

# PN3226



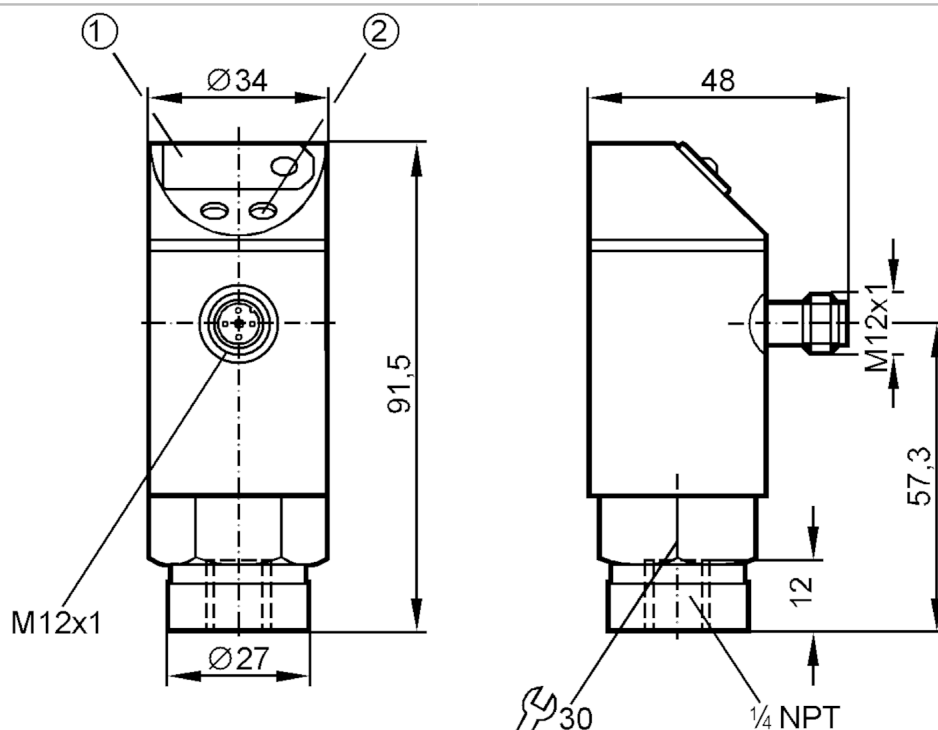
## Pressure sensor with display

PN-003PRBN14-KFPKG/US/ IV

Article no longer available - archive entry

Alternative articles: PN2226

When selecting an alternative article and accessories please note that technical data may differ!



- 1 7-segment LED display
- 2 programming button



### Product characteristics

|                              |                                                             |
|------------------------------|-------------------------------------------------------------|
| Number of inputs and outputs | Number of digital outputs: 1; Number of analogue outputs: 1 |
| Measuring range [psi]        | 0...30                                                      |
| Process connection           | threaded connection 1/4" NPT external thread                |

### Application

|                              |                             |
|------------------------------|-----------------------------|
| Application                  | for industrial applications |
| Media                        | liquids and gases           |
| Medium temperature [°C]      | -25...80                    |
| Min. bursting pressure [psi] | 725                         |
| Pressure rating [psi]        | 290                         |
| Type of pressure             | relative pressure           |

### Electrical data

|                             |            |
|-----------------------------|------------|
| Operating voltage [V]       | 20...30 DC |
| Current consumption [mA]    | < 60       |
| Protection class            | III        |
| Reverse polarity protection | yes        |
| Power-on delay time [s]     | 0.2        |
| Integrated watchdog         | yes        |



