English

# User Manual

## Sound Level Transmitter PCE-SLT-TRM

**User manuals in various languages (français, italiano, español, português, nederlands, türk, polski, русский, 中文) can be found by using our product search on: www.pce-instruments.com**

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# 1 Safety notes

Please read this manual carefully and completely before you use the device for the first time. The device may only be used by qualified personnel and repaired by PCE Instruments personnel. Damage or injuries caused by non-observance of the manual are excluded from our liability and not covered by our warranty.

- The device must only be used as described in this instruction manual. If used otherwise, this can cause dangerous situations for the user and damage to the meter.
- The instrument may only be used if the environmental conditions (temperature, relative humidity, …) are within the ranges stated in the technical specifications. Do not expose the device to extreme temperatures, direct sunlight, extreme humidity or moisture.
- Do not expose the device to shocks or strong vibrations.
- The case should only be opened by qualified PCE Instruments personnel.
- Never use the instrument when your hands are wet.
- You must not make any technical changes to the device.
- The appliance should only be cleaned with a damp cloth. Use only pH-neutral cleaner, no abrasives or solvents.
- The device must only be used with accessories from PCE Instruments or equivalent.
- Before each use, inspect the case for visible damage. If any damage is visible, do not use the device.
- Do not use the instrument in explosive atmospheres.
- The measurement range as stated in the specifications must not be exceeded under any circumstances.
- The device is subject to the generally applicable norms and standards (IEC651 Type 2, ANSI S1.4 Type 2) and is CE certified.
- Non-observance of the safety notes can cause damage to the device and injuries to the user.

We do not assume liability for printing errors or any other mistakes in this manual.

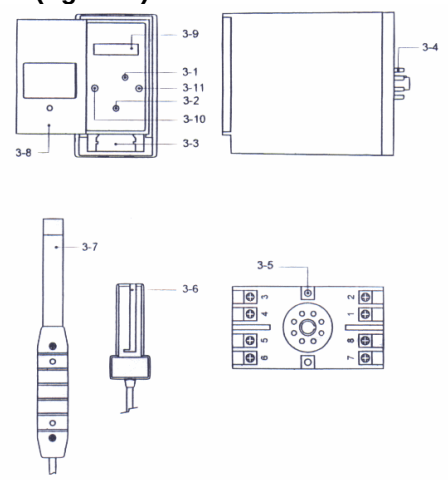
We expressly point to our general guarantee terms which can be found in our general terms of business.

## 2 Specifications

| | |
|---|---|
| **Sound sensor** | |
| Measurement range | 30 ... 130 dB in three ranges |
| Resolution | 0.1 dB |
| Accuracy | 31.5 Hz: ±3.0 dB<br>63 Hz: ±2.0 dB<br>125 Hz: ±1.5 dB<br>250 Hz: ±1.5 dB<br>500 Hz: ±1.5 dB<br>1 kHz: ±1.0 dB<br>2 kHz: ±2.0 dB<br>4 kHz: ±3.0 dB<br>8 kHz: ±5.0 dB<br>These accuracies apply when the frequency weighting meets IEC 61672 class 2, when the input signal is calibrated to 94 dB (31.5 Hz … 8 kHz) |
| Frequency weighting | A |
| Power supply | via transmitter |
| Cable length (sensor to transmitter) | 1.5 m |
| Environmental conditions | max. 80 % RH / 0 ... +50 °C / +32 ... +122 °F |
| Microphone | 1/2" precision electret microphone |
| Standard | IEC 61672 Type II (Class II) |
| **Transmitter** | |
| Housing | ABS plastic |
| Power supply (depending on model) | 90 ... 260 ACV (max. 1.5 A) or<br>24 V DC (max. 1.5 A) |
| Calibration | adjustable via grub screw |
| Output | 4 ... 20 mA |
| Protection class | IP 50 |
| Environmental conditions | max. 80 % RH / 0 ... +50 °C / +32 ... +122 °F |

