

Pyranometer SR 20

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 ²
Sensitivity	7 ... 25 µV/W/m ²
Typ. Signal output	-0.1 ... 50 mV
Spectral range	285 ... 3000 nm
Non-linearity	0.2 % @ 100 ... 1000 W/m ²
Internal resistance	50 ... 100 Ω
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

Data output analog

Output type 4 ... 20 mA

Output range 0 ... 1600 W/m²

General

Power supply 5 ... 30 V DC

Product number 7.1415.01.741

Data output analog

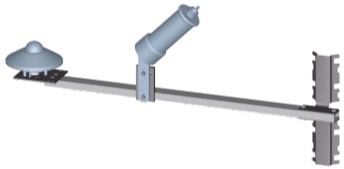
Output type 4 ... 20 mA


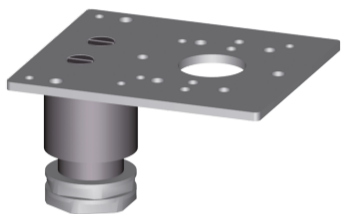
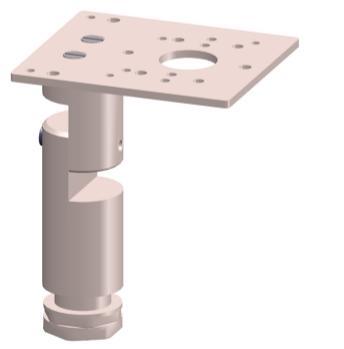
Output range 0 ... 1600 W/m²

General

Power supply 5 ... 30 V DC

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 \varnothing 48 ... 102 mm Sensor distance 0.4 / 0.8 m from mast Material Aluminium / Stainless steel Weight 1 kg

	<p>Hanger 1 m (for radiation sensors) 4.3185.xx.009</p>	<p>The hanger is used for laterally mounting of a radiation- or brightness transmitter onto a mast.</p> <p>General</p> <p>Length 1 m</p> <p>Material Aluminium</p> <p>Tube diameter Ø 50 mm</p> <p>Weight 1.8 kg</p>
	<p>Adapter Compact 506345</p>	<p>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 (506347).</p> <p>General</p> <p>Material Aluminium, anodized</p> <p>Dimension 100 x 115 x 65 mm</p> <p>Weight 0.5 kg</p>
	<p>Adapter Compact 0 ... 90 ° adjustable 508850</p>	<p>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 (506347).</p> <p>General</p> <p>Material Aluminium, anodized</p> <p>Dimension 100 x 115 x 65 mm</p> <p>Weight 0.5 kg</p> <p>Function 0 ... 90 ° adjustable</p>



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/m²

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

