3M Occupational Health & Environmental Safety Division

3M™ Sound Examiner SE-400 Series Sound Level Meters

Occupational Assessment Made Easy

The Sound Examiner SE-400 series of sound meters are engineered to accurately measure noise levels in highly variable environments. These easy-to-use instruments calculate the average sound pressure level (L_{EQ}/L_{AVG}) over the run time; data log the maximum, minimum and peak values, and enable data to be downloaded for further analysis. This is an ideal solution to measure and manage workplace noise exposure as part of a Hearing Conservation program. Environmental noise assessments also can be conducted with the ability to print Noise Enforcement reports.

Parameters Including

- SPL, L_{Max}, L_{Min}, L_{Pk} (peak), L_{EQ}/L_{AVG}, Elapsed Time

Sound Examiner SE-400 Series Features

- Variable, user-selectable data logging intervals
- Large backlit LCD display
- Rechargeable lithium battery
- Store numerous noise surveys in memory for download
- Optional removable Type/ Class 1 microphone
- Multilingual user interface
- All models ship ready-to-use, no setup necessary

Data Management Made Easy

- The new 3M™ Detection Management Software DMS makes it easy to retrieve, download, share, and save instrument data

Optional Printing Capability

- SoundPatrol portable digital printing capability provides hard copy documentation of measurement results in the field

Rugged Design

- Water resistant and dust-proof designs (IP65 rated*) with an ergonomic soft grip

SE-400 Specifications

MEASUREMENTS	
Parameters	SPL, L_{Max}, L_{Min}, L_{Pk} (peak), L_{EQ}/L_{AVG}, Elapsed Time
Peak and Frequency Weighting	A, C, Z
Response Time	Fast and Slow
Range	110 dBA total dynamic measurement range. Overall range 30 – 140 dBA (single range)
Max Peak Level	143 dBA (sampled peak)
Exchange Rates	3, 4, 5 dBA
Status Indicators	Run, Stop, Battery Status, OL (overload), UR (under-range), Run-Time, Locked Status
PHYSICAL	
Size	11.2" (L) x 2.8" (W) x 1.3" (D) / 28.4 cm (L) x 7.1 cm (W) x 3.3 cm (D) (with preamp and microphone)
Weight	SE-401 model: 12.9 oz / 367.5 g (with preamp and microphone) SE-402 model: 13.4 oz / 380.5 g (with preamp and microphone)
Housing	Stainless fiber filled ABS Polycarbonate IP65*
Tripod Mount	Standard photographic mount on backside accepts ¼" – 20 screw threads
Drop Protection	Minimum 2 meters onto concrete, 2 times on each face. Acceptable microphone damage
ENVIRONMENTAL	
Operating Temperature	-10 °C to 50 °C (14 °F to 122 °F)
Humidity	0 to 90% RH, non-condensing
Storage Temperature	-20 °C to 60 °C (-4 °F to 140 °F)
Atmospheric Pressure	Operating: 80 to 110 kPa; Storage: 50 to 150 kPa

POWER/ELECTRICAL	
Battery	Lithium Polymer (2500 mAHr), rechargeable. Run-Time: 18 hours minimum (excluding the backlight)
Battery Life	3 years or 500 cycles (service replaceable)
Battery Charge	USB charger is provided with instrument. Battery charge time: 8 hours (approx.)
Internal Memory	2MByte
Communications	USB Interface
Standard Microphones	• Class/Type 1 Precision QE4936 microphone • Class/Type 2 General QE7052 microphone
Preamplifier	Preamp directly accepts ½" (13.2 mm) microphone
Remote Cable	Drives up to 15 m (50 ft) of cable with negligible signal loss
PORTS AND CONNECTIONS	
AC/DC Output	3.5 mm stereo (tip – AC, center ring – DC, ring – Gnd)
I/O Connector	RS-232
USB	Conforms to USB 2.0, mini-USB connector
CONFORMANCE TO STANDARDS	
IEC 61672-1 (2002)	Electroacoustics, Sound Level Meters, Part 1: Specifications
ANSI S1.43-1997 (R2007)	American National Standard, Specifications for Integrating Averaging Sound Level Meters
CE Mark	Self Certified

All Specifications Subject to Change.

**Enclosure rated to IP65. Microphone and external connectors not IP rated.*

Models and Options

Accuracy:	SE-401	SE-402
Class/Type 1	•	
Class/Type 2		•
Remote capability with removable preamp	•	
External outputs: AC/DC	•	•
Serial printing for SoundPatrol feature	•	•
USB connectivity	•	•

DMS Software: Data Management Made Easy

The new 3M™ Detection Management Software DMS makes it easy to export, report, and share data from the SE-400 series.

- Retrieve, download, share and save instrument data
- Generate charts and reports
- Export and share recorded data
- Perform advanced calculations
- The software integrates with 3M Quest instruments, and will help improve both efficiency and reporting of noise monitoring data.

Occupational Health & Environmental Safety Division
Quest Technologies, a 3M Company
1060 Corporate Center Drive
Oconomowoc, WI 53066
Customer Service: 262-567-9157
Toll Free: 800-245-0779
www.3M.com/detection

3M is a trademark of 3M Company, used under license in Canada.
Please recycle. Printed in USA.
© 2011 3M. All rights reserved.
ISO 9001 Registered Company
ISO 17025 Accredited Calibration Lab
70-071-62505-0