

PRESSURE DIFFERENCE TRANSMITTERS NPXD SERIES

APPROPRIATION

Pressure transmitters of the NPIXD Series are appropriated to pressure difference measurements of liquids, vapours and gases, also aggressive. Transmitters can be used to measurements of another parameters, like a liquid level or liquid flow defined by the pressure difference measurement. .

CHARACTERIZATION

- High stability and accuracy
- Small dimensions and weight
- High reliability and durability
- Convenient pressure and electrical terminals

CONSTRUCTION

In the acid-resisting steel housing is a high quality piezoresistance pressure difference transducer and an electronic measurement circuit. The pressure is coming to measurement chambers by pressure terminals with a thread. The robust and compact construction provides a stroke and vibration resistance.

PRINCIPLE OF OPERATION

The measured pressure difference acts through separating diaphragms and a silicon oil to the silicon sensor consists of diffusion resistors connected as a Wheatstone bridge. The output signal of this bridge is proportionally depending from the acting pressure. The electronic circuit converts this voltage signal to the standard current output signal 4-20mA in the 2 wire connection system.

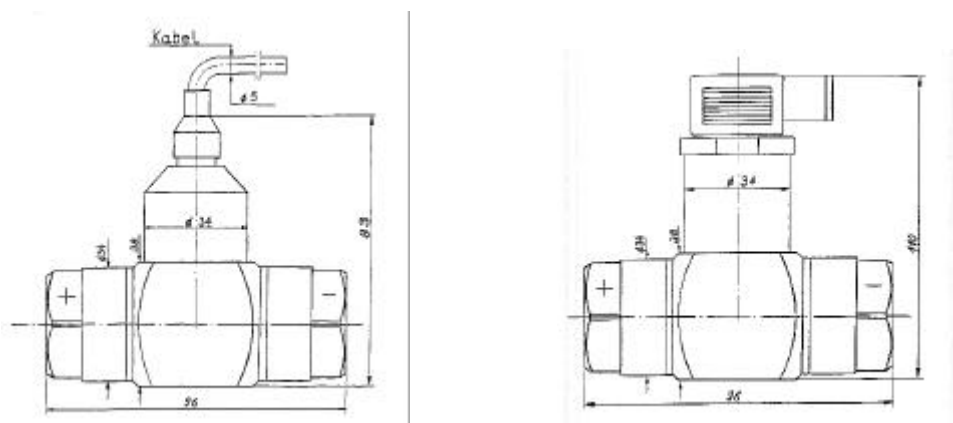
TECHNICAL DATA

Pressure range *(bar)	0,2; 0,5	1,0; 2,0; 5,0; 10,0; 20,0
Allowable static pressure (bar)	8	20 x FS (max. 80)
Allowable overpressure from „-” side (bar)	10 x FS (max 2,0)	2 x FS (max 20)

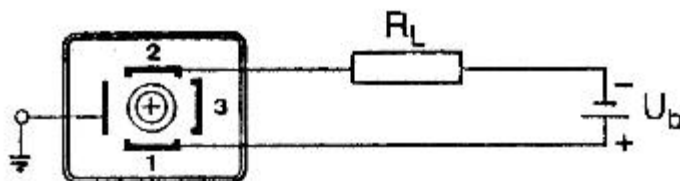
*- Special versions for 0.2 ...20 bar are concerning to the absolute pressure also.

Supply voltage (U)	15...36V DC
Output signal	4...20mA
Load resistance (R)	$R \leq \frac{U - 15V}{20mA} \times 10^3 [\Omega]$
Base error	$\leq 0,5\%$; optionally $< 0,25\%$
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: $\leq 0,25\%/10^\circ\text{C}$ typ. $\leq 0,5\%/10^\circ\text{C}$ max. range error $\leq 0,25\%/10^\circ\text{C}$
Housing protection	IP54 / IP65
Pressure terminal	according to ordering code
Electrical terminal	angle connector according to DIN43650 or cable 5m length (standard)
Weight	about 0,65kG
Materials:	
- separating diaphragm	316Lss
- housing and pressure terminal	1H18N9T

