



# Magnetostrictive Level Transmitter 134-TM FOR UTGS

## APPLICATIONS

The Magnetostrictive type level transmitter provides reliable & accurate Level and interface level measurement in under-ground horizontal, cylindrical atmospheric storage tanks containing clear liquids eg. Motor Spirit, High Speed Diesel, Superior Kerosene Oil. This is ideal for accurate & economical Level Indication for inventory management. The SBEM "Petroquant-134-PQ facilitates Remote Indication in safe area. The RS 485 output configuration permits daisy chaining to reduce cabling. The probe circuit is a intrinsically safe low power micro-processor based intelligent circuit with an analogue to digital converter, giving high accuracy over a wide range of measurement. This also makes it suitable for operation in Zone 0 and Zone 1 areas, using safety barriers.

## PRINCIPLE OF OPERATION

The Magnetostrictive Level transmitter is a intrinsically safe flameproof & weatherproof probe with non magnetic, pressure tight stainless steel tube over which a cylindrical stainless steel magnet encased float slides. The float moves along the tube as level changes. The magnet causes a discontinuity in the wire inside the sensor. The distance to the discontinuity is sensed as a time delay by a pulse sent by the circuit in the probe head located at the top end of the tube. The circuit converts the delay into an equivalent LEVEL.. An optional temperature sensor may be incorporated to enable temperature measurement of liquid.

## ACCESSORIES

### REMOTE INDICATOR UNIT - PETROQUANT 134-PQ

The unit is housed in a CRCA sheet steel IP-55 enclosure, suitable for mounting on the wall / surface / pipe in a Control Room (Safe Area). It has a 2 X 16 character backlit LCD display to indicate measured level and calculated parameters. 100 point strap table storage capacity for 8 tanks. It has terminals for connecting Digital Level Probe/s, Power supply & Printer .

## FEATURES

- Accurate Level, Interface, temperature measurement
- Suitable for small capacity Petroleum Product Tanks
- High Reliability and Extended Life
- Level Resolution: 1 mm
- No maintenance
- Flameproof & weatherproof enclosure
- Intrinsically safe probe
- Cable entry 1/2" NPT
- Terminals suitable for 1.5 sq.mm



### Level Measurement

<b>Accuracy</b>	: $\leq 1$ mm	<b>Resolution</b>	: $\leq 1$ mm
<b>Hysteresis</b>	: $\leq 0.5$ mm	<b>Linearity</b>	: $\leq 1$ mm
<b>Pressure</b>	: Atmospheric		
<b>Operating Temp.</b>	: -25 to + 100 °C		
<b>Measuring Range</b>	: Up to 5000 mm		
<b>Density Range</b>	: 0.7 to 1.2 gm/cc		

### Temperature Measurement

<b>Sensor</b>	: Pt 100	<b>Range:</b>	: 0-100 °C
<b>Accuracy</b>	: $\pm 0.5$ °C	<b>Resolution</b>	: $\pm 0.1$ °C

**Power Supply** : 24 V DC supply given from Petroquant

### Safety

<b>Probe Head</b>	: Flameproof IS:2148-1981 Gr. IIA & IIB Weatherproof IP:65 as per IS:2147-1962
<b>Circuit</b>	: Intrinsically Safe as per IS:5780-1980 for Ex ia IIA & IIB T6

