

SERIES: LTF130

Applications:

Wells & Reservoirs
Lakes & Rivers
Water Treatment
Sewage Treatment



- **ACCURACY UP TO 0.1%**
- **316L ST. STEEL ASSEMBLY**
- **HIGH BATTERY LIFE (UP TO 10 YEARS)**
- **TEMPERATURE MEASUREMENT (OPTION)**
- **RANGES FROM 0...1 mH2O TO 0...400 mH2O**
- **MEASURING INTERVAL: 2 s TO 24 h FOR 130,000 MEASUREMENTS**
- **DATA TRANSFER TO COMPUTER WITHOUT REMOVING THE LOGGER**

INTRODUCTION

Indumart *LTF130 Series* of Submersible Level Transmitter with Data Logger is an excellent solution for measuring height (pressure) of liquids in reservoirs and storing the data for future download to a computer. Data is stored in ASCII format and may be read with programs such as Excel™, Lotus™, etc. Transfer of data to a computer is possible without removing the transmitter, and if a PC or laptop is not available in the field, the transmitter can be removed from the field and downloaded elsewhere. The non-volatile memory is capable of storing 130,000 measurement values with time and date of occurrence. Time and date of the first measurement required can be programmed into the transmitter.

The *LTF130 Series* is suitable for applications in food industry without any restriction, and if applied in media other than water, the transmitter may be customized to have an output corresponding to the height of the special medium.

In addition to level measurement, the *LTF130 Series* may be specified with temperature data collecting option. A special version of LTF130 combines data logging with real time level indication for continuous local monitoring of the process.

The *LTF130 Series* is manufactured according to the electromagnetic compatibility (EMC) requirements of IEC 61000.

Configurable Parameters via Software (option)

- Measuring Frequency
- Time and Date
- Identification of Measuring Points
- Starting Time of First Sample
- Tare or Zero Point
- Setting of Measuring Reference Point

SPECIFICATIONS

Sensor Type	Piezoresistive element
Sensor Material	316L stainless steel
Housing	316L stainless steel
Seal	Viton
Accuracy	0.1%, 0.25%
Output	RS232C
Real Time Clock	Quartz with date
Data Storage	130,000 measurements with time and date; Data is kept in memory without battery
Resolution	<0.1% of full scale
Level Temp.	0.1°C
System Requirement	IBM laptop or PC, Windows 95/98/NT or handheld PC with Windows CE 2.11 or up
Interface	Serial (std.); cable with one end fitted to male electrical plug (option)
Data Transfer	All together or per series of measurements
Data Format	ASCII, readable with Excel, Lotus,....
Supply Voltage	Lithium battery (1 Stk), 3.6V, 1.9 Ah, type AA
Media Temperature	-5...+70°C
Protection	IP68 (submersible)
Thermal Shift (%FS/K)	Zero: 0.06 (up to 5 mH2O range); 0.03 (5 to 20 mH2O ranges); 0.015 (ranges above 20 mH2O); Span: 0.015
EMC Emission	IEC 61000-6-3
Immunity	IEC 61000-6-2
Weight	195 or 425 grams

Range (mH2O)	Range (kPa)	Over Range (kPa)
0...1	0...10	300
0...1.6	0...16	300
0...2.5	0...25	300
0...4	0...40	300
0...6	0...60	300
0...10	0...100	300
0...16	0...160	480
0...25	0...250	750
0...40	0...400	1200
0...60	0...600	1800
0...100	0...1000	3000
0...160	0...1600	4800
0...250	0...2500	7500
0...400	0...4000	12000

Burst pressure for the above is 20000 kPa, except for 0...400 mH2O is 85000 kPa. Other ranges and various pressure units are also available. Absolute and compound ranges may be ordered. The transmitter can also be ordered for media other than water.

