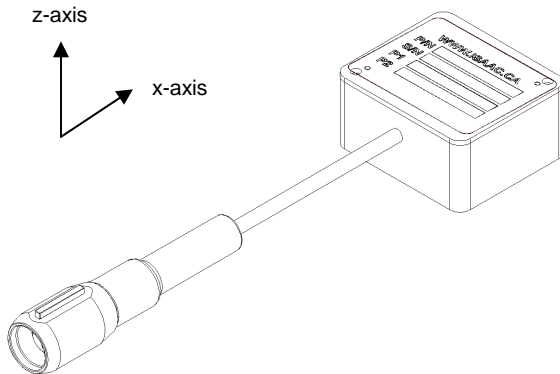


Features

- Single axis acceleration measurements (low-frequency vibrations and movements).
- Wide acceleration range.
- Excellent EMI/RFI immunity.
- Rugged epoxy-filled enclosure, small size.
- Watertight mini sure-seal[®] connector.

Description

The SENAC1 and SENVI1 measure low-frequency accelerations up to 400Hz along the Z-axis. The SENAC2 and SENVI2 measure low frequency accelerations up to 400Hz along the X-axis. The sensor is calibrated and comes with a calibration certificate.



The SENVI1 and SENVI2 are AC-Coupled with a single pole high-pass filter when a dc response is not required. The analog AC coupling eliminates 0 offset drift to the sensor.

The SENAC1 and SENAC2 are used when the dc response is required – for example in tilt measurement applications.

All models have a single-ended output which is filtered by a 4th order Bessel low-pass filter with corner 3dB frequency at 400 Hz.



Available ranges, for both X or Z axis:

DC output	AC-Coupled output	Range
SENACx-100	SENVIx-100	± 10.0G
SENACx-250	SENVIx-250	± 25.0G
SENACx-500	SENVIx-500	± 50.0G
SENACx-101	SENVIx-101	± 100.0G
SENACx-251	SENVIx-251	± 250.0G

Installation

- Align the sensor's sensitivity axis with the measuring direction.
- Use the #4-40 screw-holes to fasten the sensor rigidly to the moving body.
- Connect the sensor to an analog input of the system: A, B or C.
- Carefully align indexing rib when mating mini sure-seal[®] connectors.
- Do not expose wire/connector to water, oil or fuel.
- Route the sensor cable away from sources of interference, such as ignition coils, plug leads, electronic modules or antennas.
- Verify that the cable is not pinched or stretched by moving parts.
- Do not bend cable with curvature radius smaller than 1.60" [40 mm].

Calibration

Refer to the nameplate on each sensor for individual calibration parameters.

Name	SENACx		
Predefined Equation	Acceleration		
Units	g or m/s ²		
P1	See nameplate	P2	See nameplate

