

BULFRO AUTOMATED RAIN GAUGE SYSTEM (ARG)

Smart Rainfall Measurement & IoT Telemetry Solutions

The Bulfro Automated Rain Gauge (ARG) delivers standard rainfall measurement and precipitation monitoring for unattended, remote locations. Operating on the tipping-bucket principle, it is well suited to boundary-layer research, watershed management, solar energy studies, and groundwater management systems.

Model reference: BF-ARG-TSG-2009. Available in 150 mm and 203 mm collector sizes, both delivering 1% accuracy up to 2"/hr rainfall intensity, with a rugged non-hygroscopic SS304/FRP tipping-bucket assembly.



Automated Rain Gauge

WHY CHOOSE BULFRO AUTOMATED RAIN GAUGE?

- **High-Precision Rainfall Measurement** - Delivers accurate and reliable precipitation data for critical monitoring.
- **Remote Real-Time Monitoring** - GSM/GPRS telemetry enables continuous rainfall tracking from anywhere.
- **Built for Long-Term Outdoor Performance** - Rugged SS304/FRP construction ensures durability with minimal maintenance.

FEATURES

- **Knife-Edge Collector** - Precision knife-edge rim minimises splash-out and directs rainfall cleanly into the collector funnel.
- **Integral Bubble Level** - Built-in bubble level for accurate on-site levelling during installation.
- **Data-Logger Compatible** - Logs to any rainfall data logger, with third-party interfacing available on request.
- **Radio Reporting Rain Gauge** - Transmission by GSM / GPRS for remote, unattended monitoring.
- **Native Display Available** - Local read-out option for on-site verification alongside remote reporting.
- **Heater Option** - Optional heated collector available for deployments in snow-prone regions.

SIZES & ACCURACY

Available in two collector sizes, both delivering 1% accuracy up to 2"/hr rainfall intensity. The tipping bucket has a 0.2 mm resolution and is built in non-hygroscopic SS304 / FRP for long-term dimensional stability in outdoor conditions.

CALIBRATION

Rainfall (mm) = B × N, where N is the raw data reading from a logger and B is the multiplier supplied with the unit. Calibration values vary by collector size — refer to the factory calibration certificate for the exact multiplier.

INSTALLATION & MAINTENANCE

Option 1: mounting bracket fitted as per site requirement.

Option 2: mounting bracket with stand pole for free-standing installation.

Routine maintenance consists of periodic cleaning of the filter/collector screen to keep the funnel free of debris.

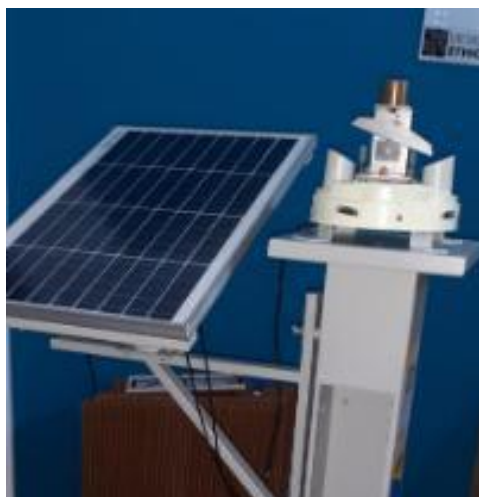
TECHNICAL SPECIFICATIONS

Parameter	150 mm Type	203 mm Type
Resolution	0.1 mm Metric	0.1 mm Metric
Siphon Threshold	Nil	Nil
Accuracy	1.0% up to 2"/hr	1.0% up to 2"/hr
Collector Diameter	9.66" knife edge	9.66" knife edge
Funnel Diameter	7.2" (183 mm)	6.5" (172.5 mm)
Splash-Out Protection	> 2" (50 mm)	> 2" (50 mm)
Operating Temperature	0–50 °C	0–50 °C
Storage Temperature	–20 to 60 °C	–20 to 60 °C
Humidity Limits	0–100%	0–100%
Weight (Bucket)	1.8 kg	2.1 kg
Shipping Weight (Bucket)	3.0 kg	4.0 kg
Height	18"	20"
Cable	1.0 sqmm, 2-conductor	1.0 sqmm, 2-conductor
Switch (Reed)	Momentary snap-action switch	Momentary snap-action switch
Switch Rating	5 VDC @ 1 A	5 VDC @ 1 A
Switch Closure Time	120 ms	120 ms
Bounce Settling Time	1 ms	1 ms
Pivot	Hardened, non-corrosive pivot	Hardened, non-corrosive pivot
Bucket	UV-protected FRP / SS304	UV-protected FRP / SS304
Level	Integrated bubble level	Integrated bubble level
Warranty	2 years (mechanical parts)	2 years (mechanical parts)

SENSOR OUTPUT

Parameter	Value
Output	Digital, Analog
Analog Output	2.5 V FS
Digital Output	Frequency count

INSTALLATIONS



MODEL VARIANTS

Bulfro Automated Rain Gauge (BARG) is offered in FRP and SS304 body variants, each available with a plastic manual beaker or a tipping-bucket sensor, with or without telemetry, and in grid- or solar-powered configurations with battery backup.

S.No	Model	Description
1	BARG-FBk-2101	Full FRP body, plastic manual beaker, 1 mm resolution (10 ml of water qty).
2	BARG-FTB-nTG-2001	Full FRP body, tipping bucket, 0.2/0.5 mm resolution (suitable for 250 mm/hr rainfall); non-telemetry, grid powered with battery backup.
3	BARG-FTB-nTS-2001	Full FRP body, tipping bucket, 0.2/0.5 mm resolution (suitable for 250 mm/hr rainfall); non-telemetry, solar powered with battery backup.
4	BARG-FTB-TG-2001	Full FRP body, tipping bucket, 0.2/0.5 mm resolution (suitable for 250 mm/hr rainfall); with telemetry, grid powered with battery backup.
5	BARG-FTB-TS-2001	Full FRP body, tipping bucket, 0.2/0.5 mm resolution (suitable for 250 mm/hr rainfall); with telemetry, solar powered with battery backup.
6	BARG-SBk-2101	Full SS304 body, plastic manual beaker, 1 mm resolution (10 ml of water qty).
7	BARG-STB-nTG-2001	Full SS304 body, tipping bucket, 0.2/0.5 mm resolution (suitable for 250 mm/hr rainfall); non-telemetry, grid powered with battery backup.
8	BARG-STB-nTS-2001	Full SS304 body, tipping bucket, 0.2/0.5 mm resolution (suitable for 250 mm/hr rainfall); non-telemetry, solar powered with battery backup.
9	BARG-STB-TG-2001	Full SS304 body, tipping bucket, 0.2/0.5 mm resolution (suitable for 250 mm/hr rainfall); with telemetry, grid powered with battery backup.
10	BARG-STB-TS-2001	Full SS304 body, tipping bucket, 0.2/0.5 mm resolution (suitable for 250 mm/hr rainfall); with telemetry, solar powered with battery backup.

GET IN TOUCH

PHONE

+91 84590 04436

+91 76660 53957

LINKEDIN

linkedin.com/company/bulfro-monitech-research

EMAIL

Sales@bulfro.com

support@bulfro.com

WEB

www.aquaesg.com

SCAN FOR WEBSITE



Survey Number 36/1/2, Near Bhagawati Boys Shelter, Dhayari Narhe Rd, Ashtavinayak Industrial Estate, Narhe, Pune, Maharashtra 411041