

Precipitation Transmitter

- with Analogue output
- with precipitation-/intensity-dependent pulse number correction



The instrument is designed to measure the height, quantity and the intensity of the precipitation striking the surface of the earth. The measuring principle, tipping bucket, is basing on the description "Guide to Meteorological Instruments No 8" of the WMO (World Meteorological Organization). The precipitation, collected by the collecting surface and the collecting funnel, is conducted into a tipping-bucket. The tipping bucket consists of two bucket-compartments. Is one of these compartments filled with water it tips over, and the water drains off. Meanwhile subsequent rain falls into the newly positioned upper compartment. The tipping movement is detected by a Reed-contactor, and a connected electronics, and produces a respective output signal.

There are two outputs available:

1. Analogue output for the output of the precipitation sum as voltage- or current value.
2. Pulse output for the output of single precipitation meter pulse.

The electronics of the precipitation transmitter is equipped with a linearising system. The linearising procedure is basing on a precipitation-/intensity-dependent pulse number correction for the range from approx. 0,5...7 mm/min. In our laboratory each instrument is calibrated within the intensity range of 0...7 mm/min with a water quantity of 200cm³ (=10 mm precipitation height).

Precipitation transmitters with built-in heating (5.4033.35.xxx) liquefy snow or hail and consequently, are suitable for winter use. All parts are corrosion-resistant. The casing consists of stainless steel (V2A).

Order-No.	Technical Data	
5.4033.35.xxx	Heating	70 W; 24 V AC/DC
36.xxx		no
.040	Output/Analogue	0 ... 20 mA (<500 ohm)
.041		4 ... 20 mA (<500 ohm)
.073		0 ... 5 V
.061		0 ... 10 V
	Collecting surface	200 cm ²
	Resolution	0,1 mm
	Measuring range	max. 7 mm/min.
	Measuring principle	tipping bucket
	Supply voltage	24 V AC/DC or
		(w/o heating)
		10 ... 28 V DC 14 ... 28 V DC (10V-output)
	Ambient temperature	-25... +60°C with heating
		0... +60°C w/o heating
	Mounting	on stand pipe (1 ½")
	Weight	3,3 kg