## PN300 – Electrical Pressure Transmitter with 4-digit LED display

- **High pressure rating**
- **Measuring range from 0...1barG to 0...600barG**
- **All-metal housing, 4-digit LEDs with digital display**
- **PNP/NPN programmable**
- **4...20mA/0...20mA/1...5V/0...5V output programmable**
- **Rotatable indicator**

PN300 equips with a ceramic thick film sensing element while a standard electrical signal is output and display. All-metal housing, 330° rotatable highlight LED display, dual keys and friendly menu design, multiple process connections.

### Specifications

| | |
|---|---|
| **Power Supply** | 12 ... 30Vdc |
| **Current Consumption** | ≤30mA (power supply 24Vdc, no-load) |
| **Switching Output** | |
| Output | Push-pull (compatible with PNP/NPN); |
| | NC/NO configurable |
| S1, S2 Output Current | <500mA |
| Response Time | <10ms |
| Voltage Drop | <1V |
| Accuracy | ≤±0.5% of F.S. |
| **Current Analog Output** | |
| Output | 3-wire 0...20mA / 4...20mA programmable |
| Load RA | RA≤0.5KΩ |
| **Voltage Analog Output** | |
| Output | 3-wire 0...5V / 1...5V programmable |
| Load RA | RA>10KΩ |
| **Wiring Protection** | Reverse polarity, overvoltage and short-circuit |
| **Display** | |
| Design | 8mm height, red 4-digit LED |
| Display Range | -1999...9999 |
| **Accuracy** | ≤±0 5% of F.S.,optional ±0 25% of F.S. |
| **Stability（Drift/Year）** | ≤±0.3% of F.S. |
| **Temperature** | |
| Medium/Ambient | -40...+85℃/-30...+85℃ |
| **Material** | |
| Dislpay Head | Zinc Alloy |
| Housing/Wetted Parts | 304 stainless steel/316 stainless steel |
| **Protection Class** | IP67 |
| **Electrical Connection** | M12×1 plug |

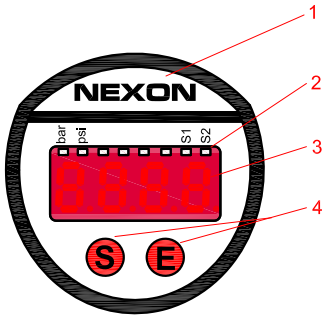
### Applications

- Pumps and compressors
- **Hydraulics and pneumatics**
- Machine tools
- **Machinery manufacturing**
- Vacuum technology applications

### Technical Data

| Pressure Range | bar | 1 | 2 | 5 | 10 | 16 | 25 | 40 | 60 | 100 | 160 | 250 | 400 | 600 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | psi | 15 | 30 | 75 | 145 | 230 | 370 | 580 | 900 | 1500 | 2300 | 3600 | 6000 | 9000 |
| Overload Pressure | | ×5 | | | ×3 | | | ×2 | | | | ×1.5 | | ×1.3 |
| Burst Pressure | | ×6 | | | ×4 | | | ×3 | | | | ×2 | | ×1.6 |

## Set Panel




1 – LOGO
2 – 8 state lights
3 – 4-digit LED display window
4 – Keys

| | |
|---|---|
| S + E | Press and hold for 2 seconds to enter setting mode/verification |
| S | Shift down the menu / Change a value |
| E | Shift up the menu / Change a value |

## Menu

| Display | Item | Description | Options |
|---|---|---|---|
| unit | unit | unit | psi/bar |
| SP1 | SP1 | set point of output 1 | 2% ...100% of F.S. |
| rP1 | rP1 | reset point of output 1 | lower limit ... 98% of F.S. |
| out1 | out1 | output mode | hysteresisNC/NO window NC/NO |
| SP2 | SP2 | set point of output 2 | 2% ...100% of F.S. |
| rP2 | rP2 | reset point of output 2 | lower limit ...98% of F.S. |
| out2 | out2 | output mode | hysteresisNC/NO window NC/NO |
| SFun | sfun | output function | PNP / NPN |

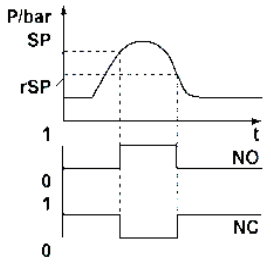
| Display | Item | Description | Options |
|---|---|---|---|
| Aout | Aout | current analog output | 0...20mA or 4...20mA |
| | | voltage analog output | 0...5V or 1...5V |
| ASt | Ast | analog output start point | lower limit ...75% of F.S. |
| AEd | AEd | analog output end point | 25%...100% of F.S. |
| Sto | Sto | Save | Yes/No |

## Functional Specifications

### Hysteresis Mode

The hysteresis keeps the switching output stable if the pressure fluctuates around the setpoint. Output switches when rising pressure reaches set point (SP1); As pressure falls, the output switches back only if the reset point (rP1) is reached.

