



PTM

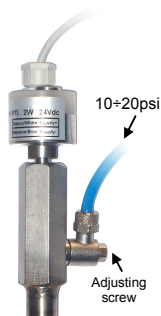
Hydrostatic head level transmitter for liquids



General

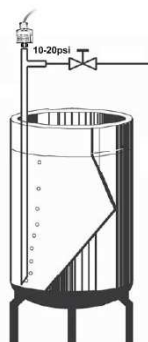
PTI device, combined with our APS probe, is a level transmitter for liquids in open tanks. The APS probe is made with a Ø16mm pipe, open at the bottom end, with one pneumatic connection and one threaded hole at the top. One connection goes to the PTI transmitter and the other to an air flow regulator that keeps the input air pressure constant. The input pressure to the transmitter is converted in a 4-20mA signal representing the level of the liquid in the tank.

Installation



Immerse the APS probe into the liquid, until it reaches a level quote equal or lower to the minimum level to be measured. Connect, using a 4x6mm pipe for compressed air, the flow regulator on the top to a pressure reducer so that input air has a pressure between 10 and 20psi, based on the length of the probe and specific weight of the liquid. The input air speed up and optimize the level probing and become a physical barrier between the liquid and the transmitter, protecting it from high temperature or steams. It is recommended to use a dedicated air supply pipe for every APS probe.

Then screw the PTI transmitter on the top of the APS probe. Set the level of the liquid to the maximum and adjust the screw on the flow regulator in order to obtain a continuous and regular air bubbling from the lower end of the APS probe. To avoid measure errors do not install the probe near the connection of suction pumps and, if a mixer is used, it is possible to reduce the turbulence protecting the lower end of the probe with an external pipe.



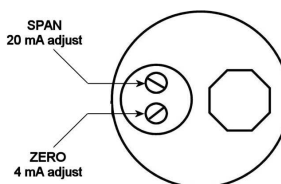
It is also possible to install the PTI in the electrical panel, using a bracket, and then connecting it to the APS probe with the appropriate pneumatic connection and an air pipe. It is recommended to install the PTI over the height of the maximum level and as near as possible to the APS probe.

Technical data

Power supply:	12-24 VDC ± 10% stabilized
Pressure range:	0-500 mmH ₂ O (0-4,9033KPa) Max range adjust: 300-500mm 0-1000 mmH ₂ O (0-9,807KPa) Max range adjust: 600-1100mm
Accuracy:	0,5% f.s.
Analogue output:	4-20mA (2 wires)
Output impedance:	150Ω @ 12VDC, 600Ω @ 24VDC
Mechanical connection:	1/8" GAS male
Electrical connection:	2 wires cable, L=2mt WHITE = + LOOP BROWN = - LOOP
Protection:	IP65
Wetted parts:	AISI316L Body sensor EPDM gasket Silicon diaphragm transducer
Case material:	AISI316L + Nylon
Storage temperature:	from -30 to +80°C
Working temperature:	from -20 to +60°C
Relative humidity:	from 0 to 85%, no condensate
Dimensions:	46(H) x 35(W) x 35(D) mm

CE mark according to *Directive 89/336/CEE*, complies with the following harmonised regulations: *EN50081-1, EN 50082-2, EN55022, EN61000-4-2, EN61000-4-3, EN61000-4-4, EN61000-4-5, EN61000-4-6, EN61000-4-11* and *Low Voltage Directive 73/23/CEE* and subsequent modifications.

0-100% level calibration



The instrument has 2 multiturn trimmer for zero and span adjustment. You have to connect a high accuracy amperometer in series between cable transmitter and power supply, and follow one of the following procedures:

- 1) Set the liquid level to **MINIMUM** and rotate the **ZERO** trimmer until you read **4.0mA** on the amperometer
- 2) Set the liquid level to **MAXIMUM** and rotate the **SPAN** trimmer until you read **20.0mA** on the amperometer
- 3) In order to get a more accurate calibration, it is recommended to repeat step 1) and 2) adjusting zero and spam trimmers.

Electrical connections

The transmitter must be powered with 12-24VDC stabilized. It is recommended to use a connection cable of at least 0,5mmq section and a maximum length of 100mt. Connection cables must have separate run from power cables.

