FT01

Hydrostatic Submersible Sensor

- **Compact design**

- **Measuring cell highly pressure resistant**

- **Current or voltage output**

- **Corrosion–resistant stainless steel construction**

- **Electrical protection IP 68 (to a depth of 1000 ft. / 300 m)**

Description:

Hydrostatic level sensors measure fluid height and thus its level by means of the hydrostatic pressure applied by the water column directly above the sensor.

A measuring cell at the bottom of the sensor registers this pressure so that the sensor's internal electronics can generate a 4-20 mA or a 0-10 VDC signal proportional to the detected fluid level.

Because all parts of the pressure sensor coming in contact with the liquid being measured are made of stainless steel, this sensor is suitable for unrestricted use in the food industry.

For measurements of caustic/corrosive liquids, a design featuring a teflon-jacketed connetction cable is also available.

Typical Applications:

The FT01 level sensor is used in measuring applications that require provision of a precise, stable and reliable output signal even under extreme operating conditions. The high electrical protection rating (IP 68) and its high resistance to corrosion make the FT01 level sensor suitable for use in a vast variety of containers, basins, shafts and tanks.

With its large diaphragm surface area, the FT01 has proven to be especially suitable for monitoring wastewater systems.

Electrical Specifications:

Supply voltage: 12 to 30 VDC with current output
17 to 30 VDC with voltage output

Power consumption max: P = 1 Watt

Output: Current output load:
(UB-10V) / 0.02 A
Voltage output load: 100 kOhm

Protection type: IP68 as per EN 60 529 / IEC 529

Electrical protection: Reverse-polarity, overvoltage, short-circuit protection

Technical Specifications:

Materials:
Housing: Stainless steel AISI 316 / 1.4401

Pressure connection: Stainless steel AISI 316 / 1.4401

Protective cap: PA

Process connection Ballast weight: G 1/2 B

Overload limits: 29 psi / 2 bar up to measuring range R69
58 psi / 4 bar for measuring range R70
188 psi / 13 bar for measuring ranges R72-R74
464 psi / 32 bar for measuring range R75-R78

Max. medium temperature: 14-158 °F / -10 to +70 °C

Max. storage temperature: -22-176 °F / -30 to +80 °C

Compensated range: 32- 158 °F / 0 to +70 °C

Accuracy: Linearity + hysteresis + repeatability < 0.3% of full scale

Response time: < 10 ms

Cable: Polyurethane, with pressure equalization tube and strain relief connection, jacket made of thermoplastic elastomer (TPE)

Lightening protection: as per IEC 801-5

Model Coding:

Order Number: FT01. 1. 1. R72. 01. 0.

Hydrostatic submersible sensor

Output signals:
1 = 4-20 mA, 2 wire
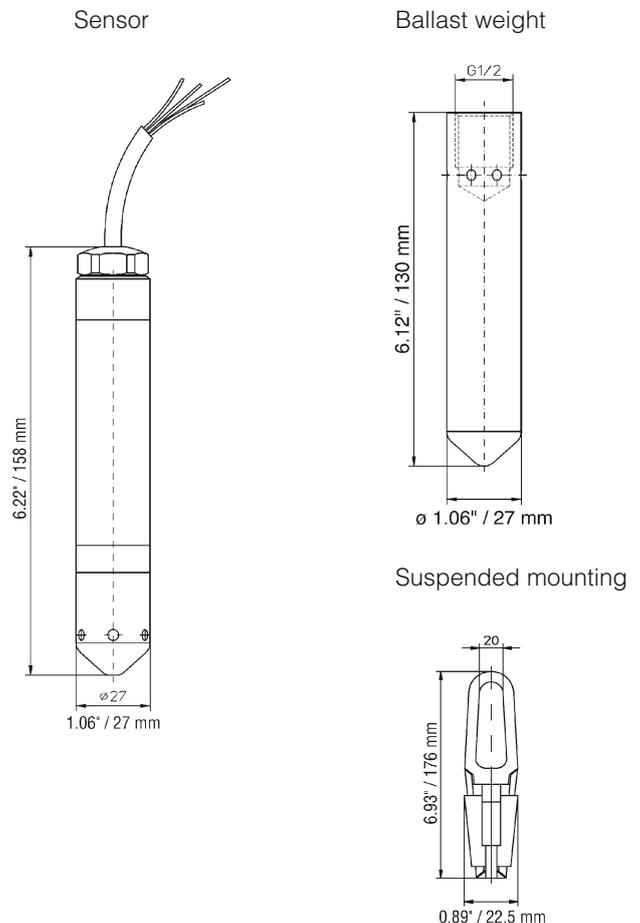2 = 0 to 10 VDC, 3-wire

Accuracy class:
1 = 0,3 %

Measuring Ranges:
R63 = 0 to 0.1 bar   / 0 to 1.45 psi)
R64 = 0 to 0.16 bar / 0 to 2.32 psi)
R65 = 0 to 0.25 bar / 0 to 3.63 psi)
R66 = 0 to 0.4 bar   / 0.5.8 psi)
R67 = 0 to 0.6 bar   / 0 to 8.7 psi)
R69 = 0 to 1 bar   / 0 to 14.5 psi)
R70 = 0 to 1.6 bar   / 0 to 23.2 psi)
R72 = 0 to 2.5 bar   / 0 to 36.3 psi)
R73 = 0 to 4 bar   / 0 to 58.0 psi)
R74 = 0 to 6 bar   / 0 to 87 psi
R75 = 0 to 10 bar   / 0 to 145 psi
R76 = 0 t0 16 bar   / 0 to 232 psi
R78 = 0 to 25 bar   / 0 to 363 psi
9 = Special measuring range: please specify in writing

Cable Length:
01 = Measuring range + 1.5 ft. / 0.5 m
xx = Special length, please specify in writing

Options and accessories (more than one may be selected)
0 = None
1 = Protective cap of stainless steel
2 = Suspended mount for level sensor
3 = Additional weight of stainless steel 1.4571
4 = Test Certificate

Dimensions:

Sensor

6.22" / 158 mm
1.06" / 27 mm
⌀27

Ballast weight

G1/2
6.12" / 130 mm
⌀ 1.06" / 27 mm

Suspended mounting

20
6.93" / 176 mm
0.89" / 22.5 mm