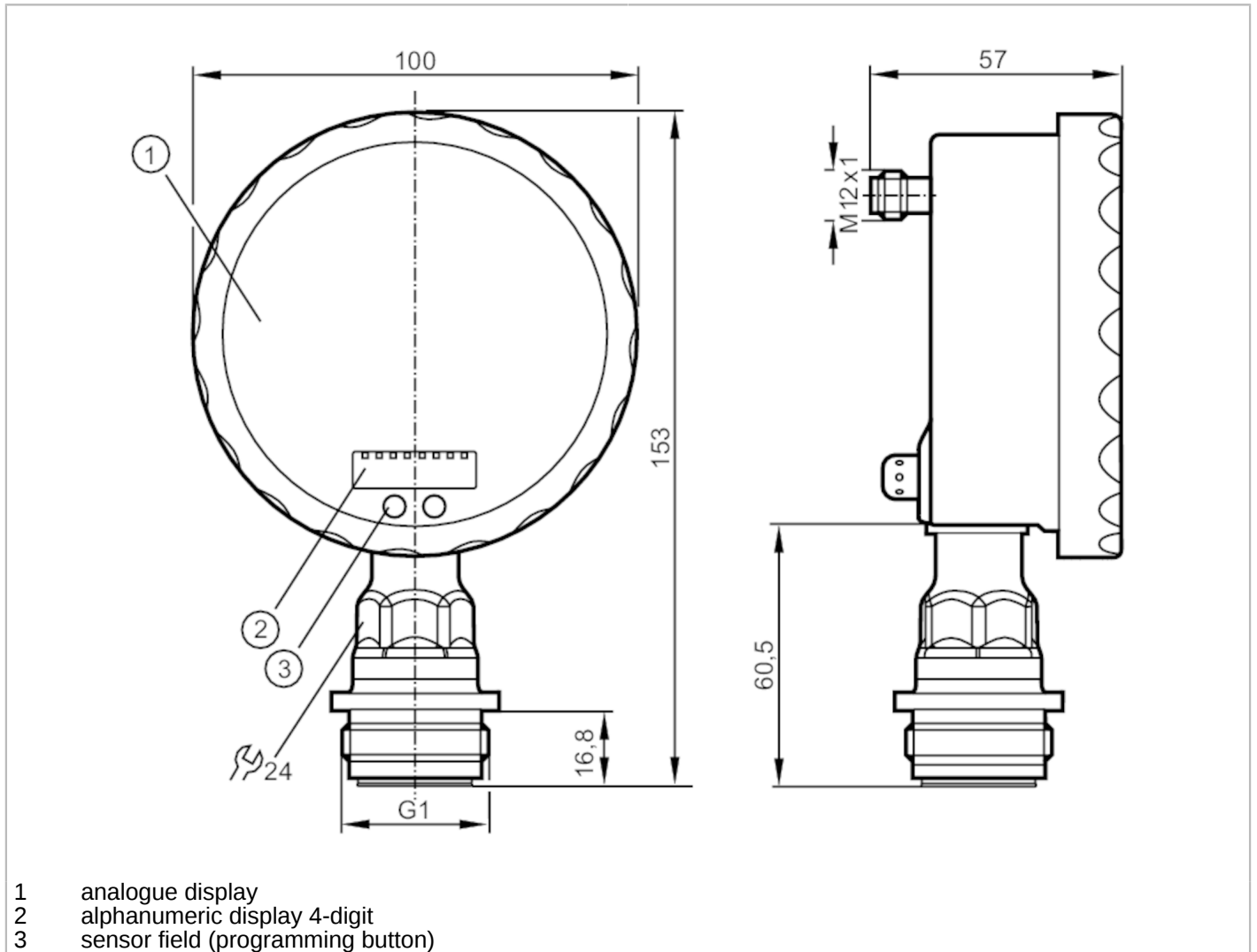


PG2789



Flush pressure sensor with analogue display

PG-,10BREA01-MFRKG/US/ IP



- 1 analogue display
- 2 alphanumeric display 4-digit
- 3 sensor field (programming button)



Product characteristics

| | | | |
|--------------------|--|---------------|------------------|
| Output signal | switching signal; analogue signal; (configurable) | | |
| Measuring range | -0.005...0.1 bar | -5...100 mbar | -2...40.15 inH2O |
| Process connection | threaded connection G 1 external thread Aseptoflex Vario | | |

Application

| | | | |
|--|--|-------------|--|
| Special feature | Gold-plated contacts | | |
| Application | food and beverage industry; Safety manometer (S) based on DIN EN 837-1 | | |
| Media | viscous media and liquids with suspended particles; liquids and gases | | |
| Medium temperature [°C] | -25...125; (145 max. 1h) | | |
| Pressure rating | 4000 mbar | 1605 inH2O | |
| Min. bursting pressure | 30000 mbar | 12043 inH2O | |
| Type of pressure | relative pressure | | |
| No dead space | yes | | |
| MAWP (for applications according to CRN) [bar] | 4 | | |



