Texas Electronics, Inc.

The Gold Standard in Weather Instrumentation Since 1957

Rain Gauge Tipping Bucket — TR-525M Rainfall Sensor

Description

The Texas Electronics, Inc. TR-525M Rainfall Sensor is a remote tipping bucket style rain gauge that measures the amount of liquid precipitation.

The TR-525M 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-525M was designed to meet the need for a rugged and reliable metric rain gauge tipping bucket with high accuracy and low cost.

Features & Benefits

- High-resolution metric output
- Interfaces to virtually all data acquisition systems
- Knife-edge collector optimizes rainfall catch
- Exceptional splash-out protection reduces wind errors
- Easy installation and maintenance
- Over 30 years in production
- Lightweight spun Aluminum Exterior
- Anodized aluminum collector for weather resistance
- Integral Bubble Level

Specifications

Resolution:	0.1 mm Metric	
Accuracy:	1.0% up to 2”/hr (50 mm/hr)	
Collector diameter:	9.66” (245 mm) with knife-edge	
Funnel depth:	7.2” (183 mm)	
Splash out protection:	>2” (50 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:	2.5 lbs. (1.2 kg) 6 lbs. (2.7 kg) shipping	
Height:	12” (305 mm)	
Cable:	25’, 22 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:	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 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 FC-525 Field Calibration Kit.

Ordering Information

Model #	Description
TR-525M	Rain Gauge, 25 mm collector, Metric

Optional Parts / Accessories

HOBO	Event Datalogger and Software
MB-525	Pole Mounting Base
FC-525	Field Calibration Kit
BB-525	Bird Repellant
HT-525	Heater, 120 VAC
Cable	Additional Cable

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