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| Inputs / outputs                                                |  |  |                                                                                             |  |     |    |    |    |    |    |     |     |     |
|-----------------------------------------------------------------|--|--|---------------------------------------------------------------------------------------------|--|-----|----|----|----|----|----|-----|-----|-----|
| Number of inputs and outputs                                    |  |  | Number of digital outputs: 1; Number of analogue outputs: 1                                 |  |     |    |    |    |    |    |     |     |     |
| Outputs                                                         |  |  |                                                                                             |  |     |    |    |    |    |    |     |     |     |
| Total number of outputs                                         |  |  | 2                                                                                           |  |     |    |    |    |    |    |     |     |     |
| Output signal                                                   |  |  | switching signal; analogue signal; (configurable)                                           |  |     |    |    |    |    |    |     |     |     |
| Electrical design                                               |  |  | PNP                                                                                         |  |     |    |    |    |    |    |     |     |     |
| Number of digital outputs                                       |  |  | 1                                                                                           |  |     |    |    |    |    |    |     |     |     |
| Max. voltage drop switching output DC [V]                       |  |  | 2                                                                                           |  |     |    |    |    |    |    |     |     |     |
| Permanent current rating of switching output DC [mA]            |  |  | 250                                                                                         |  |     |    |    |    |    |    |     |     |     |
| Number of analogue outputs                                      |  |  | 1                                                                                           |  |     |    |    |    |    |    |     |     |     |
| Analogue current output [mA]                                    |  |  | 4...20                                                                                      |  |     |    |    |    |    |    |     |     |     |
| Max. load [Ω]                                                   |  |  | 500                                                                                         |  |     |    |    |    |    |    |     |     |     |
| Short-circuit protection                                        |  |  | yes                                                                                         |  |     |    |    |    |    |    |     |     |     |
| Type of short-circuit protection                                |  |  | pulsed                                                                                      |  |     |    |    |    |    |    |     |     |     |
| Overload protection                                             |  |  | yes                                                                                         |  |     |    |    |    |    |    |     |     |     |
| Measuring/setting range                                         |  |  |                                                                                             |  |     |    |    |    |    |    |     |     |     |
| Measuring range [psi]                                           |  |  | 0...30                                                                                      |  |     |    |    |    |    |    |     |     |     |
| Set point SP [psi]                                              |  |  | 0.3...30                                                                                    |  |     |    |    |    |    |    |     |     |     |
| Reset point rP [psi]                                            |  |  | 0.1...29.8                                                                                  |  |     |    |    |    |    |    |     |     |     |
| In steps of [psi]                                               |  |  | 0.2                                                                                         |  |     |    |    |    |    |    |     |     |     |
| Accuracy / deviations                                           |  |  |                                                                                             |  |     |    |    |    |    |    |     |     |     |
| Switch point accuracy [X16]                                     |  |  | < ± 1,5                                                                                     |  |     |    |    |    |    |    |     |     |     |
| Repeatability [X16]                                             |  |  | < ± 0,25; (with temperature fluctuations < 10 K)                                            |  |     |    |    |    |    |    |     |     |     |
| Characteristics deviation [X16]                                 |  |  | < ± 1,0                                                                                     |  |     |    |    |    |    |    |     |     |     |
| Temperature drift per 10 K                                      |  |  | < ± 0.3                                                                                     |  |     |    |    |    |    |    |     |     |     |
| Response times                                                  |  |  |                                                                                             |  |     |    |    |    |    |    |     |     |     |
| Switching frequency for a given set response time of one output |  |  | Response time [ms]                                                                          |  | 3   | 6  | 10 | 17 | 30 | 60 | 125 | 250 | 500 |
|                                                                 |  |  | Switching frequency [Hz]                                                                    |  | 170 | 80 | 50 | 30 | 16 | 8  | 4   | 2   | 1   |
| Response time [ms]                                              |  |  | at rectangular pressure characteristic; switch point (SPx) = 70 %; reset point (rPx) = 30 % |  |     |    |    |    |    |    |     |     |     |
| Delay time programmable dS, dr [s]                              |  |  | 0, 0,2,...10, 11,...50                                                                      |  |     |    |    |    |    |    |     |     |     |
| Max. response time analogue output [ms]                         |  |  | 3                                                                                           |  |     |    |    |    |    |    |     |     |     |
| Software / programming                                          |  |  |                                                                                             |  |     |    |    |    |    |    |     |     |     |
| Adjustment of the switch point                                  |  |  | programming button                                                                          |  |     |    |    |    |    |    |     |     |     |
| Operating conditions                                            |  |  |                                                                                             |  |     |    |    |    |    |    |     |     |     |
| Ambient temperature [°C]                                        |  |  | -25...80                                                                                    |  |     |    |    |    |    |    |     |     |     |
| Storage temperature [°C]                                        |  |  | -40...100                                                                                   |  |     |    |    |    |    |    |     |     |     |
| Protection                                                      |  |  | IP 65                                                                                       |  |     |    |    |    |    |    |     |     |     |

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| 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) |

| Mechanical data          |                                                                 |
|--------------------------|-----------------------------------------------------------------|
| Materials                | EPDM/X; FKM; NBR; PBT; PC; PTFE; stainless steel (1.4301 / 304) |
| Materials (wetted parts) | FKM; ceramics; stainless steel (1.4305 / 303)                   |
| Min. pressure cycles     | 100 million                                                     |
| Process connection       | threaded connection 1/4" NPT external thread                    |

| Displays / operating elements |                  |                       |
|-------------------------------|------------------|-----------------------|
| Display                       | switching status | LED, red              |
|                               | function display | 7-segment LED display |
|                               | measured values  | 7-segment LED display |

| Remarks       |        |
|---------------|--------|
| Pack quantity | 1 pcs. |

Electrical connection

Connector: 1 x M12; coding: A



Connection

