



TECHNICAL DATA

Level and pressure gauge PPI 110

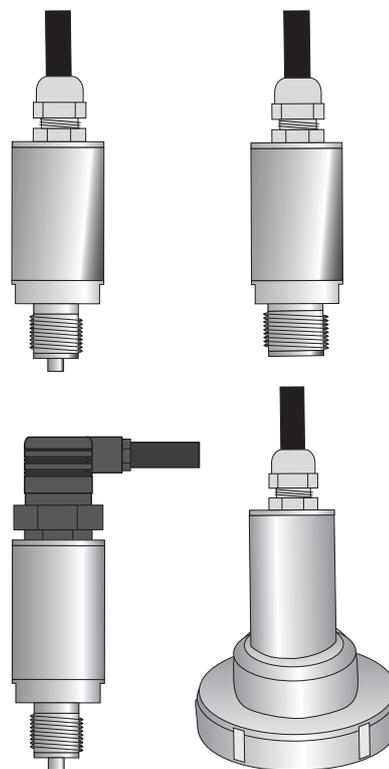


CHARACTERISTICS:

- The measuring of level or pressure of aggressive and corrosive liquid media
- Output: 4 - 20 mA current loop
- Stainless steel housing
- Compact and robust construction
- Different mechanical connections
- Great measuring accuracy
- Easy assembly

AREAS OF APPLICATION:

hydrostatic level or pressure measurement in pipelines tanks (waterworks, heat supply, industry pool technology...)



The level or pressure gauge PPI 110 is converting the pressure of aggressive and corrosive media into a 4 ... 20 mA current. The pressure sensor in the gauge has two membranes: one membrane is influenced by the pressure of the selected media, the other membrane is influenced by regular atmospheric pressure supplied over a vented air tube inside the connecting cable. The gauge converts the difference of both pressures into a current.

We can mount the gauge on a R ½ connection. In the case of measuring a media pressure that has a higher temperature than allowed, we mount the gauge on a condensation lead.

The robust construction, reliability, a very good time stability and easy assembly enable the gauge a versatile application in all areas where we have to accurately measure and monitor the pressure of a media.

The housing and the membrane of the gauge are both from stainless steel which is resistant to aggressive and corrosive media. The sensor and the electronic circuits are integrated which is resulting in a better time stability and resistance to vibrations. The feeding of the gauge is remote (through a current loop).

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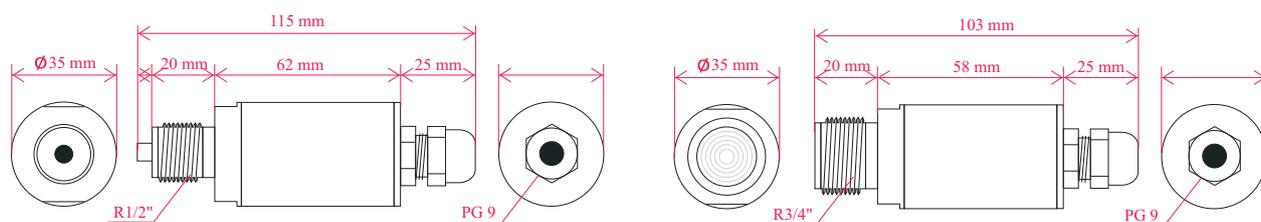
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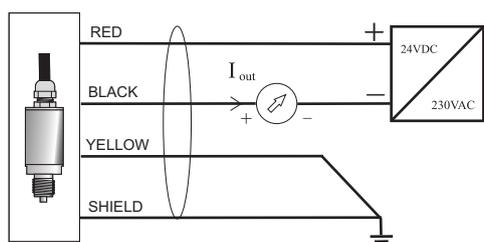
SPECIFICATIONS:

- Power supply: 9 ... 27VDC (two-wire connection, reverse polarity protection)
- Measuring range: on order (up to 30bar)
- Output signal: current 4 ... 20mA
- Accuracy (nonlinearity and hysteresis): < 0,2%
- Resistance of the current loop: max 750 Ohm (at 24 VDC feeding)
- Mechanical connection: R 1/2, R 3/4
- Media temperature: -40°C ... +80°C (the media must not freeze)
- Surrounding temperature: -40°C ... 60°C

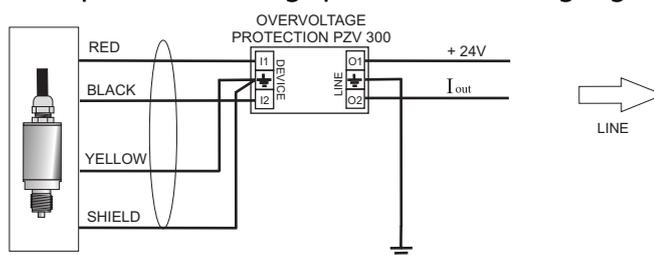
TECHNICAL DRAWING:



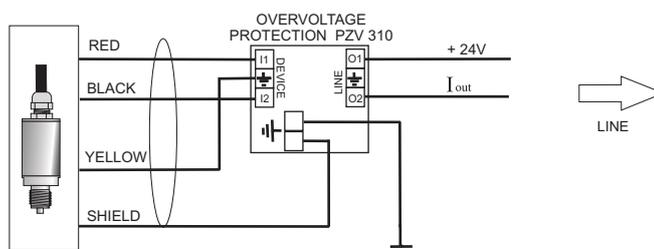
El. connection of the gauge:



Example of overvoltage protection for the gauge:



With a longer wire current loop or in surroundings with potential atmospheric unloading and other over voltages an over-voltage protection (PZV 300 or PZV 310) must be built into the current loop.



Ohm charge of the current loop:

The maximum resistance in the current loop can be calculated with the formula

$$R_z = (U - 9) / 0,020 \text{ (Ohm)}$$

R_z ... maximum resistance of the current loop

U ... feeding voltage of the meter (V)

We can see from the formula that the maximum resistance of the current loop with a 24VDC feeding is up to 750 Ohm. If we cross the maximum value the measuring mistake is increased. In the case we want a higher Ohm charge of the current loop we increase the feeding voltage (up to 27VDC) or we mount an additional measuring converter (4-20mA/4-20mA).

