

RADIATION MEASURING TECHNOLOGY

Pyranometer SR 30

Part number: 7.1415.06.7xx

This global radiation sensor a pyranometer of the highest ISO 9060 category class A. This solar radiation sensor is used where the highest measurement accuracy is required. It measures the solar radiation received from a flat surface in W/m² from a viewing angle of 180°. The SR30 offers Modbus RTU via RS-485.



Specification

Part number: 7.1415.06.7xx

Radiation

Measuring range	-400 ... 4000 W/m ²
Resolution	1 %
Sensitivity	15 x 10 ⁻⁶ V/(W/m ²)
Spectral range	285 ... 3000 nm
Accuracy	2 % @ 1000 W/m ²
Sensor type	Hemisphericalsolarradiation

Temperature

Accuracy	± 1% (-10 ... 40 °C) and ± 0.4 % (-30 ... 50 °C)
Meas. element	Pt 100 acc. to DIN IEC 60751 1/3 class B

Heating

Heating capacity	1.5 W at 12 VDC (mandatory acc. IEC 61724-1:2021 class A)
Heating control	Recirculation ventilation and heating against dew and frost deposition

General

Calibration acc. to	Class A - ISO 9060:2018
Compliant with	IEC 61724-1:2021 class A

Ambient temp.	-40 ... +80 °C
Protection	IP 67

Versions

As per 7.1415.06.7xx, but:

Product number 7.1415.06.781

Radiation

Typ. Signal output	MODBUS RTU
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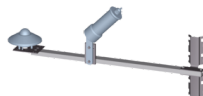

Data output digital

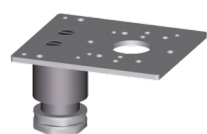
Output type	RS485 HD
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General

Power supply	5 ... 30 V DC
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Accessories

Product	Product name	Brief description
	Traverse 0,8 m 4.3171.40.002	For mounting of a Pyranometer CMP11 / 6 / 3 And a sunshine duration sensor-CSD3 onto a mast. General Clamping range Ø 48 ... 102 mm Sensor distance 0.4 / 0.8 m from mast Material Aluminium / Stainless steel Weight 1 kg
	Hanger 1 m (for radiation sensors) 4.3185.xx.009	The hanger is used for laterally mounting of a radiation- or brightness transmitter onto a mast. General Length 1 m Material Aluminium Tube diameter Ø 50 mm Weight 1.8 kg

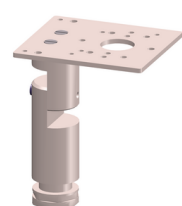


Adapter Compact
506345

The adapter serves for mounting a radiation transmitter, baro transmitter or brightness transmitter onto a traverse (4.3171.30.000, 4.3171.40.000) or holder (506 347).

General

Material	Aluminium, anodized
Dimension	100 x 115 x 65 mm
Weight	0.5 kg



Adapter Compact
0 ... 90 °
adjustable
508850

The adapter serves for mounting a radiation transmitter, baro transmitter or brightness transmitter onto a traverse (4.3171.30.000, 4.3171.40.000) or holder (506 347).

General

Material	Aluminium, anodized
Dimension	100 x 115 x 65 mm
Weight	0.5 kg
Function	0 ... 90 ° adjustable



Universal Amplifier
7.1415.00.200

The Universal Amplifier serves for the connection of various sensors with voltage-, or PT100 output.

Data output digital	
Interface	RS485 / RS422
Baudrate	1200 ... 115200 Baud
Data output analog	
Chanel	3
Output parameters	0 ... 1 V, 0 ... 5 V, 0 ... 10 V, 4 ... 20 mA, 0 ... 20 mA Resolution 1/10000 FS
Data input analog	
Chanel	4
Meas. range	0.1 ... 1V resolution 1 μ V switchable to -1 ... +10 V Alternatively, each channel is switchable to PT 100: max. -99.0 ... +99.0 $^{\circ}$ C PT100 resolution: 1/10, 1/100, 1/1000 $^{\circ}$ C, settable
General	
Power supply	7 ... 24 V DC
Ambient temp.	-40 ... +60 $^{\circ}$ C
Electr. connection	Cable gland and terminal strip
Protection	IP 65
Dimension	120 x 80 x 55 mm
Weight	0.25 kg
Material housing	Polycarbonate

Preamplifier
7.1415.01.841

Instrument for transforming small mV-signals from the radiation sensor into a standardized voltage signal.

Data output analog

Chanel	1
Output type	4 ... 20 mA
Output range	0 ... 1600 W/m ²

Data input analog

Chanel	1
Input type	-10 ... 75 mV

General

Power supply	7.5 ... 45 V DC (via 4 ... 20 mA lines)
Ambient temp.	-40 ... +85 °C
Electr. connection	2 x cable gland
Protection	IP 66
Dimension	64 x 98 x 34 mm
Weight	0.3 kg
Matirial housing	aluminium, powder coated