DIMENSIONS (mm)

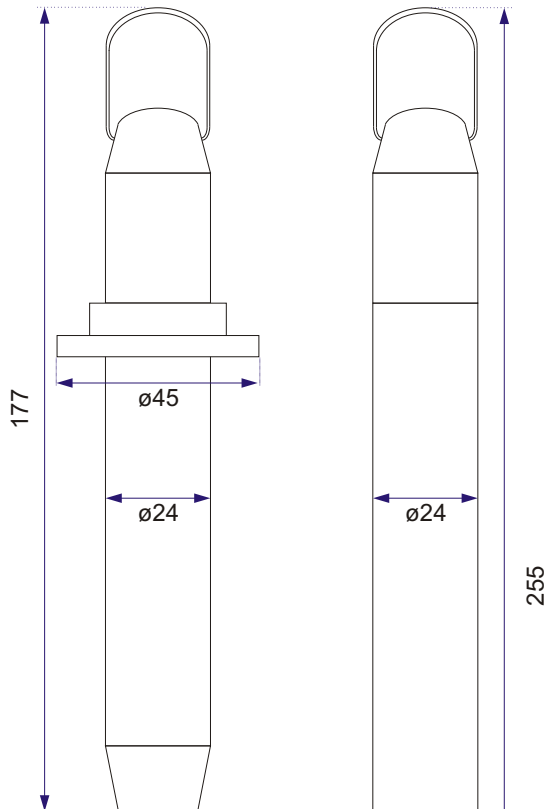


Fig. 1c
Separate Data Logger

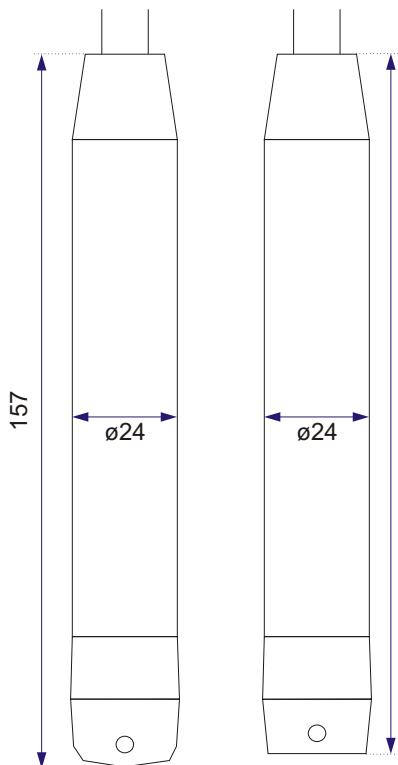


Fig. 1a - Closed Connection

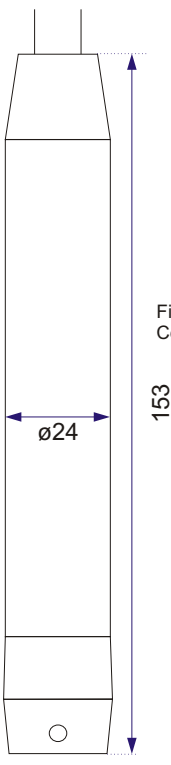


Fig. 1b - Open Connection

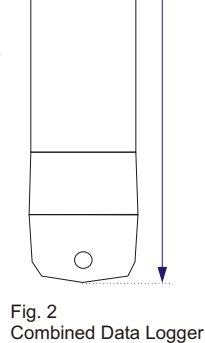


Fig. 2
Combined Data Logger

ORDER CODE

LTF130 -

Accuracy

0.25% (standard)

0.1% (not available for ranges below 5 mH2O)

Sensor Exposure

Closed (standard)

Open

Cable

PUR (standard)

Teflon (must be ordered for media over 50°C)

Execution

2-Piece Field Housing Data Logger (fig. 1a or 1b + fig. 1c)

Combined Field Housing Data Logger (fig. 2)

Remote Housing with Indication

Options (more than one option may be selected)

Application for Seawater

Ballast Weight

Special Halocarbon Oil Filling

Special ASEOL Food Oil Filling

Electronic Packed in Gel

Data Transfer Cable (one end fitted to male electrical plug)

Software

Temperature Measurement

None

A
B
C
F
G
P
S
T
X

Measuring range and length of cable must be specified by customer.

4-20 mA Output version is also available.

Indumart covers all your requirements for level and pressure measurement applications.



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