

RPN300 Electrical Pressure Transmitter

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



RPN300 equips with a ceramic thick film sensing element and a standard output and display. All-metal housing, 330° rotatable highlight LED display, dual keys and friendly menu design, multiple process connections.

Specifications

| | |
|------------------------------|---|
| Power Supply | 12 to 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 to 20mA / 4 to 20mA programmable |
| Load RA | RA≤0.5KΩ |
| Voltage Analog Output | |
| Output | 3-wire 0 to 5V / 1 to 5V programmable |
| Load RA | RA>10KΩ |
| Wiring Protection | Reverse polarity, overvoltage and short-circuit |
| Display | |

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

Казахстан (772)734-952-31

| | |
|-------------------------------|---|
| Design | 8mm height, red 4-digit LED |
| Display Range | -1999 to 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 to +85°C / -30 to +85°C |
| Material | |
| Display Head | Zinc Alloy |
| Housing/Wetted Parts | 304 stainless steel/316 stainless steel |
| Protection Class | IP67 |
| Electrical Connection | M12×1 plug |

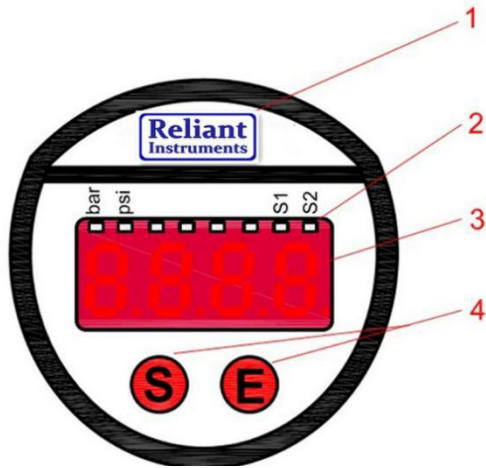
Applications

- ▶ Pumps and compressors
- ▶ Hydraulics and pneumatics
- ▶ Oil and Gas
- ▶ Machinery manufacturing
- ▶ Water treatment
- ▶ 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 |  | x5 | | | x3 | | | x2 | | | x1.5 | | x1.3 | |
| Burst Pressure |  | x6 | | | x4 | | | x3 | | | x2 | | x1.6 | |

Panel Setting



- 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

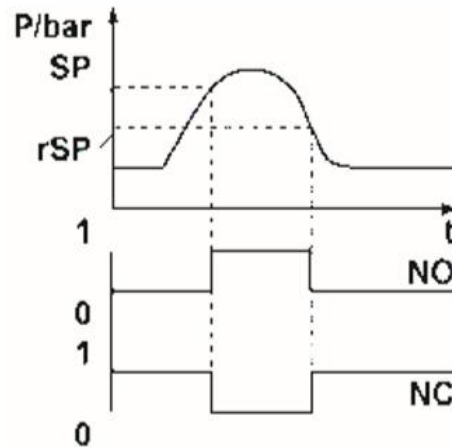
| Display | Item | Description | Options |
|-------------|------|-------------------------|-------------------------------|
| <i>unit</i> | unit | unit | psi/bar |
| <i>SP1</i> | SP1 | set point of output 1 | 2% ... 100% of F.S. |
| <i>rP1</i> | rP1 | reset point of output 1 | lower limit ... 98% of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

