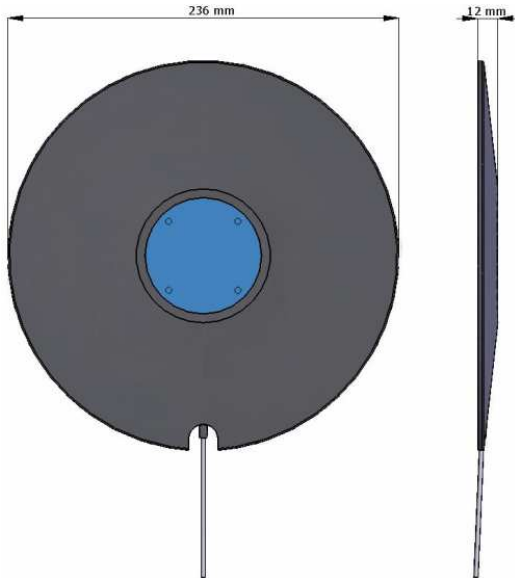




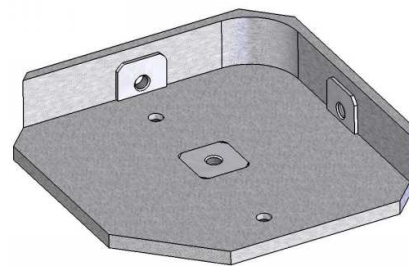
# SV 38 (TEDS) Whole-Body Seat Accelerometer (ISO 8041)

SV 38 is a low cost triaxial Whole-Body seat accelerometer based on MEMS transducers. It is dedicated for Human Vibration measurements performed according to ISO 8041:2005 standard requirements. Accelerometer can be easily used with SVAN 958 and SVAN 948 four channel analysers. With optional SC 39S cable it is possible to connect SV 38 transducer to any vibration meter/analyser with IEPE inputs by the means of three separate BNC connectors.

Calibration can be performed using accelerometer sensitivity written in TEDS memory or vibration calibrator with dedicated adapter SA 38 (option). Accelerometer can be easily removed from the seat pad, installed on calibration adapter and then fixed in all three axis on a shaker.



**SV 38 Seat accelerometer**



**SA 38 calibration adapter (option)**

## Technical Specification

**Performance:**

Number of axis	3
Sensitivity ( $\pm 5\%$ )	100 mV/(m/s <sup>2</sup> ) at 15.915 Hz, HP1
Measurement range	0.01 ms <sup>-2</sup> RMS $\div$ 50 ms <sup>-2</sup> PEAK
Frequency response	0.1 Hz $\div$ 100 Hz
Resonant frequency	5 kHz (MEMS transducer)
Electrical noise	< 50 $\mu$ V RMS, Wb weighting < 316 $\mu$ V RMS, HP1 weighting

**Electrical:**

Supply current (IEPE)	1 mA $\div$ 10 mA (2.5 mA typ.) per channel
Supply voltage (IEPE)	22 V $\div$ 30 V (28 V typ.)
Bias voltage (IEPE)	15.3 V $\pm$ 0.5 V
Output impedance	51 Ohms
Charge / discharge time constant (start-up time)	30 sec. typ.
TEDS memory	Installed (Channel 1)

**Environmental Conditions:**

Maximum vibration	980 m/s <sup>2</sup> shock survival for MEMS sensor
Temperature coefficient	<+0.012 dB/ $^{\circ}$ C
Temperature	from -10 $^{\circ}$ C to +50 $^{\circ}$ C
Humidity	up to 90 % RH, non-condensed

**Physical:**

Sensing element	MEMS
Cable	integrated 1.4 meters long
Connector	LEMO 4-pin plug (SVAN 948 & SVAN 958 compatible)
Dimensions	236 mm diameter; thickness from 3.6 mm to 12 mm
Weight	550 grams (including cable and rubber cushion)

**Accessories:**

SA 38 (option)	Calibration adapter
SC 39S (option)	Cable LEMO 4-pin socket to three BNC plugs, 0.7 meter long