



# **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 <sup>2</sup> , 400 cm <sup>2</sup> (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

	ripping 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 bottle.			
<b>Collecting Area:</b>	200 cm <sup>2</sup> , 400 cm <sup>2</sup> or 500 cm <sup>2</sup>		
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 <sup>3</sup> = 10 mm precipitation		



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

# **TRW - Weighing Rain Gauge System**

The total rain weighing sensor type TRW is suitable for all types of precipitation: liquid, solid or mixed.

Collecting area:	200 cm <sup>2</sup>	500 cm <sup>2</sup>	200 cm <sup>2</sup>	400 cm <sup>2</sup>		
Range of precipitation:	750 mm	250 mm	1500 mm	750 mm		
Dimensions (mm):	Ø 360 x 540	Ø 360 x 380	Ø 385 x 650	Ø 385 x 610		
Weight:	8 kg	8 kg	9.5 kg	9.5 kg		
Accuracy absolute:	± 0.1 %					
Accuracy relative:	± 1%					
Max. rain intensity:	120 mm/min					
Resolution:	0,001 mm/0.01 mm					
Serial interface:	SDI-12					
Impuls output:	1; 0,1; 0.01 mm					
<b>Humidity:</b>	0-100 %					
Power Supply:	530 VDC / max 4 mA @ 12 V					
<b>Protection Class:</b>	IP 65					
<b>Power Consumption:</b>	0,4 Ah/day					
Heating:	optional					
Operating Temperature:	-40 °C +70 °C (with heating)					
Storage Temperature:	-40 °C +70 °C					



Weighing System - TRW 200 / 750



Weighing System - TRW 500 / 250

# **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

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## **Complete Rain Gauge Station**

SEBA Rain Gauge Station in combination with a data logger and automatic telemetric system: A complete and solid solution



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 deicing,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 ofbirds 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