



Level detection based on frequency sweep technology

- No mechanical part in movement
- Visible alarm status on site

Conductive level sensor

- Rugged housing

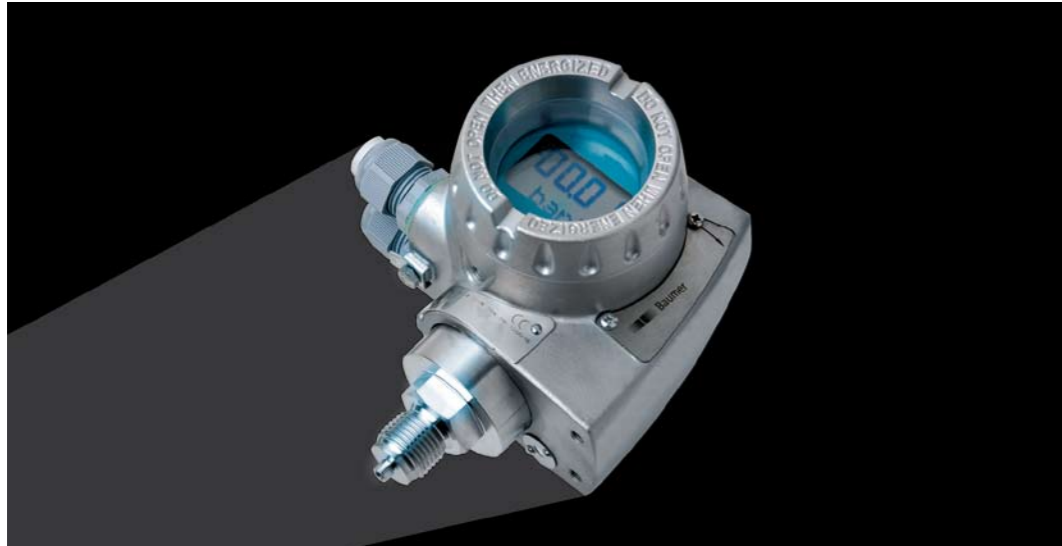
Proximity switch

- Up to 15 mm

Photo electric level switch

- Chemical resistant

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|---------------------|---|---|--|---|--|---|--|--|--|--|
| Model | Level Switch LFFS | Level Switch LFFS Sliding connection | Level Switch LBFS | Level Switch LBFS G $\frac{1}{2}$ for reverse assembly | | Level Switch LBFS G $\frac{1}{2}$ hygienic | LSK x2x | LSK x5x | | |
| Supply voltage | 12 ... 36 VDC | 12 ... 36 VDC | 12 ... 30 VDC | 12 ... 30 VDC | | 12 ... 30 VDC | 18 ... 36 VDC | 18 ... 36 VDC | | |
| Ambient conditions | PN \leq 40 bar T = -40 ... +115 °C | PN \leq 16 bar T = -40 ... +200 °C | PN \leq 40 bar T = -40 ... +85 °C | PN \leq 40 bar T = -40 ... +85 °C | | PN \leq 40 bar T = -40 ... +85 °C | PN \leq 16 bar T = -20 ... +140 °C | PN \leq 16 bar T = -20 ... +140 °C | | |
| Current consumption | \leq 35 mA | \leq 35 mA | \leq 35 mA | \leq 35 mA | | \leq 35 mA | \leq 10 mA with amplifier | | | |
| Switching current | \leq 50 mA | \leq 50 mA | \leq 20 mA | \leq 20 mA | | \leq 20 mA | 50 mA max. including amplifier | 5 A max. including amplifier Type DNGA | | |
| Connection thread | G $\frac{1}{2}$ " , 3A/DN38 | Sliding connection | G $\frac{1}{2}$ " , G $\frac{3}{4}$ " , G1" | G $\frac{1}{2}$ for reverse assembly | | G $\frac{1}{2}$ hygienic | G $\frac{1}{2}$ " | G1" | | |
| Protection class | IP 67 | IP 67 | IP 67 | IP 67 | | IP 67 | IP 67 | IP 67 | | |
| Approvals | ATEX gas + dust, 3A | ATEX gas + dust | ATEX gas + dust | ATEX gas + dust | | ATEX gas + dust | 3A | 3A | | |
| Additional data | - Wetted parts in acid-proof, stainless steel and PEEK - Measures media with DK-values >1.5 - Not influenced by foam - LED level monitor in the cover - Configurable by FlexProgrammer 9701 | - Wetted parts in acid-proof, stainless steel and PEEK - Process temperature -40 ... 200 °C - Measures media with DK-values >1.5 - Not influenced by foam - LED level monitor in the cover - Configurable by FlexProgrammer 9701 | - Stainless steel housing - Process temperature -40 ... 115 °C - Measures media with DK-values >1.5 - LED monitor in the cover - Configurable by FlexProgrammer 9701 | - Stainless steel housing - Process temperature -40 ... 85 °C - Measures media with DK-values >1,5 - LED monitor in the cover - Configurable by FlexProgrammer 9701 | | - Stainless steel housing - Process temperature -40 ... 115 °C - Measures media with DK-values Dk >1,5 - LED monitor in the cover - Configurable by FlexProgrammer 9701 | - Stub or single rod: L = 17 ... 2000 mm - Signal detection: contact with media - Output / Supply voltage: External / internal switching module - Conductivity of media: \geq 10 μ S/cm | - Multi rod: 1.4404 L = 200 ... 2000 mm - Signal detection: contact with media - Output / Supply voltage: external switching module - Conductivity of media: \geq 10 μ S/cm | | |







