



VYDAS

INTERNATIONAL MARKETING

Specialist Sensors & Instruments for Industry



PELLIRON[®] Ltd

LEVEL TRANSMITTERS PXH Series

APPROPRIATION

Level transmitters of the PXH Series are suitable for liquid level measurement in open tanks (PXH-O version) or in closed tanks (PXH-Z version). The construction of transmitters allows the possibility of using them for level measurements of high viscosity, aggressive, with contamination and tendency to crystallization media.

CHARACTERIZATION

- High stability and accuracy
- Small dimensions and weight
- High reliability and durability
- Convenient pressure and electrical terminals
- Wide range of application

CONSTRUCTION

The transmitter consists of two main compact units – a measurement head and an electronic measurement set. In the acid-resisting steel housing of the measurement head is a high quality piezoresistive pressure transducer. The housing of electronic measurement set consists of two dust-proof and splash-proof chambers. In one of them is placed the electronic measurement set; in the second – the overvoltage protection and the terminal strip. The transmitter can have the switch giving a possibility of 4 times changing of the measurement range.

Pressure terminals of the measurement head are separators of flange type having the flat or protruding diaphragm, acid-resisting steel made.

PXH-Z transmitters have the low pressure chamber connected with the tank by a tube.

PRINCIPLE OF OPERATION

The hydrostatic pressure in PXH-O transmitters acts through the separating diaphragm and silicon oil to the silicon sensor consisting of diffusion resistors connected as a Wheatstone bridge. But in PXH-Z transmitters to the sensor acts the difference of pressures in high and low transducer chambers. The acting pressure (difference of pressures) causes a bridge resistance change. The output signal of this bridge is proportionally depending from the acting pressure (difference of pressure). The electronic circuit converts this voltage signal to the standard current or voltage output signal in the 2 wire or 3 wire connection system.

The continual development of our products may cause changes to the specification which can not be published in this document

TECHNICAL DATA

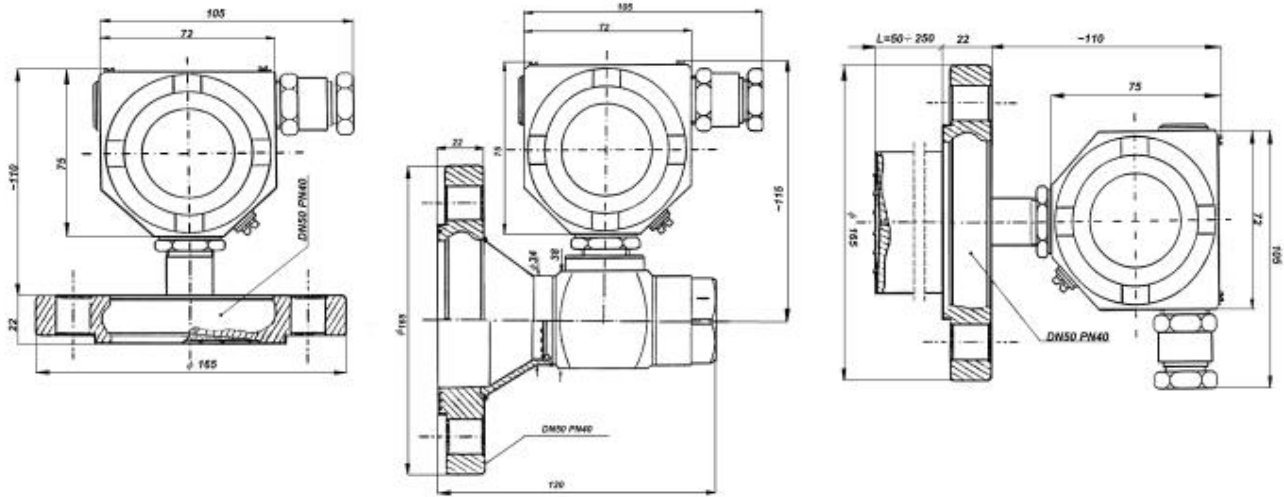
Pressure range (bar)	0,2; 0,5	1,0; 2,0; 5,0; 10
Max. overpressure (bar)	2	2 x FS
Max. static pressure (bar)*	8	2 x FS