DIMENSIONS



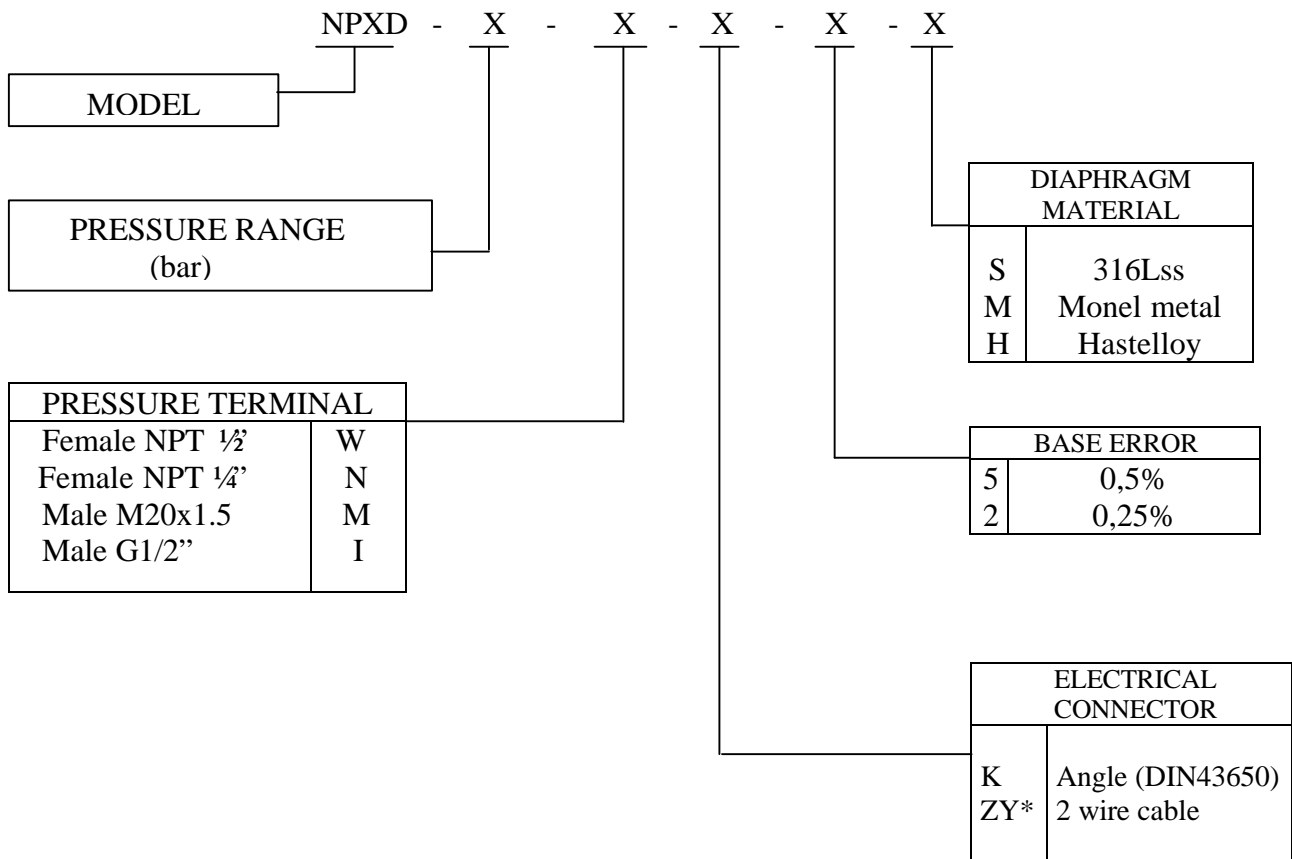
ELECTRICAL CONNECTIONS CIRCUIT DIAGRAM



ORDERING INFORMATION

Specify the model according to the ordering code:

Pressure difference transmitter



*Y-the length of the cable (in meters)

Ordering example:

NPXD-01-M-K-5-S medium: the soda lye NaOH 5%, temp. 10... 35°C, ambient temp. 0...45°C,max. static pressure 1 bar

NPXD– Pressure difference transmitter

01– Measurement range 0..0.1 bar

M – Pressure terminal with the metric thread M20x1.5 (manometric)

K – Electrical angle terminal (according to DIN 43650)

5 – Base error 0,5%

S – Diaphragm material 316Lss.

NOTES:

1. In transmitters with the angle connector is possible a change of the range wide up to about $\pm 10\%$.
2. In the special order is possible the construction and making of non typical transmitters.
3. In the order write please additionally: the type and the temperature of the medium and ambient temperature, like in the order example.



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The continual development of our products causes a necessity of changes introduction which can not be published in this doc