Hydrostatic level transmitter

- Very high accuracy
- HeavyDuty
- Fully programmable
- Communication protocol
- Integrated digital display

Submersible transmitter

- Compact design
- Excellent repeatability and long term stability

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|---|---|--|---|--|--|---|--|---|--|--|
| |  |  |  | | | |  |  | | |
| Model | FlexBar HRT | Flexbar 3501 | FlexBar 3431, Profibus® PA | | | Model | PSMN / PSMX | PSSN | | |
| Measuring range | 0 ... 20 mbar to -1 ... 400 bar | -1 ... 70 bar relative, absolute | 0 ... 20 mbar to -1 ... 400 bar | | | Measuring range | 0 ... 1 mH ₂ O 0 ... 250 mH ₂ O | 0 ... 6 mH ₂ O - 0 ... 10 mH ₂ O 0 ... 16 mH ₂ O - 0 ... 20 mH ₂ O | | |
| Span | 30 points linearisation | Auto Zero push button Turn down 25:1 / 30 point linearization | 30 points linearisation | | | Supply voltage | 8 ... 30 VDC (mA output) 13 ... 30 VDC (voltage output) | 8 ... 30 VDC | | |
| Overpressure | 400% of measuring range | Up to 15 times | 400% of measuring range | | | Accuracy (linearity, hysteresis and repeatability at 20 °C) | ±0.1% F.S., ±0.25% F.S | ±1% F.S. | | |
| Accuracy (linearity, hysteresis and repeatability at 20 °C) | ±0.2% F.S. | ±0.1% F.S. | ±0.2% F.S. | | | Output signal | 4 ... 20 mA, 0 ... 10 V 0 ... 5 V, 1 ... 5 V, 0.5 ... 4.5 V | 4 ... 20 mA | | |
| Supply voltage | 6.5 ... 35 VDC | 12 ... 35 VDC | 9 ... 32 VDC | | | Media temperature | -5 ... +80 °C | 5 ... +40 °C | | |
| Output signal | 4 ... 20 mA, HART® | 4 ... 20 mA HART® | Profibus PA | | | Process connection | - G $\frac{1}{2}$ flush, diaphragm protection cap open or closed (POM) - G $\frac{1}{2}$ flush diaphragm, with hexa 27 mm | - Open or closed version (protection cap POM) | | |
| Process connection | Standard: G $\frac{1}{2}$ " , 3A hygienic, flush diaphragm, Varivent® | Standard: G $\frac{1}{2}$ " EN 837-1 Clamp, hygienic, Varivent® | Standard: G $\frac{1}{2}$ " , 3A hygienic, flush diaphragm, Varivent® | | | Protection class | IP 68 | IP 68 | | |
| Protection class | IP 65, IP 67 | IP 67 | IP 65, IP 67 | | | Approval | - CE - ATEX II 1G / Ex ia IIC T5/T6 - German Lloyd (planned) | - CE | | |
| Approval | Ex ia IIC T5 / T6 | Ex ia IIC T4 / T5 | Ex ia IIC T5 / T6 | | | Additional data | - Configurable with Flexprogammer 9701 | | | |
| Additional data | - Field housing Ø 80 mm: stainless steel 1.4301, polished - FlexView LC-display optional | - Stainless steel, diecast housing size: 32 x 152 x140 mm | - Field housing Ø 80 mm: stainless steel 1.4301, polished - FlexView LC-display optional | | | | | | | |

Level measurement



Potentiometric level transmitter

- Wetted parts in acid-proof, stainless steel or PEEK
- Unaffected by strong adhesive media

Ultrasonic sensor

- High accuracy
- No mechanical parts in movement

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|-----------------------|--|--|--|--|
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| Model | LSP 050 | | | |
| Measuring range | Configurable, mini: 50 mm | | | |
| Output signal | 4 ... 20 mA | | | |
| Ambient condition | PN ≤ 16 bar T = -20 ... +140 °C | | | |
| Conductivity of media | ≥ 50µS/c | | | |
| Supply voltage | 18 ... 36 VDC | | | |
| Process connection | G1" | | | |
| Protection class | IP 67 | | | |
| Approval | 3A-Sanitary Standard | | | |
| Additional data | - Single rod: 1.4404 L = 200 ... 3000 mm - | | | |