

Rain Gauge Compensator RGC

RGC is a device that compensates systematic error of tipping bucket rain gauge at high rate rain intensity.

Tipping bucket rain gauges suffer from systematic error dependent on rainfall intensity. The higher intensity, the more error on collected rainfall can be observed. At the highest intensity, tipping bucket rain gauge records 10 to 15 % (dependent on type) less rainfall, than it should.

Since the error is systematic, it can be eliminated using correction calculation. In order to perform this, characteristic error curve must be known. This can be determined by calibrating representative number of rain gauges of the selected type. From the calibration data the correction function may be built-up.

MicroStep-MIS has come with a solution of building-in the correction function into a small electronic device called RGC. This microprocessor based part can be contained in a rain gauge, collecting tips of the tipping bucket and adding an extra tip when needed. By using RGC, it is possible to make the rain gauge fit within 2 to 3 % error range.

RGC designed to be small, waterproof and energy-efficient. It has wide temperature range and also wide power supply range to fit in the existing systems.

Technical Specifications

Power supply voltage	5 to 35 V DC
Typical power consumption (@12 V supply)	No rain: 9 μ A During rain: 0.5 mA
Input	Type: Reed relay De-bounce: 0.5 s
Output	Type: Relay



Features

- Decreasing error range down to 3 % and less
- Compact design
- Waterproof and energy-efficient
- Compatible with various types of tipping bucket rain gauges

Average characteristic of five MR2 rain gauges with and without RGC

