

rain[e] WEIGHING PRECIPITATION SENSOR



The first of a new kind

rain[e] is a new type of weighing precipitation sensor: Highest resolution combined with the most compact design.

The unique self-emptying collection system enables the measurement of every single drop with the high resolution of 0.001 mm/m^2 . Full functionality all year around without antifreeze fluid makes the rain[e] very environmentally friendly.

rain[e] is easy to lift, transport, install and maintain. The small packing volume and the low weight ensure minimum logistical effort.

The rain[e] series is compatible with OTT and Campbell Scientific data loggers and ideal for setup and expansion of rainfall measurement networks.

- amazing resolution and accuracy
- checking of sensors with tipping bucket and other weighing systems
- compact and robust construction with a very low weight
- all-metal housing, weatherproof and durable
- best connectivity by several interfaces
- installation and maintenance are very simple

Also with Modbus or customised protocols realisable!

APPLICATIONS

- classical meteorology and hydrology
- Weather services
- measuring networks of water suppliers
- lysimeter systems
- sewage plants
- airports
- traffic meteorology

Professional Line	rain[e] Weighing precipitation sensor
Id-No.	00.15184.000000 rain[e], unheated • 00.15184.400000 rain[e], heated
Measuring range	without limitation (0.005... ∞ mm)
Accuracy	$\pm 0.1 \text{ mm}$ or $\pm 1\%$ at $< 6 \text{ mm/min}$ and $\pm 2\%$ at $\geq 6 \text{ mm/min}$
Amount of accuracy	$\pm 0,1 \text{ mm}$ or 1% at $< 6 \text{ mm/min}$ • $\pm 2 \%$ at $\geq 6 \text{ mm/min}$
Amount of Resolution	0.001 mm
Intensity range	0...20 mm/min resp. 0...1200 mm/h

Continued on page 2

Professional Line	rain[e] Weighing precipitation sensor
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)
Collection surface	200 cm ²
Environmental conditions	0...+70 °C (unheated) • -40...70 °C (heated, no icing, no snow blowing)
Supply voltage	unheated: 9.8...32 VDC heated: 24 VDC / 2 heating circuits: 80 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	292 mm x 190 mm (H x D)
Protection class	IP67
Weight	approx. 2.5 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)	00.15091.600XXX Windshield according to Tretyakov for measuring height 1 m, 1.5 m and 2 m 32.15180.023020 bird defense ring 32.15184.060000 sensor cable, 10 m, 8 pole, M12 plug 32.15184.061000 Power supply cable for sensor heating, 1 m

As of: 23.12.2020