



Vibration transducers and accessories

Nor1270/Nor1271/Nor1286/Nor1287/Nor1288

Norsonic has a carefully selected range of single and triaxial accelerometers.

All accelerometers are piezoelectric charge type with integral preamplifier, so called IEPE or ICP accelerometers.

General purpose single axis accelerometer Nor1270

Nor1270 is a general purpose accelerometer for industry and laboratory use.



Triaxial miniature accelerometer Nor1287

This accelerometer is designed for hand arm vibration measurements according to ISO5349 and ISO8041 as well as general vibration measurements. The small physical dimensions and weight ensures low influence and easy mount on the measurement object.



Miniature single axis accelerometer Nor1271

Nor1271 is a general purpose miniature accelerometer for industry and laboratory use. It is specially suited for light test objects and applications that require an accelerometer with low sensitivity and wide frequency response.



Triaxial accelerometer Nor1288

The tri-axial accelerometer Nor1288 is designed for general vibration measurements and as a reference accelerometer when conducting whole body measurements using the 6 channel vibration meter Nor136. The Nor1288 is then mounted on the vehicle itself and the correlation between the vehicle vibrations and the drivers seat can be measured.



Triaxial seat pad accelerometer Nor1286



This triaxial seat accelerometer is designed for whole body measurements according to ISO2631 and ISO8041. The integral cable is 2m and the connector fits the Nor133 and Nor136 vibration meters. The seat pad consists of a rubber pad, an aluminum mounting adapter plate to where a triaxial accelerometer type Nor1288 is mounted. The Nor1288 accelerometer port is detachable for calibration purpose.

Accessories:

Microdot cable Nor1480 (1,5m) and Nor1481 (5m)

Microdot-microdot cable suitable for use on accelerometer Nor1270 and Nor1271.

Triaxial cable Nor4551

1,5m cable for connecting a Norsonic triaxial accelerometer to Nor133 / Nor136 vibration meters, fitted with 4 pin Micro-Com connectors.

Triaxial cable Nor4555

1,5m cable for connecting a Norsonic triaxial accelerometer to Nor133 / Nor136 vibration meters, fitted with 4 pin Lemo connectors.

Triaxial cable Nor4556

5m cable for connecting a ZEB/GS3T Geophone to Nor136 vibration meters

TNC to microdot adapter, Nor1456

BNC to microdot adapter, Nor1466

	Nor1270	Nor1271	Nor1286	Nor1287	Nor1288	Units
Physical						
Type	Single – share	Single- share	Triaxial -share	Triaxial-share	Triaxial-share	
Weight	23	3,5	227	4	14	gram
Size [1]	Ø17x17	Ø11x10,5	Ø=232x12 (9,16X0,74)	12x9,1x9,1 (0,49x0,36x0,36)	21x21x8,6 (0,82x0,82x0,34)	mm (Inches)
Material	Stainless steel	Stainless steel	Rubber / Anodized aluminum / Titanium Alloy	Titanium Alloy	Titanium Alloy	
Connector	Microdot	Microdot	4 pin Microcom	4 pin Microcom	4 pin Microcom	
Cable length	-	-	2 (78)	-	-	M (inch)
Mounting	Tapped hole in base for 5mm screw	Tapped hole in base for 3 mm screw	-	Tapped hole in base for 3 mm screw	Through hole for 4 mm screw	
Performance						
Sensitivity each axis $\pm 5\%$ [2]	100	10	100	10	100	mv/g
Range F.S. for $\pm 5V$ output	± 50	± 500	± 50	± 500	± 50	G
Frequency range $\pm 5\%$	0,4 – 18k	1,5 – 19k	0,5-3k	1,5 – 10k	0,5-3k	Hz
Resonance frequency nom.	>32k	>42k	25k	40k	25k	Hz
Equivalent electrical noise floor	0,0003	0,0006	0,0007	0,007	0,0007	Grms
Linearity [3]	-	-	$\pm 1\%$	$\pm 1\%$	$\pm 1\%$	% F.S.
Transverse sensitivity max.	5	5	5	5	5	%
Environmental						
Maximum vibration/Shock	-/6000	-/8000	400/1500	600/5000	600/1500	\pm G's/G's PEAK
Temp. range operation	-20 to +120 -4 to + +248	-20 to +120 -4 to + +248	-50 to +70 -60 to +160	-50 to +120 -60 to +250	-50 to +120 -60 to +250	°C °F
Temp range survival	-	-	-70 to +135 -100 to +275	-70 to +135 -100 to +275	-70 to +135 -100 to +275	°C °F
Seal accelerometer	Hermetic	Hermetic	Hermetic	Hermetic	Hermetic	
Coefficient of thermal sensitivity	$\pm 0,02$	-0,08	0,05	0,05	0,05	%/ °K
Electrical						
Supply current [4]	2-20	2-20	2-20	2-20	2-20	mA
Compliance supply voltage	+20 to +30	+20 to +30	+18 to +30	+18 to +30	+18 to +30	VDC
Bias voltage range	+12 to +14	+12 to +14	+9 to +12	+9 to +12	+9 to +12	VDC
Output impedance, Typ.	<130	<100	<100	<100	<100	Ohms
Discharge time constant	-	-	0,8 – 1,2	0,3	1,0	Sec.
Signal polarity			Positive for motion in direction of arrows on housing			
Electrical insulation for case ground to mounting surface	Case grounded	Case grounded	>10	Case grounded	>10	Mohm

Specifications subject to changes without notice.

[1] Measures are without cable or connector

[2] Measured at 100 Hz, 1 G RMS per ISA RP 37.2.

[3] Measured using zero-based best straight line method, % of F.S. or any lesser range.

[4] Do not apply power to this device without current limiting, 20 mA MAX. To do so will destroy the integral IC amplifier.