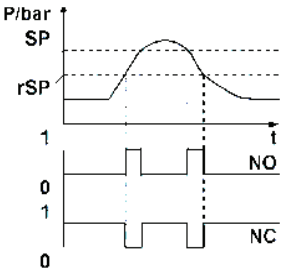
Hysteresis Mode




### Window Mode

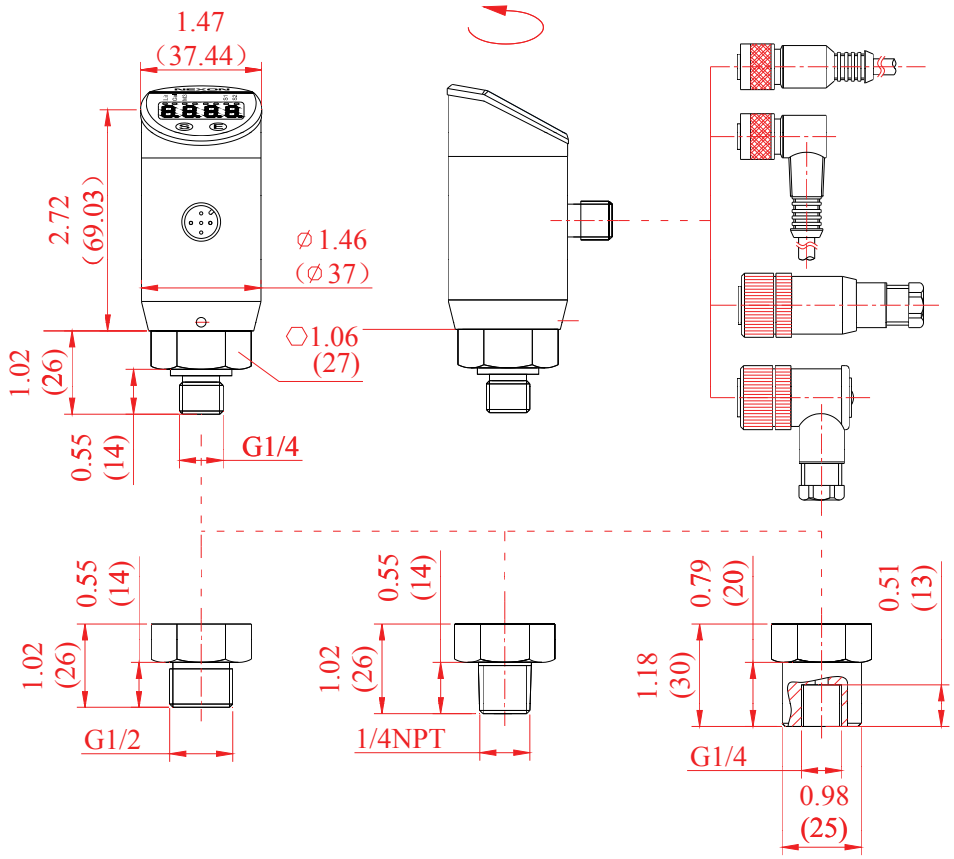
The window function allows the monitoring of a defined range. If the pressure is between set point (SP1) and reset point (rP1), the output is activated (NO), otherwise it is deactivated(NC).

Window Mode



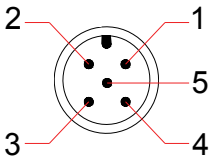

PRESSURE

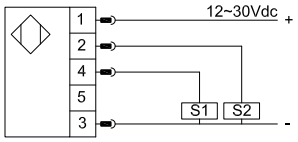
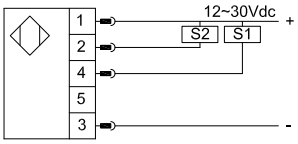
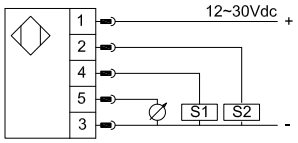
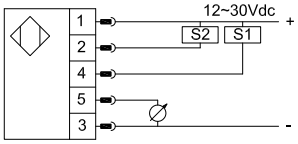
## Dimensions in inches (mm)




## Wiring

| Signal | Plug | Cable |
|---|---|---|
| U+ | 1 | Brown |
| U- | 3 | Blue |
| Switching output 1 | 4 | Black |
| Switching output 2 | 2 | White |
| Analog output (Current or Voltage) | 5 | Gray |




| PNP output | NPN output |
|---|---|
| 2xPNP  | 2xNPN  |
| 2xPNP + analog output  | 2xNPN + analog output  |

## Order Code

| | | |
|---|---|---|
| | **PN :** | Electrical pressure transmitter with 4-digit LED display |
| | **300 :** | Series# |
| | **Measuring Range :** | **B001**= 0...1bar (negative pressure -1...1bar) |
| | | B002= 0...2bar (negative pressure -1...2bar) |
| | | **B005**= 0...5bar (negative pressure -1...5bar) |
| | | B010= 0...10bar (negative pressure -1...10bar) |
| | | B016= 0...16bar |
| | | B025= 0...25bar |
| | | B040= 0...40bar |
| | | B060= 0...60bar |
| | | B100= 0...100bar |
| | | B160= 0...160bar |
| | | B250= 0...250bar |
| | | B400= 0...400bar |
| | | B600= 0...600bar |
| | **Note : Use Pxxxx for psi unit, xxxx is the measuring pressure range.** | |
| | **P :** | Positive pressure |
| | **N :** | Negative pressure |
| | **A :** | Absolute pressure |

| PN | 300/ | B100 | P | 21 | G14M | S |
|---|---|---|---|---|---|---|

| | |
|---|---|
| **20 :** | 2 switching outputs |
| **21 :** | 2 switching + 1 analog (0...20/4...20mA) outputs |
| **22 :** | 2 switching + 1 analog (0...5/1...5V) outputs |
| **Process connection** | |
| **G14F :** | G1/4 female thread |
| **G14M :** | G1/4 male thread |
| **N14M :** | NPT1/4 male thread |
| **S :** | M12X1 5-pin plug |

## Special Order On Request

- Pressure range
- **Electrical / process connection**
- Flange connection for food sanitation requirement
- **Flush membrane avaliable for viscous medium**
- Additional radiator for high-temperature medium