



# BLT

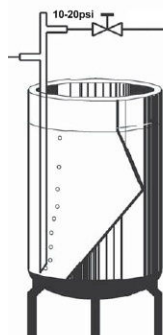
## Hydrostatic head level transmitter for liquids



### Overview

BLT 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 two pneumatic connections. One connection goes to the BLT 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



Submerge 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 connect with another 4x6mm air pipe the second output of the APS probe to the BLT transmitter. 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.

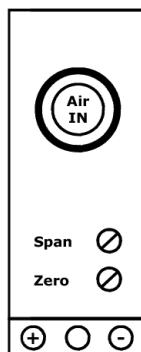
It is recommended to install the BLT over the height of the maximum level and as near as possible to the APS probe.

### Technical data

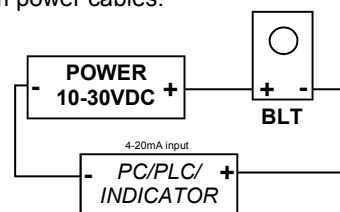
Power supply:	10-30 VDC
Pressure range:	0-1000 mmH <sub>2</sub> O (0-9,807KPa) Max range adjust: 300-1000mm  0-5000 mmH <sub>2</sub> O (0-49,033KPa) Max range adjust: 1250-5000mm
Accuracy:	0,5% f.s.
Analogue output:	4-20mA (2 wires)
Output impedance:	150Ω @ 12VDC, 600Ω @ 24VDC
Air connection:	6x4mm pipe
Transducer:	Silicon diaphragm
Storage temperature:	from -30 to +80°C
Working temperature:	from -20 to +60°C
Relative humidity:	from 0 to 85%, no condensate
Protection degree:	IP20
Installation:	35 mm DIN rail
Dimensions:	90(H) x 20(L) x 35(P) 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.

### Electrical connections



The transmitter must be powered with 10-30VDC. It is recommended to use a connection cable of at least 0,5mm<sup>2</sup> section and a maximum length of 100mt. Connection cables must have separate run from power cables.



### 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.