*- for PXH-Z transmitters only

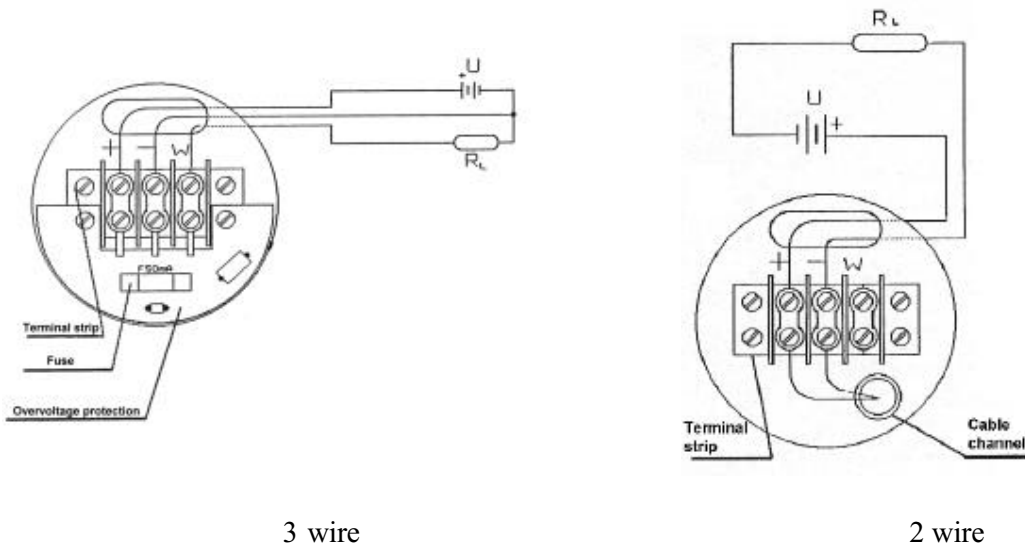
Supply voltage (U)	15...36V DC
Output signal	4...20mA 2 wire 20...4mA } 0...20mA } 3 wire 20...0mA } 0...10V }
Relocating of the range beginning Changing of the range wide	+10% and ±10% for the 0..10V output ±10%; optionally – the range changing for 75%, 50% and 25 % for transmitters with the range ● 0.4 bar
Load resistance (R)	$R \leq \frac{U - 15V}{20mA} \times 10^3 [\Omega]$ for the 4...20mA output $\leq 2k\Omega$ for the 0...10V output
Base error	≤ 0,5%; (options 0.4% and 0,25%)
Repeatability	0,05%
Ambient temperature range	– 20...+ 70°C
Medium temperature	– 20...+ 85°C
Compens. temp. range	0... + 70°C (standard) – 20...+ 85°C (option)
Temp. errors in compens. temp. range:	zero error: ≤ 0,25%/10°C typ. ≤ 0,5%/10°C max. range error ≤ 0,25%/10°C
Working position	flange separator axis - horizontal
Housing protection	IP65
Pressure terminals	flange with the flat diaphragm DN50; option DN65 and DN80, according to PN-85/H-74306 flange with the protruding diaphragm up to 250 mm, DN50, also according to PN-85/H-74306, which is compatible to ISO2084-1974
Weight	from 1 kG, flange version depending
Materials:	
- separating diaphragm	316Lss
- housing of the measurement head and flange	H18N9T
- housing of the electronic measurement set	Al alloy

