

The Kent Range of Metering Products

T-Probe

For retro-fitting to V100 and V110 meters

Most V100 and V110 meters have the probe location hole in the body and a driving magnet fitted. V100 or V110 meters without this facility cannot be retro-fitted with a T-probe.

The brass bodied V100 (Kent PSM) and some versions of the thermoplastic V110, can be specified with the facility for a magnetically operated (reed switch) pulsed output, by the retrofitting of a dedicated probe assembly.

The probe is fitted with a 100 Ω series resistor to protect the reed switch from power surges and is usually provided with a 5 metre length of cable, terminating in a sealed flying lead.

V100 & V110 T-PROBE

INSTALLATION INSTRUCTIONS

Location and Operating Principle:

The Probe position is next to the counter, on the top shoulder of the meter body, protected with a removable plastic cover (See 'A' opposite). The volt free pulse is generated from the counter rotation, which has a two pole circular magnet fitted to the end roller. As the magnet rotates and opposite poles pass the reed switch, it pulls the reed contacts together. This produces 2 pulses per revolution of the end roller.

Where there are 4 red rollers, (15mm and 20mm size), this will generate 1 Pulse / 0.5 Litre.

1234 0000

Where there are 3 red rollers, (25mm, 30mm and 40mm size), this will generate 1 Pulse / 5.0 Litre.

12345 000

Probe Fitting Instructions:

Remove and discard the plastic protective plug. Insert the probe into the socket and align with screw hole.

Fit the retaining screw through the hole in the probe. (The reed switch within the probe is self-positioning, with the screw firmly in place). (See 'B' opposite). To prevent unauthorised interference, the screw head can be security lock-wired to the meter body with copper

wire and a lead seal, making the probe installation completely tamperproof.

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'A' Probe location position under protective plug.



'B' Probe fitted and screwed in place with security screw.

Cable Identification and Wiring Details:

The factory fitted cable used for the T-Probe is defined as 4 x 7/0.2mm with Red, Blue, Black and Yellow as the core colours, contained within a white outer sheath.

There are 2 wiring variants available, identified as follows:

Common Loop-Back:	'TL1'	Product Code:	RR1LRBX005X
Separate Loop-Back: (Standard Version)	'TL2'	Product Code:	RR1LRTX005X

For 'TL1' variant, the BLACK and YELLOW cores are the volt free pair. The loop-back is across RED and YELLOW cores. The Blue core can be cut back and discarded, as it is not connected.

For 'TL2' variant, the RED and BLUE cores are the volt free pair. The loop-back is across the BLACK and YELLOW cores. These connections are not otherwise polarity sensitive.

Note: The reed switch assembly is rated at 50 Vdc maximum working.

The duty cycle of the switch closure is typically 70% on, 30% off.