PNIV2 Series

Pressure level transmitter 0 ... 0.3 - 3 bar

Ref : 4014
Rev :

DESCRIPTION

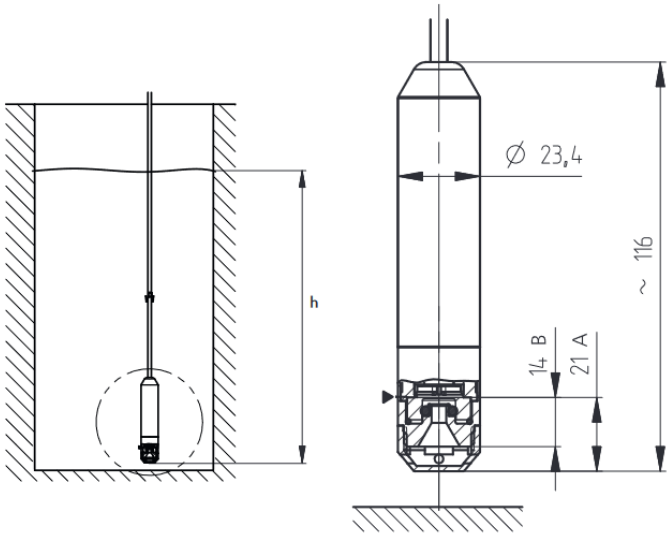
The level sensing pressure transmitter PNIV2 is designed to measure pressures in fluids between 0.8... 1.4 to 3 bar in relative and 0... 0.3 to 2.5 bar in absolute terms, with an adjusted and amplified sensor signal.
It is recommended for measurement in drinking water and fuels.
It is available with various cable lengths from 2 to 30 meters, according to your needs.
PNIV2 offers Ex protection as well as versions with integrated temperature measurement.
The outputs can be voltage, current but also with ratiometric outputs.

TECHNICAL CHARACTERISTICS

MODEL					
INPUT Pression range	Relative (bar)	0.0...+0.3	0.0...+1.0	0.0...+1.6	0.0...+2.5
	Absolute (bar)	0.8...+1.4	0.8...+2.0	0.8...+3.0	
Pression d'éclatement	1.5 x pression du système				
Fluide	- Fuel oil, ultra-light SN 181 160-2 - Fuel oil, heavy SN 181 160-2 - Diesel oil - Benzine - Drinking water (with EPDM O-ring)				
	2 wire	3 wire		4 wire (with temperature)	
Current consumption	< 20 mA	< 5 mA	< 3 mA	< 3 mA	
Power supply	10 ... 30 VDC	12 ... 30 VDC	5 VDC ±10%	5 VDC ±10%	
OUTPUT Output	4 ... 20 mA	0 ... 10 V	ratiom. 10 ... 90%	ratiom. 10 ... 90%	
Overvoltage protection	< power supply−10V / 0.02 A Ω	>10 kΩ / < 100 nF	> 5 kΩ / < 100 nF	> 5 kΩ / < 100 nF	
ENVIRONMENT Temperature fluid /ambient	-20 ... +80 °C				
Storage temperature	-40 ... +80 °C				

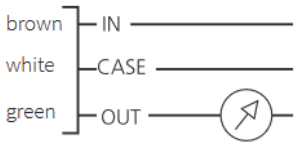
ACCURACY Standard	Parameter	Unit	
	Max deviation at 25 °C (incl. zero point, full scale, linearity, hysteresis and repeatability)	% FS	± 0.8
	Resolution (pressure range 0.3 bar < 0.2 % FS)	% FS	0.1
	Thermal characteristic (at -20 ... +80 °C) (for FS = 0.3 bar-type with output 4 ... 20 mA = ±0.5% fs/10K)	% FS/10k	± 0.2 ± 0.25
	Long-term stability acc. IEC EN 60770-1 max.	% FS	
Higher accuracy (only with ratiometric execution and pressure range > 1 bar))	Parameter	Unit	
	Max deviation at compensated temperature range at -10 ... +60 °C (incl. zero point, full scale, linearity, hysteresis and repeatability)	% FS	± 0.5
	Resolution (pressure range 0.3 bar < 0.2 % FS)	% FS	0.1
	Long-term stability acc. IEC EN 60770-1 max.	% FS	± 0.25

DIMENSIONS (mm)



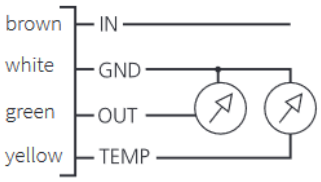
h - Fluid level
► - Measurement reference height
A - Distance from protection cover to the position of measuring diaphragm
B - distance from beginning of thread to the position of measuring diaphragm (versions without protection cover)

