



## OTT Parsivel<sup>2</sup> Laser Present Weather Sensor

Product Number: 70.210.002.3.0

- 1 +

Price: Contact Us

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The OTT Parsivel<sup>2</sup> is a modern laser disdrometer for comprehensive measurement of all precipitation types. The Parsivel<sup>2</sup> captures both the size and speed of falling particles, classifying them into one of 32 separate size and velocity classes. The raw data are used to calculate the type, amount, intensity and kinetic energy of the precipitation, the visibility in the precipitation, and the equivalent radar reflectivity

#### Applications:

- Meteorology Observations
- Meteorology Research

### Benefits

#### Direct and simultaneous physical measuring principle of hydrometeors

The Parsivel<sup>2</sup> captures both the size and speed of falling particles by applied laser extinction method.

#### Classification of each single hydrometeors

Classification into one of 32 separate size and velocity classes and particles distribution in numbers.

#### Precise particles size measurements and uncertainty of rain intensity with ~5% according WMO guide line

Distinction of type of present weather and calculation of the type, amount, intensity and kinetic energy of the precipitation, the visibility in the precipitation, and the equivalent radar reflectivity.

#### Life time calibration and drift free measurement

Automatic compensation of temperature induced error and laser fluctuation emittance.

#### Unattended and maintenance free

Automatic compensation of contamination on optics by dust and aerosol layers.

#### Radiometric measuring principle at non-precipitation conditions

### Specifications

#### Technical Attributes

*Parameters Measured	Precipitation type Intensity Drop size distribution Radar reflectivity
Accuracy	± 1 size class ( 0.2 - 2 mm) ± 0.5 size class ( > 2 mm) ± 5 % (liquid) / ± 20 % (solid)
Classification	32 size and 32 velocity classes
Dimensions	26.4 x 23.6 x 4.5 in (670 x 600 x 114 mm)
Heating capacity	50 W (default) 100 W (adjustable)
IEC/EN 60825-1	2014
Installation Requirement	2 in pipe (50.8 mm), Ø 1.97 in - 2.44 in (Ø 50 - 62 mm)
Intensity Threshold	0,001 - 47 in/h (0,001 - 1200 mm/h)
Interface	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
IP Rating	IP65
Kinetic energy	0 - 999,999 J/(m <sup>2</sup> h)
Laser Class	1
Measurement technology	Laser optical

Measuring Range	Size: Liquid precipitation: 0.008 - 0.315 in (0.2 - 8 mm) Solid precipitation: 0.008 - 1.0 in (0.2 - 25 mm) Velocity: 0.65 - 65.6 ft/s (0.2 - 20 m/s) Velocity: 0.65 - 65.6 ft/s (0.2 - 20 m/s)
Measuring surface	7.1 x 1.2 in (180 x 30 mm)
Power Consumption	65 mA@24 V DC
Power Output	0,2 mW
Power Supply	10 - 28 V DC, reverse polarity protection Optimum heating output of the sensor head heating system can be guaranteed with a power supply voltage of at least 20 V DC.
Product highlights	Simultaneous measurement of 32 classes for particle sizes and velocities
Protection	De-icing protection: Microprocessor controlled heating Lightning protection: Integrated
Radar reflectivity	- 9.999 - 99.999 dBz
Relative Humidity	0 - 100 %
Reports	WMO 4680/4677 (SYNOP) 4678 (METAR/SPECI) and NWS tables
Special Notes	Proof under laboratory conditions using an OTT test system with reference particle simulation of 0.02 in (0.5 mm), 0.04 in (1.0 mm), 0.08 in (2.0 mm) and 0.16 in (4.0 mm) ASDO configuration software supplied (basic version)
Standards	EN 61326-1: 2013, CE compliant 2014/30/EU, CE compliant
Temperature Range	-40 - 158 °F (-40 - 70 °C)
Types of precipitation	Drizzle, rain, hail, snow <gt;- 97 % (compared to a weather observer) Snow depth intensity (volume equivalent)
Visibility in precipitation	0 - 12.4 miles (0 - 20.000 m)
Wavelength	650 mW
Weight	Max. 14 lbs (6.35 kg)

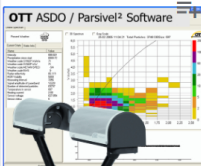
## Resources

### Language

English US (10) ▾

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## Optional Accessory



6610001432  
**Software - ASDO.NET1  
Analysis PARSIVEL**

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