

## Pressure sensor with LED bar display

PB-001-RBM12-HFPKG/US/ /V

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- 1 LED bar display  
2 programming button



## Product characteristics

|                              |                                                        |
|------------------------------|--------------------------------------------------------|
| Number of inputs and outputs | Number of digital outputs: 1                           |
| Measuring range [bar]        | 0...1                                                  |
| Process connection           | threaded connection M12 x 1,5 internal thread ISO 6149 |

## Application

|                              |                             |
|------------------------------|-----------------------------|
| Special feature              | Gold-plated contacts        |
| Application                  | for industrial applications |
| Media                        | liquids and gases           |
| Medium temperature [°C]      | -25...80                    |
| Min. bursting pressure [bar] | 30                          |
| Pressure rating [bar]        | 10                          |
| Type of pressure             | relative pressure           |

## Electrical data

|                                 |                 |
|---------------------------------|-----------------|
| Operating voltage [V]           | 18...30 DC      |
| Current consumption [mA]        | < 50            |
| Min. insulation resistance [MΩ] | 100; (500 V DC) |
| 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                       |
| Outputs                                         |                           |                                                    |
| Total number of outputs                         |                           | 1                                                  |
| Output signal                                   |                           | switching signal                                   |
| Electrical design                               |                           | PNP                                                |
| Number of digital outputs                       |                           | 1                                                  |
| Output function                                 |                           | normally open / normally closed; (parameterisable) |
| Max. voltage drop switching output DC           | [V]                       | 2                                                  |
| Permanent current rating of switching output DC | [mA]                      | 250                                                |
| Switching frequency DC                          | [Hz]                      | 10                                                 |
| Short-circuit protection                        |                           | yes                                                |
| Type of short-circuit protection                |                           | pulsed                                             |
| Overload protection                             |                           | yes                                                |
| Measuring/setting range                         |                           |                                                    |
| Measuring range                                 | [bar]                     | 0...1                                              |
| Set point SP                                    | [bar]                     | 0.05...1                                           |
| Reset point rP                                  | [bar]                     | 0.03...0.98                                        |
| In steps of                                     | [bar]                     | 0.01                                               |
| Note on hysteresis                              |                           | adjustable                                         |
| Accuracy / deviations                           |                           |                                                    |
| Switch point accuracy                           | [% of the final value]    | < ± 2,0                                            |
| Repeatability                                   | [% of the final value]    | < ± 0,25; (with temperature fluctuations < 10 K)   |
| Temperature drift per 10 K                      |                           | < ± 0.3                                            |
| Software / programming                          |                           |                                                    |
| Adjustment of the switch point                  |                           | programming button                                 |
| Operating conditions                            |                           |                                                    |
| Ambient temperature                             | [°C]                      | -25...80                                           |
| Storage temperature                             | [°C]                      | -40...100                                          |
| Protection                                      |                           | IP 65                                              |
| 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<br>50 g (11 ms)                    |
| Vibration resistance                            |                           | DIN IEC 68-2-6<br>20 g (10...2000 Hz)              |
| Mechanical data                                 |                           |                                                    |
| Dimensions                                      | [mm]                      | Ø 34 / L = 91.5                                    |

# PB5127



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|                          |                                                                   |
|--------------------------|-------------------------------------------------------------------|
| Materials                | EPDM/X; FKM; NBR; PA; PBT; PC; PTFE; stainless steel (304/1.4301) |
| Materials (wetted parts) | FKM; ceramics; stainless steel (303/1.4305)                       |
| Min. pressure cycles     | 100 million                                                       |
| Process connection       | threaded connection M12 x 1,5 internal thread ISO 6149            |

### Displays / operating elements

|         |                  |                                                   |
|---------|------------------|---------------------------------------------------|
| Display | switching status | LED, yellow                                       |
|         | measured values  | 10 x LED, green Resolution 10% of the final value |

### Remarks

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

### Electrical connection

Connector: 1 x M12; coding: A; Contacts: gold-plated

