



## Pressure sensor with display

PN-100-SBR14-KFPKG/US/ IV

Article no longer available - archive entry

Alternative articles: PN3002

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 [bar]        | 0...100                                                     |
| Process connection           | threaded connection G 1/4 internal thread                   |

### Application

|                              |                                                              |
|------------------------------|--------------------------------------------------------------|
| Special feature              | Gold-plated contacts                                         |
| Application                  | for industrial applications                                  |
| Media                        | liquids and gases                                            |
| Conditionally suitable for   | For gaseous media the application is limited to max. 25 bar. |
| Medium temperature [°C]      | -25...80                                                     |
| Min. bursting pressure [bar] | 650                                                          |
| Pressure rating [bar]        | 300                                                          |
| Type of pressure             | relative pressure                                            |

### Electrical data

|                                 |                 |
|---------------------------------|-----------------|
| Operating voltage [V]           | 20...30 DC      |
| Current consumption [mA]        | < 60            |
| Min. insulation resistance [MΩ] | 100; (500 V DC) |



## Pressure sensor with display

PN-100-SBR14-KFPKG/US/ IV

|                             |     |
|-----------------------------|-----|
| Protection class            | III |
| Reverse polarity protection | yes |
| Power-on delay time [s]     | 0.2 |
| Integrated watchdog         | yes |

### 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 [bar] | 0...100    |
| Set point SP [bar]    | 1...100    |
| Reset point rP [bar]  | 0.5...99.5 |
| In steps of [bar]     | 0.5        |

### Accuracy / deviations

|                                                  |                                                  |
|--------------------------------------------------|--------------------------------------------------|
| Switch point accuracy [% of the final value]     | < ± 1,5                                          |
| Repeatability [% of the final value]             | < ± 0,25; (with temperature fluctuations < 10 K) |
| Characteristics deviation [% of the final value] | < ± 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                                                                                           |     |    |    |    |    |    |     |     |     |



## Pressure sensor with display

PN-100-SBR14-KFPKG/US/ IV

| Software / programming                                                                         |                                                                                           |                       |
|------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|-----------------------|
| Adjustment of the switch point                                                                 | programming button                                                                        |                       |
| Parameter setting options                                                                      | hysteresis / window; normally open / normally closed; switch-on/switch-off delay; Damping |                       |
| 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)   |
| Mechanical data                                                                                |                                                                                           |                       |
| Materials                                                                                      | EPDM/X; FKM; PA; PBT; PC; stainless steel (1.4301 / 304)                                  |                       |
| Materials (wetted parts)                                                                       | stainless steel (1.4305 / 303); ceramics; FKM                                             |                       |
| Min. pressure cycles                                                                           | 100 million                                                                               |                       |
| Process connection                                                                             | threaded connection G 1/4 internal 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; Contacts: gold-plated                                           |                                                                                           |                       |
| <div></div> |                                                                                           |                       |

# PN3022



## Pressure sensor with display

PN-100-SBR14-KFPKG/US/ /V

### Connection

