

Technical data

Optical sensor, laser diode

- Wavelength: 650 nm,
Output power (peak): 0.2 mW
- Laser class: 1
IEC/EN 60825-1: 2014

Measuring surface (W x D)

180 x 30 mm (54 cm²)

Measuring ranges

- Particle size:
liquid precipitation: 0.2 ... 8 mm
solid precipitation: 0.2 ... 25 mm
- Particle velocity: 0.2 ... 20 m/s

Classification

- 32 size and 32 velocity classes
- Measurement accuracy¹⁾:
± 1 size class (0.2 ... 2 mm)
± 0.5 size class (> 2 mm)

Types of precipitation

8 precipitation types (drizzle, drizzle/rain, rain, mixed rain/snow, snow, snow grains, sleet, hail)

Outputs

- Reports: WMO 4680/4677 (SYNOP),
4678 (METAR/SPECI) and NWS tables
- Differentiation of precipitation types:
drizzle, rain, hail, snow > 97 %
(compared to a weather observer)
- Snow depth intensity (volume equivalent)

Precipitation intensity

- 0.001 ... 1,200 mm/h
- Accuracy¹⁾:
±5 % (liquid) / ±20 % (solid)

Radar reflectivity Z

-9.999 ... 99.999 dBz

Kinetic energy

0 ... 999.999 J/(m²h)

Visibility in precipitation (MOR)

0 ... 20,000 m

De-icing protection

Microprocessor controlled heating

Power supply

- Electronics: 10 ... 28 V DC, reverse
polarity protection

Power consumption

- Electronics:
65 mA@24 VDC / typ. 1.6 W
- Window heater:
Max: 4 W@24 VDC / 2W@12 VDC;
Min: 2 W@24 VDC / 1W@12 VDC

Heating capacity sensor heads

- 50 W@12 VDC
- 100 W@24 VDC

Lightning protection

integrated

Interfaces (configurable²⁾)

- RS-485 for all values incl. spectral data
(EIA-485; 1,200 ... 57,600 Baud)
- SDI-12 for calculated values
- USB for PC connection
(configuration and service)
- Output relay for pulse output of the
precipitation amount in 0.1 mm/pulse
with max. 2 Hz pulse rate

Material

Powder-coated aluminium housing

Weight

max. 6.4 kg

Dimensions (H x W x D)

670 x 600 x 114 mm

Environmental conditions

- Temperature range: -40 ... +70 °C
- Relative humidity: 0 ... 100 %

Protection

IP65, resistant to salt spray

Installation

2 inch pipe, Ø 50 ... 62 mm

Standards

- EN 61326-1: 2013, CE compliant
- 2014/30/EU, CE-compliant

¹⁾ Proof under laboratory conditions using an OTT test system with reference particle simulation of 0.5 mm, 1.0 mm, 2.0 mm and 4.0 mm

²⁾ ASDO configuration software supplied (basic version)