

ACOUSTIC CALIBRATOR



HD-2020

Art. no. 700062
Acoustic calibrator

General:

The HD-2020 sound level calibrator is a portable, battery operated sound source, suitable for sound level meters (portable and laboratory) and acoustic stations. It allows calibrating 1/2" microphones with mechanical dimensions according to IEC 61094-1. The calibration pressure levels of 94 dB and 114 dB can be selected by the keypad. If the microphone is absent or not inserted correctly into the calibrator cavity, the sound level will blink on the display. The clock/calendar allows you to set the number of years and months of validity of the calibration from the date of adjusting: at the expiration time, an appropriate symbol flashes on the display.

Specifications:

Coupling cavity:	for standard 1/2" microphones (12.7 ±0.03 mm) according to IEC 61094-1 and IEC 61094-4
Frequency:	1.000 Hz
Frequency tolerance:	1 % in the range -10 ... +50 °C and 10 ... 90 % RH
Sound pressure level:	94.0 dB and 114.0 dB ±0.2 dB at 1 kHz (referred to 101.3 kPa, 23 °C ±3 °C and 65 % RH)
Reference conditions:	20 °C, 50 % RH, 101,3 kPa, 10 mm ³ cartridge volume
Reaction speed:	10 s
Total distortion:	<1 %

Ambient condition influence

Temperature and humidity influence:	<0.3 dB in the range -10 ... +50 °C and 10 ... 90 % RH
Static pressure influence:	<0.1 dB in the range -65 ... 108 kPa

Operating conditions

Working temperature:	-10 ... +50 °C
Relative humidity:	≤90 % RH
Storage temperature:	-25 ... +70 °C
Microphone equivalent volume:	5 ... 250 mm
Power supply:	9 V alkaline battery IEC type 6LR61. 9 V rechargeable batteries are also allowed.
9 V battery autonomy:	48-hour continuous functioning with good quality alkaline batteries
Display:	3½ LCD, battery symbol
Watch / date-indicator:	internal with 3 V lithium buffer battery
Case material:	ABS
Dimensions:	83 x 43 x 53 mm (H x W x D)
Protection degree:	IP64
Effects of electro-magnetic fields:	<0.3 dB
Scope of supply:	HD-2020 calibrator, 1x 9 V alkaline battery, manual. ACCREDIA individual calibration certification included.

IMPORTANT INFORMATION:

Device supply with calibration certificate. Custome must be specified when ordering.

HIGHLIGHTS:

- The 1000 Hz frequency allows calibrating sound level meters with any weighting
- Independent of atmospheric pressure
- The 114 dB sound level allows performing calibrations even in high background noise environments
- Simple to use

PHOTO-RADIOMETER



ILLUMINANCE, LUMINANCE PHOTONS FLOW UVA-, UVB-, UVC-IRRADIANCE IRRADIANCE IN SPECTRAL BAND OF BLUE LIGHT GLOBAL SOLAR RADIATION

HD-2302-0

Art. no. 700063
Photo-radiometer

General:

It measures illuminance, luminance, PAR and irradiance (across VIS-NIR, UVA, UVB and UVC spectral regions or measurement of irradiance effective according to the UV action curve). The probes are equipped with the SICRAM automatic detection module: in addition to detection, the unit of measurement selection is also automatic. The factory calibration data are already memorized inside the instruments.

Application:

Measurement of lighting strength and radiation strength in workplaces with high exposure and/or adjacent traffic routes and work stations. Additional applications for museum and not destructive testing, for tanning /aesthetic centers, photovoltaic and aging chamber

Specifications:

Instrument	
Dimensions:	140 x 88 x 38 mm (H x W x D)
Material:	ABS
Display:	2 x 4½ digits plus symbols - 52 x 42 mm (visible area)
Operating conditions	
Working temperature:	-5 ... +50 °C
Storage temperature:	-25 ... +65 °C
Working relative humidity:	0 ... 90 % RH without condensation
Protection degree:	IP67
Power	
Batteries:	3 1.5 V type AA batteries
Autonomy:	200 h with 1800 mAh alkaline batteries
Power absorbed with the instrument off:	20 µA
Measuring unit:	lux – fcd – µmol/m ² ·s – cd/m ² – W/m ² – µW/cm ² – µW/lumen
Connections:	Input module for the probes 8-pole male DIN45326 connector
Scope of supply:	Instrument HD-2302-0, 3 1.5 V alkaline batteries, manual, case. The probes must be ordered separately.

Accessories:

- LP471-PHOT
- LP471-LUM2
- LP471-PAR
- LP471-UVA
- LP471-UVB
- LP471-UVC
- LP471-P-A
- LP471 BLUE
- LP SILICON-PYRA

Specification see following pages

HIGHLIGHTS:

- Measurement of many different light values, lighting strength, luminance, radiation strength
- Wide range of sensors, interchangeable sensors

HANDHELD INSTRUMENT

DISPLAY / CONTROLLER

LOGGER / BUS SYSTEMS

TRANSMITTER

TEMPERATURE PROBE

ALARM / PROTECTION, LEVEL