

rain[e]400 WEIGHING PRECIPITATION SENSOR



Efficient heavy rainfall monitoring thanks to an enlarged collection surface

Latest weighing technology in the smallest space, combined with a self-emptying, monolithically manufactured precision tipping bucket, enables the rain[e]400 to achieve excellent resolution and accuracy. Even the first drop is measured! The weighing precipitation sensor rain[e]400 is ideal for establishing new measurement networks as well as for complementing existing 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

APPLICATIONS

- Classical meteorology and hydrology
- Weather services
- Measuring networks of water management
- Lysimeter plants
- Wastewater treatment plants
- Airports
- Traffic meteorology

Professional Line	rain[e]400
Id-No.	00.15184.004000 rain[e]400, unheated 00.15184.404000 rain[e]400, heated
Measuring range	Without limitation (0.0025... ∞ mm)
Amount of accuracy	± 0.1 mm or ± 1 % at < 3 mm/min and ± 2 % at ≥ 3 mm/min
Amount of Resolution	0.001 mm (pulse output: 0.01 mm)
Intensity range	0...10 mm/min resp. 0...600 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)

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Professional Line	rain[e]400
Collection surface	400 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 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]400 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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