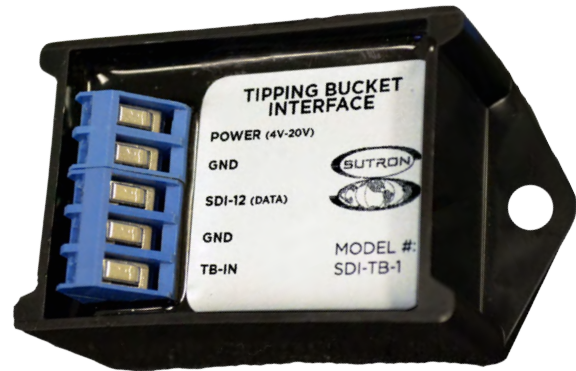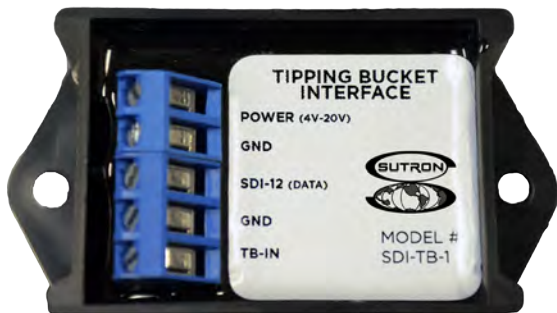# SDI-12 Tipping Bucket Interface

Overview

A simple and compact SDI-12 Interface to convert any Tipping bucket into a 'smart SDI-12 sensor' that can compute daily & annual accumulation. The SDI-TB has an internal backup power source and can be programmed to compensate for heavy rainfall.

▶ **Improved Reliability**

The SDI-TB is compact and can be easily mounted inside most tipping buckets. This eliminates the need for long wires (from the tipping bucket to the SDI logger) susceptible to noise,

▶ **Programmable Daily and annual resets**

The SDI-TB has an internal RTC that can be used to automatically compute yearly and daily accumulations.

▶ **Rechargeable Backup Power**

The SDI-TB can run off its internal rechargeable backup power in case SDI power is lost. All crucial functions of the SDI-TB, like measuring rainfall and the internal RTC, can run for up to 10 hours without SDI-12 power.

▶ **Smart Sensor Compensation**

The SDI-TB can be programmed to compensate for rainfall lost due to heavy rainfall rates especially when using a tipping bucket without a siphon.

▶ **Low Power**

The SDI-TB draws about 100µA and has been optimized to run on a shoe-string power budget.

▶ **Compact Rugged, Water Resistant**

The SDI-TB is compact and encapsulated in a water-resistant epoxy compound for installations in humid environments.

SPECIFICATIONS
Subject to Change Without Notice

MECHANICAL / ENVIRONMENTAL	
Enclosure	Potted enclosure for humid environments
Dimensions	3 x 1.5 x 2 inches
Weight	~75 gms
Temperature	-40C to +60C
Connector	5 pin connector
POWER	
Input Voltage	4v - 20v DC
Internal backup power run time	10 hours
Internal backup power charge time	~18 hours
Internal backup power charging current	25mA (fully discharged) to 100µA (fully charged)
Quiescent Current	100 µA @12v (once fully charged)
COMMUNICATION	
Protocol	SDI-12 v1.3 (SDI communication will be disabled when running off internal backup power)

ORDERING INFORMATION

SDI-TB-1	SDI-12 Tipping Bucket Interface with Internal Backup Power