

PLV3 Pluviometer

ICT International's PLV3 Pluviometer consists of the TB3 tipping bucket rain gauge with 0.2 mm tip and Mini-Log Event Logger, offering a stand-alone measurement system suitable for any short or long term application. The TB3 has the highest specification of materials, construction and calibration. It is expected to function for 10 to 20 years without service or calibration.

Accurate Rainfall Measurement

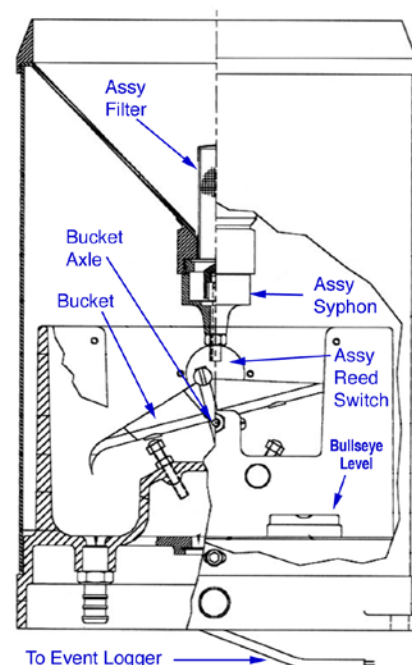
The design of the pluviometer includes several features to maintain accuracy of measurement. This includes a syphoning device which "smooths" the flow of water through the system, which minimises errors associated with varying intensity of rainfall. Rainfall is captured in the 200 mm diameter collector funnel and is directed through a syphon to fill a divided tipping bucket device. The bucket is pivoted through its centre and has a preset calibration to tip for 0.2 mm of rainfall. When full, the bucket pivots and empties. This action magnetically closes and opens a reed switch, sending a pulse signal to the data logger or electronic counter. Through this tipping "seesaw" action, the other side of the bucket is aligned to receive the flow from the delivery pipe. The recording and tipping cycle continues with rainfall while fine stainless-steel mesh prevents debris such as dirt and insects from entering the workings of the rain gauge. Other features to ensure maintained accuracy include a level bubble adhered to the base.

Easy-To-Use Data Collection

The compact MiniLog Event Logger is suitable for any short or long term, remote data logging application. **As an event logger, it only records tipping events, saving data memory and battery.** It features very low current consumption, requiring only one 3.6 V Lithium battery for up to 5 years use. Rainfall events from the rain gauge are stored in memory, which can be downloaded to either a PDA or laptop or desktop computer using an RS-232 serial cable and Terminal program.

Applications

- Catchment measurement
- Flood studies/alerts
- Rainfall intensity
- Meteorological rainfall monitoring
- Agriculture and horticulture
- Hydrology
- Runoff monitoring



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Specification Comparison

	PLV6	PLV4	PLV3
RainGauge	TB6	TB4	TB3
Suitable for	Low rainfall intensities	High rainfall intensities	High rainfall intensities
Factory Calibration	Standard	Standard	Extensive
Base:	Injection moulded non hygroscopic ABB		Diecast aluminium
Bucket:	Chrome plated injection moulded, ABS bucket balanced to ± 0.05 gms		Choice of synthetic ceramic coated brass bucket balanced to ± 0.05 gms (TB3 M) or injection moulded non hygroscopic plastic (TB3 P)
Bucket pivot system:	Two stainless steel rolling bearings, mounted at 90 degrees to bucket axle		Ground sapphire pivots with hard stainless steel shaft
Tip Size:	0.2 mm Standard and 0.5 mm Optional		0.2 mm Standard or 0.5 mm and 1.0 mm Optional
Resolution:	0.2 mm / 0.5 mm		0.2 mm / 0.5 mm / 1.0 mm
Range:	0 to 500 mm rainfall/hr		0 to 700 mm rainfall/hr
Syphon:	No syphon, funnel only Suitable for very low rainfall intensities	Syphon system made from brass with a non-hygroscopic* outer case Long term calibration and accuracy ensures stability at high rainfall intensities (* Non-hygroscopic materials do not absorb moisture)	
Accuracy:	$\pm 2\%$ for intensities from 0 to 100 mm/hr. $\pm 3\%$ for intensities from 100 to 300 mm/hr	$\pm 2\%$ for intensities from 25 to 300 mm/hr $\pm 3\%$ for intensities from 300 to 500 mm/hr	
Receiver:	200 mm + 0.3 diameter machined aluminium rim Powder coated		
Overall Height:	342 mm		
Collector Diameter:	200 mm		
Sensor Type:	Tipping bucket mechanism		
Measurement Units:	Millimetres		
Humidity Range:	0 to 100%		
Switch Closure:	Dual reed switches potted in soft silicon rubber with varistor protection		
Mounting holes:	Three 10 mm diameter mounting holes at 117 mm p.c.d. in feet moulded to outside diameter of base		
Packed Dimensions:	3.2 Kg, 0.03 m ³		
Event Logger	ML1		
Power Consumption:	3.6V Lithium battery provides up to 5 years field operation		
Data Memory:	512KB Serial Flash EPROM records up to 100,000 events with 1 second resolution		
Communications:	RS232 Port, (Tx, Rx)		
Dimensions:	65 mm x 60 mm x 40 mm		
Weight:	200 gms		
Accessories			