



## Level Measurement & Control Solutions

### Magnetostrictive Level Probe 134 - TM

### With Indicator- Transmitter 134- H

## For Auto LPG Dispensing Stations(ALDS)

### INTRODUCTION:

SBEM make system for Auto LPG Dispensing Stations consists of (a) Magnetostrictive Level sensor, 134 TM (in flameproof enclosure) for measurement of Level (b) Field mounted Fill Point Indicator, 134 H for indication of Level, Volume,% Volume with 4-20 mA Current Output and (c) A Percentage Volume Indicator to be mounted in the Control Room or Sales Room for display of Percentage Volume and to provide relay contacts if required.

### MAGNETOSTRICTIVE LEVEL PROBE 134 TM:

The Magnetostrictive Level sensor (134 TM) consists of non- magnetic pressure tight stainless steel tube with a magnetostrictive wire inside, over which a magnet encased cylindrical NBR or Titanium float slides. The float moves along the tube as level changes. The magnet causes a discontinuity in the magnetostrictive wire. 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 level in mm.

The Magnetostrictive Probe provides reliable and accurate Level measurement in under-ground horizontal cylindrical pressurised storage tanks containing LPG. This is ideal for accurate and economical Level Indication for Inventory Management. The probe circuit is a low power micro-processor based intelligent circuit giving high accuracy over a wide range of measurement. The probe with Transmitter may be used with a Standard digital Indicator with 4-20mA analog output for level indication.

### REMOTE INDICATOR-TRANSMITTER (FILL POINT INDICATOR) 134 H

The Fill Point Indicator enables display of level, volume % volume at the fill point or bottom of tank. It has 6 DIGIT LCD DISPLAY, All these parameters are scrolled on the Display one after another. Programming, calibration can be done from a front panel keypad interface in the field.

### OPTIONAL ACCESSORIES:

#### % VOLUME INDICATOR (OPTIONAL):

Displays Percentage Volume. A panel mounted Relay Output upto Four set points available with alarm (LED) indication on front panel. Optional MODBUS output available. Inbuilt 24 VDC Power Supply. 4 Digit LED Display. (Refer LF 176 0804 )

#### HIGH LEVEL ALARM UNIT 134 S (OPTIONAL)

Optional High Level Alarm Unit (DIN Rail mounted) can be provided which can be used with power supply and relay output unit mounted in safe Area. (Refer LF 134 0810)

#### CONTROL PANEL (OPTIONAL) :

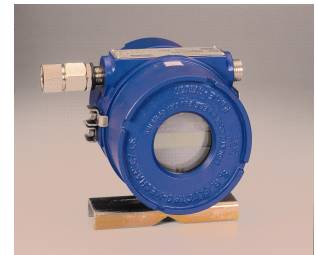
Used for fitment of % Volume Indicator and End termination connections of Fill Point Indicator 134 H and 134 S.

#### 24 VDC POWER SUPPLY UNIT (OPTIONAL):

Din rail mounted Power supply (24V DC) unit needs to be used



134 TM



134 H

NOTE: Distance between level probe and remote indicator- Transmitter - 12 m max

### SPECIFICATIONS FOR 134 TM:

- ☐ Accuracy:  $\leq 1$  mm
- ☐ Resolution:  $\leq 1$  mm
- ☐ Hysteresis:  $\leq 0.5$  mm
- ☐ Linearity:  $\leq 1$  mm
- ☐ Operating Temperature: -25 to +60 °C
- ☐ Measuring Range: Upto 4000 mm
- ☐ Density Range: 0.45 to 1.2 gm / cc
- ☐ Cable Entry:  $\frac{1}{2}$ " NPT

