

## 16131.5-Modbus PYRANOMETER



### "First Class" Pyranometer

16131.5 digital pyranometer series is a range of high-accuracy digital solar radiation sensors.

It is "First Class" according to the WMO guide and ISO 9060:1990 standard and "Spectrally Flat Class B" in the 2018 revision.

Version 00.16131.501030, equipped with an on-board heater, is compliant in its standard configuration with the requirements for "Class B" PV monitoring systems of the IEC 61724-1:2017 standard.

The 16131.5 measures the solar radiation received by a plane surface, in  $W/m^2$ , from a  $180^\circ$  field of view angle. Various outputs are available, both digital and analogue, for ease of integration.

- best measurement accuracy in "First Class"
- improved response time
- with 00.16131.501030's on-board heater: compliant with IEC 61724-1 Class B in its standard configuration

### APPLICATIONS

- professional meteorological applications
- building automation
- photovoltaic systems
- industrial meteorology

| Professional Line              | 16131.5-Modbus PYRANOMETER   |
|--------------------------------|--|
| Id-No.                         | 00.16131.501030  |
| Measuring range                | 0...3000 $W/m^2$ · global radiation within a range of 285...3000 nm  |
| Directional answer             | $< \pm 20 W/m^2$   |
| Resolution                     | 0.01 $W/m^2$   |
| Spectral sensitivity           | $< \pm 3 \%$ (0.35...1.5 $\mu m$ )   |
| Response time                  | $< 10 s$ (95 %)  |
| Inclination error              | $< \pm 2 \%$   |
| Non-linearity                  | $< \pm 1 \%$ (100...1000 $w/m^2$ )   |
| Output                         | Modbus RTU   |
| Range of application           | -40...+80 °C   |
| Power supply                   | 24 VDC (8...30 VDC)  |
| Power consumption              | $< 48 mW$ (at 12 VDC)  |
| Measuring elements             | thermopile   |
| Measuring principle            | thermal difference measurement   |
| Dimensions                     | max. $\varnothing$ 92 mm · approx. H 95 mm   |
| Protection class               | IP67   |
| Weight                         | approx. 0.64 kg  |
| Standards                      | ISO 9060 „First Class“   |
| Accessories (order separately) | 32.14567.060010 sensor cable, 15 m, 4 pole, M12 plug<br>32.14567.060000 sensor cable, 12 m, 4 pole, M12 plug |

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