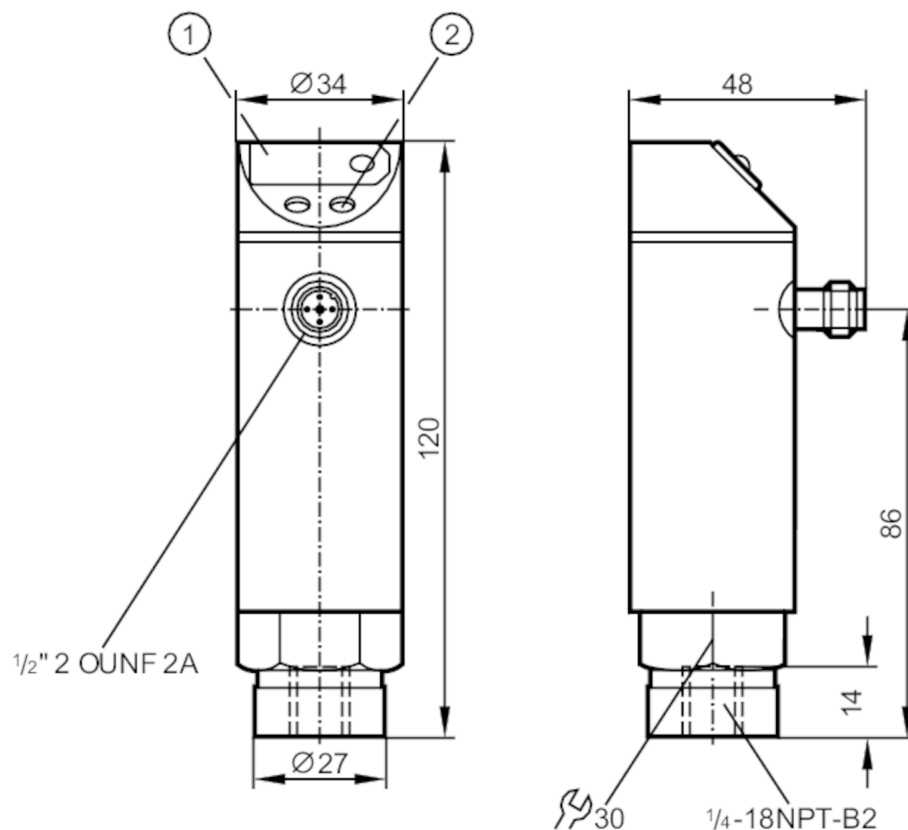


# PN4222



## Pressure sensor with display

PN-100-SBN14-HFBOW/LS/ IV



- 1 7-segment LED display
- 2 programming button



### Product characteristics

|                              |                                              |              |            |
|------------------------------|----------------------------------------------|--------------|------------|
| Number of inputs and outputs | Number of digital outputs: 1                 |              |            |
| Measuring range              | 0...100 bar                                  | 0...1450 psi | 0...10 MPa |
| Process connection           | threaded connection 1/4" NPT internal thread |              |            |

### Application

|                            |                                                    |          |        |
|----------------------------|----------------------------------------------------|----------|--------|
| Application                | for industrial applications                        |          |        |
| Media                      | liquids and gases                                  |          |        |
| Conditionally suitable for | use in gases at pressures > 25 bar only on request |          |        |
| Medium temperature [°C]    | -25...80                                           |          |        |
| Min. bursting pressure     | 650 bar                                            | 9400 psi | 65 MPa |
| Pressure rating            | 300 bar                                            | 4350 psi | 30 Mpa |
| Type of pressure           | relative pressure                                  |          |        |



## Pressure sensor with display

PN-100-SBN14-HFBOW/LS/ /V

| Electrical data                                 |                        |                                                                   |                               |
|-------------------------------------------------|------------------------|-------------------------------------------------------------------|-------------------------------|
| Operating voltage tolerance                     | [%]                    | 5...10                                                            |                               |
| Operating voltage                               | [V]                    | 85...265 AC                                                       |                               |
| Nominal voltage AC                              | [V]                    | < 250                                                             |                               |
| Current consumption                             | [mA]                   | < 10                                                              |                               |
| Min. insulation resistance                      | [MΩ]                   | 100; (500 V DC)                                                   |                               |
| Protection class                                |                        | II                                                                |                               |
| Reverse polarity protection                     |                        | no                                                                |                               |
| Power-on delay time                             | [s]                    | 0.2                                                               |                               |
| Integrated watchdog                             |                        | yes                                                               |                               |
| Inputs / outputs                                |                        |                                                                   |                               |
| Number of inputs and outputs                    |                        | Number of digital outputs: 1                                      |                               |
| Outputs                                         |                        |                                                                   |                               |
| Total number of outputs                         |                        | 1                                                                 |                               |
| Output signal                                   |                        | switching signal                                                  |                               |
| Electrical design                               |                        | Triac                                                             |                               |
| Number of digital outputs                       |                        | 1                                                                 |                               |
| Output function                                 |                        | normally open / normally closed; (parameterisable)                |                               |
| Max. voltage drop switching output AC           | [V]                    | 2                                                                 |                               |
| Permanent current rating of switching output AC | [mA]                   | 250; ((...70 °C) 1000 (...60 °C) 1500 (...45 °C) 2500 (...20 °C)) |                               |
| Switching frequency AC                          | [Hz]                   | < 160                                                             |                               |
| Short-circuit proof                             |                        | no                                                                |                               |
| Overload protection                             |                        | no                                                                |                               |
| Measuring/setting range                         |                        |                                                                   |                               |
| Measuring range                                 |                        | 0...100 bar                                                       | 0...1450 psi 0...10 MPa       |
| Set point SP                                    |                        | 1...99.9 bar                                                      | 10...1450 psi 0.1...9.99 MPa  |
| Reset point rP                                  |                        | 0.5...99.5 bar                                                    | 10...1440 psi 0.05...9.95 MPa |
| In steps of                                     |                        | 0.1 bar                                                           | 10 psi 0.01 MPa               |
| Accuracy / deviations                           |                        |                                                                   |                               |
| Switch point accuracy                           | [% of the span]        | < ± 1,0                                                           |                               |
| Repeatability                                   | [% of the span]        | < ± 0,1; (with temperature fluctuations < 10 K)                   |                               |
| Linearity deviation                             | [% of the span]        | < ± 0,5                                                           |                               |
| Hysteresis deviation                            | [% of the span]        | < ± 0,1                                                           |                               |
| Long-term stability                             | [% of the span]        | < ± 0,1; (per year)                                               |                               |
| Temperature coefficient zero point              | [% of the span / 10 K] | < ± 0,2; (-25...80 °C)                                            |                               |
| Temperature coefficient span                    | [% of the span / 10 K] | < ± 0,3; (-25...80 °C)                                            |                               |



