

SV 151 SEAT Transmissibility Accelerometer

The SV 151 is a low cost tri-axial accelerometer based on MEMS transducer technology. Fully complying with ISO 8041, it has a built-in TEDS memory that keeps information about the accelerometer sensitivity that is automatically transferred to the vibration analyser being used.

A full ISO8041 in-situ check for before and after measurement is possible using the SV111 portable vibration calibrator and dedicated SA40 adaptor.

The SV 151 accelerometer is designed for SEAT transmissibility measurements to be measured in all 3 axes simultaneously. Its small size enables the SV 151 to be placed on the vehicle floor accurately and according to ISO2631-1 requirements.

It can be used with any instrument that supports MEMS technology such as the SV 106 multichannel human vibration analyser.



Technical Specification

Performance:

Number of axis.....	3
Sensitivity ($\pm 5\%$)	5.81 mV/(m/s ²) at 15.915 Hz
Measurement range	160 ms ⁻² PEAK
Frequency response (by design guideline, ± 3 dB).....	1 Hz \div 500 Hz
Resonant frequency	5.5 kHz (MEMS transducer)
Electrical noise	< 0,066 ms ⁻² RMS, BL Wb weighting
Cross axis sensitivity.....	5%

Electrical:

Supply current.....	< 5,0 mA
Supply voltage.....	3.3 V \div 5.5V
Bias voltage.....	1,5 V \pm 0.1 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.....	10000 m/s 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 long
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 40 (option).....	Calibration adapter
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