

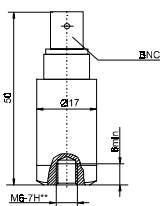
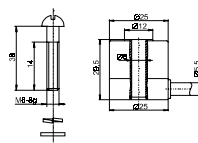


APTech general purpose accelerometers are designed to cover of a wide range of applications without the need of having another sensor for each measurement-job. The sensors are optimised for wide frequency- and amplitude range while having medium range dimensions and weight. The annular shear construction 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.

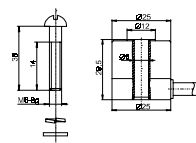
General purpose accelerometers		AP28	AP35-30	AP35-100	AP37
					
<b>Parameter</b>	<b>Unit</b>				
Charge sensitivity (+/- 10%)	pC/g	-	-	-	10
	pC/ms <sup>2</sup>	-	-	-	1.02
Voltage sensitivity (+/- 10%)	mV/g	30	30	100	-
	mV/ms <sup>2</sup>	3.06	3.06	10.2	-
Amplitude range	g rms	160	150	50	10,000
Resolution	g rms	0.0001	0.0001	0.0003	-
Mechanical shock limit	g peak	1000	500	500	15000
Frequency range (+/- 1 dB)	Hz	0.5 to 10,000	1 to 12,000	1 to 12,000	0.5 to 15,000
Resonant frequency	kHz	>30	>40	>40	>45
Transverse sensitivity	%	<5	<5	<5	<5
Base strain sensitivity	g/μm	<0.005	<0.005	<0.005	<0.005
Temperature range	°C	-60 to +125	-60 to +125	-60 to +125	-60 to +150
Insulation resistance	MΩ	-	-	-	>10,000
Capacitance	pF	-	-	-	600 to 800
Isolated base		No	Yes	Yes	No
Excitation voltage	Volt DC	+18 to +30	+18 to +30	+22 to +30	-
Constant current	mA	2 to 20	2 to 20	2 to 20	-
Output impedance	Ω	<500	<500	<500	-
Output bias voltage	Volt DC	+9 to +13	+9 to +13	+9 to +13	-
Settling time	second	3	3	3	-
Construction		Shear	Shear	Shear	Shear
Piezo material		ZTP19	ZTP19	ZTP19	ZTP19
Sensor connector		BNC	-	-	10-32 UNF
Integral cable length	meter	-	2	2	-
Connecting cable		-	Metal tube	Metal tube	AK04
Cable connector		-	Open end	Open end	10-32 UNF
Side/Top connection		Top	Side	Side	Side
Mounting method		M6	M6 bold	M6 Bold	M5
Housing material		S.Steel	S.Steel	S.Steel	Titanium
Weight without cable	gram	40	39	39	9
Notes					



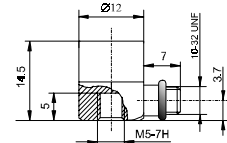
AP28



AP35-30







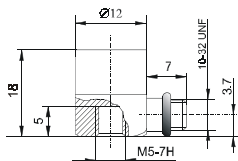
AP35-100



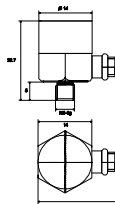
AP37

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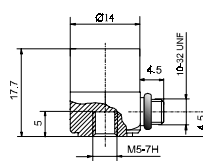
<b>General purpose accelerometers</b>		<b>AP2037</b>	<b>AP39</b>	<b>AP40</b>	<b>AP51</b>
					
<b>Parameter</b>	<b>Unit</b>				
Charge sensitivity (+/- 10%)	pC/g	-	20	20	20
	pC/ms <sup>2</sup>	-	2.04	2.04	2.04
Voltage sensitivity (+/- 10%)	mV/g	10	-	-	-
	mV/ms <sup>2</sup>	1.02	-	-	-
Amplitude range	g rms	500	5000	5000	5000
Resolution	g rms	0.0003	-	-	-
Mechanical shock limit	g peak	5000	10,000	10,000	10,000
Frequency range (+/- 1 dB)	Hz	0.5 to 15,000	0.5 to 10,000	0.5 to 10,000	0.5 to 10,000
Resonant frequency	kHz	>45	>35	>35	>35
Transverse sensitivity	%	<5	<5	<5	<5
Base strain sensitivity	g/μm	<0.005	<0.02	<0.025	<0.025
Temperature range	°C	-60 to +125	-60 to +150	-60 to +150	-60 to +150
Insulation resistance	MΩ	-	>10,000	>10,000	>10,000
Capacitance	pF	-	600 to 800	600 to 800	600 to 800
Isolated base		No	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	+8 to +10	-	-	-
Settling time	second	3	-	-	-
Construction		Shear	Shear	Shear	Shear
Piezo material		ZTP19	ZTP19	ZTP19	ZTP19
Sensor connector		10-32 UNF	10-32 UNF	10-32 UNF	10-32 UNF
Integral cable length	meter	-	-	-	-
Connecting cable		AK10	AK04	AK04	AK04
Cable connector		BNC	10-32 UNF	10-32 UNF	10-32 UNF
Side/Top connection		Side	Side	Side	Top
Mounting method		M5	M5 stud	M5	M5
Housing material		Titanium	Titanium	Titanium	Titanium
Weight without cable	gram	10	12	12	12
Notes					



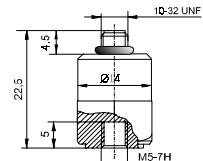
**AP2037**



**AP39**



**AP40**



**AP51**

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### General purpose accelerometers

AP57



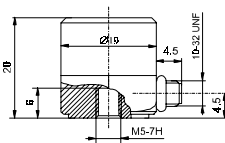
AP77



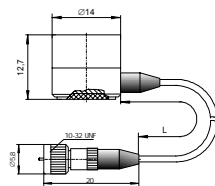
AP90

AP98-100

Parameter	Unit	AP57	AP77	AP90	AP98-100
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	

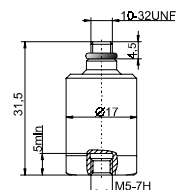


AP57



AP77

AP90



AP98-100

