

# 0.5L/1L Tipping Bucket Flow Gauge

## WATER FLOW

### General Description

HyQuest Solutions' single tipping bucket flow gauges TB0.5L and TB1L are used for **measuring water seepage coming out of a pipe or a drain**. In both models the bucket is connected to its own dual reed switch effectively enabling **redundant data acquisition** in two distinct data loggers, or providing data to two devices (e.g. a data logger and a counting display), etc.

TB0.5L and TB1L are perfectly suitable for flow measurements in water carrying sediments or iron hydroxide deposition. Made of plastics and coated steel, these devices are both robust and fast and easy to clean.

### Operation

The bucket tips when it is filled to maximum. The magnet integrated into the bucket rearside slides along the reed switch mounted in the flow gauge's frame. The magnetic field forces a contact closure in the reed switch. The latter can be recorded by one or two connected data loggers. The number of tips per time unit is a measure of the flow rate.

### Applications

The TB0.5L and TB1L are suitable for all applications where a water flow out of a pipe or similar outlet needs to be supervised.

This may include

- Monitoring at basin outlets of any kind of industrial water, grey water or storm water retention basins
- Sewer network injections into a collection basin
- Drain output
- Water discharge out of a treatment or intermittent storage basin
- Pump testing

### Main Features

- Non-corrosive materials
- Suitable for harsh environments
- Accurate readings
- 4 x M8 mounting brackets
- Fast and easy cleaning
- Low maintenance
- Robust



## Technical Specifications

<b>Material</b>	PVC plastic and stainless steel	
<b>Resolutions</b>	PVC bucket: 0.5 L or 1.0 L (selectable), up to 25 L/minute	
<b>Accuracy</b>	<b>Flow Rate (L/min)</b>	<b>Error</b>
	0.5	-2 %
	1.0	-6 %
	5.0	-10 %
	10.0	-14 %
	15.0	-18 %
	20.0	-20 %
	25.0	-22 %
<b>Signal Out</b>	<ul style="list-style-type: none"> <li>■ Dual reed switch</li> <li>■ Protection: Mechanical: silicon rubber potting; Electrical: varistor surge protection</li> <li>■ Maximum capacity: 24 VDC (0.5 amp max)</li> <li>■ Resistance: initial contact resistance 0.1 Ω</li> <li>■ MTBF (Mean Time Between Failure): 10<sup>8</sup> to 10<sup>9</sup> tips</li> </ul>	
<b>Flow Rate</b>	Maximum 25 L/minute	
<b>Level</b>	Bulls eye level adhered to stainless steel base	
<b>Environmental Conditions</b>	<ul style="list-style-type: none"> <li>■ Relative humidity: 0 to 95 %</li> <li>■ Temperature: -20 °C to +70 °C</li> </ul>	
<b>Dimensions &amp; Mass</b>	<ul style="list-style-type: none"> <li>■ Base Length x Width: 390 x 235 mm (incl. mounting brackets)</li> <li>■ Height: 390 mm</li> <li>■ Weight: 6 kg (packed 7 kg)</li> </ul>	

## Accessories



### iRIS dataloggers and data modems:

- Robust housing
- IP over one or two channels of your choice: xG / GPRS, satellite, IoT

- I/O: analog, digital, SDI-12, Modbus
- iLink software
- Telemetry or cloud app



### HydroTel™ Telemetry

**System:** HydroTel™ is a leading-edge, high performance hydrological and environmental telemetry monitoring and database system that has proven itself in many demanding applications worldwide. It has been designed for data acquisition, data processing, alarm management, and above that as a remote telemetry system to control barrage gate and/or flood pump stations. Features: comprehensive range of output options for data export, presentation in the web or reporting; seamless interfacing with external modelling systems.

### Custom Solutions:

HyQuest Solutions' engineering and fabrication workshop and experienced engineering staff can provide tailor-made, ready to deploy solutions for any of your monitoring requirements.

Please ask for details.

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