

SV 81

General Purpose Vibration Accelerometer

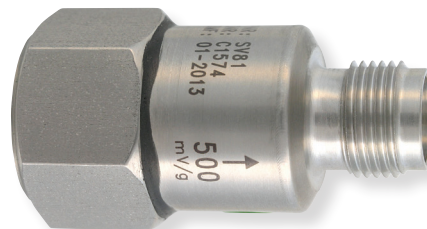


INSTRUMENTATION FOR SOUND & VIBRATION MEASUREMENTS

The SV 81 is an industry standard IEPE accelerometer offered to Svantek's Vibration Level Meters (974, 977A, 979, 958A).

The accelerometer's **HIGH SENSITIVITY** and **LOW ELECTRONIC NOISE** enable measurements of very low vibration amplitudes over the typical machines' frequency operating ranges.

The accelerometer is mounted on a vibrating surfaces with the mounting magnet.



Optional accessories to SV 81



SV 110
Hand-held
Vibration Calibrator



SA 27
Mounting Magnet



SC 27
TNC/TNC coil cable

SV 81 Technical Specifications

Performance

Number of Axes	1
Sensitivity ($\pm 5\%$)	$50 \text{ mV}/(\text{m/s}^2) \sim 500 \text{ mV/g}$
Measurement Range	$0.002 \text{ m/s}^2 \text{ RMS} \div 100 \text{ m/s}^2 \text{ Peak}$
Frequency Response (by design guideline, $\pm 3 \text{ dB}$)	$0.2 \text{ Hz} \div 3700 \text{ Hz}$
Resonant Frequency	16 kHz
Residual Noise (1 Hz, 24°C)	2.4 μg RMS
Residual Noise (1 Hz to 25 kHz, 24°C)	25 μg RMS

Electrical

Supply Current (IEPE)	$2 \text{ mA} \div 10 \text{ mA}$
Supply Voltage (IEPE)	$22 \text{ V} \div 28 \text{ V}$
Bias Voltage (IEPE)	+12 VDC
Output Impedance (Nominal)	50 Ω
Charge / Discharge Time Constant (start-up time)	< 10 sec. typ.

Environmental Conditions

Maximum Vibration (shock survival)	50 000 m/s^2 Peak
Thermal Sensitivity Coefficient	0.07 %/°C F.S.
Operating Temperature Range (recommended)	from -10 °C to +50 °C
Humidity / Enclosure	IP 67, epoxy sealed

Physical

Connector	TNC socket, top radially mounted
Weight	40 grams
Mounting Thread	10-32 UNF 2B

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