

## Precipitation Pluviometer

Instrument name: Pluvio-01

Instrument type: Pluvio2

Manufacturer: OTT

Location: Institute for Geoscience, Section Meteorology, Bonn

Coordinates: Lat: 50.731233° N, Lon: 7.070733° E, Alt: 66 m asl

The OTT Pluviometer is an instrument for precipitation measurements. It estimates the precipitation as it would be in liquid phase by measuring the weight within a specific volume (container). To reduce temperature errors, it can be installed with a heating for better operation in extreme circumstances.

The gauge is installed in the backyard at the Section Meteorology, Institute for Geoscience, University of Bonn, Bonn since 2010.

### Instrument specifications

Parameter	Specification
Manufacturer	OTT
Instrument type	Pluvio2
Precipitation type	Solid, liquid, mixed
Max precipitation amount	1500 mm
Resolution:	
Intensity	0.01 mm/h
Amount	0.01 mm
Gauge volume	30 l
Collecting area	200 cm <sup>2</sup> (Ø 159.6 <sup>±0.3</sup> mm)
Temporal resolution	1 – 60 min
Temperature range	-40 - +60 °C
Dimension (Ø x H)	450 mm x 670 mm
Weight	Approx. 15 kg
Max wind speed to keep accuracy	33 m/s
Max wind speed without damages	50 m/s
Humidity range	0 – 100 %
EMV	EN 61000-4-2/2/4/5/6
Accuracy	< ± 5 %

### Instrument time-line

20/04/2010 – today                      backyard of Section Meteorology, Institute for Geoscience,  
University of Bonn, Bonn

## Available measurement modes

- Continuous measurements fixed position
- Additional precipitation instruments can be requested

## JOYCE-CF Standard Operation Procedures

- Continuous operation at fixed location in Bonn in 1 min request intervals

## Data quality assurance procedures

- Raw data provided by the instrument. Quality control by operator.

## Available datasets

Data can be requested via the 'Messdatenportal' (<https://www.ifgeo.uni-bonn.de/abteilungen/meteorologie/messdaten/messdatenportal>).

Additional data, measurement time, or instrumentation can be requested via the JOYCE-CF request sheets.

### Level 1

- Available Data:
  - Intensity in mm/h (every minute)
  - Amount in mm in every minute
  - Amount in mm after 5 min observation delay (every minute)
  - Accumulated precipitation amount in mm since last restart
  - Current filling of gauge (unfiltered) in mm
  - Current filling of gauge (unfiltered) in mm
- Data format:
  - Temporal resolution: 1 min
  - ASCII Table including header (1 file per 5 min interval)
  - File size approx. 160 kB per day

## Contact

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