PRODUCT OVERVIEW

16131.5-Modbus Pyranometer

POSSIBLE APPLICATIONS

- Professional meteorological applications
- Building automation
- Solar power systems
- Industrial meteorology

First Class Pyranometer

The 16131.5 series pyranometers are high-precision digital solar radiation sensors that meet the requirements of "First Class" according to the WMO guidelines and "Spectrally Flat Class B" according to ISO 9060:2018.

Model 00.16131.501030 is equipped with an on-board heater and thus meets the requirements for Class B PV monitoring systems in accordance with IEC 61724-1:2017.

The 16131.5 measures the solar radiation received by a flat surface in W/m^2 from a viewing angle of 180°. Various digital and analog outputs are available for easy integration.

- Highest measurement accuracy in the "First Class" category
- Improved response time
- With integrated heating, version 00.16131.501030 meets the requirements of IEC 61724-1 Class B.

PRODUCT OVERVIEW

16131.5-Modbus Pyranometer

Professional Line	16131.5 Modbus
Ident-No.	00.16131.501030
Measuring ranges	0...3000 W/m²; global radiation in the spectral range 285...3000 nm
Directional response	< ± 20 W/m^2
Resolution	0.01 W/m^2
Spectral sensitivity	< ± 3% (0.35...1.5 µm)
Response time	< 10 s (95%)
Tilt error	< ± 2 %
Nonlinearity	< ± 1% (100...1000 W/m)^2)
Output	Modbus RTU
Areas of application	-40...+80 °C
Supply	24 VDC (8...30 VDC)
Power consumption	< 48 mW (at 12 VDC)
Measuring elements	Thermos flask
Measuring principle	Thermal differential measurement
Dimensions	Max. Ø 92 mm; approx. H 95 mm
Protection class	IP67
Weight	Approx. 0.64 kg
Standards and norms	ISO 9060 "First Class"
Accessories (order separately)	32.14567.060010 Sensor cable, 15 m, 4-pin, M12 plug 32.14567.060000 Sensor cable, 12 m, 4-pin, M12 plug

As of November 15, 2026