

# SV 38

## Whole-Body Vibration Accelerometer

The SV 38 is a MEMS based triaxial accelerometer designed for whole-body seat vibration measurements with the SVAN 958A four-channel analyser.

The seat-pad meets ISO 8041:2005 and ISO 2631-1 requirements so it can be used for seat and seat-back vibration measurements.

For the periodic verification, the accelerometer can be easily removed from the seat pad and installed on a shaker with a dedicated SA 38 adapter (optional).



### Technical Specifications

#### Performance:

Number of Axes	3
Sensitivity ( $\pm 5\%$ )	100 mV/(ms <sup>-2</sup> ) at 15.915 Hz
Measurement Range	0.01 ms <sup>-2</sup> RMS $\div$ 50 ms <sup>-2</sup> PEAK
Frequency Response (by design guideline, $\pm 3$ dB)	0.1 Hz $\div$ 100 Hz
Resonant Frequency	5 kHz (MEMS transducer)
Electrical Noise	< 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	100 000 ms <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 958A compatible)
Dimensions	236 mm diameter; thickness from 3.6 mm to 12 mm
Weight	550 grams (including cable and rubber cushion)

#### Accessories:

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

The policy of our company is to continually innovate and develop our products. Therefore, we reserve the right to change the specifications without prior notice.