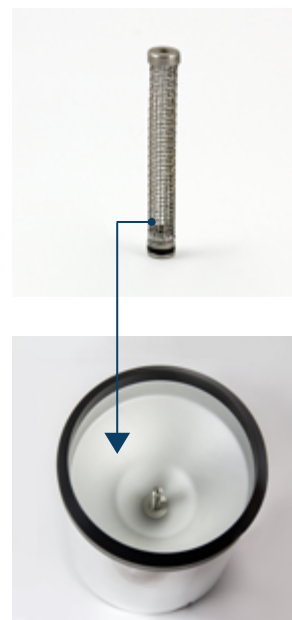
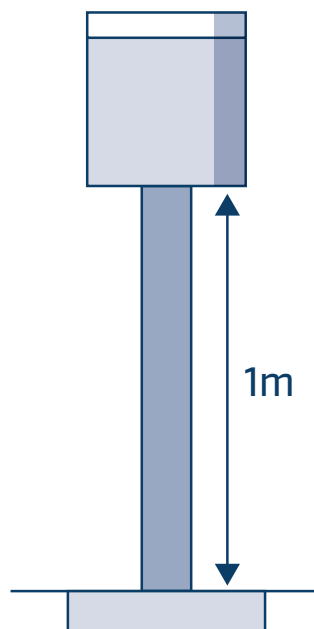
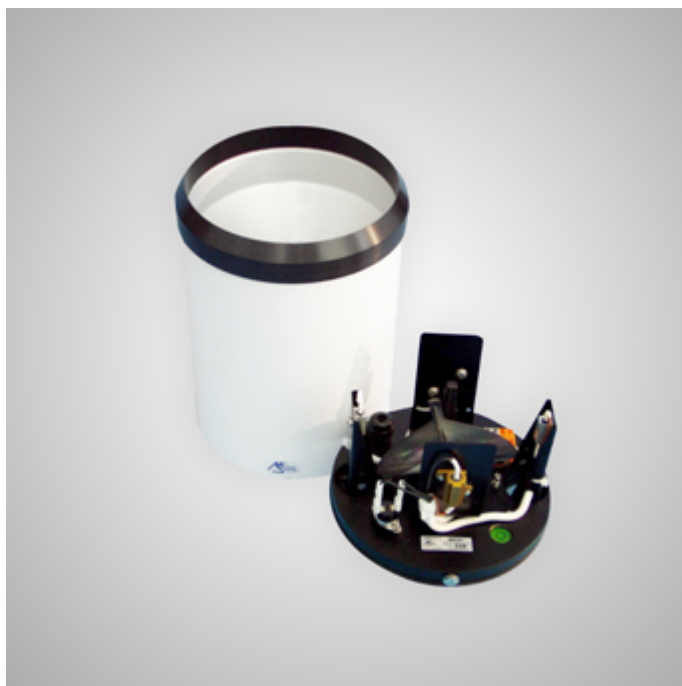


MR2, MR2H

Rain Gauges

A principle of the rain gauge function lies in the utilization of **“tipping bucket” mechanism** to get electrical pulses in dependence on a precipitation quantity. The MR2 is non-heated rain gauge intended for a liquid precipitation measurement and the MR2H is heated rain gauge intended for a liquid and solid precipitation measurement.



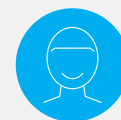
Tipping bucket



High precision



High intensities



Reliable

The rain gauges are made from corrosion resistant materials. Its cylindrical casing is made from stainless steel, the funnel is made from plastic. Metal circle in the upper part of the rain gauge clips the exact surface size for the falling rain.

The tipping bucket mechanism is placed inside the rain gauge body on the plastic base. Together with the bucket there are also:

- a water level for checking the rain gauge horizontal position,
- a terminal board for the cable connection,
- arresting screws for calibrating,
- two openings for water outflow,
- a heating system including thermostat (MR2H only),
- three screws for adjustment of the horizontal position.

The tipping bucket mechanism (movable body and immovable holder as well) is made from plastic, the bucket axis is from stainless steel wire. The inner space of bucket is coated by titanium layer and exposed to accelerated weathering. Above the catching opening there is a vertical sieve, preventing gross mechanical impurities from entering the outflow.

The heating is provided by thermal resistors placed under the funnel in a space near the tipping bucket on the rain gauge base. The funnel is warmed by means of heat transmission from that space. The thermal resistors provide heating also for the rain gauge outflow openings. The switching on and off of the rain gauge heating is controlled by thermostat.

The rain gauge is fixed in the 1 m height above the earth surface. The rain gauge stand consists of two circular bases, connected with an iron tube. The lower circular base is fixed with bolts to the underground basal concrete stone (weight

50 kg). The rain gauge is attached to the upper circular base. The stand surface is protected by zinc coating, top coat is in white color.

MR2 / MR2H Technical data

Catch area	200 cm ²
Output	pulses - switching contact
Voltage for heating (MR2Hxx only)	42 to 46 V AC
Performance of heating elements (MR2Hxx only)	48 to 57 W
Dimensions (height without fixing screw x diameter)	262 x 179 mm
Temperature for switching on the thermostat (MR2Hxx only)	+15 °C ±3 °C
Weight	MR2H (xx) 2.1 kg MR2 (xx) 1.9 kg
Operating temperature	MR2H (xx) -20 °C to +60 °C MR2 (xx) +2 °C to +60 °C
Fastening screw size	M8 x 50

Variants and its parameters

	Resolution	Measuring range	Measurement error for different rainfall	
			Intensity	Measurement error
MR2-01m-C	0.1 mm	0 to 600 mm/h	< 20 mm/h 20 to 600 mm/h	< 1 % < 2 %
MR2-02s-C	0.2 mm	0 to 900 mm/h	< 20 mm/h 20 to 600 mm/h	< 1 % < 2 %
MR2-05v-C	0.5 mm	0 to 2500 mm/h	< 20 mm/h 20 to 600 mm/h	< 1 % < 2 %
MR2-01m	0.1 mm	0 to 450 mm/h	< 20 mm/h 20 to 60 mm/h 60 to 200 mm/h	< 1 % < 10 % < 26 %
MR2-02s	0.2 mm	0 to 900 mm/h	< 20 mm/h 20 to 60 mm/h 60 to 200 mm/h	< 1 % < 4 % < 10 %
MR2-05v	0.5 mm	0 to 2500 mm/h	20 mm/h 20 to 60 mm/h 60 to 200 mm/h	< 1 % < 2 % < 5 %