

UV sensor SUV 20 according DVGW/ÖNORM

- sensor for monitoring irradiation intensities in UV systems
- construction acc. to DVGW/ÖNORM for use in measuring windows
- easy comparison of the measured value with reference radiometer
- stainless steel body made of 1.4404
- can be adapted to different requirements by means of options
- also available in ATEX versions



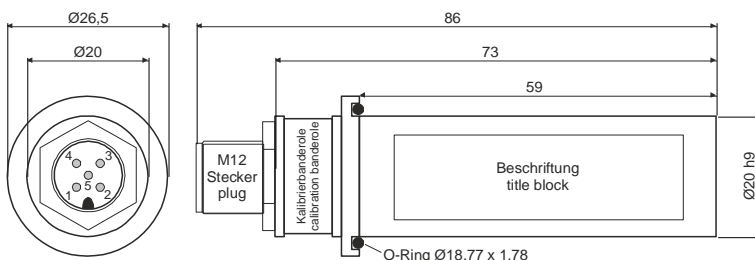
Technical data

	Voltage sensors Y1	Current sensors Y2	Digital sensors Z4, Z4Y1, Z4Y2
Marking	sensor type, calibration value in W/m ² (in case of integrated electronic), serial number standard-compliant labelling according to DVGW/ÖNORM (optionally additional customized labeling)		
Geometry	according to DVGW/ÖNORM, plug in area Ø 20 x 59 mm (see drawing)		
selectivity	diode UVC3, 240...290 nm (optional other selectivity possible)		
UV entrance window	UV transparent quartz glass Ø 15 mm		
Pressure resistance	pressure tightness is established via measuring windows variant with hermetically sealed front disc (prevents damages due to moisture)		
Ambient temperature	operating temperature: 0...60°C, storage temperature: -40...70°C (in dry condition)		
Supply voltage	5 - 24 V DC	12 - 24 V DC	7 - 24 V DC
Operation current	max. 2 mA	max. 25 mA	Z4: 50 mA, Z4Y1: 4 mA, Z4Y2 : 22 mA
Connection assignment Contact numbers	<p>1: +U_{out} 2: -U_{out} / GND 3: -U_B / GND 4: +U_B</p> <p>plug</p>	<p>1: +U_B 2: +U_B 3: I_{out} 4: I_{out}</p> <p>plug</p>	<p>1: RS 485 A 2: RS 485 B 3: +U_B 4: -U_B / GND 5: +U_{out}</p> <p>socket</p>

configuration	option	description
entrance window	A1	quartz glass window transparent, opening angle 40° (see diagram)
	A2	quartz glass window with diffuser, opening angle 160° (see diagram)
	A5	melt in UV glass transparent, front hermetic tight, opening angle 40° (see diagram)
	A6	melt in UV glass with diffuser, front hermetic tight, opening angle 160° (see diagram)
connection	C	plug Binder M12, series 763 (standard for all types with analogue output)
	CF	socket Binder M12, series 763 (standard for all digital and digital/analogue types) IP 67 when screwed on
damping	D3	metallic damping disc, perforated (previously only available for 40° sensors, recommended for MP applications)
signal output	none*	only diode build in, output current in the range of nA, external signal amplifier necessary *not DVGW/ÖNORM-compliant, as only relative measurement and not absolute calibration possible
	Y1 (T)	voltage output 0...4,5 V DC (optional temperature output)
	Y2	current output 4 - 20 mA, current loop, two-wire circuit
	Y3 (T)	voltage output 0...10 V DC (optional temperature output)
	Z4	digital sensor with RS485 Modbus RTU communication (output of UV and temperature signal)
	Z4 Y1 Z4 Y2	digital sensor with voltage output 0...4,5 V DC (calibration possible via KUV reference measurement device) digital sensor with current output 4 - 20 mA, current loop, two-wire circuit (calibration via KUV possible)
calibration values	ND	calibration in front of a low-pressure lamp with 50, 100 W/m ² (other values possible)
	MD	calibration in front of a medium pressure lamp with 1000 W/m ² (other values possible)

