




The tri-axial seat transducers AP5011, AP5211 and AP5213 are designed in accordance with the criteria stated in European Standard EN 1032, 1996 and intended for measurement of Whole Body Vibration according to ISO 2631 and ISO 7096.

Tri-axial seat transducers Type AP5011, AP5211 and AP5213

The flexible rubber pad houses a robust tri-axial accelerometer that can easily be removed from the seat pad for calibration and/or alternative use in other applications. The seat transducer is meant to be placed under a seated person or placed on a floor. The rubber pad has three slits that make it possible to use the transducer strapped to the human body. X-, Y- and Z-directions are clearly marked on the top of the transducer with a corresponding marking on the connectors at the end of the cable.

Human vibration whole body		AP5011	AP5211(-100)		AP5213
					
Parameter	Unit				
Charge sensitivity (+/- 10%)	pC/g	10	-	-	-
	pC/ms²	1.02	-	-	-
Voltage sensitivity (+/- 10%)	mV/g	-	10	100	10
	mV/ms²	-	1.02	10.2	1.02
Amplitude range	g rms	2,000	500	50	500
Resolution (1 Hz to 10 kHz)	g rms	-	0.0005	0.0003	0.0003
Mechanical shock limit	g peak	5,000	500	500	500
Frequency range (+/- 1 dB)	Hz	0.5 to 10,000	0.5 to 10,000	0.5 to 10,000	0.5 to 10,000
Resonant frequency	kHz	> 35	> 30	> 30	> 30
Transverse sensitivity	%	<5	<5	<5	<5
Base strain sensitivity	g/μm	< 0.02	< 0.02	< 0.02	< 0.02
Temperature range	°C	-60 to +150	-40 to +125	-40 to +80	-40 to +125
Insulation resistance	MΩ	> 10,000	-	-	-
Capacitance	pF	900 to 1,200	-	-	-
Isolated base		No	No	No	No
Excitation voltage	Volt DC	-	+15 to +30	+18 to +30	+15 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	-	8 to 11	11 to 14	8 to 11
Settling time	second	-	4	4	4
Construction		Shear	Shear	Shear	Shear
Piezo material		ZTP19	ZTP19	ZTP19	ZTP19
Sensor connector		-	-	-	-
Integral cable length	meter	2	2	2	2
Connecting cable		-	-	AK21	-
Cable connector		3x 10-32 UNF	3x BNC	3x BNC	3x BNC
Side/Top connection		Side	Side	Side	Side
Mounting method		-	-	-	-
Housing material		Rubber pad	Rubber pad	Rubber pad	Rubber pad
Weight without cable	gram	395	408	410	410
Notes		Conforms EN 1032 1996	Conforms EN 1032 1996	Conforms EN 1032 1996	Conforms EN 1032 1996