

# Outdoor Decibel Meter PCE-428-EKIT



**Outdoor Decibel Meter PCE-428-EKIT incl. Outdoor Noise Level MeterKit Class II sound level meter with octave filter or 1/3 octave filter for frequency analysis / USB interface / Datalogger / A, B, C, Z rating / Fast, slow and pulse analysis**

The outdoor decibel meter PCE-428-EKIT is an optimal sound level meter for measurements at workplaces, construction sites, in traffic, airports, etc. The decibel meter is a class 2 device and is equipped with an octave band frequency filter. Optionally, the decibel meter PCE-428-EKIT can be upgraded with a 1/3 octave band filter. In addition to the numerical display of the measured value, a graph can show the course of the sound level. The decibel meter has different frequency ratings such as A, B, C and Z.

Furthermore, the decibel meter can measure with the time estimates Fast, Slow, Pulse and Peak. The measuring range of the decibel meter ranges from 25 ... 136 dbA at a frequency of 20 Hz ... 12.5 kHz. The decibel meter can store 3 different measuring profiles. Here the user can decide which parameters the decibel meter should record. For example, you can choose between Laeq, LcPeak, LaFmax, LaFMin and so on.

The peak hold function in the decibel meter makes it possible to record the maximum sound pressure level during a long-term measurement and to freeze it in the display. A 24 bit AD converter and the specially developed electronics from the decibel meter help to reduce the inherent noise to a very low level. A sampling of the measurement signal with more than 48 kHz allows a high accuracy and improved stability of the measured value on the decibel meter.

## **PCE-4xx-EKIT**

An additional kit for outdoor sound measurement PCE-4xx-EKIT can be combined with the sound level meters PCE-428, 430 or PCE-432. This kit makes it possible to measure the outdoor noise with a sound level meter over a long period of time. The environmental noise monitoring system consists of a waterproof Peli carrying case with rollers. A charger and two additional lead gel batteries are installed in this case, which allows an operation of the sound monitor for up to 10 days. During the outdoor sound measurement, the case may remain closed. Due to the external connections for the microphone and the power supply all electronic components are protected from water.

The delivery scope of the outdoor sound monitor includes rain and wind protection as well as a wire mesh for the microphone. Also, a tripod is available with which the microphone can be placed outdoors. Also, the charger in the measuring kit PCE-4xx-EKIT is waterproof. Therefore, the charger may remain outdoors. The outdoor noise meter can be used, for example, for the sound measurement of road noise, aircraft and train noise, event noise, etc. The weather does not matter, hail, snow and rain are no problem for the kit for outdoor noise. If the **PCE-432** decibel meter is combined with this measuring kit, it is even possible that the exact location of the sound level metering around the outside area is assigned via the GPS receiver.

- ▶ 1/1 octave band included
- ▶ 1/3 octave band optional
- ▶ Accuracy class 2
- ▶ A, B, C & Z frequency rating
- ▶ Fast, Slow, Pulse and Peak time weighting
- ▶ Statistics function
- ▶ Display of the sound profile as a graph
- ▶ 3 measuring profiles adjustable
- ▶ Low inherent noise
- ▶ ICCP microphone 40 mV /PA
- ▶ Alarm level adjustable

Subject to change

## Specifications

Measuring range	25 ... 136 dbA
Accuracy	Class 2
Frequency range	20 Hz ... 12.5 kHz
Standards	GB/T3785.1-2010 GB/T3785.2-2010 IEC60651:1979 IEC60804:2000 IEC61672-1:2013 ANSI S1.4-1983 ANSI S1.43-1997
Frequency analysis	Octave band filter: 20Hz ... 8kHz 1/3 Octave band filter: 20Hz ... 12.5kHz
Microphone	1/2" measurement microphone class 2 Sensitivity: 40 mV/PA Frequency range: 20 Hz ... 12.5 kHz Connection: TNC Power supply: ICCP Standard
Data-logging interval	1 s ... 24 h (adjustable)
Measuring functions	LXY(SPL), LXeq, LXYS, LXSEL, LXE, LXYmax, LXYmin, LXPeak, LXN.  X = Frequency weighting: A, B, C, Z; Y = Time weighting: F, S, I; N = Statistics in %: 1 ... 99 %
24 hour measurement	Automatic measurement with data storage
Frequency weightings	A, B, C, Z
Time weightings	Fast (F), Slow (S), Pulse(I), Peak
Inherent noise	Microphone: 20 db(A), 26 db(C), 31 db(Z) Electronics: 14 db(A), 19 db(C), 24 db(Z)
AD converter	24 Bit
Sample rate	Standard: 48 kHz LN Mode: 20 ms
Measuring display	Numerical Bar graph Graphical
Display	160 x 160 Pixel LCD with backlight
Memory	4 GB Micro SD card

## More information

Manual P1



Manual P2



More product info



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Interface	USB (Memory readable via software or directly as mass storage) RS232
Voltage output	AC 5V RMS DC 10 mV/db
Alarm	Adjustable
Power supply	4 x 1.5 V AA batteries 12 V / 1 A power plug 5 V / 1 A USB
Operating time battery mode	min. 10 h
Dimensions	70 x 300 x 36 mm / 2.76 x 11.81 x 1.42" (W x H x D)
Weight	approx. 620 g / 1.4 lbs incl. batteries
Transport case	PELI 1510 with rollers with grid foam
Protection	IP65

#### **Outdoor Noise Level Meter Kit**

Connections on the suitcase	Microphone: TNC 12 V charging voltage: XLR 110 V / 230 V charging voltage: PowerCon TRU
Charger	Victron Blue Smart 12 V / 4 A IP65
Internal batteries	2 x 12 V / 12 Ah lead gel
Battery running time	min. 10 days
Power supply	with charger EU version: 180 ... 265 V AC with charger US version: 100 ... 130 V AC battery operation: 2 x 12 V / 12 Ah
Cable length	Microphone cable: 2 m / 6 ft 6" with TNC connector Power supply: 2 m / 6 ft 6" with PowerCon TRU
Dimensions	56 x 35 x 23 cm / 2.2 x 1.3 x 0.9"
Weight	ca. 14 kg / 30 lb 13 oz with batteries ca. 8 kg / 17 lb 10 oz without batteries

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