

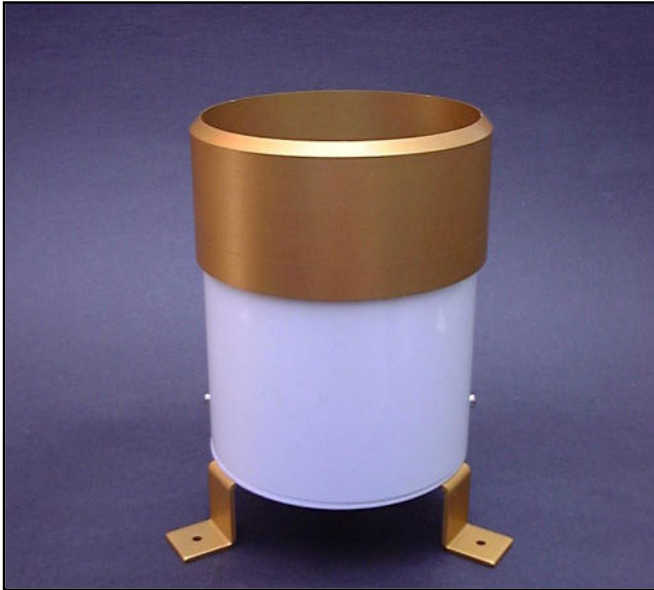


# Texas Electronics, Inc.

The Gold Standard in Weather Instrumentation Since 1957

## Rain Gauge Tipping Bucket

## TR-4 Rainfall Sensor



### Description

The Texas Electronics, Inc. TR-4 low-cost Rainfall Sensor is a remote tipping bucket style rain gauge that measures the amount of liquid precipitation.

The Rain Gauge is a freestanding receptacle for measuring precipitation. It contains an open top, which allows rainfall to fall into the upper portion, which is called the collector. Collected water is funneled to a mechanical device (tipping bucket), which incrementally measures the rainfall accumulation and causes a momentary closure of a switch. As water is collected, the tipping bucket fills to the point where it tips over. This action empties the bucket in preparation for additional measurement. Water discharged by the tipping bucket passes out of the rain gauge with no need for emptying.

The TR-4 was designed to meet the need for a rugged and reliable rain gauge tipping bucket without the high accuracy of a research grade sensor, or the associated cost.

### Features & Benefits

- Interfaces to virtually all data acquisition systems
- Knife-edge collector optimizes rainfall catch
- Exceptional splash-out protection reduces wind errors
- Easy installation and maintenance
- Rugged aluminum exterior
- Anodized aluminum collector for weather resistance
- Integral Bubble Level

### Specifications

Resolution:	0.01" English
Accuracy:	3.0% up to 1"/hr (25 mm/hr)
Collector diameter:	3.90" (100 mm) with knife-edge
Funnel depth:	3" (76 mm)
Splash out protection:	>1.5" (38 mm)
Operating Temp:	32 to 125° F (0 to 50° C)
Storage Temp:	-40 to 160° F (-40 to 70° C)
Humidity Limits:	0 to 100%
Weight:	2 lbs. (0.9 kg) 4 lbs. (1.8 kg) shipping
Height:	6" (152 mm)
Cable:	25', 22 gauge 2 conductor
Switch:	Hermetically sealed reed switch
Switch rating:	50 VDC @ 2 A, 115 VAC @ 1 A
Switch Closure Time:	135 ms
Bounce Settling Time:	0.75 ms
Pivot:	Hardened SS Jewel & Pivot
Bucket:	Black ABS injection molded
Level:	Integral Bubble Level
Warranty:	3 years

### Installation & Maintenance

Installation consists of attaching the three sensor support legs to a firm platform such as a fencepost. Pole mounting on the mast of a weather station is available by securing to the optional U-bolt assembly.

The sensor is dynamically calibrated at the factory and due to the nature of its operation should not require field calibration. Field maintenance should include occasional cleaning of the collector screen and inspection of the internal mechanism to make sure it is free from insects and debris.

### Ordering Information

<u>Model #</u>	<u>Description</u>
TR-4	Rain Gauge, 3.90" collector, English (Please specify for pole mounting U-bolt)

#### Optional Parts / Accessories

HOBO	Event Datalogger and Software
BB-525	Bird Repellant Apparatus
Cable	Additional Cable

Texas Electronics, Inc.  
5529 Redfield Street • Dallas, TX 75235  
Tel.214.631.2490 • Fax.214.631.4218 • 800.424.5651  
[www.texaselectronics.com](http://www.texaselectronics.com) • email: [info@texaselectronics.com](mailto:info@texaselectronics.com)