Hand-held HI 1 and UV sensor SI 1

for quick and easy UV intensity measurements

Handheld HI 1

UV sensor SI 1

The UV sensors type SI 1 are available for the usual wavelength ranges and for UV LED measurements. The clever thing about these sensors is the calibration that is stored in the connector. Thus, several SI 1 sensors can be used one after the other if used in combination with a handheld.

Handheld HI 1

- Small and portable display unit for uv sensor SI 1
- Large-scaled 7/16 segment display with units
- Measuring functions: Measured value,
  saving of maximum / minimum values, hold function
- Test functions: Range monitoring, sensor breakage indication,
  battery voltage check and display

Technical data hand-held HI 1	
Art. No.	321 02200 0000
System accuracy	± 0,1 % of measured values ± 3 digit
Resolution	0,5 W/m² (= 0,05 mW/cm²)
Measuring rate	2,5 mops
LC display	7 segments: measured value 5 char, 15 mm 16 segments: units 2 char, 9 mm
Keypad	7 silicone keys
Operating temperature	-10°C...+60°C (continuous)
Power supply	3 x AA alkaline batteries, ≤ 5 mA
Current consumption	approx. 10 mA without uv sensor with connected uv sensor SI1 in total approx. 15 mA
Weight	approx. 270 g
Dimensions	approx. 125 x 80 x40 mm
Housing material	ABS (Acrylnitril-Butadien-Styrol)
Delivery	Hand-held unit with 3 AA alkaline batteries, manual
Option: 	321 02227 0000 Plastic case for one Hand-held unit HI 1 and for up to three UV sensors SI 1

Note:

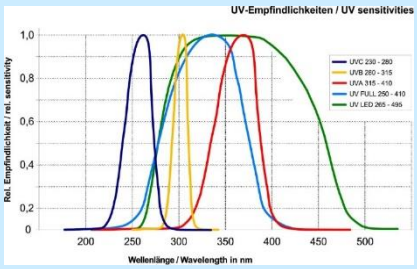
Note: At the hand-held unit, different uv sensors type SI 1 (e.g. for different uv bandwidths) can be connected one after another. Only one hand-held unit for different sensors is required.

UV sensor SI 1

To accurately measure the uv intensity at difficult to access areas or locations with high temperatures.

The uv sensor SI 1 is a robust uv measuring instrument which measures and displays in combination with the hand-held unit HI 1 the intensity of uv lamps for short-time measurements. The uv sensor of the measuring cell is built to resist temperatures up to 50°C.

The uv sensor is available for different uv measuring ranges. The calibration of the sensors is saved in the special plug connector. Because of this only one hand-held unit is needed for different uv sensors.

Technical data UV sensor SI 1	UV-A	UV-B	UV-C	UV full	UV LED 320 – 405 nm
Art. No. 20 mW/cm² (=200 W/m²) 200 mW/cm² (=2000 W/m²) 2.000 mW/cm² (=20.000 W/m²)	./. ./. 321 02212 0000	./. ./. 321 02228 0000	321 02203 0000* 321 02202 0000* 321 02220 0000	321 02224 0000 321 02229 0000 321 02208 0000	321 02230 0000** (max. 20 W/cm²)
Spectral measuring ranges	315…395 nm (max. at 360 nm)	265…325 nm (max. at 315 nm)	230...280 nm (max. at 265 nm)	250…410 nm (max. at 330 nm)	265…495 nm (max. at 350 nm)
	 ** UV-LED: 265 – 495 nm: for UV LEDs 320…405 nm				
Calibration	* 20 mW/cm²: calibrated with UVC low pressure lamp * 200 mW/cm²: calibrated with UVC low pressure lamp 2.000 mW/cm²: calibrated with UV medium pressure lamp (Hg)				** calibrated with UV LED at 395 nm
Calibration	acc. to EN ISO / IEC 17025: can be traced back to PTB, sensors UV-C 20 mW/cm² and 200 mW/cm²: can be traced back to NIST				
Max. permissible radiation	20.000 W/m² (bis zu ca. 30 s)				20 W/cm²; up to 5 s
UV sensitivity	daylight blind				
Measurement distance	min. 10 mm when using UV low pressure lamps min. 200 mm when using UV medium pressure lamps				min. 5 mm; up to 5 s irradiation duration
Operation temperature	0…+50 °C				
Accuracy	± 5%				
Power supply	power is applied by hand-held unit HI 1				
Current consumption	≤ 5 mA				
Dimensions (LxWxH)	approx. ∅ 36 x 17 mm, measuring cell size: approx. ∅ 10 mm				
Weight	approx. 100 g				
Housing material	aluminium				
Delivery	UV sensor with 1 m cable and high-grade special connector. The calibration is saved in the special plug connector.				

Note:
SI 1 sensors for other irradiances are available upon request.
For using the uv sensor SI 1 we recommend to use the hand-held unit HI 1.