

QSO 3

UV inline sensor

This sensor was developed to allow online UV measurement of UV medium pressure lamps or UV LEDs. The high UV intensity as well as the high temperatures, which let drift normally the values, were a challenge but using the right materials and sensors and the special quartz rod system makes an easy to use UV online sensor possible.

As the measured value mainly depends from the mounting situation, this unit has only to be used as a relative measuring device, which means, the measured value is to be set to 100% in the new condition of lamp and reflector etc. The sensor could be placed near to the lamp, e.g. at the edges of the reflector.

Advantages

- Robust sensor for online UV measurement
- Proportional output signal DC 0... 10 V (e.g. for a simple DC voltmeter or PLC)
- Sensitivity adjustable in steps of factor 10 up to 1000, can be combined with factor 0.5
- Air purging possible

Technical data		
Spectral ranges	Art. No.	Spectral range
	301 06904 0000	UV-LED 380 – 445 nm*, max. 405 nm
VIS	301 06905 0000	UV-VIS 380 – 445 nm, max. 405 nm
Α	301 06901 0000	UV-A 315 – 395 nm, max. 340 nm
В	301 06902 0000	UV-B 265 – 325 nm, max. 315 nm
с	301 06903 0000	UV-C 230 – 280 nm, max. 265 nm
Spectral measuring ranges	UV-Empfindlichkeiten / UV sensitivities	
	10 0.6 0.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	* UV-LED: 265 – 495 nm: for UV-LED: 380445 nm
Measuring range	20 to 2.000 mW/cm ² , 301 06904 0000: 250 to 25.000 mW/cm ²	
Amplification factors	1, 10, 100, 1000 and in combination 0,3	
Output signal	DC 0-10 V (propotional to irradiance), max. 2 mA	
Auxiliary voltage	DC 24V, max. 5 mA	
Measuring distance to lamp	approx. 20100 mm	
Max. permissable intensity	10.000 mW/cm ² for max. 10 min 30.000 mW/cm ² for max. 10 s	
Air purging	1/8" (max. 0,5 bar)	
Dimensions (WxHxT)	approx. 45 x 45 x 34 mm; stainless steel protection tube: L = 140 mm, ø 8 mm	
Weight	approx. 200 g	
Temperature range	Sensor box: Quartz rod at measuring window: End of stainless steel tube:	15°C50°C (continuously) approx. 300° C max. 300 °C (continuously)
Housing matwerials	Sensor box: anodised aluminium; tube stainless steel, quartz rod: synthetic	