### SAFETY:

- ☐ Probe Head: Flameproof for Gr. IIA & IIB

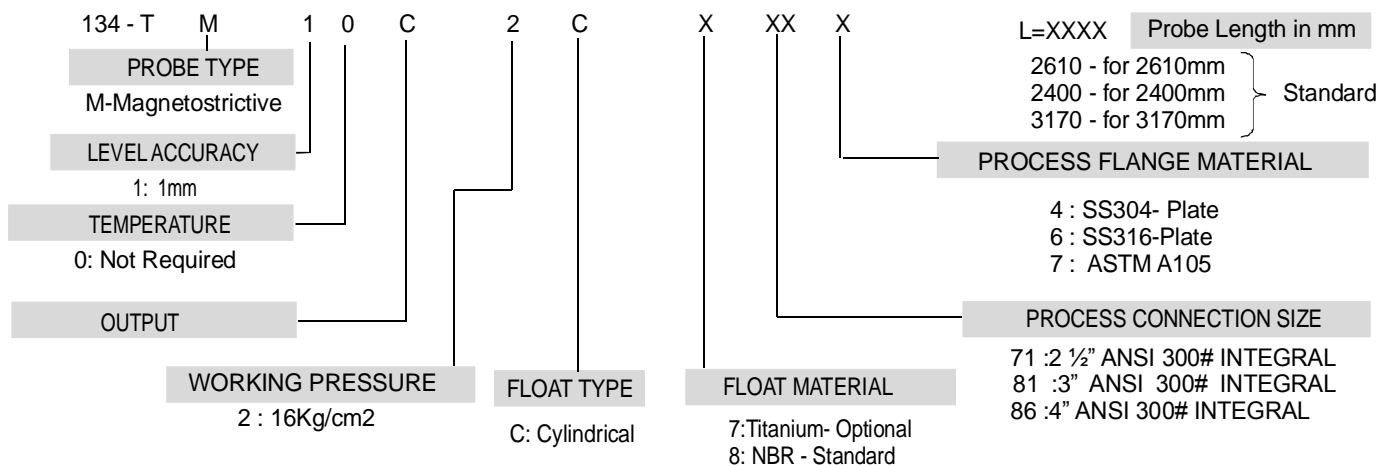
### FEATURES OF 134-TM:

- ☐ Pressure tight sensor tube
- ☐ Accurate Level Measurement
- ☐ 100 Point Strapping table
- ☐ Suitable for small capacity LPG Tanks
- ☐ High Reliability and extended life
- ☐ Level Resolution:  $\leq 1$  mm
- ☐ No maintenance
- ☐ Enclosure Weatherproof to IP68 as per IS/IEC 600529:2001 & Flameproof as per 60079-0: 2004 & IS/IEC 60079-1 :2007.
- ☐ Flameproof Enclosure CCOE Approved

### FEATURES OF 134-H:

- ☐ Field Mounted
- ☐ Flameproof Enclosure CCOE Approved
- ☐ Enclosure Weatherproof to IP 67
- ☐ Compact and Rugged Design
- ☐ Simple Pipe mounted version
- ☐ Suitable for Zone 1 and Zone 2 Areas
- ☐ Display: 6 Digit LCD, 15 mm high
- ☐ 4-20 mA Current Output

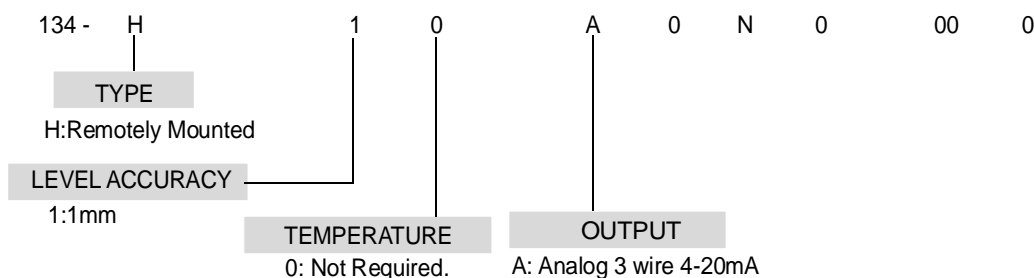
# ORDERING INFORMATION FOR PROBE:



## Ordering example for probe:

134- T M 1 0 C 2 C 8 86 7 L=2610 mm Magnetostrictive type probe, 1mm accuracy without temperature, for pressure of 16Kg/cm2 with cylindrical float of NBR, process connection 4" ANSI 300 # integral flange of ASTM- A 105, probe length 2610mm.

