

## RADIATION

### Pyranometer SR 20

**Part number: 7.1415.01.7xx**

It is also used as a reference instrument due to its measurement precision. The instrument is "secondary standard" according to WMO and ISO 9060. The incorporated heater reduces measurement errors caused by early-morning dew deposition.

Delivery includes calibration certificate and ISO 9060 required directional response and temperature response test reports.



### Specification

**Part number: 7.1415.01.7xx**

#### Radiation

Measuring range	0 ... 4000 W/m <sup>2</sup>
Sensitivity	7 ... 25 μV/W/m <sup>2</sup>
Typ. Signal output	-0.1 ... 50 mV
Spectral range	285 ... 3000 nm
Non-linearity	<0.2 % @ 100 ... 1000 W/m <sup>2</sup>
Internal resistance	50 ... 100
Response time	<3 sec @ 95 % of final value
Sensor type	Thermopile

#### General

Ambient temp.	-40 ... +80 °C
Electr. connection	plug with 5 m cable
Dimension	Ø 150 x 85 mm
Weight	0.85 kg

### Versions

As per 7.1415.01.7xx, but:

**Product number 7.1415.01.700**

#### Radiation

Typ. Signal output	-0.1 ... 50 mV
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**Product number 7.1415.01.710**

#### Radiation

Typ. Signal output	MODBUS RTU
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#### Data output digital

Output type	2 - wire RS485
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**Data output analog**

Output type	4 ... 20 mA
Output range	0 ... 1600 W/m <sup>2</sup>

**General**

Power supply	5 ... 30 V DC
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**Product number 7.1415.01.741**
**Data output analog**

Output type	4 ... 20 mA
Output range	0 ... 1600 W/m <sup>2</sup>

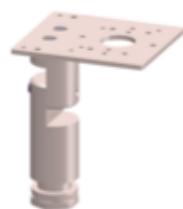
**General**

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.  <b>General</b> 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.  <b>General</b> 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).  <b>General</b> 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 µV switchable to -1 ... +10 V  Alternatively, each channel is switchable to PT 100: max. -99.0 ... +99.0 °C PT100 resolution: 1/10, 1/100, 1/1000 °C, settable

**General**

Power supply	7 ... 24 V DC
Ambient temp.	-40 ... +60 °C
Electr. connection	Cable gland and terminal strip
Protection	IP 65
Dimension	120 x 80 x 55 mm
Weight	0.25 kg
Matirial 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 <sup>2</sup>

**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
Material housing	aluminium, powder coated