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

Functional Specifications

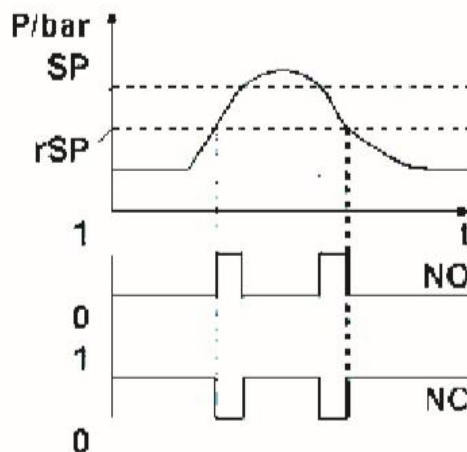
Hysteresis Mode

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

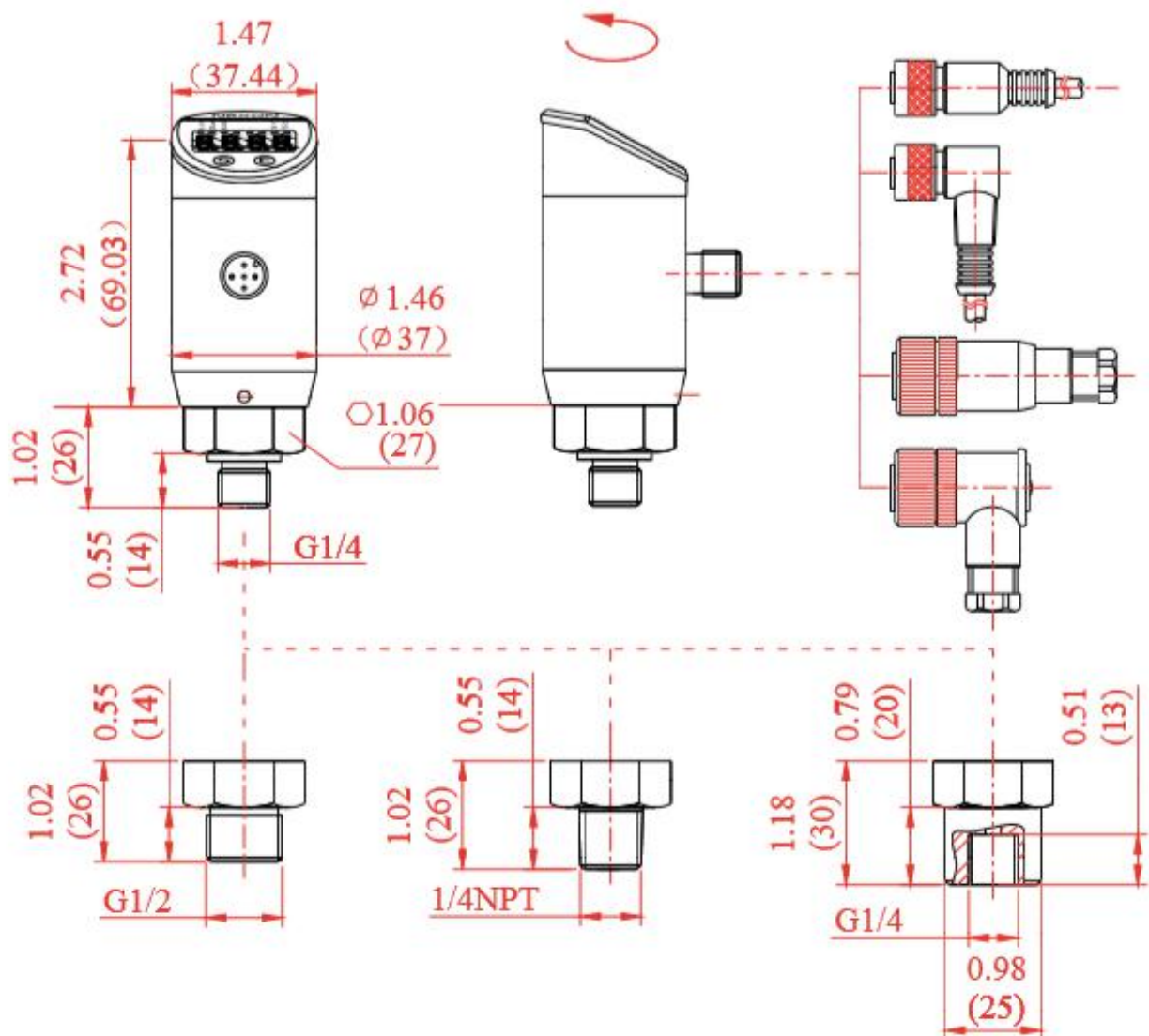


Window Mode

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).

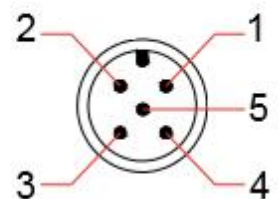


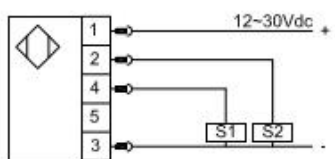
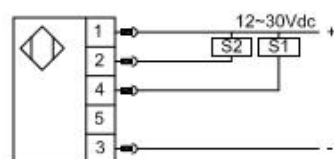
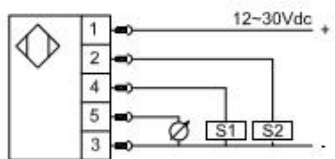
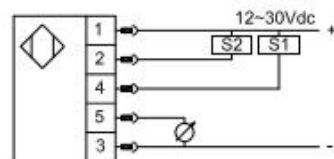
Dimensions in inches (mm)



Display 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 |
|--|--|
| <p>2xPNP</p>  | <p>2xNPN</p>  |
| <p>2xPNP + analog output</p>  | <p>2xNPN + analog output</p>  |

Order Code

| | |
|-------------|--|
| RPN: | Electrical pressure transmitter. |
| | Series Number. |
| | B001: 0 to 1bar (negative pressure -1 to 1bar) |
| | B002: 0 to 2bar (negative pressure -1 to 2bar) |
| | B005: 0 to 5bar (negative pressure -1 to 5bar) |
| | B010: 0 to 10bar (negative pressure -1 to 10bar) |
| | B016: 0 to 16bar. |
| | B025: 0 to 25bar |
| | B040: 0 to 40bar |
| | B060: 0 to 60bar |
| | B100: 0 to 100bar |
| | B160: 0 to 160bar |
| | B250: 0 to 250bar |
| | B400: 0 to 400bar |
| | B600: 0 to 600bar. |
| | Note: Use Pxxxx for psi unit, xxxx is the measuring pressure range. |
| P: | Positive pressure. |
| N: | Negative pressure. |
| A: | Absolute pressure. |

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

| | |
|----------------------------|--|
| 20: | 2 switching outputs. |
| 21: | 2 switching + 1 analog (0 to 20/ 4 to 20mA) outputs. |
| 22: | 2 switching + 1 analog (0 to 5/1 to 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 sanitation requirement
- ▶ Flush membrane is available for viscous medium
- ▶ Additional radiator for high-temperature medium



Warning

- Ensure the explosion-proof class marked on the nameplate to meet or exceed the required rating of the relevant installation environment.
- Ensure that the enclosure rating indicated on the nameplate to meet the requirements of the installation environment.
- Ensure that the ambient and process temperature ranges marked on the nameplates to meet the application requirements.

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