

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/m²
- compact design with enlarged 314 cm² 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 Weighing precipitation sensor
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	<ul style="list-style-type: none"> • 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)

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Professional Line		rain[e]314 Weighing precipitation sensor
Collection surface		314 cm ²
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 150 W (funnel) and 60 W (outlet / tipping bucket)
Power consumption		max. 45 mA at 24 V power supply and analogue output • typ. 7.5 mA at 24 V power supply and deactivated analog output • typ. 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 Bl. 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

As of: 23.07.2021