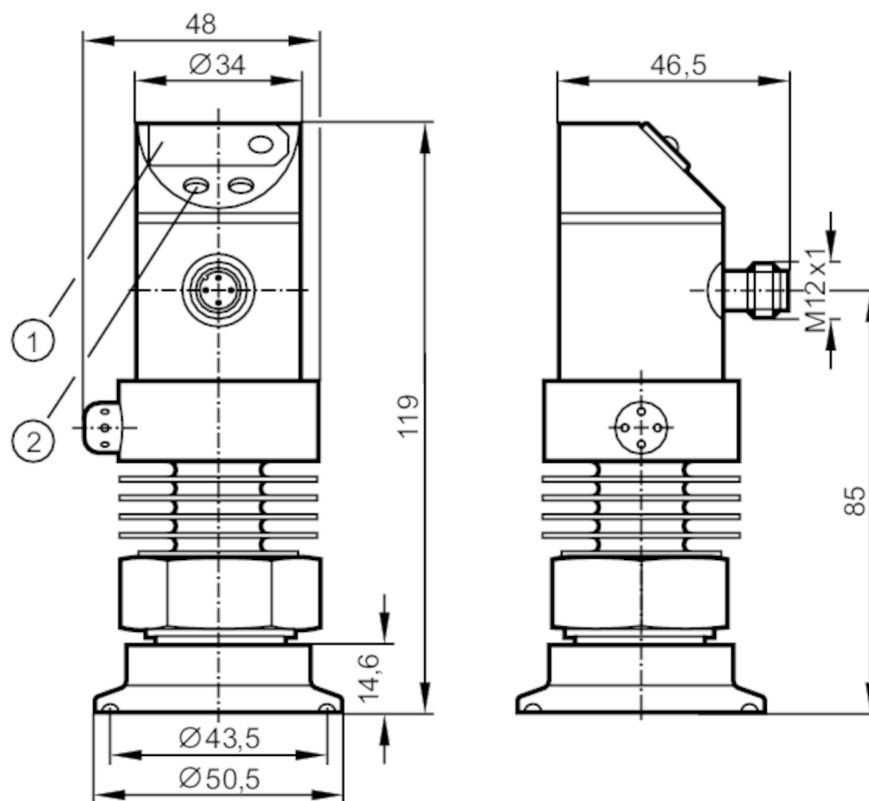


## Flush pressure sensor

PH-001-RES30-KFPKG/US/ /P

Article no longer available - archive entry



- 1 7-segment LED display  
2 Programming button



## Product characteristics

|                              |                                                           |                 |              |
|------------------------------|-----------------------------------------------------------|-----------------|--------------|
| Number of inputs and outputs | Number of digital outputs: 2; Number of analog outputs: 1 |                 |              |
| Measuring range              | -50...1000 mbar                                           | -0.7...14.5 psi | -5...100 kPa |
| Process connection           | 1,5"                                                      |                 |              |

## Application

|                         |                                                                       |         |          |
|-------------------------|-----------------------------------------------------------------------|---------|----------|
| System                  | gold-plated contacts                                                  |         |          |
| Application             | flush mountable for the food and beverage industry                    |         |          |
| Installation            | Freely rotatable housing 350°                                         |         |          |
| Media                   | viscous media and liquids with suspended particles; liquids and gases |         |          |
| Medium temperature [°C] | -25...125; (145 max. 1h)                                              |         |          |
| Min. bursting pressure  | 30000 mbar                                                            | 450 psi | 3000 kPa |
| Pressure rating         | 10000 mbar                                                            | 145 psi | 1000 kPa |
| Type of pressure        | relative pressure                                                     |         |          |
| No dead space           | yes                                                                   |         |          |

## Electrical data

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



## Flush pressure sensor

PH-001-RES30-KFPKG/US/ /P

|                             |     |
|-----------------------------|-----|
| 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: 2; Number of analog outputs: 1 |
|------------------------------|-----------------------------------------------------------|

### Outputs

|                                                      |                                                 |
|------------------------------------------------------|-------------------------------------------------|
| Total number of outputs                              | 2                                               |
| Output signal                                        | switching signal; analog signal; (configurable) |
| Electrical design                                    | PNP/NPN                                         |
| Number of digital outputs                            | 2                                               |
| Output function                                      | normally open / closed; (configurable)          |
| Max. voltage drop switching output DC [V]            | 2                                               |
| Permanent current rating of switching output DC [mA] | 250                                             |
| Switching frequency DC [Hz]                          | < 170                                           |
| Number of analog outputs                             | 1                                               |
| Analog current output [mA]                           | 4...20; (scalable 1:4)                          |
| Max. load [Ω]                                        | (U <sub>b</sub> - 10 V) / 20 mA                 |
| Analog voltage output [V]                            | 0...10; (scalable 1:4)                          |
| Min. load resistance [Ω]                             | 2000                                            |
| Short-circuit protection                             | yes                                             |
| Type of short-circuit protection                     | yes (non-latching)                              |
| Overload protection                                  | yes                                             |

### Measuring/setting range

|                    |                 |                 |                 |
|--------------------|-----------------|-----------------|-----------------|
| Measuring range    | -50...1000 mbar | -0.7...14.5 psi | -5...100 kPa    |
| Set point SP       | -45...999 mbar  | -0.7...14.5 psi | -4.5...99.9 kPa |
| Reset point rP     | -50...994 mbar  | -0.7...14.4 psi | -5...99.4 kPa   |
| Analog start point | -50...749 mbar  | -0.7...10.9 psi | -5...74.9 kPa   |
| Analog end point   | 200...999 mbar  | 2.9...14.5 psi  | 20...99.9 kPa   |
| In steps of        | 1 mbar          | 0.1 psi         | 0.1 kPa         |

