UVS-200T

Digital UV radiometer and temperature sensor with RS-485 interface

Titanium ul.Kusocińskiego 3 83 – 140 Gniew info@titanium.com.pl tel +48 58 5305000, 5305005

<u>Description</u>: UVS-200T is complete digital, computerized UV radiometer and temperature meter with RS-485 interface housed in sensor case according to DVGW W294 regulations. UV sensor is not sensitive to visible light and provides precise measurements of UV irradiance in narrow UV bands. Sensor can take measurements in 16 measuring ranges from 5 μ Wcm⁻² (50 mWm⁻²) to 500 mWcm⁻² (5000 Wm⁻²). Temperature meter provides measurements in range from 0°C to +80°C with resolution of 1°C. Maximum distance between sensor and monitor can reach up to 1000 m due to RS-485 interface bus transceiver installed in UVS-200T.

		Basic parameters of U	<u>VS-200T</u>			
	• •	Dimensions:	according to DVGW W2	94 rules, 75 x Ø20 mm		
Digital Radiometer		Weight:	60 g			
UVS-200T		UV spectral range:	220 – 275 nm for basic UVS-200T.C model			
010 2001		1 0	(for UVC sensing)			
		Operating temperature: 0 to +60°C (ambient temperature)				
	(A)	Cable:	4-lead, shielded, 2x2 twisted pair			
		Cable length:	up to 1000 m			
	/	Interface:	2-wire RS-485			
	•	Bus terminator:	built-in, 150 ohm			
		Protocol: PLS Q&R binary, other protocols on				
		Supply voltage:	+12 VDC			
	•	Current consumption:	50mA max			
		Connector:	5-pin M12x1 sensor male connector			
	St. Martin	Connector signals:	1. +12V (power supply)			
<u> </u>	2466		2. –RTX (RS-485)			
			3. 0V (power supply grou	und)		
			4. +RTX (RS-485)			
	7		5. Shield			
		Measuring mode:	fixed range, auto-range			
	Internal design	UV measuring ranges:	16 ranges with following	FSR values:		
and the second s			1) 50 mWm ⁻²	$(5 \mu\text{Wcm}^{-2})$		
			2) 100 mWm^{-2}	$(10 \ \mu W cm^{-2})$		
A Alter			3) 200 mWm^{-2}	$(20 \ \mu W cm^{-2})$		
			4) 500 mWm ⁻²	$(50 \ \mu W cm^{-2})$		
			5) 1 Wm^{-2}	$(100 \ \mu W cm^{-2})$		
Measuring windo	W		6) 2 Wm^{-2}	$(200 \mu W cm^{-2})$		
			7) 5 Wm-2	$(500 \mu \text{W cm}^{-2})$		
ALTER .			8) 10 Wm^{-2}	(1 mWcm^{-2})		
			9) 20 Wm^{-2}	(2 mWcm^{-2})		
			10) 50 Wm^{-2}	(5 mWcm^{-2})		
			11) 100 Wm^{-2}	(10 mW cm^{-2})		
I HAAAAA I MAAAAA			12) 200 Wm^{-2}	(20 mWcm^{-2})		
	4		13) 500 Wm^{-2}	(50 mWcm^{-2})		
- martin			14) 1000 Wm^{-2}	(100 mWcm^{-2})		
Fig. 1. Digital radiometer 1	UVS-200T and		15) 2000 Wm^{-2}	(200 mWcm^{-2})		
measuring wind	low		16) 5000 Wm^{-2}	(500 mW cm^{-2})		
0						

UV resolution: 3 decimal digits in every range Temperature measuring range: 0°C to +80°C, resolution ±1°C

LIVE 200T :-	and table in F a	and a sea a second la	different an estua	1 man and in INV	1
UVS-20011S	available in 5 0	phions with	annereni specira	\mathbf{I} ranges in \mathbf{U} v	Dana
010 -001 10	a analore m c c	peromo miteri	anne speene	in rainges in c ,	ouna.

e vo zoor is available in 5 options with anterent spectral ranges in e v band.								
UV band	UVC	UVB	UVB + UVC	UVB + UVC	UVA			
Wavelength [nm]	220-275	230-305	225-320	280-325	335-395			
Sensor model	UVS-200T.C	UVS-200T.B	UVS-200T.BC2	UVS-200T.BC	UVS-200T.A			







Fig.3. Characteristics of sensors UVS-200T.BC, UVS-200T.BC2 (left) and UVS-200T.A (right) - wavelength in [nm]



- 5) Environmental measurements UV measurements in UVA, UVB and UVC band
- 6) All applications requiring long distances between sensor and monitor - up to 1000 m
- 7) Multi-sensor applications up to 32 sensors can be connected to one RS-485 bus section

Monitor UVM-200

Fig.4. Complete UV monitoring system based on UVS-200T radiometer (sensor part) and UVM-200 monitor