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| Electrical data | | |
|-----------------------------|------|-----------------|
| Operating voltage | [V] | 18...32 DC |
| Current consumption | [mA] | < 70; (24 V) |
| Min. insulation resistance | [MΩ] | 100; (500 V DC) |
| Protection class | | III |
| Reverse polarity protection | | yes |
| Power-on delay time | [s] | 6 |
| 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/NPN |
| 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] 50 |
| Number of analogue outputs | 1 |
| Analogue current output | [mA] 4...20, invertible; (scalable) |
| Max. load | [Ω] (U _b - 10 V) / 20 mA |
| Short-circuit protection | yes |
| Type of short-circuit protection | pulsed |
| Overload protection | yes |

| Measuring/setting range | | | |
|-------------------------|------------------|---------------|---------------------|
| Measuring range | -0.005...0.1 bar | -5...100 mbar | -2...40.15 inH2O |
| Set point SP | -4.8...160 mbar | | -1.95...64.25 inH2O |
| Reset point rP | -5...159.8 mbar | | -2.05...64.15 inH2O |
| Analogue start point | -5...135 mbar | | -2...54.2 inH2O |
| Analogue end point | 20...160 mbar | | 8.05...64.25 inH2O |
| In steps of | 0.1 mbar | | 0.05 inH2O |

| Accuracy / deviations | |
|---------------------------|---|
| Switch point accuracy | < ± 0,5; (Turn down 1:1) |
| Repeatability | < ± 0,1; (with temperature fluctuations < 10 K; Turn down 1:1) |
| Characteristics deviation | < ± 0,5; (Turn down 1:1 linearity, incl. hysteresis and repeatability limit value setting to DIN 16086) |
| Linearity deviation | < ± 0,25; (Turn down 1:1) |
| Hysteresis deviation | < ± 0,2; (Turn down 1:1) |
| Long-term stability | < ± 0,1; (Turn down 1:1; per year) |



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| | | |
|------------------------------------|------------------------|----------------------|
| | [% of the span] | |
| Temperature coefficient zero point | [% of the span / 10 K] | < ± 0,1; (0...70 °C) |
| Temperature coefficient span | [% of the span / 10 K] | < ± 0,2; (0...70 °C) |

Response times

| | | |
|--------------------------------------|------|-----------|
| Response time | [ms] | < 10 |
| Damping for the switching output dAP | [s] | 0.01...30 |
| Damping for the analogue output dAA | [s] | 0.01...30 |
| Step response time analogue output | [ms] | 25 |

Operating conditions

| | | |
|---------------------|------|---------------|
| Ambient temperature | [°C] | -25...80 |
| Storage temperature | [°C] | -40...100 |
| Protection | | IP 67; IP 69K |

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 61000-4-5 Surge | 0,5/1 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] | 100 |
| Note on approval | | factory certificate available as download at www.factory-certificate.ifm |

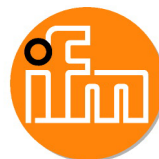
Mechanical data

| | | |
|--------------------------|-----|--|
| Weight | [g] | 549.5 |
| Materials | | stainless steel (1.4404 / 316L); PA; FKM; PTFE; viewing glass: laminated safety glass 4 mm |
| Materials (wetted parts) | | ceramics (99.9 % Al ₂ O ₃); PTFE; stainless steel (1.4435 / 316L); surface characteristics: Ra < 0,4 / Rz 4 |
| Min. pressure cycles | | 100 million |
| Process connection | | threaded connection G 1 external thread Aseptoflex Vario |

Displays / operating elements

| | | |
|-------------------------------|------------------|--|
| Display | Display unit | 2 x LED, green |
| | switching status | LED, yellow |
| | switch points | LED ring, red |
| | function display | alphanumeric display, red 4-digit |
| | measured values | analogue display, 0...350° rotatable, pointer not visible when unit disconnected |
| | measured values | alphanumeric display, red 4-digit |
| With scale | | yes |
| Extended display range (max.) | 160 mbar | 64.25 inH ₂ O |

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Remarks

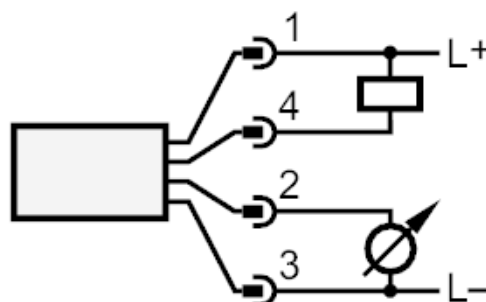
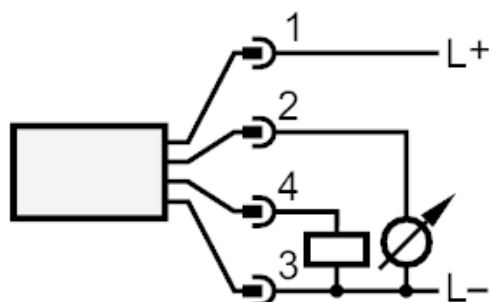
| | |
|---------------|--|
| Remarks | characteristics deviation in the extended display range: 1.5 % of the span switch point accuracy in the extended display range: 1.5 % of the span |
| Pack quantity | 1 pcs. |

Electrical connection

Connector: 1 x M12; Contacts: gold-plated



Connection



OUT1 switching output
OUT2 analogue output