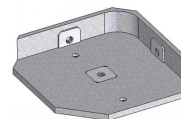
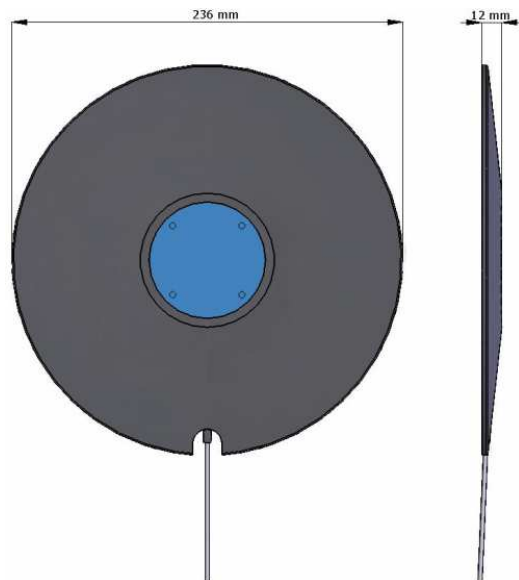


# SV 38V (TEDS)

## Whole-Body Seat Accelerometer (ISO 8041)

SV 38V 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 SV 106 six channel analyser.

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.



SA 38 calibration adapter



### Technical Specification

**Performance:**

Number of axis	3
Sensitivity ( $\pm 5\%$ )	50 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 (by design guideline, $\pm 3$ dB)	0.01 Hz $\div$ 100 Hz
Frequency response (factory tested, $\pm 3$ dB)	4 Hz $\div$ 125 Hz
Resonant frequency	5 kHz (MEMS transducer)
Electrical noise	< 25 $\mu$ V RMS, Wd weighting < 60 $\mu$ V RMS, Wk weighting < 230 $\mu$ V RMS, HP1 weighting

**Electrical:**

Supply current	< 5,0 mA
Supply voltage	5,2 V $\div$ 16 V
Bias voltage	2,5 V $\pm$ 0.05 V
Output impedance	51 Ohms
Charge / discharge time constant (start-up time)	30 sec. typ.
TEDS memory	installed (power supply pin)

**Environmental Conditions:**

Maximum vibration	100 000 m/s <sup>2</sup> Peak 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 5-pin plug (SV 106 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
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