

SV 151

SEAT Vibration Accelerometer

The SV 151 accelerometer is dedicated for SEAT vibration measurements with the SV 106 human vibration analyser. The accelerometer have a built-in memory (TEDS) containing information about the sensitivity that is automatically transferred to the SV 106 instrument.

For the SEAT transmissibility measurements the small size SV 151 is placed on the vehicle floor. The accelerometer has a high shock resistance, no DC-shift effect and consume much less energy than IEPE / ICP sensors.



Technical Specifications

Performance:

Number of Axes	3
Sensitivity ($\pm 5\%$)	5.81 mV/ms ⁻² at 15.915 Hz
Measurement Range	160 ms ⁻² PEAK
Frequency Response (by design guideline, ± 3 dB)	0 Hz ÷ 500 Hz
Resonant Frequency	5.5 kHz (MEMS transducer)
Electrical Noise	< 0,066 ms ⁻² RMS, BL Wb weighting

Electrical:

Supply Current	< 5.0 mA
Supply Voltage	3.3 V ÷ 5.5 V
Bias Voltage	1.5 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 ms ⁻² shock survival for MEMS sensor
Temperature Coefficient	< \pm 0.01 %/°C
Temperature	from -10 °C to +50 °C
Humidity	up to 90 % RH, non-condensed

Physical:

Sensing Element	MEMS
Cable	integrated 1.4 meters
Connector	LEMO 5-pin plug (SV 106 compatible)
Dimensions	15.5mm x 15.5 mm x 15.5mm
Weight	20 grams (without cable)

Accessories:

SA 155 (optional)	calibration adapter
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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.