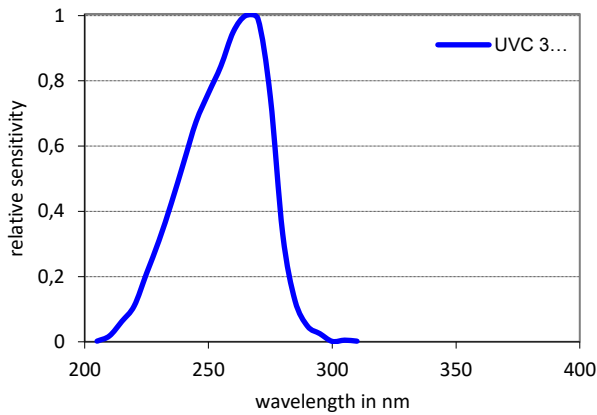
Separate product information sheets are available for the appropriate monitors and connection cables.

Sensorkörper SUV20

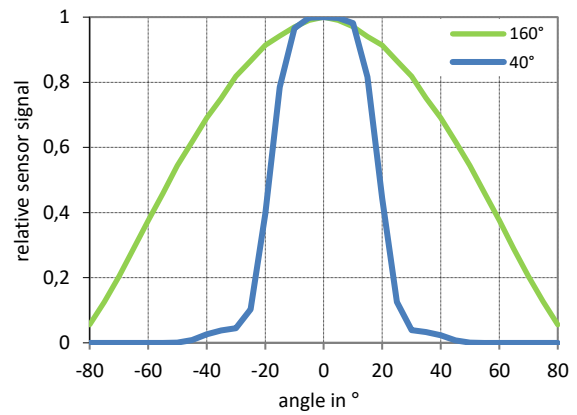


Änderungen vorbehalten

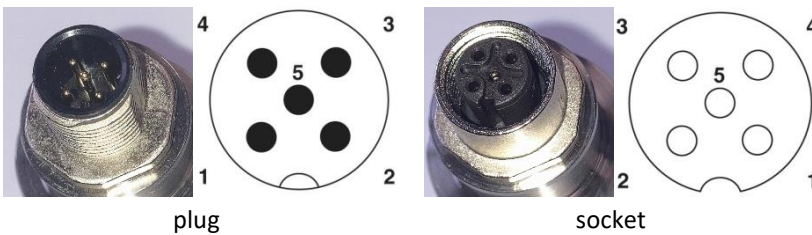
Spektrale Empfindlichkeit



Richtungsempfindlichkeit



Contact numbering of the sensor plug / socket (valid for all standard sensors)



Top view to plug / socket
Please refer to the following tables for the contact assignment and the assignment to the internal cable colors.

ATTENTION!



Avoid connection errors! Incorrect connection can lead to damage to the connected devices and is not covered by our warranty!

Connection assignment on analog sensors (plug)

type	relative sensor	cable colors	absolute calibrated sensors			cable colors	
	diode	Z2 (coaxial cable) cable at sensor	Y1 voltage	Y1T voltage/temp.	Y2 current	Z1 recommended	Z3 cable at sensor
1	cathode	white (inner core)	Uout UV	Uout UV	+UB / Iout UV (current loop)	brown	yellow
2			Uout GND	Uout TEMP		white	brown
3	anode	red (outer conductor)	-UB / GND	-UB / Uout GND	-UB / Iout UV (current loop)	blue	green
4			+UB	+UB		black	white
5	-	-	-	-	-	-	-
housing	shield	red	shield	shield	shield	red*	red*

* Z1: shield connected to the housing of the sensor, Z3: shield not connected to the housing of the sensor

Connection assignment on digital and digital/analog sensors (socket)

type	digital sensors		digital/analogue sensors				cable colors
	Z4 digital	Z1G-D cable	Z4Y1 digital/analogue voltage	Z1G-UD cable	Z4Y2 digital/analogue current	Z1G-ID cable	cable at sensor
1	RS485 A	brown	RS485 A ¹	-	RS485 A ¹	-	yellow
2	RS485 B	white	RS485 B ¹	-	RS485 B ¹	-	white
3	+UB	blue	+UB	blue	+UB / Iout UV (current loop)	blue	green
4	-UB / GND	black	-UB	black	-UB / Iout UV (current loop)	black	brown
5	-	-	Uout UV	grey	-	-	grey
housing	shield	red*	shield	red*	shield	red*	red*

* shield connected to the housing of the sensor

1 do not connect, only used by the KUV2.4WR during recalibration