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DIMENSIONS



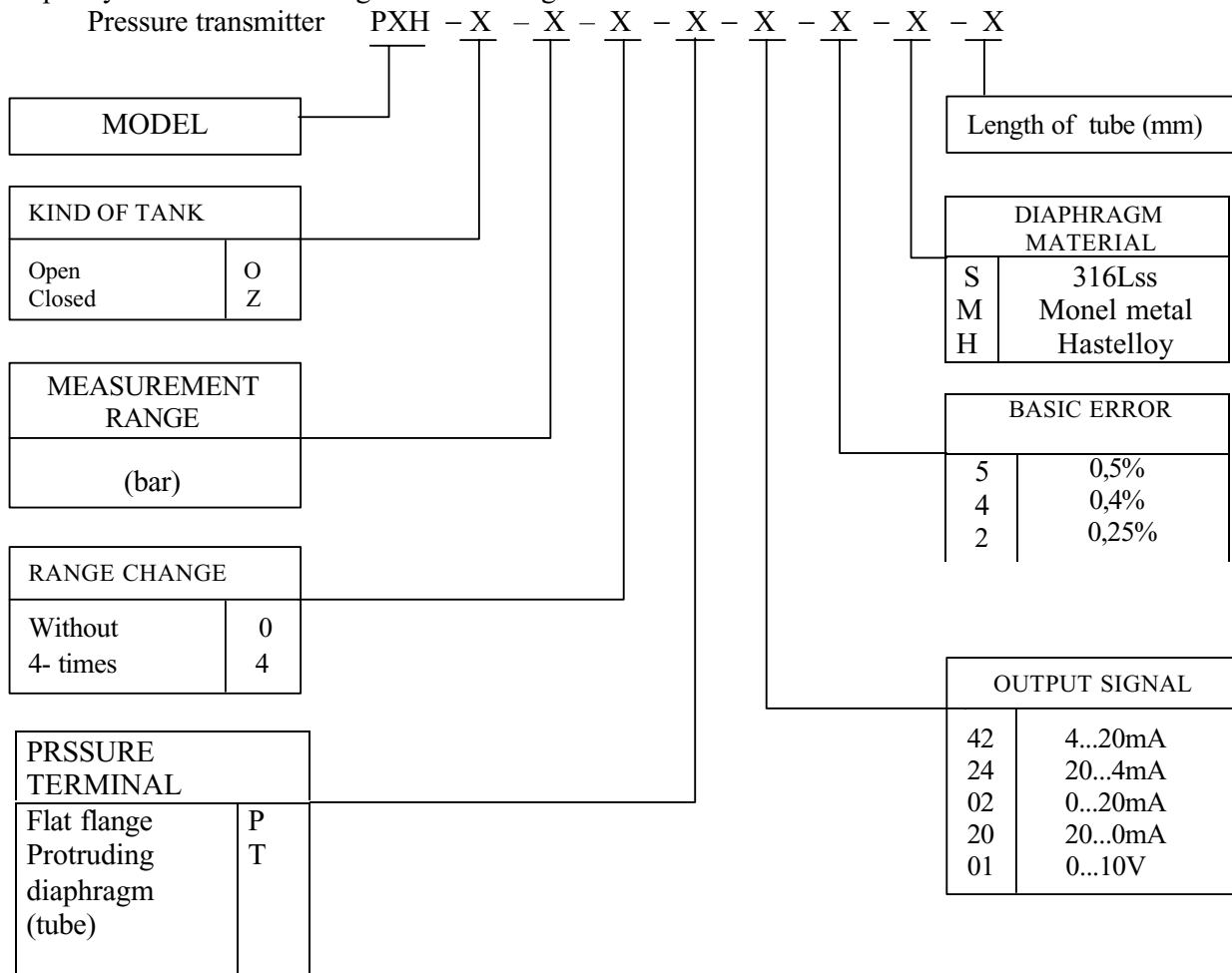
ELECTRICAL CONNECTION CIRCUIT DIAGRAM



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ORDERING INFORMATION

Specify the model according to the ordering code:



Ordering example:

PXH - Z - 04 - 4 - T - 42 - 5 - S - 150 medium: the water, temp.10... 50°C

- PXH - level transmitter
- Z -for closed tanks
- 04 -measurement range 0.4 bar
- 4 -4 times range changing
- T -tube separator DN50 as the pressure terminal
- 42 -4...20 mA output signal
- 5 -basic error 0.5%
- S -diaphragm material 316Lss
- 150 -length of tube L=150mm

NOTES:

- 1.In the special order is possible the construction and making of non typical transmitters.
- 2.In the order write please additionally: the type and temperature of the medium, like in the order example.



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