



Weighing rain gauge with automatic drain

- **Parameters measured**
Precipitation intensity and amount in real-time from 0.001 to 720 mm/h
- **Measurement technology**
Weighing principle with Tipping Bucket
- **Product Highlights**
Continuous and consistent rain monitoring technology with cumulative data output according WMO guide line No 8
- **Interface**
SDI-12 / RS-485, pulse, analog output

The OTT WAD 200/314, a liquid precipitation measuring instrument that combines the advantages of a tipping & weighing system, is specially designed for the use in subtropical and tropical climates. The highly sensitive measuring principle of the precipitation meter meets the requirements of the WMO guidelines and delivers accurate measured values in real time for both quantity and intensity of liquid precipitation in the range of 0.001 to 720 mm/h.

The rain gauge has a low power consumption and is an accurate measuring instrument even under extreme weather conditions. A usually prescribed annual calibration can be carried out with the aid of a reference weight and is therefore more accurate than the usual calibration procedure using water volume.

General Data

Sensor type	Weighing precipitation gauge
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Technical Data

OTT WAD 200/314 - Weighing Rain Gauge



Sensor element	Hermetic sealed load cell
Precipitation Types	Liquid
Collecting area	200 cm ² / 314 cm ²
Capacity	0.2 mm bucket, self-emptying

Measuring range	
Amount	without limitation (0.005 ... ∞ mm)
Intensity	0 ... 10 mm/min resp. 6 mm/h

Resolution	
Amount	0.001 mm
Intensity	0.001 mm/min resp. 0.001 mm/h

Accuracy	
Amount	±0.1 mm or ±2 %
Intensity	±0.1 mm/min resp.; ±6 mm/h oder ±2 %

Electrical parameters	
Electronics	9.8 to 32VDC / 160 mW (SDI-12 & pulse output)

Interfaces	
USB	Configuration / Service-Mode
Serial interface	SDI-12 or RS485 2-wire
Baud rate	1200 (SDI-12); 2400 to 19200 baud (RS-485)
Pulse output	0.01 / 0.1 / 0.2 / 0.5 / 1.0 mm
Status output	Rain yes/no
Analogue output	0/4 ... 20 mA or 0 ... 2/5 V

Data output	
Real time (RT)	Intensity & cumulative precipitation
Status	Operational mode, hardware
Output interval	1 min (intensity); 1 to 60 minutes
Output formats	SDI-12 V1.3: metric & imperial units; RS-485 (galvanic isolated): ASCII.TXT and MODBUS

Dimensions and Weight	
Dimension (Ø x h)	WAD 200: 292 x 190 mm; WAD 314: 311 x 256 mm
Weight	WAD 200: ca 2,5 kg; WAD 314: ca. 4,0 kg

Material	
Ring, funnel, plate	Aluminum alloy
Load cell	Stainless steel
Bucket	Monolithic
Mounting/Installation Ø	2□/ 60mm

Environmental conditions

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OTT Hydromet GmbH, Germany



Technical Data

OTT WAD 200/314 - Weighing Rain Gauge



Operating temperature	0 ... +70 °C
Storing temperature	-50 ... +70 °C
Ambient relative humidity	0 ... 100% RH
Protection class	Load cell: IP 67 / instrument: IP 64
Wind Speed Survival	60 m/s

EMC/EMI and Norms	
Overvoltage	EN 61000-4-2/-4/-5/-6/-11 Level 5 (4 kV), integrated for power & interface cables
EMC/EMI	EN 61000-4-3, CE conform
RoHS	2011/65/EU
Norms	WMO-No 8, VDI 3786 Bl. 7

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