NEW!

Precipitation



YOUNG

Model TR-525-U-S
8” Rainfall Tipping Bucket

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The TR-525-U-S is a remote rain gauge that measures liquid precipitation. It utilizes a unique siphoning mechanism that allows an extended range of accuracy. This system 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. The TR-525-U-S is a freestanding receptacle with an open top, called the collector, which allows rainfall to enter. The collector is specially designed to prevent splash-out and overflow, two possible causes for loss of accuracy during extremely heavy rainfall events. Collected water is siphoned into a mechanical device, the tipping bucket style rain gauge. The tipping bucket then incrementally measures the rainfall accumulation and causes a momentary closure of a switch. As water is collected, the tipping bucket fills to the point that 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.

Installation consists of attaching the three sensor support legs to a firm platform (such as our MB-525 Pole 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-500 Field Calibration Kit.

Key Features

- Unique siphoning technique allows for wide accuracy
- 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
- All aluminum exterior
- Integrated bubble level

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
Siphon Starting Threshold:	<0.01” (<0.254 mm)
Collector Diameter:	8” (203 mm) with knife-edge
Funnel Depth:	>6.5” (165 mm)
Splash Out Protection:	>2” (50 mm)
Operating Temp:	32-158° F (0-70° C)
Storage Temp:	-40-185° F (-40-85° C)
Humidity Limits:	0-100%
Weight:	1.8 lbs
Height:	11.125” (283 mm)
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

Ordering Information

Model #: TR-525-U-S
Description: Rain Gauge, 8” collector, English, Siphon
(Please specify for Metric Calibration)

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

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CE

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