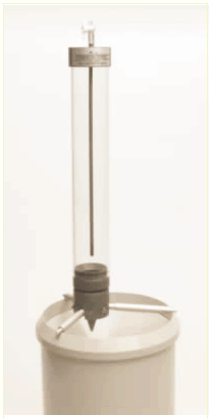
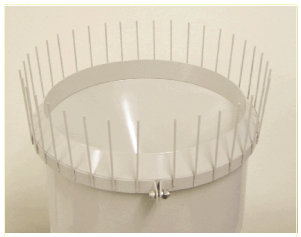
Bulletin 9/1,
Edition 1

TIPPING BUCKET RAINGAUGE
MODEL TB4

- World standard 200mm catch
- Accuracy not affected by rainfall intensity
- Bucket sizes: 0.01 inch/ 0.2mm/ 0.5mm
- Long term stable calibration
- Leaf filter resists blocking
- Optional internal Data Logger, with no external power requirement
- In-built discharge outlets at base for water collection and analysis
- Dual output signal for data collection and telemetry
- World class meteorological instrument
- Easy to service with low maintenance requirement



(A)



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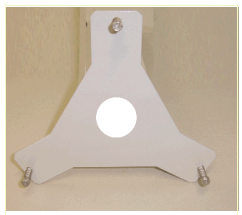
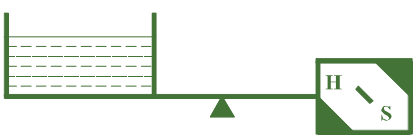


(C)

ISO
9001

QUALITY SYSTEM
CERTIFIED



HYDROLOGICAL SERVICES PTY.LTD.

HYDROLOGICAL INSTRUMENTS & EQUIPMENT
DESIGNED AND MANUFACTURED
BY HYDROLOGISTS

Description

The Hydrological Services Tipping Bucket Raingauge is recognised as the world standard for measuring rainfall and precipitation in remote and unattended locations.
The integrated syphon mechanism delivers high levels of accuracy across a broad range of rainfall intensities. Each unit consists of a collector funnel with Leaf filter, an integrated syphon control mechanism, an outer enclosure with quick release fasteners, and base which houses the tipping bucket mechanism.
The unit includes dual output reed switches with varistor protection as well as dual rainfall discharge outlets for water collection and/or analysis.
The bucket tips when precipitation of 0.01 inch, 0.2mm or 0.5mm has been collected. Each tip activates a reed switch closure which is detected by a Data Logger and/or Telemetry System.

The Tipping Bucket Raingauge can be used in conjunction with Hydrological Services data logger model RRDL3. The logger is rugged and compact, it records the date and time of occurrence of tips from the raingauge up to 55,000 events can be stored in the RRDL3's memory. The data is stored in a flash EPROM.

The RRDL3 fits inside the TB4 Raingauge. Its compact design makes it ideal for incorporation into any piece of equipment where intelligent data acquisition and logging are required.

Accessories

Description	***Part No.***
(A) Field Calibration Device	FCD
(B) TB3 Bird Guard	TB333
(C) TB3 Pole Mounting Bracket	TB334
(D) Data Logger	RRDL3/RRDL3AN
(E) Mounting Bracket	TB313-01
(F) Connecting Lead	DL306

Specifications

Receiver:	200 mm ± 0.3 diameter machined aluminium rim. Powder coated.
Bucket capacity:	0.2 mm, 0.5 mm or 0.01 inch of rainfall.
Sensitivity:	one tip.
Measuring range:	0 to 700 mm / hr.
Calibration accuracy:	±3 % for intensities from 25 to 500 mm/hr for 0.2 mm and 0.01 inch bucket. ±2 % for intensities from 25 to 500 mm/hr for 0.5 mm. Long term stable calibration.
Humidity:	0 to 100 %
Temperature:	- 20 to +70˚C
Contact system:	dual reed switches potted in soft silicon rubber with varistor protection.
- Capacity:	0.5 amp, 12 Volts D.C.
- Resistance:	Initial contact resistance 0.1 OHMS
- M.T.B.F:	10^8 to 10^9 Operations
Syphon:	made from injection moulded, non hydroscopic ABB.
Bucket:	chrome plated injection moulded, ABS bucket balanced to ± 0.05 gms. Retains less than 0.2 ml of water in each bucket after tipping.
Base:	injection moulded non hydroscopic ABB.
Level:	bulls eye level fitted to base.
Mounting holes:	three 10 mm diameter mounting holes at 117 mm p.c.d. in feet moulded to outside diameter of base.
Drain fittings:	able to attach 12 mm inside diameter tubing, to catch rainfall after passing through buckets.
Bucket pivot system:	two stainless steel rolling bearings, mounted at 90 degrees to bucket axle.
Insect covers:	stainless steel mesh on all openings to prevent insects and ants entering gauge.
Outer enclosure:	keyed to enable the release of the outer enclosure without the need for the removal of the three securing screws.
Height:	330mm (13"); Weight: 2 kg (2.2 lbs)
Packed Dimensions:	3.2 Kg (7 lbs), 0.03m^3

HYDROLOGICAL SERVICES PTY. LTD.

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