## ORDERING INFORMATION FOR REMOTE INDICATOR - TRANSMITTER (FILL POINT INDICATOR)

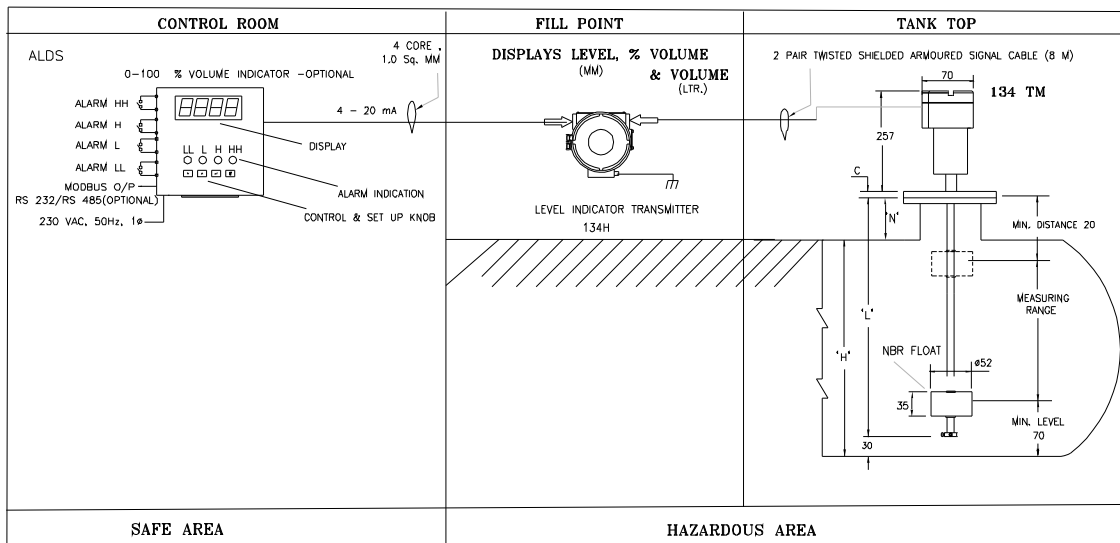


## Ordering example for Remote Indicator - Transmitter

134- H 1 0 A 0 N 0 00 0 INDICATOR- TRANSMITTER remotely mounted type having 1mm accuracy without temperature measurement with 4 - 20 mA Output.

NOTE: 12 m cable included with Magnetostrictive Probe for connection between the Probe and Fill Point Indicator 134 H

## GENERAL ARRANGEMENT DRAWING:



\*\*\* Continuous developments may necessitate changes without notice.

LF-134-0806 Rev.04 05/2017



## SBEM Pvt. Ltd.

H.O. : 39, Electronic Co-Operative Estate, Pune - 411 009 (India)

Tel. : 91-20-24220505, 24223375 Fax : 91-20-24215670

Email : sbemsales@sbem.co.in, sbemsales@vsnl.com

Web : www.sbem-india.com

Works : Bibwewadi Industrial Estate, 691/A/2, Pune-Satara Road, Pune - 411 037 (India), Email : mfg@sbem.co.in

Office : Mumbai  
Tel. : 91-22-27823601 / 03  
Fax : 91-22-2782603  
Email : sbemho@bom4.vsnl.net.in  
mumbai@sbem.co.in

Chennai  
91-44-24481235, 24486947  
91-44-24486947  
chennai@sbem.co.in

New Delhi  
91-11-26560647, 26969679  
91-11-26969679  
newdelhi@sbem.co.in

Pune & Gujarat  
91-20-24220505, 24223375  
91-20-24215670  
pune@sbem.co.in  
gujarat@sbem.co.in