### Accuracy / deviations

|                                                           |                                                                                                                    |
|-----------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|
| Repeatability [% of the span]                             | < ± 0,1; (with temperature fluctuations < 10 K; Turn down 1:1)                                                     |
| Characteristics deviation [% of the span]                 | < ± 0,6; (Turn down 1:1, linearity, incl. hysteresis and repeatability, limit value setting to DIN EN IEC 62828-1) |
| Linearity deviation [% of the span]                       | < ± 0,5; (Turn down 1:1)                                                                                           |
| Hysteresis deviation [% of the span]                      | < ± 0,1; (Turn down 1:1)                                                                                           |
| Long-term stability [% of the span]                       | < ± 0,1; (Turn down 1:1; per year)                                                                                 |
| Temperature coefficient zero point [% of the span / 10 K] | < ± 0,1; (-20...80 °C)                                                                                             |



## Flush pressure sensor

PH-001-RES30-KFPKG/US/ /P

|                                                        |                        |
|--------------------------------------------------------|------------------------|
| Temperature coefficient span<br>[% of the span / 10 K] | < ± 0,2; (-20...80 °C) |
|--------------------------------------------------------|------------------------|

### Reaction times

|                                                |                   |
|------------------------------------------------|-------------------|
| Response time [ms]                             | < 3               |
| Damping process value dAP [s]                  | 0...4             |
| Damping for the analog output dAA in steps [s] | 0 - 0,1 - 0,5 - 2 |
| Max. response time analog output [ms]          | 3                 |

### Software / programming

|                           |                                                                                                                                                                                                         |
|---------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Parameter setting options | hysteresis / window; normally open / closed; switching logic; current/ voltage output; Damping; adaptation of displayed values; display can be rotated and switched off; Display unit; Zero point; span |
|---------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

### 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

|                          |                                                                                          |
|--------------------------|------------------------------------------------------------------------------------------|
| Material                 | stainless steel (1.4404 / 316L); PBT; PC; PEI; EPDM/X; FKM                               |
| Materials (wetted parts) | stainless steel (1.4404 / 316L); ceramics (99.9 % Al <sub>2</sub> O <sub>3</sub> ); PTFE |
| Min. pressure cycles     | 100 million                                                                              |
| Process connection       | 1,5"                                                                                     |

### Displays / operating elements

|              |                  |                       |
|--------------|------------------|-----------------------|
| Display      | Switching status | 2 x LED, red          |
|              | Function display | 7-segment LED display |
|              | Measured values  | 7-segment LED display |
| Display unit | mbar; psi; kPa   |                       |

### Remarks

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

### Electrical connection

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

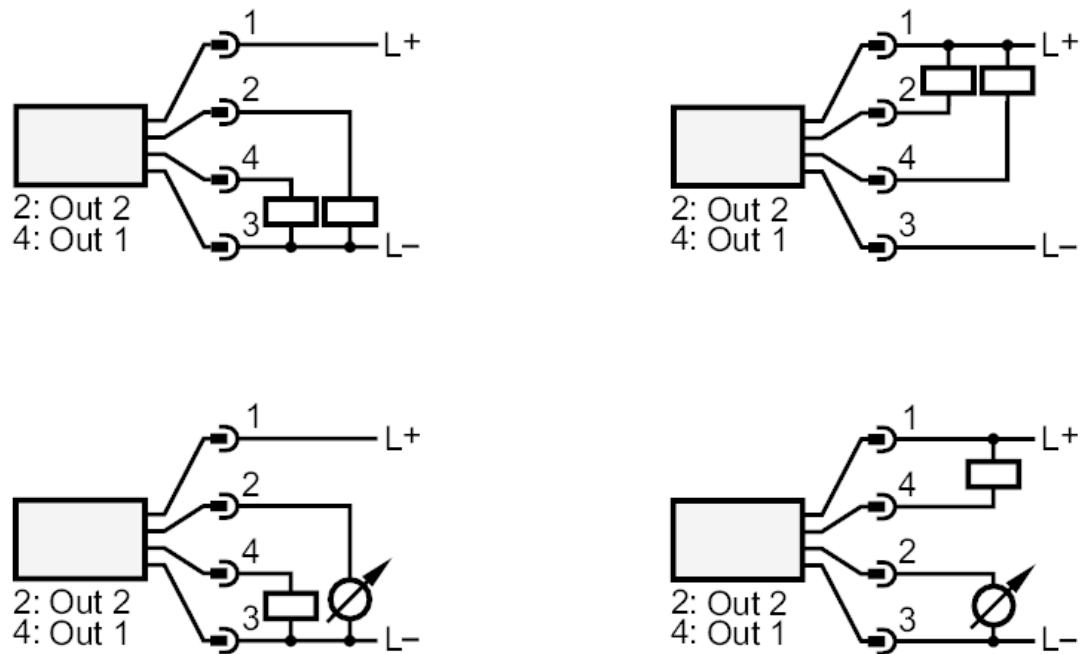




Flush pressure sensor

PH-001-RES30-KFPKG/US/ /P

Connection



|      |                  |
|------|------------------|
| OUT1 | Switching output |
| OUT2 | Switching output |
|      | analog output    |