



Bedrock® SM90 class 1 instrument

Acoustic measurements made easy and affordable

The Bedrock SM90 is a full-featured acoustic measuring instrument, fully compliant with class 1 Sound Level Meter specifications according to IEC-61672-1:2014. It comes standard with many options, such as a Real-time Analyzer module (1/1, 1/3, 1/6 and 1/12 octaves) and an STI analyzer (STIPA and Full STI). Even more modules will be added over time through free upgrades. You will easily navigate through its functions thanks to the full-colour touch screen, and retrieve your stored measurement data through USB.

What is Bedrock?

Bedrock produces innovative acoustic measuring instruments for acousticians, audio specialists, architects, engineers and basically anybody involved in (acoustic) testing and certification.

All Bedrock products are designed and manufactured in the Netherlands, by the inventors of STIPA.

Why choose the SM90?

The Bedrock SM90 is a high-end class 1 instrument, offering the same reliability, accuracy and robustness as instruments by any top-notch brand of sound level meters. However, there are a few things that set the Bedrock SM90 apart from the competition.

- **No legacy hardware issues.** Many instruments that are currently sold have evolved from older meters, which are

based on legacy hardware. This greatly limits their capabilities. The Bedrock SM90 was designed from scratch, using the latest components and technologies. This makes the SM90 an extremely flexible instrument, with power to spare for future upgrades.

- The Bedrock SM90 offers a very **intuitive and easy-to-use full color touch interface.** Not even a stylus is needed - just your finger. Confusing multi-function buttons, rotary switches and complex nested menus may have been acceptable in the 1990s. But why settle for such a cumbersome interface now?
- **The Bedrock SM90 can't be beat on price- which includes a wide range of modules!** The steep price tag on some sound level meters is meant to suggest superior quality, but in fact, the price of an instrument has very little to do with its

hardware. Instead, the quality of an acoustic measuring instrument depends mostly on how well it is designed. Our design team is counted among the best in the world - having designed acoustic (testing) equipment not just for our Bedrock brand, but for a variety of products and brands worldwide.

The Bedrock SM90 comes standard with a Type 1 / Class 1 measuring microphone.

Where to buy?

Bedrock products are sold through a global network of distributors and resellers. Please refer to our website for our distributor list and up-to-date information about our products, as well as available firmware upgrades, manuals and test signals.



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Product features

The Bedrock SM90 offers the following features:

- STIPA
- Full STI
- Speech Level Meter (cf. 602168-16)
- SPL meter
- Real-Time Analyzer (RTA) with 1/1, 1/3, 1/6 and 1/12 octave resolution
- Reverberation time measurements (RT60)
- Statistical acoustics (percentiles)
- LEQ logging (A/C/Z)
- RTA logging / spectrograms
- Noise Curves (NR/NC)
- Sound insulation (R'/DnT)
- SRI / STC
- FFT analysis
- Oscilloscope
- AC Volt meter
- THD+N
- Fundamental frequency
- Loudspeaker polarity
- Calibrated audio recording.

More functionality to be added through free firmware updates.

Functional specifications

- Full-color 3.2" LCD touch screen
- 8 GB of internal storage, at least 7.8 GB available for storing measurement data
- Downloading of measurement data and firmware updating through USB
- Easy calibration procedure
- Comes standard with Type 1 / Class 1 measuring microphone; works with any 48 V XLR measuring microphone.
- Approx. 4-6 hours of use on a single charge, depending on

intensity of use.

- Recharging through USB wall charger (charger with international adapters included).

Technical specifications

Technical specifications of the SM90 include:

- Linear range of electronics (combined ranges) >110 dB
- Linear measuring range with included microphone: 30 to 122 dB.
- Type 1 / Class 1 Sound Level Measurements compliant with ANSI S1.4 and IEC-61762-1:2014.
- Frequency weightings: A, C, Z; Time averaging and integration: Fast, Slow; Equivalent Continuous (EQ); Max Hold; Peak.
- RTA filter specs exceed class 1 requirements (IEC-61260-1:2014)
- STI measurements fully compliant with IEC-60268-16 rev.4/5 (2018/2019).
- Remote control API available (control the SM90 from your own external applications).

Accessories

The SM50 comes bundled with the following accessories:

- Ruggedized carrying case
- Microphone
- World charger
- USB cable
- Carrying cord
- Quickstart guide
- Calibration certificate
- USB flashdrive with test signals and manual
- Foam windscreen



Sound Instrumentation and Calculation Software

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