

Technical data

Recordable precipitation

Liquid, solid, and mixed

Collecting area

- Pluvio² L 200: 200 cm²
- Pluvio² L 400: 400 cm²

Recordable precipitation amount

- Pluvio² L 200: 1500 mm
- Pluvio² L 400: 750 mm

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
(remaining amounts in 1/100 mm will be factored in
during the collecting time of 60 minutes)

Intensity output interval

1 minute

Query interval

1 minute ... 60 minutes

Output delay

- Real-time: < 1 minute
- Non real-time: 5 minutes

Measurement output

Intensity *RT, amount *RT/*NRT,
amount *NRT, amount total *NRT,
bucket content *RT and *NRT,
temperature of load cell

Status output

- Pluvio² L status,
- Heating status (if present)

Interfaces

- SDI-12 V1.3
- RS-485 (2- or 4-wire)
SDI-12 protocol and ASCII.txt
- Digital outputs (2/5 Hz):
impulse 0.05/0.1/0.2 mm (adjustable)
status 0 ... 120 impulses/min
- USB 2.0 (for service mode)
(no overvoltage protection)

Power supply

5.5 ... 28 VDC, typically 12 VDC
secured against reverse polarity

Current consumption (without heating)

Typically 9.2 mA at 12 VDC

Power consumption (without heating)

≤ 110 mW

Ring heating, optional

- 12 ... 28 VDC, typ. 12/24 VDC;
secured against reverse polarity
- Pluvio² L 200: typ. 2.1 A; max. 2.2 A
- Pluvio² L 400: typ. 4.2 A; max. 4.4 A
- Pluvio² L 200:
- max. 50 W at 24 VDC
- max. 12.5 W at 12 VDC;
temperature control range 12 K
(wind 0 m/s)
- Pluvio² L 400:
- max. 100 W at 24 VDC
- max. 25 W at 12 VDC
temperature control range 7 K
(wind 0 m/s)

Modes of operation of orifice rim heater

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)

Dimensions

- 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)

approx. 16 kg / 16.6 kg

Material

- Base plate: stainless steel / aluminium
- Collecting bucket: polyethylene
- Bucket support: ASA, UV-resistant
- 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

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

Pluvio² L operating software

- Measured value display
- Configuration
- Diagnosis
- Firmware update
- Guided accuracy test

*RT = real-time; NRT = non real-time; units can be configured in mm or in (inch), mm/min or mm/h, in/min or in/h and °C or °F