

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**
  12

- **Product highlights**
  All-weather precipitation gauge without moving parts according to WMO guide line No. 8

- **Interfaces**
  SDI-12 / RS-485, pulse

- **Article number**
  70.040.000.9.0

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

Technical modifications and errors excepted - Created 11/03/2024
G. Lufft Mess- und Regeltechnik GmbH Fellbach, Deutschland

Measurement method	Weighing measurement method
Sensor element	Sealed load cell

Measuring ranges	
Precipitation	0 ... 50 mm/min or 0 ... 3000 mm/h
Cumulative precipitation threshold at 60 min collection time	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 Pluvio² 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	Pluvio² L 200: typ. 2.1 A; max. 2.2 A Pluvio² L 400: typ. 4.2 A; max. 4.4 A
Power consumption	
Pluvio² L 200:	max. 50 W at 24 VDC; max. 12.5 W at 12 VDC
Pluvio² 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	
Pluvio² L 200 (Ø x h)	450 mm x 752 mm
Pluvio² 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