



Rain Gauge Measurement Systems

Rain Gauges and Data Logger

- Tipping Bucket and Weighing Systems
- High precision rain gauge with impulse output (0.1 mm or 0.2 mm)
- Longterm Stability
- Digital data recording of precipitation impulses via rain data logger UnilogLight
- Optional: bird protection ring and/or heating system with temperature control
- Optional: elemetric data transmission via GSM/GPRS or satellite (e.g. Iridium)





RG 50 - Tipping Bucket Rain Gauge

High precision rain gauge system with impulse output. Suitable for connection to automatic data loggers (e.g. UnilogLight) and telemetric transmission systems (GSM/GPRS, satellite). Tipping bucket with single sided ball bearings, level and adjusting screw.

For the installation in areas with a risk of frost, the rain gauge can optionally be equipped with a funnel heating system.

Housing:	Aluminium, coated
Orifice, collecting area:	200 cm ² , 400 cm ² (optional)
Resolution:	1 impulse = 0.1 mm precipitation or 1 impulse = 0.2 mm precipitation
Funnel Heating System:	15 W, 24 V, switching point +4 °C, switching hysteresis +3 °C
Switching capacity:	3 W
Direct current voltage:	150 V
Circuit DC:	0.25 A



Tipping Bucket System

Output:	Reed contact impulse (potential free contact)
Tipping bucket:	Plastic material (heavy duty)
Dimensions:	Height 346 mm, Diameter 205 mm
Weight:	3.9 kg

RG 100 - Tipping Bucket Rain Gauge System

The SEBA rain gauge system RG 100 offers a compact design which combines the protection housing and funnel system into one unit.

The special aluminum lockable protection housing can contain the tipping bucket, data logger (UnilogLight, UnilogCom), modem (GSM/GPRS, satellite), power supply and if desired a collecting bottle.

Collecting Area:	200 cm ² , 400 cm ² or 500 cm ²
Recording Time:	depends on selected data logger type (UnilogLight, UnilogCom)
Output:	Impulse, potential free
Resolution:	1 impulse = 0.1 mm precipitation or 1 impulse = 0.2 mm precipitation
Collecting bottle:	5 liters, plastic material
Funnel:	(DIN 58667) plastic, 200 cm ² = 10 mm precipitation



Dimensions:	(height, width, depth) 620 x 225 x 285 mm
Weight:	13 kg

TRwS - Weighing Rain Gauge System

	TRwS 30_200 / TRwS 30_400	TRwS 10_200 / TRwS 10_500
Measuring principle	Weighting principle	
Volume bucket	30 l	30 l
Orifice area	30 l	10 l
Precipitation range	200 cm² / 400 cm²	200 cm² / 500 cm²
Absolute accuracy	1500 mm / 750 mm	500 mm / 200 mm
Accuracy	±0.1%	
precipitation intensity	0.025 mm / min	
Maximum rain intensity	120 mm / min	
Resolution	0.001 mm	
Measuring element	Load cell / Strain gauge measuring cell (load cell)	
Dimensions (ø diameter x height)	Ø 385 mm x 635 mm	Ø 355 mm x 535 mm
Weight	11 kg	8.5 kg
Operating temperature	- 40...+70°C (incl. Heating)	
Storage temperature	-50...+70°C	
Operation humidity	0...100%	
IP Protection class	IP65 (load cell: IP68)	
Power supply	8 ... 28 VDC / 7mA average	
Power supply heating	12W /12V, 48 W/24V	
Pulse output	Umax 30 V / I max 300 mA	
Interfaces	SDI-12, RS-485, ModBus, Bluetooth LE, USB (optional)	
Communication Protocols	MODBUS RTU, MODBUS ASCII, SDI-12, RS485 legacy MPS/ASCII	
Options: Measuerment ambient temperature – 40...+70 °C (± 0.5 °C) and estimation wind speed		



Data Recording UnilogLight

The UnilogLight data logger is characterized by its simple and user-friendly handling, high operation reliability, robust and compact design including a water-tight plastic foil keyboard. This logger serves for digital recording of precipitation tipping bucket impulses associated with date and time.

Technical data see brochure UnilogLight



Complete Rain Gauge Station

SEBA Rain Gauge Station in combination with a data logger and automatic telemetric system: A complete and solid solution out of ONE hand!



A detailed description of our telemetric data transfer solutions are described in a separate SEBA brochure.

Additional Options

Heaters and accessories:

- **Heating system for RG 100:** for heating the internal rain gauge, 2-point control system and thermistor switch, 60 Watt heating power, 24 V power supply
- **Funnel heating system for RG 50 and RG 100:** for de-icing, 15 Watt heating power
- **Ring heating system**
- **Mains adapter:** IP 40, 220 V / 24 VAC / 200 VA for power supply of heating system
- **Mains adaptor:** IP 64, 220 V / 24 VDC / 60 VA power supply suitable for field installations
- **Bird Protection Ring:** prevents any interference of birds sitting or nesting at or inside the rain gauge
- **Tipping Bucket System** for additional or belated installation for data logger or telemetric data transfer. Technical details as in RG 100.

For all types of tipping bucket systems:

- **Impulse/Power-Transducer:** Output 0/4-20 mA = 10 mm precipitation, configurable to 50 - 1,600 impulses, power supply 220 V or 24 V.

For RG 50 / RG 100:

- **2" Metal Stand with flange** - Total height incl. rain gauge: 1,200 mm (1.2 m) for a secured installation of the rain gauge

The right is reserved to change or amend the foregoing technical specification without prior notice.

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