KENT METERS LIMITED

# **Product Specification**

6170 M 1017

#### PSM T-PROBE OUTPUT DATA

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This reed-switch based T-probe can be retro-fitted to PSM and KSM meters.

It provides one volt-free reed-switch closure for a specific volume of metered water. The pulse resolution of this switch closure is dependant upon the internal gearing, which in turn is dependant upon the size and units of the meter it is fitted to; but is summarised thus :-

meter size	Litres	Galions ( US or Imperial )	Cubic Feet
15 mm	0.5 litres/pulse *	5 galls,/pulse	0.5 cu.ft. /pulse
20 mm	0.5 litres/pulse **	5 galls./pulse	0.5 cu.ft. /pulse
25 mm	5 litres/pulse	5 galls./pulse	0.5 cu.ft. /pulse
30 mm	5 litres/pulse ***	5 galls./pulse	0.5 cu.ft. /pulse
40 mm	5 litres/pulse	5 galls./pulse	0.5 cu.ft. /pulse

.... exceptions :- \* Kent Class = 5 litres/pulse

" 7-digit = 5 litres/pulse

\*\*\* 6-Billing Units = 50 litres/pulse

The T-probe is available in three variants:

Standard ...... "T" probe ( code RR1LRP )

Commoned Loop-Back ... "TL1" probe

Independent Loop-Back ... "TL2" probe (code RR1LRT)

### FITMENT

Most PSM and later KSM meters already have the probe location hole in the body and the driving Meters without this facility cannot practically be upgraded.

The T-probe locates in the sensor hole to sense the driven magnet and a screw retains it. having first located the included Tie-Wrap. The cable is then looped around and the Tie-Wrap clamped to provide a secure cable restraint.

### CONNECTIONS

The factory attached cable is defined as  $4 \times 7/0.2$  mm with core colours of Red. Black. Blue and Yellow with a White sheath.

For the "T" variant, the BLUE and RED cores are for the pulse reed. (YELLOW and BLACK are not connected)

For the "TL1" variant, the YELLOW and BLACK cores are for the pulse reed and the loop-back is across the RED and YELLOW cores. ( BLUE is not connected )

For the "TL2" variant, the BLUE and RED cores are for the pulse reed and the loop-back is across the YELLOW and BLACK cores.

These connections are not otherwise polarity sensitive.

Approved by:

Initiated by:

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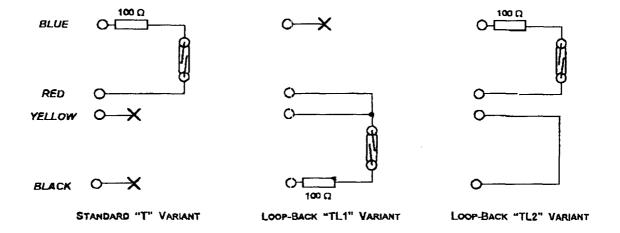
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### **ELECTRICAL CIRCUIT**

The T-probes have electrical configurations according to variant as follows:-



The loop-back configuration is simply that, so that a tamper or bad connection (severed cable) can be detected.

Variant 1 uses the common zero impedance line of the reed circuit in it's loop-back, but variant 2 uses independent lines.

## **ELECTRICAL RATINGS**

The assembly is rated at 50 Vdc maximum working.

The rated current, being dependant upon the internal resistor power rating of  $^{1}/_{8}$  W, is 35 mA maximum.

The duty cycle of the switch closure output is typically 30% OFF - 70% ON.

Initiated by:

Date:

Approved by:

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