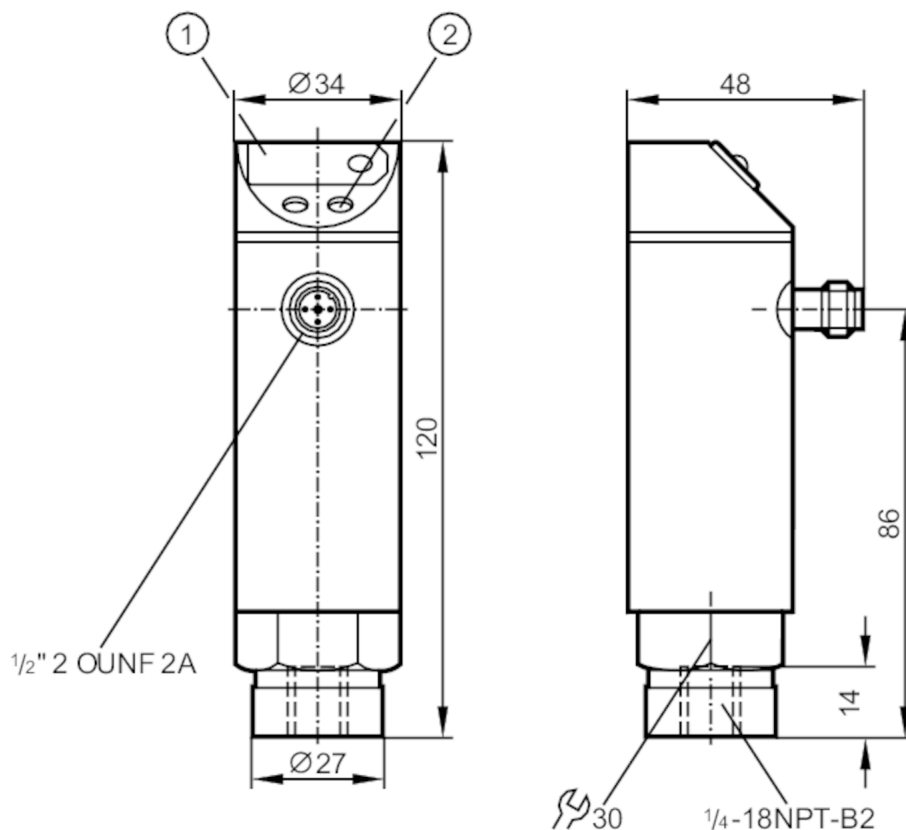


# PN4223



## Pressure sensor with display

PN-025-RBN14-HFBOW/LS/ IV



- 1 7-segment LED display
- 2 programming button



| Application                     |                   |          |        |
|---------------------------------|-------------------|----------|--------|
| Media                           | liquids and gases |          |        |
| Medium temperature [°C]         | -25...80          |          |        |
| Pressure rating                 | 100 bar           | 1450 psi | 10 MPa |
| Min. bursting pressure          | 350 bar           | 5075 psi | 35 MPa |
| Type of pressure                | relative pressure |          |        |
| 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               |          |        |



## Pressure sensor with display

PN-025-RBN14-HFBOW/LS/ /V

| 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...25 bar                                                                                                                                                                       | 0...363 psi | 0...2.5 MPa     |
| Set point SP                                              | 0.2...25 bar                                                                                                                                                                     | 4...363 psi | 0.02...2.5 MPa  |
| Reset point rP                                            | 0.1...24.9 bar                                                                                                                                                                   | 2...362 psi | 0.01...2.49 MPa |
| In steps of                                               | 0.1 bar                                                                                                                                                                          | 1 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)                                                                                                                                                           |             |                 |
| 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 65                                                                                                                                                                            |             |                 |

# PN4223



## Pressure sensor with display

PN-025-RBN14-HFBOW/LS/ /V

| 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]                   | 224.58              |

| Mechanical data          |                                                  |       |
|--------------------------|--------------------------------------------------|-------|
| Weight                   | [g]                                              | 384.2 |
| 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      |       |

| 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"



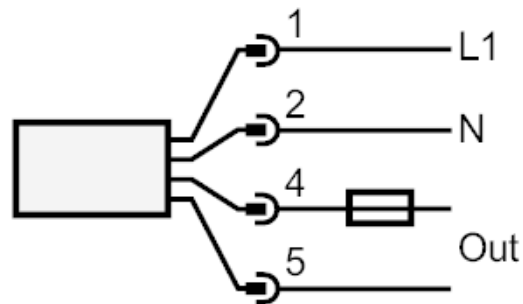
# PN4223



## Pressure sensor with display

PN-025-RBN14-HFBOW/LS/ /V

### Connection



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