4 ... 20 mA



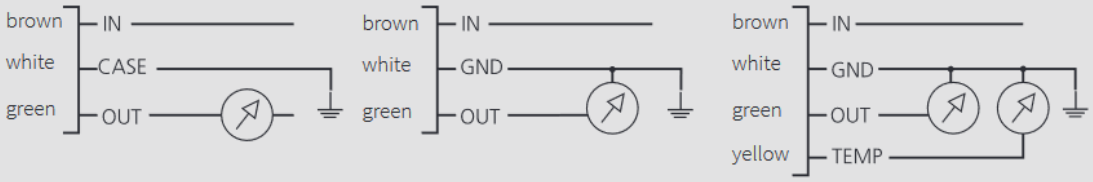
ratiom. 10 ... 90%, 0 ... 10 V

ratiom. 10 ... 90% with temperature

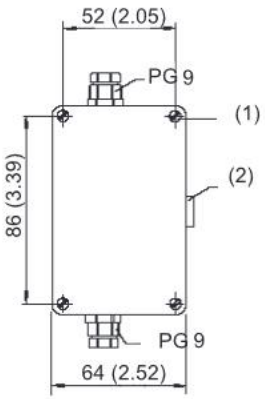


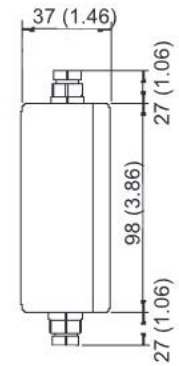
Device design with explosion protection: 4 ... 20 mA
The grounding connection is conductively connected to the level transmitter housing. The ground conductor of level transmitter must be connected to the equipotential bonding system of the plant.

Device design with explosion protection: ratiom. 10 ... 90%
The electronic GND is connected with a 1MΩΩ resistor to the level transmitter housing. The GND conductor of level transmitter must be connected to the equipotential bonding system of the plant.



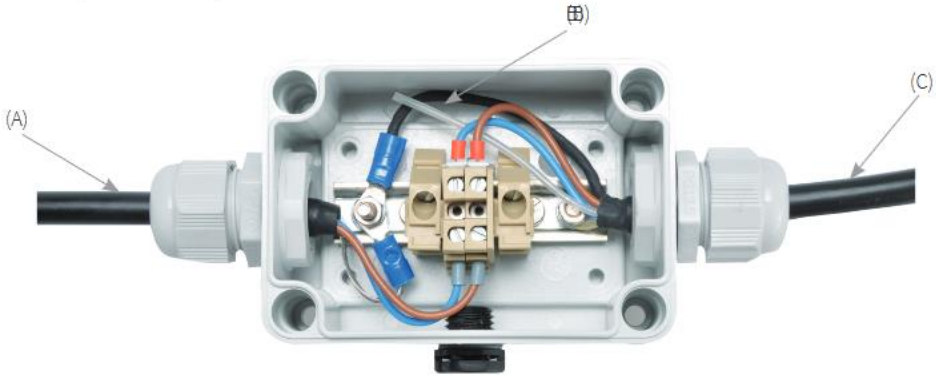
Connection box





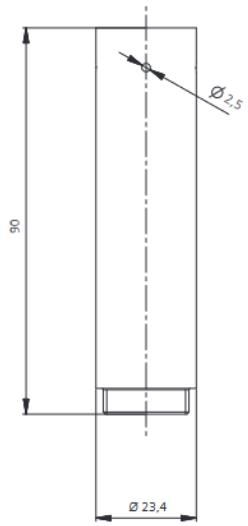
(1) Mounting hole
(2) Vent valve

(A) Measuring value process
(B) Vent pipe
(C) to the transmitter

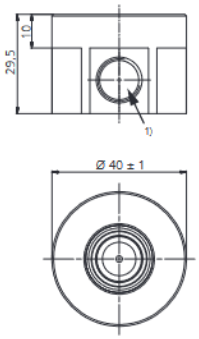


Additional weight

~200 g

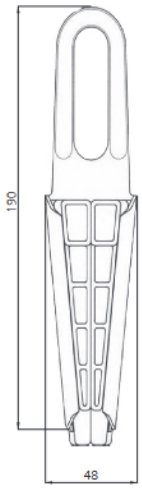


Test adapter



1) Inside thread Iso 228/1-G ¼ A

Cable hanger



hot-dip galvanized steel –
PA6 glass fibre reinforced

Cable Ø 4.5 ... 6.5

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