notes						



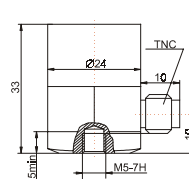
AP48



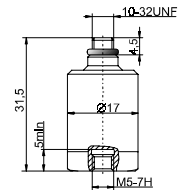
AP49



AP50



AP2050



AP98-500