



DIGITAL LEVEL PROBE 134 - R SWITCHED RESISTANCE

APPLICATIONS

The Digital Switched Resistance Level Probe provides reliable, accurate Level & Temperature measurement in underground and aboveground horizontal cylindrical - pressurized and atmospheric storage tank containing clear liquids e.g. Motor Spirit, High Speed Diesel, Superior Kerosene oil, Liquefied Petroleum Gas (LPG), etc.

The low cost & high accuracy measurement makes it an ideal instrument for economical Level Indication. The addition of SBEM "PetroQuant – 134 PQ provides a complete Inventory Management System for small LPG Installation. The HART (equivalent) version may be daisy chained to reduce cabling. Due to the low power Intrinsically Safe electronics, it is suitable for operation in Zone 0 and Zone 1 areas.

PRINCIPLE OF OPERATION

The Digital Level Probe consists of non-magnetic, pressure tight stainless steel tube (Probe) with a Flameproof and Weatherproof probe head. A cylindrical float with encased magnet slides over the sensor tube. The probe contains an array of precision resistors, the total value of which changes depending on float position. The float follows the liquid level. The head contains Intrinsically Safe electronics to convert this resistance to a 4-20 mA DC / HART equivalent signal proportional to level. PT-100 elements are built into the Probe and connected to the electronics for Temperature measurement. The probe circuit is a low power Intrinsically Safe Microprocessor based intelligent circuit with an analogue to digital converter, giving high accuracy over a wide range of measurement.

ACCESSORIES

REMOTE INDICATOR UNIT - PETROQUANT 134 PQ

The unit is housed in a CRCA sheet steel enclosure, suitable for mounting on the wall / surface / pipe in a Control Room (Safe Area). It has a 2-line alphanumeric backlit LCD display to indicate measured level and calculated parameters. It has terminals for connecting Digital Level Probe/s, Power supply & Printer to provide a Liquid Inventory Management System.

FIELD BUS INDICATOR - 134 I

One common flameproof field mounted indicator may be used with a number of Digital Level Probes (DLP's) for reading of all the tanks at one point

FEATURES

- Uses simple Switched Resistance Array
- Local display of Level, Temperature, Alarms, Volume
- Pressure Tight Sensor Tube
- Suitable for small capacity Petroleum Product Tanks and Pressurized LPG Storage Vessels
- High Reliability and Extended Life
- Low Cost –Replacement for Rochester for Midland Level Gauge for LPG Bullets
- Level Resolution options: 5/10/20 mm
- No maintenance
- Built in 100 point strapping table
- Remotely mounted head for ease of reading



SPECIFICATIONS

Level Measurement

MODEL CODE:	134XX1	134XX2	134XX3
Accuracy:	≤ 7 mm	≤ 13 mm	≤ 23 mm
Resolution:	≤ 5 mm	≤ 10 mm	≤ 20 mm
Hysteresis/Linearity:	≤ 5 mm	≤ 10 mm	≤ 20 mm
Measuring Range:	Up to 3000 mm		
Pressure:	Atmospheric / 10 kg/cm ² / 16 kg/cm ²		
Operating Temp:	-25 to + 100 °C		
Density Range:	0.45 to 1.2 gm/cc		

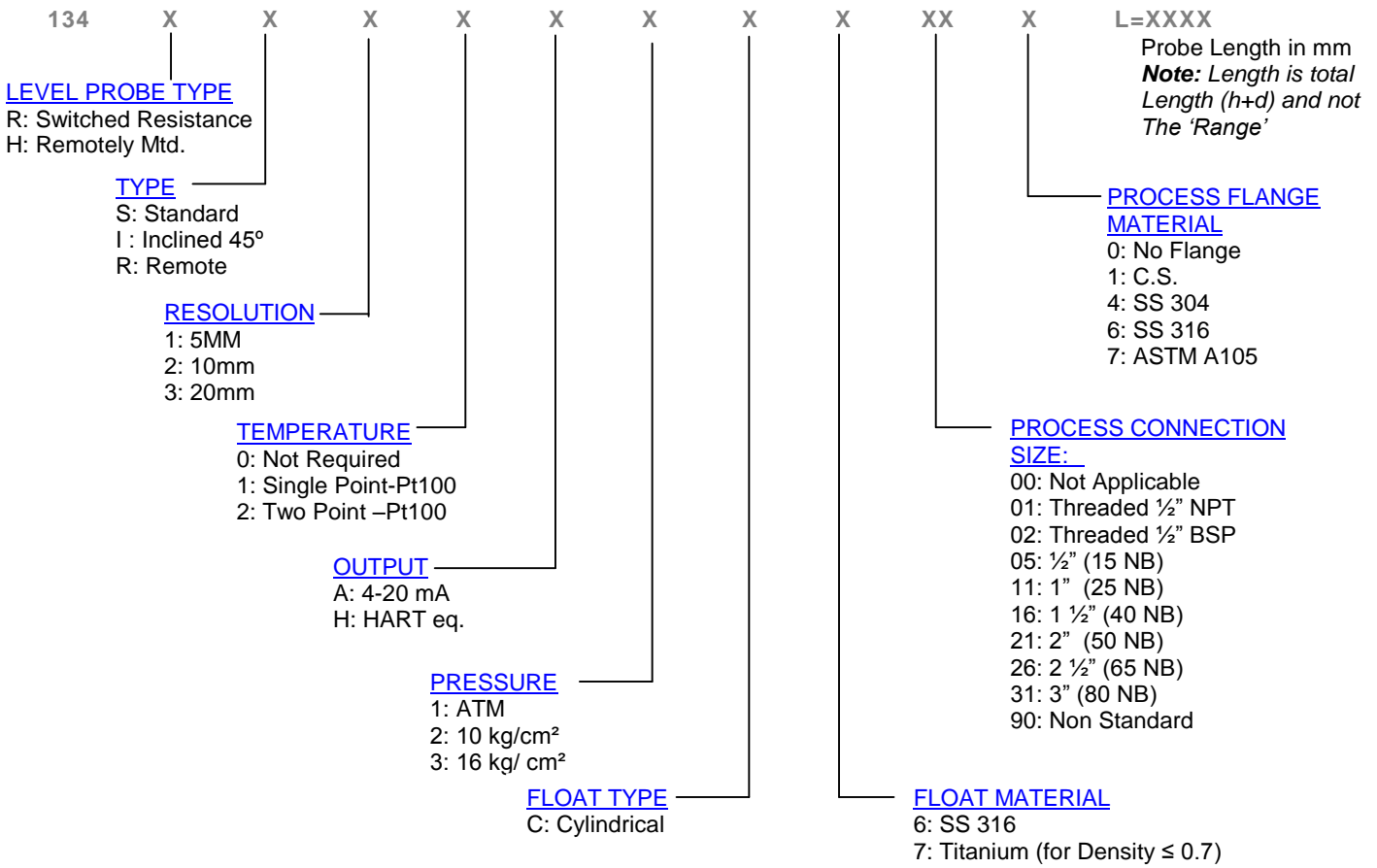
Temperature Measurement (Optional) for HART Eq. output

