

Rain Gauge Tipping Bucket

TR-525I-S Series Rainfall Sensor



Description

The Texas Electronics, Inc. TR-525I-S Rainfall Sensor is a 6" diameter funnel with a siphoning tipping bucket mechanism that measures liquid precipitation with an extended range of accuracy. The siphon allows control of the "flow rate" of accumulated precipitation. This metering geometry assures higher levels in both accuracy and repeatability during periods of extremely heavy rainfall. Through an opening at the top of the device, rain is collected and then funneled to a mechanical device, called a tipping bucket. As water is collected, the tipping bucket fills to the point that it tips over, causing a momentary closure of a switch to incrementally measure rainfall accumulation. 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-525I-S is a rugged and reliable rain gauge that delivers high accuracy at a low cost.

Features & Benefits

- Interfaces with virtually all data acquisition systems
- Knife-edge collector optimizes rainfall catch
- Exceptional splash-out protection improves accuracy in high winds
- Easy installation and maintenance
- Over 30 years in production
- Powder coated aluminum collector
- Integrated bubble level
- 2 thumb screws to hold collector secure

Specifications

Resolution:	0.01" English, 0.2 mm (optional)
Accuracy:	0-10 in. (254 mm) per hour; +\ -2% 10-20 in. (508 mm) per hour; +\ -3%
Range:	27" (700 mm) per hour
Collector diameter:	6.06" (163 mm)
Funnel depth:	>6.5" (165 mm)
Splash out protection:	>2" (50 mm)
Operating Temp:	32 to 158° F (0 to 50° C)
Storage Temp:	-40 to 185° F (-40 to 70° C)
Humidity Limits:	0 to 100%
Weight:	1.6 lbs.
Height:	10.25"
Cable:	10', 24 gauge 2 conductor
Switch:	Momentary potted reed switch
Switch rating:	30 VDC @ 2 A, 115 VAC @ 1 A
Switch Closure Time:	135 ms
Bounce Settling Time:	0.75 ms
Pivot:	Ground bronze pivots with hardened stainless steel shaft
Bucket:	Black PP injection molded
Level:	Integral Bubble Level
Warranty:	3 years

Description

Installation consists of attaching the three sensor support legs to a firm platform (such as our MB-525 Mounting Base). Pole mounting on the mast of a weather station is available by securing to the included side bracket.

Maintenance consists of routine cleaning of debris from the filter screen, and occasional calibration verification with our FC500 Field Calibration Kit.

Ordering Information

Model #: TR-525I-S
Description: Rain Gauge, 6.06" collector, Siphon
(Please specify for calibration of 0.2 mm/tip)

Optional Parts / Accessories

HOBO Pendant Datalogger
MB-525 Pole Mounting Base
FC-500 Field Calibration Kit
BB-525 Bird Repellent
HT-525 Heater, 120 VAC