STARLOG

Tipping Bucket Flow Gauge

Model 6506G

This data sheet describes the operation of a Tipping Bucket Flow Gauge (Model 6506G) in a STARLOG Data Logging System. This gauge is used for small volumetric flows which exceed the capacity of common rainfall gauges.

Flow is measured using a Tipping Bucket mechanism inside a PVC enclosure. Every 50ml of liquid will cause the bucket to tip, up to a maximum of 3 litres per minute. A flow pipe directs liquid into the enclosure. Typical applications include: monitoring rainfall under a tree canopy, water flow in small creeks, or leakage from water storage dams.

1. Installation Notes

1. Set the gauge on the ground, then unscrew the lid on the grey terminal box.
2. Connect wires to screw terminals and feed out through cable gland in base of terminal box. Re-attach lid.
3. Remove the two screws on each side of the instrument to allow the removal of the end panels and remove packing material which secures the tipping mechanism. Close panels and replace screws.
4. Connect flow pipe to black fitting on top of the instrument. Crimp cable with attached crimp.
5. Mount the instrument above ground level to allow the liquid being measured to drain through the gauze covered holes on the bottom of the instrument. Place weights on top of the base to ensure that the instrument is stable. Position instrument in shade if possible.
6. Level the instrument using the bullseye attached to the top of the instrument.

2. Connection to Data Logger

The signal output is a series of digital pulses which are logged by the Data Logger via a Counter channel.

The following connections are for Counter channel 0. For other Counter channels, refer to the Data Logger hardware supplement.

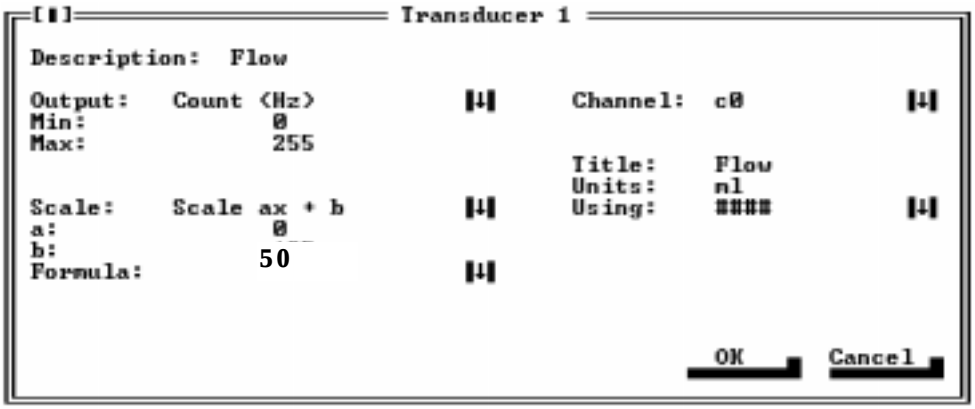
Wire Colour	PDL		STARLOGGER		MACRO	
	Pin	FTS	Pin	FTS	Pin	FTS
Green (signal)	11	9	11	9	11	1
White (ground)	23	10	23	10	28	2

When using a Macro Logger, you will need to configure the Counter Channel to 8-bit. See the STARLOG User's Manual 6203 for details on configuring a Macro Logger.

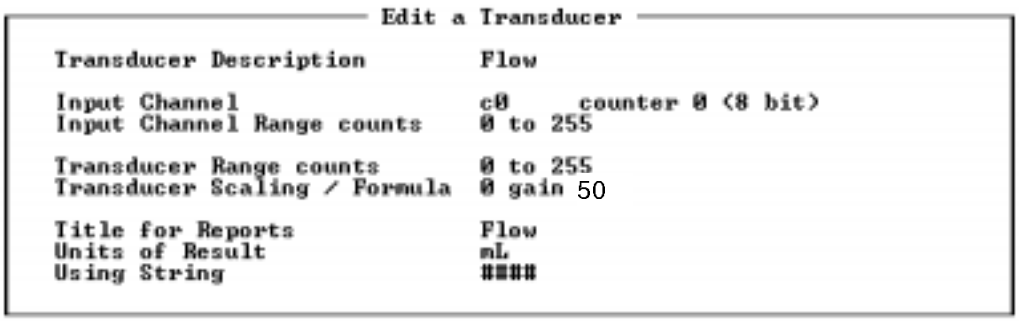
Counter Channel Prescale for the channel used should be set to 1 (one).

Using STARLOG Software, an instrument must be created with the following transducer: (for Counter 0)

When setting up the scheme's logging definition, choose the action TOT1 to totalise to 1 byte.



Version 3 for STARLOG Software



Version 2 Software