## 3 Description of the user interface (figure 1)

3-1 Calibration screw
3-2 Voltage display
3-3 Sensor plug-in unit
3-4 Output connector
3-5 Wireless layout connector
3-6 Sensor plug-in connector
3-7 Sound sensor
3-8 Front cover
3-9 Range switch
3-10 Overrange indicator
3-11 Sub-range display




## 4 Installation

Connect the cables for the power supply (90 ... 230 V) and for the analogue output (4 ... 20 mA) to the cable socket (figure 1, 3-5) as follows:

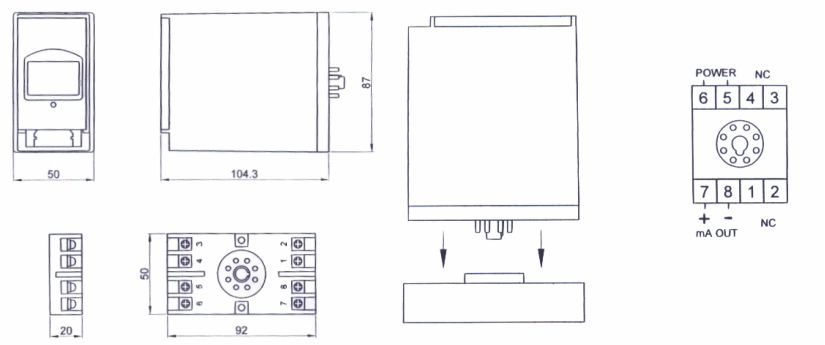
- Pull the cable connection socket off the back of the transmitter
- Use slots 5 and 6 for the power supply
- Use slots 7 and 8 for the 4 - 20 mA signal
  (slot 7 for + and slot 8 for -)
- After you have screwed on the cables, slide the cable connection socket back on the transmitter (figure 1, 3-4)
- Insert the sensor plug into the sensor slot at the bottom of the transmitter.
- Select the most likely suitable measurement range with the measurement range switch (3-9) on (if the sub-range indicator (3-11) lights up, go to the select the next higher range)
- The transmitter is set to an analogue output signal of 4 - 20 mA
  (range 1: 30 dB corresponds to 7.69 mA / 80 dB = 13.84 mA
  range 2: 50 dB = 10.15 mA / 100 dB 16.3 mA
  range 3: 80 dB = 13.84 mA / 130 dB = 20 mA)
- The maximum output resistance is 200 ohm

## 5 Calibration

The sound transmitter including sound sensor is supplied factory-adjusted as standard. However, the sensor is subject to natural drift and should therefore be recalibrated regularly. The additional sound calibrator PCE-SC 43 is required for this purpose. This sound calibrator has an opening that is precisely matched to the diameter of the sound sensor. When switched on, the calibrator emits a calibration sound level of exactly 94 dB. This sound level serves as a reference for setting the transmitter using the grub screw (SPAN).
Leave the transmitter or the complete PCE-SLT sound warning system switched on and observe the sound level displayed on the digital display.

display of the sound value. Slide the sound sensor (silver tip) into the opening on the sound calibrator PCE-SC 43 and switch on the calibrator. If there is now a difference between the actual value on the digital display and the calibration value of 94 dB, please turn the grub screw carefully (please open the front cover of the transmitter beforehand) and observe the displayed value. Turn the screw until the value is exactly 94.0 dB. If this is the case, the recalibration is complete. Now switch off the calibrator and pull the sensor out of the calibrator opening. Close the transmitter cover.

## 6 Dimensional sketches



## 7 Contact

If you have any questions, suggestions or technical problems, please do not hesitate to contact us. You will find the relevant contact information at the end of this user manual.

## 8 Disposal

For the disposal of batteries in the EU, the 2006/66/EC directive of the European Parliament applies. Due to the contained pollutants, batteries must not be disposed of as household waste. They must be given to collection points designed for that purpose.

In order to comply with the EU directive 2012/19/EU we take our devices back. We either re-use them or give them to a recycling company which disposes of the devices in line with law.

For countries outside the EU, batteries and devices should be disposed of in accordance with your local waste regulations.

If you have any questions, please contact PCE Instruments.

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