

T131, T132, T133, T134 Pulse Units

Retrofit Pulse Units are suitable for V300, H3000 and C3200 water meters. The range includes four models: the T131; the T132 which provides two low resolution pulse outputs in one unit; the T134; and the T133 which provides high and low outputs in one unit.



Retrofit installation

The pulse unit can be retrofitted easily on-site using standard equipment and without interrupting the supply. It is simply 'sandwiched' between the low profile, high profile or sealed copper can register and the meter itself. The compact design dimensions of the unit minimise the overall meter height for easier replacement in the field.

Nominal height of pulse unit	37mm
Increased height of register	29mm
Weight (approx)	320g

Waterproof

The range has been designed for durability in the harshest of environments. The pulse units meet the requirements of the IP68 rating and can operate in areas with up to 100% humidity. Factory potting of each unit prevents the ingress of water, protecting internal components.

T131

The T131 unit generates 10 pulses per revolution of the centre pointer. With a

volt free contact closure design, it utilises a 10 pole magnet operating a reed switch to generate the pulse.

Application

The T131 is a uni-directional pulser designed to interface with dataloggers for capture of flow data and to give a pulse output for remote reading. It is compatible with most dataloggers and is suitable for applications ranging from continuous use for long-term tracking of consumption patterns to one-off checks to solve specific demand management problems. Loggers can provide data on total consumption over any period and give minimum night-line flow data for leak detection.

Reed switch, maximum ratings

The unit requires an external power supply which must not exceed the limits below. All units have a 100 ohms resistor in series with the reed switch to protect against current surges.

Minimum contact rating – 4VA ac or dc.
Switching current amps – 50mA ac or dc.
Maximum switching voltage – 50V ac or dc.
Minimum break down voltage – 200V ac.

Connecting cable

2 core screened 7/0.2 cable 4.1mm diameter. 10 metres in length supplied as standard.
Bare wire cable termination – flying lead.
Colour of cable sleeve for identification – grey or black.

T132

The T132 combines two low resolution pulse outputs in one unit. Its specification is identical with the T131.

T131, T132, T133, T134

T134

The T134 unit is a uni-directional pulser which generates 100 pulses per revolution of the centre point. It uses a slotted disc and an opto-sensor to generate the pulse.

Application

The 100 pulse per revolution output of the T134 unit makes it particularly suitable for fine analysis of flow rate data. The unit could typically be used during step-testing.

Power requirements

The unit requires an external power source of between 6 and 15 volts to power the opto switch sensing circuit contained in the pulse unit.

	Minimum	Maximum
Voltage	6V	15V
Current	<18mA	18mA
Power	<110mW	<270mW

Performance

Litres per pulse – T131 / T132

Meter (mm)	40	50	65	80	100	150	200	250	300
V300	1	1	–	10	10	–	–	–	–
H3000	10	10	10	10	10*	100	–	–	–
C3200	–	10	–	10	10	100	–	–	–

* Some earlier meters will give 100 litres/pulse, as the original dial registration was 1000 litres/revolution of the centre pointer.

Litres per pulse – T134

Meter (mm)	40	50	65	80	100	150	200	250	300
V300	0.1	0.1	–	1	1	–	–	–	–
H3000	1	1	1	1	1*	10	–	–	–
C3200	–	1	–	1	1	10	–	–	–

* Some earlier meters will give 10 litres/pulse, as the original dial registration was 1000 litres/revolution of the centre pointer.

Connecting cable

4 core screened 7/0.2 cable 4.8mm diameter. 10 metres in length supplied as standard.

Bare wire cable termination – flying lead.

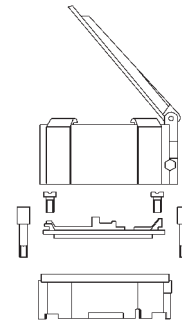
Colour of cable sleeve for identification – grey or black.

T133

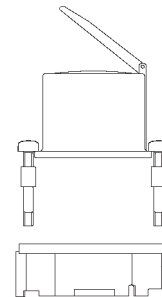
The uni-directional T133 unit has both the T131 and T134 options within the same enclosure with colour coded cables (grey or black for T131, and T134) to distinguish the low and high resolution outputs. The unit has the same dimensions as the T131 and T134 options and the retrofitting procedure is identical. Power requirements are as listed for the T131 and T134 pulsers as are the available litre per pulse values. Connecting cable specifications are those given for the T131 and T134 units.

Application

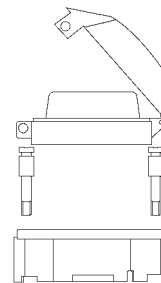
The T133 unit is ideal for use where the bulk meter is required to provide data for both long-term logging and specific fine analysis. The dual output allows for individual logging to be carried out whenever needed without interrupting on-going data capture. The unit also provides a reliable pulse output for remote reading applications.



Copper can register



Brass register



Low profile plastic register