

General Description

The Easy TBRG Counter TW-370D is specially designed for the precise calibration and field maintenance of tipping bucket rain gauge. TW-370D provides not only the counting data but also the timely message for checking whether the gauge functions correctly.

The battery powered TW-370D could be stayed in standby mode. It connects with the gauge to execute both the indication and time counting when water dripping starts. When the tip occurs, the LCD displays the number of tips, the time interval and the switch closure duration. If no more tipping occurs within a preset timeframe, the Counter will display total number of tips and the last 5 time intervals before automatic termination.

The result of comparing the recorded counts with the desired tips could be a reference to the test for checking whether no adjustment is required. Observing the conformity of the consequent intervals could be considered as another reference for buckets status whether they are positioned evenly. Both mentioned above are associated with the adjustment of bucket settings. Moreover, the time interval could be applied to converting to the rainfall intensity.

Example:

TBRG having 0.5mm/Pulse

Time interval is 21.7 sec

=> $(60/21.7) \times 60 \times 0.5 = \underline{82.9\text{mm/Hr}}$

Even the condition of TBRG could be noticed before it becomes defective by checking the contact closure duration whether it is out of normal band e.g. $100 \pm 50\text{ms}$.



Features

1. Large LCD display is useful in the field for easy operation and quick verifications.
2. Timely messages show the total number of tips, the duration of contact closure and the time intervals between tips.
3. Check the consequent intervals to see whether the gauge is positioned properly.
4. Check the duration of contact closure to see whether the output of gauge is accepted.

Specifications

Count input	Reed Switch contact, 10~250ms
Display	4 digit LCD, 10mm height
Data display	Total counts, Time intervals and Closure duration
Power	DC 4.5V, Battery AA type x3
Power consumption	5mA active, 80uA standby
Operating temperature	-10°C ~ +60°C
Dimension	Body--120x70x27mm (H x W x D)

Preliminary version, subject to change