

Personal Noise Dosimeters

Svantek SV 104 Series Noise Dosimeters

Svantek 104 Series personal noise meters offer a new approach to occupational health and safety dBA monitoring. The 104 Series feature a color OLED screen display for excellent visibility in low or bright light conditions, tamper-proof lightweight design, and up to a 50 hour operational time. The internal dynamic range microphone measures from 55 dBA to 141 dBA.

FEATURES

- Compact and light weight design
- High contrast color OLED display
- Shock resistant MEMS microphone with a life-time warranty
- Single Measurement range 55 dBA RMS ÷ 140 dBA Peak
- Tri-axial accelerometer for vibration shock detection
- Automatic calibration start
- Rechargeable Battery with up to 50 hour operational time
- Mobile application to control dosimeter with smart phone or tablet

COMPLIANCE AND STANDARD CERTIFICATES

- Intrinsically safe (IS) in accordance to ATEX and IECEx
- Type Approval in accordance to Class 2 IEC 61672
- Conforms to IEC 61252 and ANSI S1.25 electroacoustic standards

KIT COMPONENTS

- Acoustic Dosimeter with lifetime warranty for MEMS microphone
- Windshield
- Micro USB 2.0 Cable & Docking Station
- Rechargeable fixed internal Battery
- CD with Instructions and factory calibration certificate
- Carry Case for single dosimeter kit

OPTIONAL ACCESSORIES

- Acoustic Calibrator with factory calibration certificate
- Universal USB Single Charger/Power Supply
- Carry Case for 5 SV104 Units as a kit



