

A. SPECIFICATIONS FOR TIPPING BUCKET RAIN GAUGE WITH ACCESSORIES

Raingauge:

Maximum rainfall rate: 12.7 cm (5 in.) per hour

Calibration accuracy: $\pm 1.0\%$

Resolution: 0.01 in.

Operating temperature range: 0° to +50°C

Storage temperature range: -20° to +70°C

Environmental rating: Weatherproof

Housing: 15.24cm (6-in.) aluminum bucket

Tipping bucket mechanism: Stainless steel shaft with brass bearings

Logger:

Time stamp: Resolution 1.0 second

Time accuracy: ± 1 minute per month at 25°C

Operating range: -20° to 70°C

Battery: 1 year typical use

Memory: 25K to 30K data points when recording rain

Materials: Polypropylene case; stainless steel screws; Buna-N o-ring; PVC cable insulation

Mounting material: Hose Clamps and Screws

Accessories:

- i. Pendant Base Station BASE-U-1
- ii. HOBOWare PRO v.3.x for PC & Mac

Note:

- i. Prices for sensor and abovementioned accessories should be mentioned separately.
- ii. All the sensors should be able to operate at optimal efficiency and should withstand harsh environmental conditions (Temperature: -40°C to 60°C and rainfall > 100 mm/day). The System should be sufficiently sealed to avoid ingress of dust, rain and moisture.
- iii. Prices should be F.O.R to destination (i.e. Nainital/Sikkim/Srinagar) inclusive of delivery, training, complete integration and Installation of the system.
- iv. However, commissioning charges including necessary civil work required for the system should be mentioned separately.
- v. **Warranty:** minimum 1 year onsite warranty

B. SPECIFICATIONS FOR TEMPERATURE LOGGER:

Temperature	<u>Range:</u> -40°C to 70°C (-40°F to 158°F) <u>Accuracy:</u> ± 0.21°C from 0°C to 50°C (±0.38°F from 32°F to 122°F) <u>Resolution:</u> 0.02°C at 25°C (0.04°F at 77°F)
Relative Humidity	<u>Range:</u> 0-100% RH, -40°C to 70°C (-40 to 158 F) <u>Accuracy:</u> ± 0.21°C from 0°C to 50°C (±0.38°F from 32°F to 122°F) <u>Resolution:</u> 0.02°C at 25°C (0.04°F at 77°F)
Data Storage Capacity	21,000 Temperature and RH Readings
Sampling Rate	1 Second to 18 Hours
Real-time Clock	±1 Min/Month 0°C to 50°C (-32°F to 122°F)
Response Time	40 Minutes (Typical to 90% in Air Moving 1 m/sec)
Stability (Drift)	<0.1°C (0.18°F) and <1% per Year Typical
Battery	1/2 AA 3.6 Volt Lithium Battery, User-Replaceable, 3 years
Software Compatibility	HOBOWare PRO Version 3.5+
OS Compatibility	Windows: Windows 10, 8.1, 8 and 7 Mac: OS X 10.9.x, 10.10.x and 10.11.x
Materials	ASA Styrene Polymer Housing; Modified Hydrophobic Polyethersulfone Membrane
Standards Compliance	NEMA 4 Equivalent

C. SPECIFICATIONS FOR SOLAR RADIATION SHIELD WITH MOUNTING STRUCTURE

Solar Radiation shield with mounting:

- i. **Height:** 152 mm (6.0 inches); 165 mm (6.5 inches) with bracket
- ii. **Width:** 210 mm (8.3 inches)
- iii. **Depth:** 187 mm (7.4 inches); bracket protrudes an additional 44 mm (1.8 inches) from shield

Accessories:

- i. Clamp Kit for Mounting
- ii. Mounting mast/structure

Note:

- i. All the sensors should be able to operate at optimal efficiency and should withstand harsh environmental conditions (Temperature: -40°C to 60°C and rainfall > 100 mm/day). The System should be sufficiently sealed to avoid ingress of dust
- ii. i.e. Nainital/Sikkim/Srinagar) inclusive of delivery, training, complete integration and Installation of the system.
- iii. However, commissioning charges including necessary civil work required for the system should be mentioned separately.
- iv. **Warranty:** minimum 1 year onsite warranty