

SOUND EXAMINER SOUND LEVEL METERS SE-400 SERIES

The TSI Quest™ Sound Examiner Sound Level Meters SE-400 are engineered to accurately measure noise levels in highly variable environments, including those that require intrinsic safety. These meters compute average sound pressure level (L_{EQ}/L_{AVG}) over the run time, helping you to more accurately assess occupational and environmental noise levels. All models are ready to use with no set-up required.

Features and Benefits

- + Red models have Intrinsic Safety approvals
- + Intuitive interface allows for out-of-box use with little to no training
- + User selectable data logging intervals for download and analysis with TSI Quest Detection Management Software (sold separately)
- + Averaging functionality allows for easy measurement in variable environments
- + Printing capability with optional digital printer* provides hard copy documentation in the field
- + Choose from models with Class/Type 1 or Class/Type 2 microphones, dependent on your application
- + SE-401 and SE-402-R models include removable preamp
- + Meets applicable industry standards
- + Useful tool as part of a Hearing Conservation Program; be confident that data collected is accurate

* Not available on Intrinsically Safe models.



ACCURATE AND INTUITIVE ANALYSIS MODELS FOR MANY APPLICATIONS



Choice of Microphones

- + User can specify microphone type (Class/Type I or Class/Type II) based on application.
- + Select Type II for general duty; Type I accuracy for legal metrology.

Removable preamp*

- + Preamp can be easily removed to enable interference-free low-level monitoring, especially for remote use.

Aerodynamic shape

- + Minimizes disturbance to sound fields being measured, assuring accurate readings.

Onboard data logging

- + Allows user to capture maximum, minimum and peak values for thorough analysis.
- + Can be used with TSI Quest Detection Management Software DMS to manage compliance with hearing conservation programs.

Conformance to standards

- + Meets IEC 61672-1 (2002) and ANSI S1.43-1997 (R2007) standards and is CE certified.
- + Intrinsic Safety approvals on SE-401-IS and SE-402-IS.



SOUNDPATROL PORTABLE DIGITAL PRINTING (OPTIONAL)*

- + Enables hard-copy documentation of measurement results in the field.
- + Facilitates noise ordinance enforcement and on-the-spot citation issuance.

* Does not apply to Intrinsically Safe models.

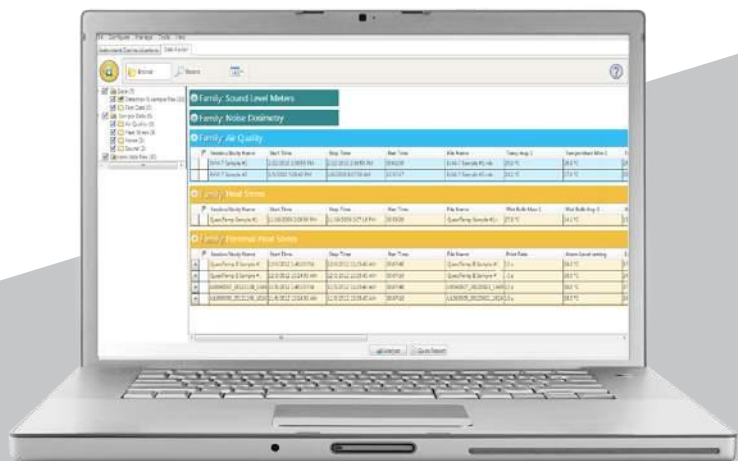
CHOOSE THE MODEL THAT BEST MEETS YOUR NEEDS

	Sound Examiner SE-401	Sound Examiner SE-402	Sound Examiner SE-402-R	Sound Examiner SE-401-IS	Sound Examiner SE-402-IS
Product No.	SE-401	SE-402	SE-402-R	SE-401 IS	SE-402 IS
DMS Compatible	+	+	+	+	+
Data Logging	+	+	+	+	+
External AC/DC Output	+	+	+		
Serial Printing for SoundPatrol Feature	+	+	+		
Class/Type 2 Accuracy		+	+		+
Class/Type 1 Accuracy	+			+	
Remote Capability with Removable Preamp	+		+		
Intrinsic Safety Approval				+	+

Detection Management Software

Designed for dosimetry, sound level measurements, heat stress assessments and environmental monitoring, this advanced software helps safety and occupational professionals:

- + Configure instrumentation and save pre-configured setups
- + Retrieve, download, share, and save instrument data
- + Create charts, tables, and reports to intuitively interpret your measurements
- + Export and share recorded results



The software integrates with TSI Quest Detection Solutions data logging instruments and will help you improve both operating efficiency

SPECIFICATIONS

SOUND EXAMINER SOUND LEVEL METERS SE-400

Measurements

Parameters	SPL, L_{Max} , L_{Min} , L_{Pk} (peak), L_{EQ} / L_{AVG} , L_{EP} , Elapsed Time
Peak and Frequency Weighting	A, C, Z
Response Time	Fast and Slow
Ranges	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) SE-401-IS model: 14.5 oz /410 g (with preamp and microphone) SE-402-IS model: 14.5 oz /410 g (with preamp and microphone)
Housing	ABS Polycarbonate IP65. (Enclosure rated to IP65. Microphone and external connectors not IP rated.)
Tripod Mount	Standard photographic mount on backside accepts 1/4" – 20 screw threads
Drop Protection	Minimum 2 meters onto concrete, 2 times on each face. Acceptable microphone damage.

Environmental

Operating Temperature	14 °F to 122 °F (-10 °C to 50 °C)
Humidity	0 to 90% RH, non-condensing
Storage Temperature	-4 °F to 140 °F (-20 °C to 60 °C)
Atmospheric Pressure	Operating: 80 to 110 kPa Storage: 50 to 150 kPa

Specifications are subject to change without notice.

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Power / Electrical Characteristics

Battery	Lithium Polymer: 2500 mAHr for standard models / 1500 mAHr for IS models, rechargeable Run-Time: 18 hours minimum (excluding the backlight) for standard models / 8 hours for IS models
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	2MB (34 days at 1-minute logging)
Communications	USB Interface
Standard Microphones	Class/Type 1 Precision QE4936 microphone Class/Type 2 General QE7052 microphone
Preamplifier	Preamp directly accepts 1/2" (13.2 mm) microphone
Remote Cable	Drives up to 50 ft (15 m) of cable with negligible signal loss (not available on IS)

Ports and Connections

AC/DC Output	3.5 mm stereo (tip – AC, center ring – DC, ring – Gnd); not applicable to IS models
I/O Connector	RS-232 (I/O connector not applicable to IS models)
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 Standards: Specifications for Integrating Averaging Sound Level Meters
ANSI S1.4-1983 (R2006)	Specifications for Sound Level Meters
CE Mark	Self Certified
Intrinsic Safety Standards (SE-401 IS and SE-402 IS models)	Contact factory for detailed information



TSI Incorporated - Visit our website www.tsi.com for more information.

USA	Tel: +1 800 874 2811	India	Tel: +91 80 67877200
UK	Tel: +44 149 4 459200	China	Tel: +86 10 8219 7688
France	Tel: +33 141 19 21 99	Singapore	Tel: +65 6595 6388
Germany	Tel: +49 241 523030		

Authorised Distributor.



Dareen Global LLC

3rd Floor, Bait Qassim Building
Behind Sultan center, Qurum
Muscat, Sultanate of Oman
Tel: +968 22700343/92803889
info@dareenglobal.com
www.dareenglobal.com