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| **Rainfall (Tipping Bucket)** |
| **System** |
| **Description** | The tipping bucket is the preferred method of measuring rainfall |
| **Rainfall** |
| **Intensity** | 0-500mm/hr |
| **Accuracy** | 2% of reading for total precipitation (Over 24 hours) |
| **Resolution** | 1mm |
| **Signal Output** | Pulse counter compatible with data logger |
| **Calibration** | Certificate required and calibration must be performed within India for future recalibration |
| **Cabling** | 10m minimum. Shall be run in approved conduit. Actual length may vary depending on site conditions. |
| **Power** |
| **Voltage** | 12 VDC input |
| **Other Requirements** |
| **Needs** | * Tipping bucket base and collector: durable and rigid of cast metal, molded thermoplastic, or equivalent; galvanized iron sheet is not permitted.
* Rim material: gun metal/brass/stainless steel or equivalent
* Synthetic ceramic coated or stainless steel bucket.
* Rainfall shall be measured using a tipping bucket method and shall be able to record rainfall cumulatively with the data collection platform.
* Rainfall sensor shall be of such a design that it operates reliably and accurately under prevailing environmental and weather conditions
* Rain gauge may be calibrated on-site.
* Rain gauge assembly will allow the easy adjustment of bucket tip points without removing the gauge from the mounting.
* Minimum expected operational lifetime shall be 15 years or greater
* Bucket capacity: 1 mm equivalent rainfall or less.
* Focus on rainfall gauge is the accurate measurement of rainfall totals, not necessarily rainfall short term rainfall rates. The use of a siphon system to normalize rainfall rate to achieve accurate total rainfall or software which will normalize varying rainfall rates and errors caused by changing rainfall rates is required. If a software system is offered to normalize the rainfall, the software logic is required as part of the bid submittal.
* Contact system using dual reed switches with varistor protection.
* Insect covers on all openings.
* Collecting funnel diameter: close to 200 mm internal diameter
* The gauge will have leg adjusters to set the level horizontally
* Certified calibration test document shall be included with every gauge. The calibration may be performed just prior to installation to assure accuracy of certified calibration test.
* Ability to service tipping bucket gauge without re-leveling the gauge.
* Necessary cables to connect precipitation gauge to data logger as required.
* All wire runs between the tipping bucket and the data logger shall be identically designed.
* Bidder must submit and have approved a schematic of civil works that assures a robust and secure installation prior to start of work.
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| **Tools and Manuals** | * Complete toolkit for installation and routine maintenance giving full details. (number of pieces and type)
* Full documentation and maintenance instructions in English. (1 per station)
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Items in RED are to be used for the Bid Evaluation Review (BER).