CALL GEOTECH TODAY (800) 833-7958

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SPECIFICATIONS

	SV 104	SV 104A	SV 104IS
Standards	IEC 61252 ed1.1 (2002); ANSI S1.25-1991 (R2007); Class 2 IEC 61672-1 ed2.0 (2013)	IEC 61252 ed1.1 (2002); ANSI S1.25-1991 (R2007) Class 2 IEC 61672-1 ed2.0 (2013)	IEC 61252 ed1.1 (2002); ANSI S1.25-1991 (R2007); Class 2 IEC 61672-1 ed2.0 (2013); CAN/CSA C22.2 No 61010-1; CAN/CSA C22.2 No 60079-0; CAN/CSA C22.2 No 60079-11; ANSI/UL 61010-1; ANSI/UL 60079-0; ANSI/UL 60079-11; NRTL certification for USA and Canada: QPS file no LR1356-1; NRTL device marking: cQPSus, Ex ia IIC T4 Ga, Class I, Zone 0, AEx ia IIC T4 Ga; ATEX: EN 50303:2000, EN 60079-0:2012, EN 60079-11:2012, EN 60079-26:2007; certificate number: FTZU 14 ATEX 0055X; IEC 60079-0 ed6.0 (2011), IEC 60079-11 ed6.0 (2011), certificate number IECEx FTZU 15.0001X; Hazardous locations markings: I M1 Ex ia I Ma; II TG Ex ia IIC T4 Ga;
Weighting Filters	A, C and Z	A, C and Z	A, C and Z
Time Constants	Slow, Fast, Impulse	Slow, Fast, Impulse	Slow, Fast, Impulse
Exchange Rates	2, 3, 4, 5, 6	2, 3, 4, 5, 6	2, 3, 4, 5, 6
Measurement Results	Elapsed time, L _{xy} (SPL), L _{xq} (LEQ), L _{xpeak} (PEAK), L _{xymax} (MAX), L _{xymin} (MIN), L _{c-a} DOSE, DOSE_8h, PrDOSE, LAV, L _{xye} (SEL), L _{xye8} (SEL8), PL _{xye} , (PSEL), E, E_8h, LEPd, PTC (PEAK COUNTER), PTP (PEAK THRESHOLD %), ULT (UPPER LIMIT TIME), TWA, PrTWA, LN (LEQ STATISTICS), OVL (OVERLOAD TIME %)	L _{xy} (SPL), L _{xq} (LEQ), L _{xpeak} (PEAK), L _{xymax} (MAX), L _{xymin} (MIN), where x - weighting filter A/C/Z; y - time constant Fast/Slow/Impulse L _{c-a} , DOSE, DOSE_8h, PrDOSE, LAV, LAE (SEL), LAE8 (SEL8), PLAE, (PSEL), E, E_8h, LEPd, PTC (PEAK COUNTER), PTP (PEAK THRESHOLD %), ULT (UPPER LIMIT TIME), TWA, PrTWA, LN (LEQ STATISTICS), Measurement time, OVL (OVERLOAD TIME %), No Motion Time	L _{xy} (SPL), L _{xq} (LEQ), L _{xpeak} (PEAK), L _{xymax} (MAX), L _{xymin} (MIN), where x - weighting filter A/C/Z; y - time constant Fast/Slow/Impulse L _{c-a} , DOSE, DOSE_8h, PrDOSE, LAV, LAE (SEL), LAE8 (SEL8), PLAE, (PSEL), E, E_8h, LEPd, PTC (PEAK COUNTER), PTP (PEAK THRESHOLD %), ULT (UPPER LIMIT TIME), TWA, PrTWA, LN (LEQ STATISTICS), Measurement time, OVL (OVERLOAD TIME %), No Motion time
Measurement Profiles	3 with independent filters (x) and time constants (y)	3 with independent (x) and time constants (y)	3 with independent filters (x) and time constants (y)
Microphone	SV 27 MEMS microphone, 1/2" housing with built-in TEDS functionality for the automatic calibration	ST 104A MEMS microphone, 1/2" housing, patented	SV 27IS MEMS microphone, 1/2" housing
Linear Operating Range	60 dBA RMS ÷ 140.1 dBA Peak	53 dBA RMS ÷ 141 dBA Peak (in accordance to IEC 61672)	50 dBA RMS ÷ 140.1 dBA Peak
Total Dynamic Range	50 dBA RMS ÷ 140.1 dBA Peak	43 dBA RMS ÷ 141 dBA Peak (typical from noise floor to the maximum level)	60 dBA RMS ÷ 140.1 dBA Peak
Measurement Range	55 dBA RMS ÷ 140.1 dBA Peak	53 dBA RMS ÷ 140.1 dBA Peak	60 dBA RMS ÷ 140.1 dBA Peak
Frequency Range	20 Hz ÷ 10 kHz	20 Hz ÷ 10 kHz	20 Hz ÷ 10 kHz
Dynamic Range	95 dB	98 dB	90 dB
Data Logging¹	Summary results for the measurement time Time-history logging of Leq/Max/Min/Peak with 1s logger step	Summary results for the measurement time Time-history logging of Leq/Max/Min/Peak and octave spectrum with 1s logger step	Summary results for the measurement time and time-history logging of Leq/Max/Min/Peak with adjustable logger step down to 1 s
Voice Comments	Audio records on demand, created before or after measurement, added to measurement file	Audio records on demand, created before or after measurement, added to a measurement file	Audio records on demand, created before or after measurement, added to measurement file
Audio Recording¹	Audio events recording, trigger and continuous mode, 12 or 24 kHz sampling rate, WAV format	Audio events recording, trigger and continuous mode, 12 or 24 kHz sampling rate, WAV format	Short audio events recording on trigger during measurement
1/1 Octave¹ (optional)	Real-time analysis in octave band filters, Class 1, IEC 61260; 9 filters with centre frequencies from 31.5 Hz to 8 kHz	Real-time analysis in octave band filters, Class 1 IEC 61260; 9 filters with center frequencies from 31.5 Hz to 8 kHz	1/1 octave real-time analysis, IEC 61260: Class 1 9 filters with centre frequencies from 31.5 Hz to 8 kHz
1/3 Octave¹ (optional)	N/A	Real-time analysis in 1/3 octave band filters, Class 1 IEC 61260; 28 filters with center frequencies from 20 Hz to 10 kHz	N/A
Display	Color OLED 128 x 64 pixels	Color OLED 128 x 64 pixels	OLED 128 x 64 pixels
Ingress Protection	IP 65	IP 65	IP 65
Memory	8 GB	8 GB	64 MB
Interfaces	USB 2.0 client, infrared (docking station compatible)	USB 2.0 client, electrical contacts (SB 104B-1 and SB 104B-5 docking station compatible) Long-range Bluetooth®, 4.0 Smart	Infrared (docking station required)
Keyboard	3 push buttons	3 push buttons	3 push buttons
Power Supply	Ni-MH rechargeable cells, Operation time > 40 hours ² USB interface 500 mA HUB	Li-Ion rechargeable cell, Operation time > 48 hours ² USB interface 500 mA HUB	Li-Ion rechargeable cell ² , Operation time 50 hours ³
Environmental Conditions	Temperature: from -10°C to 50°C Humidity: up to 95% RH, non-condensed	Temperature: from -10°C to 50°C Humidity: up to 90% RH, non-condensed	Temperature: from -10°C to 50°C Humidity: up to 90% RH, non-condensed
Dimensions	88 x 49.5 x 19.2 mm	88 x 49.5 x 19.2 mm	88 x 49.5 x 19.2 mm
Weight	121 grams	121 grams	117 grams with batteries

¹ Function parallel to the acoustic dosimeter mode

² Depending on configuration and environmental conditions

³ Docking station required for battery recharging