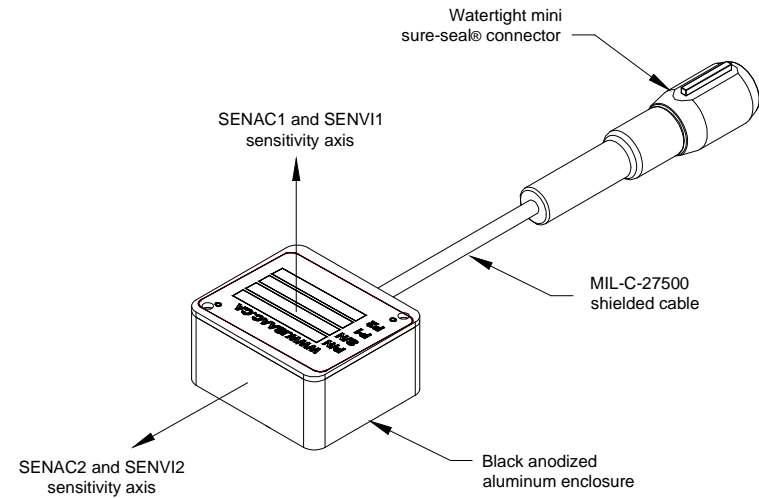
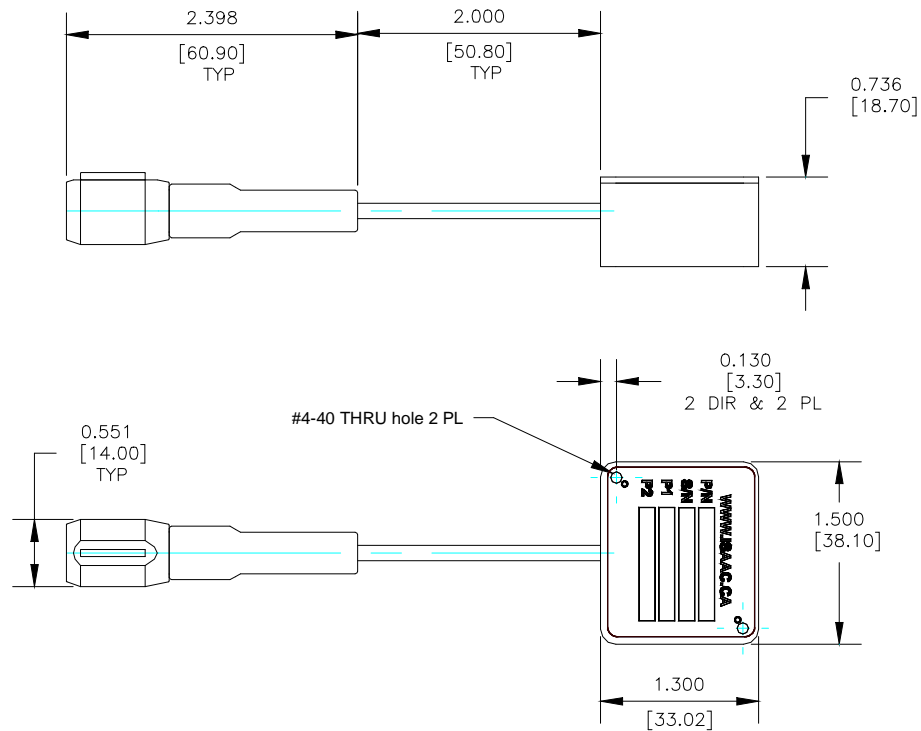
Name	SENVIx		
Predefined Equation	Acceleration		
Units	g or m/s ²		
P1	See nameplate	P2	See nameplate

Specifications

Description	Symbol	Min	Typ	Max	Unit
Power Supply					
Input Voltage	V _{in}	7.0		29.0	V
Supply Current	I _{in}		10		mA
Operating Temperature	T _O	-40		85	C
Storage Temperature	T _S	-40		85	C
SENACx Output Characteristic					
High Output Voltage	V _{OutHi}	4.99	4.998		V
Low Output Voltage	V _{OutLo}		0.001	0.01	V
Offset Voltage	V _{Offset}	2.0	2.5	3.0	V
Low Pass Filter 3dB Corner Freq.	LP _{3DB}	360	400	440	Hz
Low-Pass Filter Roll-off	LP _{RO}		80		dB/dec
SENVIx Output Characteristic					
High Output Voltage	V _{OutHi}	4.99	4.998		V
Low Output Voltage	V _{OutLo}		0.001	0.01	V
Offset Voltage	V _{Offset}	2.45	2.5	2.55	V
Low Pass Filter 3dB Corner Freq.	LP _{3DB}	360	400	440	Hz
Low-Pass Filter Roll-off	LP _{RO}		80		dB/dec
High Pass Filter 3dB Corner Freq	HP _{3DB}	0.4		0.9	Hz
Accelerometer Characteristics					
Non-linearity	NL	-1		+1	%FSO
Transverse sensitivity ¹	TS			5	%FSO
Mechanical Specification					
Height			18.7(0.736)		mm(in)
Depth			33.0(1.50)		mm(in)
Width			38.1(1.30)		mm(in)
Weight			56(1.975)		G(oz)

¹ A measure of the device's ability to reject an acceleration applied 90° from the true axis of sensitivity.

Acceleration Sensor – SENAC1, SENVI1, SENAC2, SENVI2



All dimensions are in inches [millimeters].