



Compact universal weighing precipitation gauge

- **Parameters measured**
Cumulative precipitation, precipitation intensity, bucket content in real time and non real time
- **Measurement technology**
Weighing principle
- **Product Highlights**
Compact all-weather precipitation gauge for 2-inch pedestals, highly accurate, meets WMO requirements (Guidelines No. 8), nearly maintenance-free, lifetime calibrated
- **Interface**
SDI-12, RS-485, impulse, status
- **Article number**
70.030.001.9.0.EN

The OTT Pluvio² S weighing precipitation gauge measures the intensity and cumulative precipitation in a broad measuring range from 0 to 3,000 mm/h.

The professional rain gauge is a further development of the tried-and-tested OTT Pluvio², with state-of-the-art technology in a compact design that captures up to 400 mm of precipitation on a collecting area of 200 cm². It is virtually maintenance-free, fits onto 2-inch pedestals, needs little space and can replace conventional rain gauges or tipping buckets without any structural work.

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|---------------------------------|-------------------------------|
| Recordable precipitation | Liquid, solid, and mixed |
| Recordable precipitation amount | 400 mm (approx. 8 l) |
| Collecting area | 200 cm ² |
| Measurement method | Weighing measurement method |
| Sensor element | Hermetically sealed load cell |

| Measuring ranges | |
|--|------------------------------------|
| Precipitation | 0 ... 50 mm/min or 0 ... 3000 mm/h |
| Cumulative precipitation threshold at 60 min. collection | 0.03 mm |
| Precipitation intensity threshold | 0.1 mm/h or 6 mm/h |

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

| Resolution | |
|-------------------|--|
| SDI-12 and RS-485 | Amount: 0.001 mm Intensity: 0.001 mm/min or 0.01 mm/h |
| Impulse output | 0.05/0.1/0.2 mm, adjustable |

| Query interval | |
|----------------|------------------|
| Amount | 6 sec ... 60 min |
| Intensity | 1 min |

| Output delay | |
|---------------------------------|---------|
| Real-time | < 1 min |
| Non-real-time (filtered values) | 5 min |

| Measurement output | |
|--------------------|--|
| Measured data | Intensity RT, amount RT/NRT, amount NRT, amount total NRT, bucket content RT and NRT, temperature of load cell |
| Status output | Pluvio ² S status, heating status (if present) |

| Electrical data | |
|---------------------------------------|---|
| Serial interfaces | SDI-12 V1.3, RS-485 (2- or 4-wire), SDI-12 protocol and command line mode (ASCII) |
| Digital outputs (2/5 Hz) | Impulse 0.05/0.1/0.2 mm (adjustable); status 0 ... 120 |
| USB (2.0) | Impulse mode |
| Power supply | 5.5 ... 28 V DC, secured against reverse polarity |
| Current consumption (without heating) | Typically 9.2 mA at 12 VDC |
| Power consumption (without heating) | < 110 mW |

Ring heating, optional

| | |
|---|--|
| Power supply | 12 ... 28 VDC, typ. 12/24 VDC, secured against reverse polarity |
| Heating capacity | 24 VDC / max. 50 W, temperature control range 45 K (wind speed 0 m/s); 12 VDC / max. 12.5 W, temperature control range 12 K (wind speed 0 m/s) |
| Modes of operation of heater control system | Disabled, continuously enabled, continuously enabled within a specified temperature range, US NWS standard (time-controlled), enabled in case of precipitation (adjustable after-run time) |
| Operating range of orifice rim heater | -40 °C ... + 60 °C (ambient temperature) |

Mechanical data

Dimensions and weight

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|-----------------------|-------------------------------|
| Pluvio ² S | 288 mm x 651 mm (Ø x h) |
| Pedestal | Ø 2" / 50 ... 60 mm |
| Weight | Approx. 7.8 kg (empty bucket) |

Material

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

Environmental conditions

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

Protection and Standards

| | |
|---------------------|------------------------------|
| Pipe housing closed | IP65 |
| Pipe housing open | IP63 |
| Load cell | IP67 |
| EMC | 2004/108/EG; EN 61326-1:2013 |
| Salt resistance | EN 60068-2-11 |