

SV 105 (TEDS) Hand-Arm Accelerometer (ISO 8041)

SV 105 is a low cost triaxial Hand-Arm 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 of the measurement setup including SV 105 accelerometer can be done by a means of accelerometer sensitivity written in TEDS memory or vibration calibrator and SA 105 adapter (option).

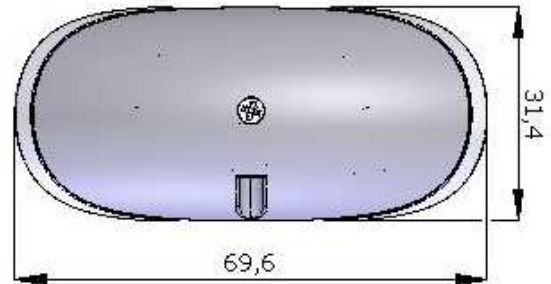
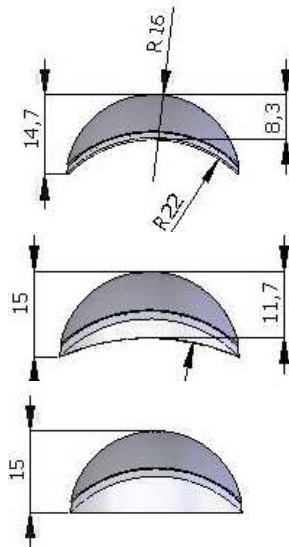
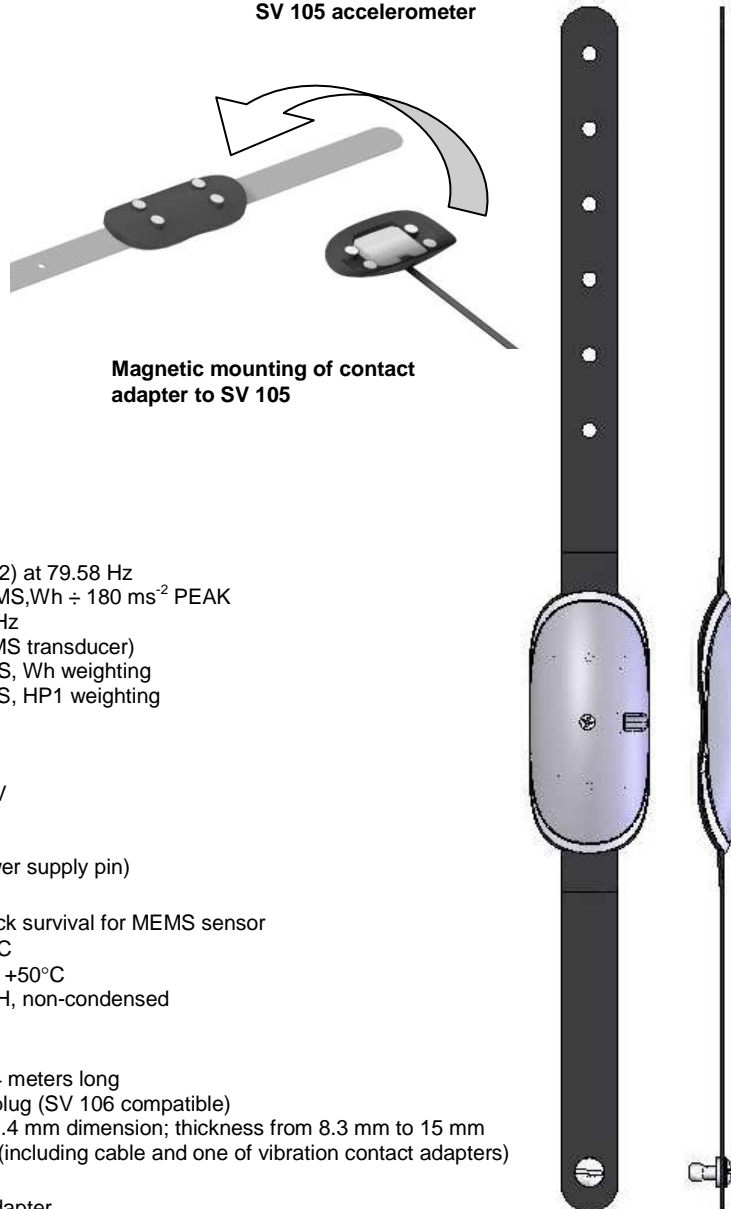
Accelerometer is supplied with three adapters to perfectly match the grip of different vibrating tools: SA 150, SA 151 and SA 152. Each adapter includes

an adjustable rubber strap for firm and comfortable attaching the accelerometer to the human's hand. This solution significantly limits disturbances to the operators who doesn't have to worry about holding the accelerometer.

Thanks to magnetic mounting SV 105 accelerometer can be fast and easy fixed to vibration adapters SA 150, SA 151 & SA 152 like also SA 105 calibration adapter.

SA 150

SA 151

SA 152

SV 105 accelerometer

**Magnetic mounting of contact
adapter to SV 105**
SV 105 with three adapters for different vibrating objects' shapes

Technical Specification

Performance:

Number of axis	3
Sensitivity ($\pm 5\%$)	10.2 mV/(m/s ²) at 79.58 Hz
Measurement range	0.024 ms ⁻² RMS, Wh \div 180 ms ⁻² PEAK
Frequency response (± 3 dB)	1 Hz \div 2763 Hz
Resonant frequency	5.5 kHz (MEMS transducer)
Electrical noise	< 240 μ V RMS, Wh weighting < 2.2 mV 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	980 m/s ² 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	69.6 mm x 31.4 mm dimension; thickness from 8.3 mm to 15 mm
Weight	50-60 grams (including cable and one of vibration contact adapters)

Accessories:

SA 105 (option)	Calibration adapter
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