

TS 1

UV intensity quartz rod sensor

The uv sensor TS 1 is a quartz glass rod sensor which can be inserted through a hole into the uv dryer to measure close to the uv lamp and the irradiated substrate. UV depreciation due to dust on the uv lamp, reflectors or blackening near the ends of the lamp can also be measured. Through this realistic measurements will be achieved.

The calibration is stored in the intelligent sensor plug. The values are shown on the optional handheld HI 1.



The quartz glass rod is protected by a \varnothing 6 mm stainless steel tube. At the end of the stainless steel tube the measuring window is located on one side. Through this window the uv radiation enters into the quartz glass rod and is guided to the sensor to be converted into an electric signal. The TS 1 is designed for short-time measurements for curing applications.



Advantages:

- Easy to use uv intensity measuring device (mW/cm²)
- Indicates lamp aging, lamp blackening and reflector conditions
- Different sensors for UV-C, UV-B, UV-A, UV-VIS, UV-LED and full UV available
- Mounting plate and guidance plate are included
- Calibration is stored in the intelligent sensor plug
- Delivery as a complete set in a case
- Battery driven universal handheld HI 1 optionally available



Available versions:

| TS 1 | | | | | | |
|-----------|----------|------------|---------------|-----------------------------|----------------------|--|
| UV ranges | | | | Art. No. | Spectral ranges | |
| C | | | | A004572: TS 1 for UV-C | UV-C 230 – 280 nm | |
| B | | | | A004573: TS 1 for UV-B | UV-B 280 – 315 nm | |
| | A | | | A004574: TS 1 for UV-A | UV-A 315 – 410 nm | |
| | | VIS | | A004575: TS 1 for UV-Vis | UV-VIS 395 – 445 nm | |
| | | | Gesamt | A004576: TS 1 for Gesamt-UV | Full UV 230 – 410 nm | |
| | | | LED | A005030: TS 1 for UV-LED | UV-LED 265 – 495 nm | |

Technical data:

| Tube Sensor TS 1 | | | |
|-----------------------------------|---|----------------------|--|
| UV ranges | Art. No. | Spectral ranges | |
| C | A004572: TS 1 for UV-C | UV-C 230 – 280 nm | |
| B | A004573: TS 1 for UV-B | UV-B 280 – 315 nm | |
| A | A004574: TS 1 for UV-A | UV-A 315 – 410 nm | |
| vis | A004575: TS 1 for UV-Vis | UV-VIS 395 – 445 nm | |
| Gesamt | A004576: TS 1 for Full UV | Full UV 230 – 410 nm | |
| LED | A005030: TS 1 for UV-LED | UV-LED 265 – 495 nm | |
| Measuring distance to lamp | > 20 mm | | |
| Max. permissible intensity | 10,000 mW/cm ² for max. 5 s; ; A005030: 20 W/cm ² | | |
| Measuring range | 20 to 2,000 mW/cm ² ; A005030: 20 mW/cm ² to 20 W/cm ² | | |
| Accuracy | ± 10% | | |
| Temperature at the end of the rod | Quartz rod: 270°C at the end of the rod, max. 350°C for 15 s | | |
| Power supply | The sensor is supplied by the optional handheld HI 1. | | |
| Dimensions | Total length: 440 mm, diameter stainless tube: 6 mm Plunge depth with mounting and guidance plate: 230 mm Length entrance window: 20 mm | | |
| Cable length | 2 m | | |
| Weight | 155 g | | |
| Scope of delivery | Sensor TS 1 with intelligent plug, mounting and guidance plate, case | | |
| Calibration | Calibration is conform to DIN EN ISO/IEC 17025 and can be traced back to PTB (Phys. Technische Bundesanstalt). | | |

To be ordered separately:

Handheld HI 1 to read out the measurement



Handheld HI 1 (Art. No. A002067)

The intelligent sensor family:



UV sensor SI 1



UV sensor TS 1



IR sensor PMI 41

Features Handheld HI 1:

- Small and portable and universal display unit for UV sensors TS 1 and SI 1 and IR sensor PMI 41
- 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
- Connected sensors are supplied with an auxiliary voltage

Detailed information about the Handheld HI 1 and the other sensors you can find on separate data sheets.