



All-weather, high accuracy rain gauge for continuous data collection

- **Parameters measured**
Cumulative precipitation, precipitation intensity, bucket content in real time and non real time
- **Measurement technology**
Weighing principle
- **Product Highlights**
All-weather precipitation gauge without moving parts according to WMO guide line No. 8
- **Interface**
SDI-12 / RS-485, pulse

The OTT Pluvio² L is an all-weather precipitation gauge that uses superior weight-based technology to measure the amount and intensity of rain, snow, and hail. Developed in conjunction with industry-leading meteorological services, the OTT Pluvio² L employs a high-precision load cell and algorithms that compensate for wind, temperature, and evaporation, ensuring the highest accuracy precipitation measurements over time.

| Recordable precipitation | Liquid, solid, and mixed |
|---------------------------------|---|
| Collecting area | 200 cm ² / 400 cm ² |
| Recordable precipitation amount | 1500 mm / 750 mm |
| Measurement method | Weighing measurement method |
| Sensor element | Sealed load cell |

Technical Data

OTT Pluvio² L – Weighing Rain Gauge



| Measuring ranges | |
|---|------------------------------------|
| Precipitation | 0 ... 50 mm/min or 0 ... 3000 mm/h |
| Cumulative precipitation threshold at 60 min collection | 0.05 mm/h |
| Precipitation intensity threshold | 0.1 mm/min or 6 mm/h |

| Accuracy (at -25 ... +45 °C) | |
|------------------------------|--|
| Amount | ±0.1 mm or ±1 % of measured value |
| Intensity | ±0.1 mm/min, ±6 mm/h or ±1 % of measured value |

| Resolution | |
|------------------------------|------------------------------|
| SDI-12- and RS-485 interface | 0.01 mm, 0.01 mm/min or mm/h |
| Impulse output | 0.05/0.1/0.2 mm |

| Measurement intervals | |
|---------------------------|-------------------------|
| Intensity output interval | 1 minute |
| Query interval | 1 minute ... 60 minutes |

| Output delay | |
|---------------------|------------|
| Real-time (RT) | < 1 minute |
| Non real-time (NRT) | 5 minutes |

| Output data | |
|--------------------|---|
| Measurement output | Intensity RT, amount RT/NRT, amount NRT, amount total NRT, bucket content RT and NRT, temperature load cell |
| Status output | OTT Pluvio ² L Status, Heating status (if present) |

| Interfaces | |
|--------------------------|---|
| Digital interfaces | SDI-12 V1.3, RS-485 2- or 4-wire (SDI-12 protocol and ASCII) |
| Digital outputs (2/5 Hz) | Impulse: 0.05/0.1/0.2 mm (adjustable) Status: 0 ... 120 impulses/min |
| USB | USB 2.0 (for service mode) |

| Electrical data | |
|---------------------|---------------------------------------|
| Power supply | 5.5 ... 28 VDC, typically 12 VDC |
| Current consumption | typ. 9.2 mA at 12 V (without heating) |
| Power consumption | ≤ 110 mW (without heating) |

| Ring heating, optional | |
|------------------------|--|
| Power supply | 12 ... 28 VDC, typ. 12/24 VDC |
| Current consumption | Puvio ² L 200: typ. 2.1 A; max. 2.2 A Puvio ² L 400: typ. 4.2 A; max. 4.4 A |
| Power consumption | |

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Technical Data

OTT Pluvio² L – Weighing Rain Gauge

| | |
|----------------------------|---|
| Pluvio ² L 200: | max. 50 W at 24 VDC; max. 12.5 W at 12 VDC |
| Pluvio ² L 400 | max. 100 Watt at 24 VDC; max. 25 Watt at 12 VDC |
| Modes of operation | Disabled, continuously enabled, continuously enabled within a specified temperature range, US NWS standard (time-controlled), enabled in case of precipitation (adjustable after-run time) |

Dimensions and weight

| | |
|-----------------------------------|-----------------|
| Pluvio ² L 200 (Ø x h) | 450 mm x 752 mm |
| Pluvio ² L 400 (Ø x h) | 450 mm x 677 mm |
| Pedestal (Ø) | 4" |
| Weight (bucket empty) | 16 kg / 16.6 kg |

Material

| | |
|------------------------------|-----------------------------|
| Base plate | Stainless steel / aluminium |
| Collecting bucket | Polyethylene |
| Bucket support, pipe housing | ASA, UV-resistant |

Environmental conditions

| | |
|---------------------------|------------------------------|
| Temperature, in operation | - 40 ... +60 °C |
| Temperature, storage | -50 ... +70 °C |
| Relative humidity | 0 ... 100 % (non-condensing) |

Protection

| | |
|------------------|-----------------------------|
| Housing (closed) | IP65 |
| Housing (open) | IP63 |
| Load cell | IP68, resistant to salt fog |

Standards

EMV: 2004/108/EG; EN 61326-1:2013

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