Measuring Range:	-25 to + 100°C
Accuracy:	± 0.5°C
Resolution:	± 0.1 °C
Sensor Type:	PT-100

Safety

Probe Head:	Flameproof: IS:2148-1981Gr. IIA & IIB areas Weatherproof to IP:65 as per IS:2147-1962 Intrinsically Safe as per IS:5780-1980 for Ex iA IIA & IIB T6
Circuit:	
CCOE Cert. No.:	R.1 (1) 136 / SB Electro / 36-I
BIS:	License No. CM/L-1507847 Endorsement No. 21

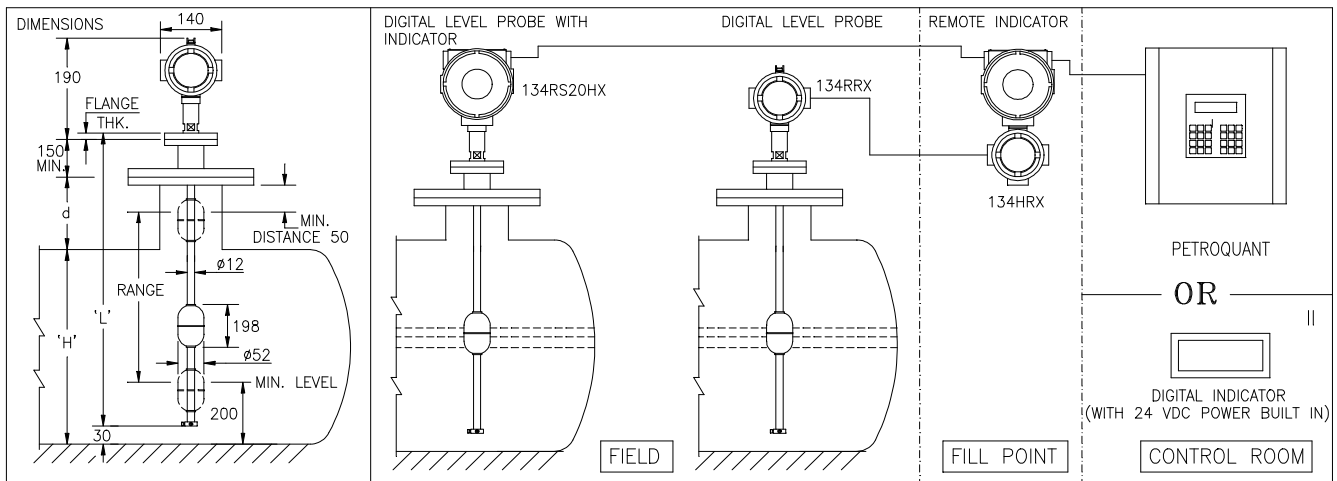
ORDERING INFORMATION:



ORDERING EXAMPLE: 134R S 2 0 H 3 C 7 01 0 L = 2000

Switched Resistance type Digital Level Probe, Standard, Resolution of 10mm, No Temperature measurement, HART equivalent output, probe suitable for pressure of 16 kg/ cm², Cylindrical, Titanium Float, Process Connection- 1/2" NPT threaded, No Flange. Probe Length = 2000mm

GENERAL ARRANGEMENT



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