

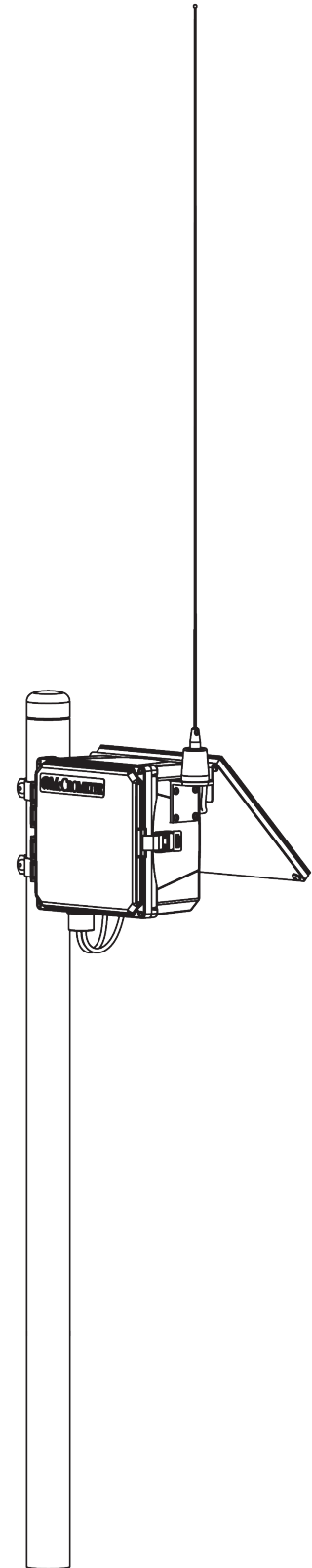
#### OVERVIEW

The McCrometer RemoteCONNECT RC45 Telemetry System is a wireless data collection system designed to work with flowmeters and other agriculture water management sensors. The RC45 is a valuable irrigation management tool and improves irrigation efficiency by delivering up-to-date crop data via the internet. Users can connect their new or existing flowmeter to the RC45 in addition to other agricultural water management sensors such as soil moisture, water level, and rain gauges. Data collected from this system can be used by farmers and irrigators, state organizations, water conservancy districts and researchers.

With the RC45 you will know how much water is being applied and when. Save time, fuel, and labor with the McCrometer RemoteCONNECT.

#### INSTALLATION

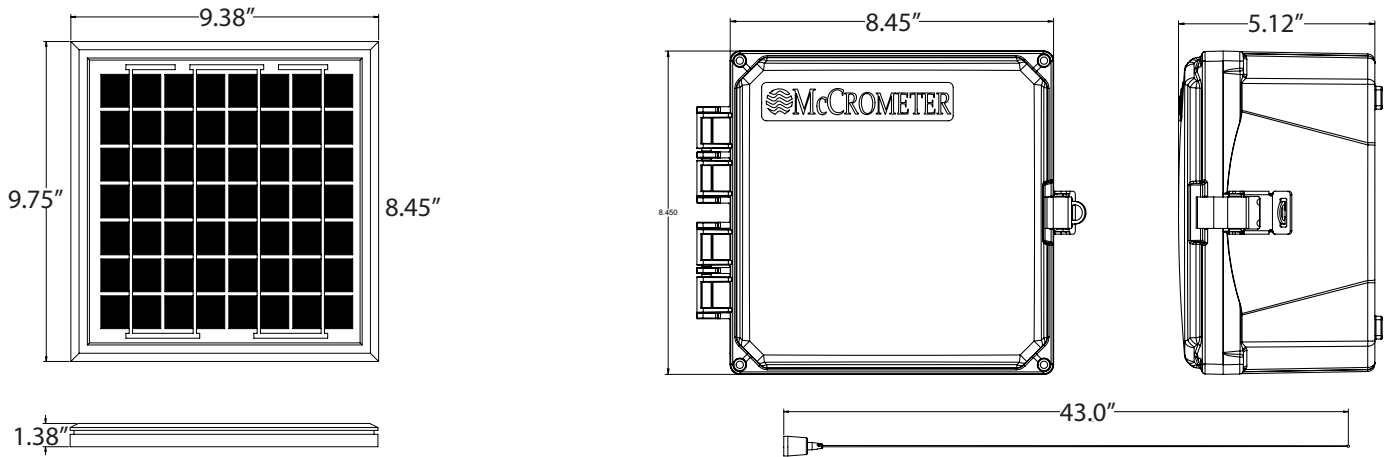
The RemoteCONNECT RC45 Telemetry System is a mast mounted system that is typically mounted within close proximity of the flowmeter or water management sensors. The system is easy to install and retrofit onto existing flowmeters.



#### TECHNICAL OVERVIEW

|  |  |
|--|--|
| 2 Analog Inputs                          | 0-5 volts,<br>0-1 mA,<br>0-20 mA                 |
| 1 Frequency Inputs                       | 0-10KHz, active low                              |
| 1 Accumulator Input                      | Wind Miles<br>Rain                               |
| 1 Analog Output                          | 0-5V<br>0-1mA<br>4-20mA, user-configurable range |
| 1 Pulse Output                           | (Momentary) open drain FET                       |
| Antenna                                  | Tapered steel whip 137 to 148 MHz                |
| Internal battery                         | 5 AHr, 12 Volts DC                               |
| Quiescent current drain (low power mode) | 120 uA   |
| Operating or searching for a satellite   | 160 mA   |
| Transmitting Current                     | 1.8 – 2.0 Amps                                   |

## Dimensions



## Specifications

### Operating Modes:

**Timed Transmissions:** Sensor data values are reported to the website at user programmable time intervals.

**Event Mode Transmissions:** Alarm reports are generated and sent with the regular timed transmissions.

**Forced Mode Transmissions:** An analog range is determined by setting a high and low limit in the RC45 PC board. The RC45 will transmit an alarm immediately when the high or low set points are reached.

### Sensor Inputs:

**Digital Input:** The RC45 is equipped with two pulse counters. One pulse counter can be set to accumulate volumetric pulses in engineering units (i.e. Acre Feet, Gallons) and is equipped with an internal pulse divider. The second pulse counter is provided for rain bucket tip recording. The second pulse input can be configured as a second flow meter totalizer with the addition of an E7000-04 powered flow transmitter or the X7000 pulse divider PC board.

**Analog Sensor Inputs:** Features two configurable analog 0-5V, 0-1mA, and 4-20mA sensor inputs. Changes can be made to analog #1 and #2 by adding the axial resistors to the correct terminals to configure other current outputs.

**Frequency Input:** There is a single frequency signal input which can be used to measure rates such as flow rate. The frequency range is 0-10KHz with an active low (falling edge) on the sensor input.

### Battery voltage and Flow Run Time sensors:

The battery voltage is reported with the transmission of data. The time the pump has been running or the time of flow is contained internal to the MPU chip and no extra circuits or sensor channels are required.

**Analog Output:** 0-5V (standard) 0-1mA, 4-20mA, User Configurable Range

**Pulse Output:** (Momentary) open drain FET

**Installation Locations:** Any location with an unobstructed view of the sky.

**Power Supply:** 300mA Solar, 110VAC supply, or both with battery backup. Five year rechargeable battery life.

### Environmental:

Relative Humidity: 0 to 100% non-condensing

Operating Temperature Range: -40° to 140° F (-40° to 60° C) –

**Enclosure:** NEMA 4, polycarbonate, with hinged door and locking hasp

**Satellite Constellation:** Orbcomm