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Ø 200 cm² self-balancing, self-emptying rain gauge

MeteoRain® 200 Pro uses a self-balancing measuring principle. It offers high resistance to error producing effects (wind vibration, dirt, dust, sand) as found in most rain gauges. These include soiling of the internal measuring mechanism, mechanical friction, residual water remaining in the measuring spoon from previous rain event and debris. Additionally, MeteoRain® offers high resistance to vibrations and non-level mounting.

Notable features include:

- Uninterrupted measurement of precipitation regardless of amount and intensity.
- Simplicity and reliability
- Easy to maintain and simple to clean
- Robust and impact resistant to golf ball sized hail
- Easy adjustment and recalibration of internal measuring mechanism
- Protection of measuring mechanism from contact during wire connections
- High-speed (0.13 s) self-emptying mechanism for high precipitation rate accuracy
- Class-A precision without compensation up to 120 mm/hr and up to 600 mm/hr (35 mm/minute) rain rates with compensation
- Highly aerodynamic funnel offers superb catchment of small wind blown rain
- Removable, easy-to-clean and easy-to-maintain funnel



Refined since 2019, the measuring mechanism offers more **consistent long-term response** than any other standard tipping-bucket rain gauge.

Individually calibrated and tested

Rain gauges are individually tested and use high quality sealed reed switches. Electronics are protected against salt spray, water, frost and heat by a weather-resistant coating.

Upgradable to 400 cm² and 0.1 mm resolution

All MeteoRain® 200 Pro are upgradable to a 400 cm² funnel which results in a 0.1 mm resolution without the requirement for any user adjustments to the measuring mechanism.

Pluviometer type	Accuracy	Stability	Resolution	Measuring range	Operating range	Starting threshold *	Rain orifice area
Precipitation type: Liquid (Rain)	Field performance ±2% (calib. ±1%)	< 0.0125 mm per year	0.2, 0.25 mm (0.01")	Up to 2100 mm/hr in above freezing conditions	-40 °C...80 °C	Resolution + 0.07 mm (0.0027") *	200 cm² (Ø 16.0 cm, 6.3")

* Rain gauge starting value is the amount of precipitation required to register a first reading. All funnel based rain gauges trap a small mount of precipitation on the funnel surface, which includes drops remaining on funnel surface (~1.4 ml), evaporation from the funnel surface, wetting of debris, dirt, and dust in the funnel catch sieve/sift and water opening (together an additional 1 ml). Rain gauge inspection interval should be determined by user experience and the environmental conditions.

For remote installations & high density networks where low-maintenance with long term measurement stability and high-precision are important.

Electrical specifications of pluviometer		
Output signal & communication	Reed switch output (Requires 0.3 ms debounce circuit on data logger input)	
Maximum Voltage	24 VDC	
Switching resistance	470 Ω	
Maximum allowable current	10 mA	
Tipping bucket speed	0.13 seconds	
Environmental rating of pluviometer		
Operating temperature & humidity	-40°C to +105°C	0% to 100%RH
Connection	20 cm to 30 cm UV resistant, robust outdoor cable with bayonet connector with silicone o-ring. Custom length cable extention with mating connector is available.	
IP – Protection rating	IP66W (DIN 40050)	
Shock resistance	15 g	
General specifications of pluviometer		
Dimensions (without mount)	Ø188 mm x 171 mm tall	
Weight (mass) (without mount)	aprox. 0.2 kg (with mating connector and 20 cm cable)	
Dimensions (without mount)	188 x 350 x 171 mm tall with 3 mm thick stainless steel mounting bracket	
Weight (mass) (without mount)	aprox. 1.2 kg (with 3 mm thick stainless steel mounting bracket and mating connector and 20 cm cable)	

