



PLC UV/VIS Sensors



Fig. 1: PLC UV sensors

Die PLC UV/VIS sensors serve as precise measuring heads for the measurement of UV irradiances and illuminances in systems controlled by a programmable logic controller (PLC). Spectral range, measuring range, operating voltage and signal can be chosen according to the measuring task and the PLC. The integrated electronics generate a signal voltage that is transferred to the PLC with low noise by a shielded cable.

The integrated diffuser serves for the *cosinus* correction that is necessary at non-perpendicular irradiation. The sensors are calibrated with respect to a PTB (Physikalisch-Technische Bundesanstalt) reference.

Application

- Radiation sensors for PLC-controlled systems

Technical Data

Measuring range:	200 mW/cm ² (UVA/C, VISB/BG) 20 mW/cm ² (UVB) 200 klx (VISL)
Resolution:	0.1 mW/cm ² (UVA/C, VISB/BG) 0.01 mW/cm ² (UVB) 0.1 klx (VISL)
Spectral range:	UV-C 200 - 280 nm UV-B 280 - 315 nm UV-A 315 - 400 nm VIS-B 400 - 480 nm VIS-BG 400 - 570 nm VIS-L V(λ)
Power supply:	+24 V, +12 V, +5 V or +/- 5 V DC
Current input:	< 5 mA
Signal voltage:	0 to 2 V or 10 V
Operation temp.:	0 to 40 °C
Storage temp.:	-10 to 40 °C
Humidity:	< 80%
Connector:	Non-condensing 5-pole M12 sensor / actuator plug
Dimensions:	80 x 40 x 20 mm
Weight:	150g

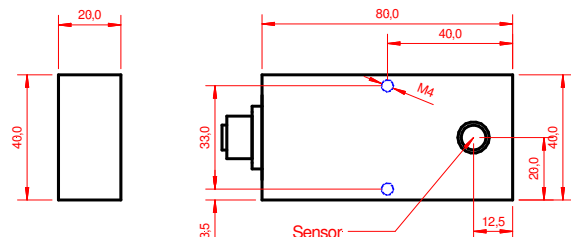


Fig. 2: Dimensions of PLC sensors



we apply photonics.

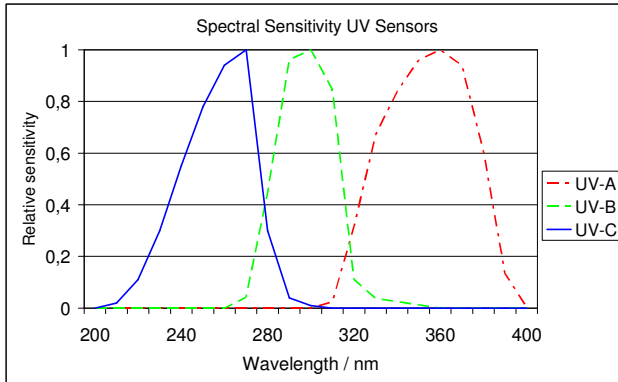


Fig. 3: Spectral sensitivity UV sensors

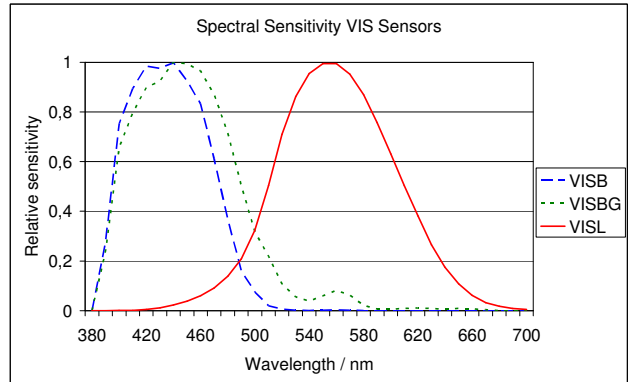


Fig. 4: Spectral sensitivity VIS sensors

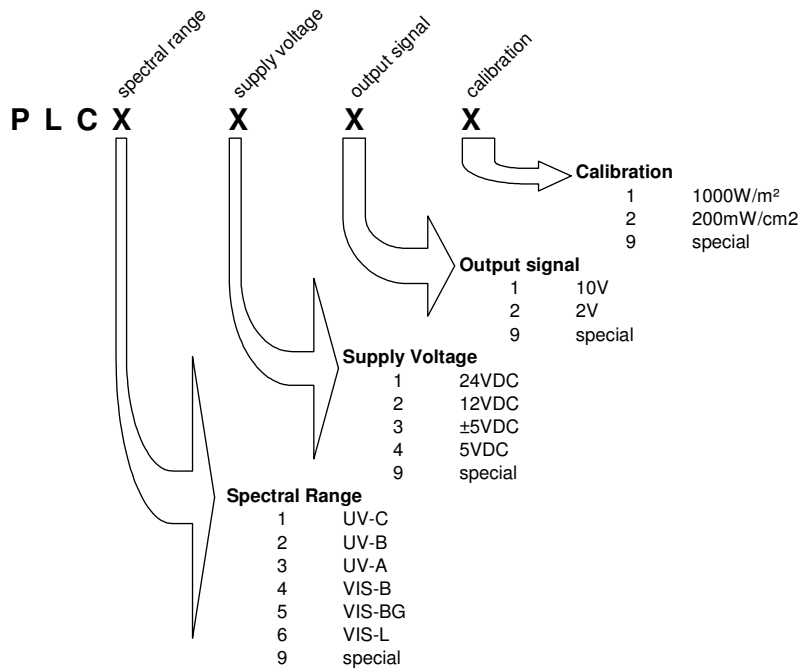
Part numbers

Examples:

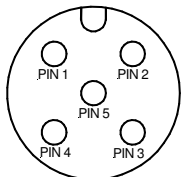
PLC1111: UV-C sensor
24V / 10V
1000 W/m²

PLC3222: UV-A sensor
12V / 2V
200 mW/cm²

PLC6322: VIS-L sensor
±5V / 2V
200 klx

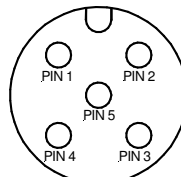


Connector Assignment



PIN 1 (brown) = 0V DC / GND
PIN 2 (white) = Supply voltage
PIN 3 (blue) = not connected
PIN 4 (black) = Signal High
PIN 5 (grey) = Signal Low

Fig. 5: Unipolar sensor



PIN 1 (brown) = 0V DC / GND
PIN 2 (white) = +5V
PIN 3 (blue) = -5V
PIN 4 (black) = Signal High
PIN 5 (grey) = Signal Low

Fig. 6: ±5V sensor



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