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

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

Recordable precipitation	Liquid, solid, and mixed
Recordable precipitation amount	400 mm (approx. 8 l)
Collecting area	200 cm²
Measurement method	Weighing measurement method

We reserve the right to make technical changes and improvements without notice. V-24/01/2019
OTT Hydromet GmbH, Germany

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 time	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 (filterd 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	Pluvio² 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)	For service 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

We reserve the right to make technical changes and improvements without notice. V-24/01/2019
OTT Hydromet GmbH, Germany

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	
Pluvio² 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	
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

We reserve the right to make technical changes and improvements without notice. V-24/01/2019
OTT Hydromet GmbH, Germany