## Pressure sensor with display

PN-100-SBN14-HFBOW/LS/ /V

| Response times                       |                           |                                                                                                                                                                                  |
|--------------------------------------|---------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Delay time programmable dS, dr       | [s]                       | 0, 0,2,...10, 11,...50                                                                                                                                                           |
| Damping for the switching output dAP | [s]                       | 0...4                                                                                                                                                                            |
| Software / programming               |                           |                                                                                                                                                                                  |
| Adjustment of the switch point       |                           | programming button                                                                                                                                                               |
| Parameter setting options            |                           | hysteresis / window; normally open / normally closed; switch-on/switch-off delay; Damping; adaptation of displayed values; display can be rotated and switched off; Display unit |
| Operating conditions                 |                           |                                                                                                                                                                                  |
| Ambient temperature                  | [°C]                      | -25...80                                                                                                                                                                         |
| Storage temperature                  | [°C]                      | -40...100                                                                                                                                                                        |
| Protection                           |                           | IP 67                                                                                                                                                                            |
| Tests / approvals                    |                           |                                                                                                                                                                                  |
| EMC                                  | EN 61000-4-2 ESD          | 4 kV CD / 8 kV AD                                                                                                                                                                |
|                                      | EN 61000-4-3 HF radiated  | 10 V/m                                                                                                                                                                           |
|                                      | EN 61000-4-4 Burst        | 2 kV                                                                                                                                                                             |
|                                      | EN 61000-4-6 HF conducted | 10 V                                                                                                                                                                             |
| Shock resistance                     | DIN IEC 68-2-27           | 50 g (11 ms)                                                                                                                                                                     |
| Vibration resistance                 | DIN IEC 68-2-6            | 20 g (10...2000 Hz)                                                                                                                                                              |
| MTTF                                 | [years]                   | 225                                                                                                                                                                              |
| Pressure Equipment Directive         |                           | Sound engineering practice; can be used for group 2 fluids; group 1 fluids on request                                                                                            |
| Mechanical data                      |                           |                                                                                                                                                                                  |
| Weight                               | [g]                       | 358.4                                                                                                                                                                            |
| Materials                            |                           | stainless steel (1.4301 / 304); PC; PBT; PA; FKM                                                                                                                                 |
| Materials (wetted parts)             |                           | stainless steel (1.4305 / 303); ceramics; FKM                                                                                                                                    |
| Min. pressure cycles                 |                           | 100 million                                                                                                                                                                      |
| Process connection                   |                           | threaded connection 1/4" NPT internal thread                                                                                                                                     |
| Restrictor element integrated        |                           | no (can be retrofitted)                                                                                                                                                          |
| Displays / operating elements        |                           |                                                                                                                                                                                  |
| Display                              | switching status          | LED, red                                                                                                                                                                         |
|                                      | function display          | 7-segment LED display                                                                                                                                                            |
|                                      | measured values           | 7-segment LED display                                                                                                                                                            |
| Electrical connection                |                           |                                                                                                                                                                                  |
| Required protection                  |                           | miniature fuse to IEC60127-2 sheet 1; ≤ 5 A; fast acting                                                                                                                         |
| Remarks                              |                           |                                                                                                                                                                                  |
| Remarks                              |                           | n.c. = not used                                                                                                                                                                  |
| Pack quantity                        |                           | 1 pcs.                                                                                                                                                                           |
| Electrical connection                |                           |                                                                                                                                                                                  |
| Connector: 1 x 1/2"                  |                           |                                                                                                                                                                                  |

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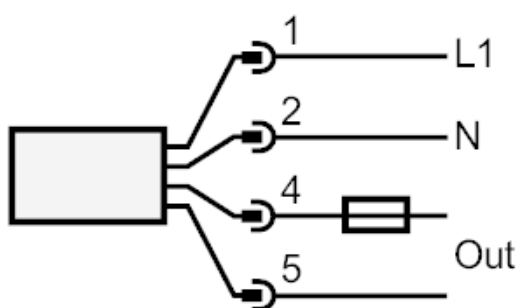


## Pressure sensor with display

PN-100-SBN14-HFBOW/LS/ /V



### Connection



Note miniature fuse to IEC60127-2 sheet 1  $\leq 5$  A fast acting