

# rain[e]314 WEIGHING PRECIPITATION SENSOR



Weighing rain gauge with automatic drain

Like all rain[e]-series rain gauges, the rain[e]314 uses a sensitive measuring principle and fulfills all requirements of WMO Guideline No. 8. Real-time measured values for quantity and intensity of all liquid precipitation in the range of 0...720 mm/h will be output accurately and reliably. The rain[e]314 has a compact, robust design, with state-of-the-art weighing technology inside. Fully automatic continuous emptying prevents overflow and incorrect measurements and enables maintenance-free long-term use even under extreme weather conditions.

- Real-time output of precipitation intensity, amount and total amount parameters
- Measurement of each drop with the amazing resolution of 0.001 mm/m<sup>2</sup>
- Compact design with enlarged 314 cm<sup>2</sup> collecting area
- Best connectivity by diverse interfaces for simple system integration
- Version with highly efficient heating for low power consumption
- Easy calibration using a reference weight

## APPLICATIONS

- Precipitation measurement networks
- Flood warning systems
- Measuring networks of water management
- Classical meteorology and hydrology
- Traffic meteorology

Professional Line	rain[e]314
Id-No.	00.15184.003000 rain[e]314, unheated 00.15184.403000 rain[e]314, heated
Measuring range	Without limitation (0.0032... ∞ mm)
Amount of accuracy	0.1 mm or 1 % at < 3.82 mm/min and 2 % at ≥ 3.82 mm/min
Amount of Resolution	0.001 mm (pulse output: 0.01 mm)
Intensity range	0...12 mm/min resp. 0...720 mm/h
Intensity of resolution	0.001 mm/min resp. 0.001 mm/h
Output	SDI-12; RS-485 (SDI-12 protocol, ASCII protocol, TALKER protocol) 2 Pulse-Outputs for linearised, bounce-free output signal Status-Output (configurable, e.g. rain yes/no or heating on/off) Analogue output 0/4...20 mA (0...2.5/5 V)

Continued on page 2

Professional Line	rain[e]314
Collection surface	314 cm <sup>2</sup>
Environmental conditions	0...+70 °C (unheated), -40...70 °C (heated, no icing, no snowdrift)
Supply voltage	Unheated: 9.8...32 VDC Heated: 24VDC / 2 heating circuits 210 W (funnel) and 60 W (outlet / tipping bucket)
Power consumption	Max. 45 mA at 24 V power supply and analogue output Typically 7.5 mA at 24 V power supply and deactivated analog output; typically 12.5 mA at 12 V
Target temperature (heating)	+2 °C funnel surface temperature
Measuring principle	Weighing with automatic self emptying
Design	Mounting mast Ø 60 mm
Dimensions	311 mm x 256 mm (H x D)
Protection class	IP67
Weight	Approx. 4 kg
Standards	WMO-No. 8 • VDI 3786 sheet 7; EN 61000-2, -4; EN 61000-4-2, -3, -4, -5, -6, -11; NAMUR NE-21
Accessories (order separately)	00.15091.500XXX Windshield according to Tretyakov for measuring height 1 m, 1.5 m and 2 m 32.15180.022040 Bird defense ring for rain[e]314 32.15184.060000 Sensor cable, 10 m, 8 pole, M12 plug 32.15184.061000 Power supply cable for sensor heating, 1 m

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