



Baumer

Passion for Sensors

Process Sensors

Product Overview



Partnership.
Precise.
Pioneering.

Pressure measurement

| | Measuring range (bar) | Min. span (bar) | Accuracy (± % FS) | Absolute pressure | Media temperature ≥ 125 °C | Dry cell (no liquids) | Switch | Current Loop 4...20 mA | Voltage output | HART | Modbus | Display | ATEX | Type | Page |
|----------------------|-----------------------|-----------------|-------------------|-------------------|----------------------------|-----------------------|--------|------------------------|----------------|------|--------|---------|------|-------------------------------|------|
| Hygienic/front-flush | -1 ... 40 | 0.1 | 0.1; 0.25 | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | PBMH hygienic | 8 |
| Hygienic/front-flush | -1 ... 400 | 0.1 | 0.1; 0.25; 0.5 | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | PBMN flush | 8 |
| Hygienic/front-flush | -1 ... 68 | 0.1 | 0.1; 0.25 | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | CombiPress PFMH hygienic | 8 |
| Hygienic/front-flush | -1 ... 400 | 0.1 | 0.1; 0.25 | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | CombiPress PFMN flush | 8 |
| Hygienic/front-flush | -1 ... 40 | 0.4 | 0.1; 0.25 | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | PBMH autoclavable | 9 |
| Hygienic/front-flush | -1 ... 25 | 1.0 | 0.5 | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | (Y)TED hygienic | 9 |
| General industrial | -1 ... 600 | 0.025 | 0.3; 0.6 (BFSL) | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | Y91 | 6 |
| General industrial | -1 ... 40 | 0.1 | 0.1; 0.25; 0.5 | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | PBMN industrial low pressure | 7 |
| General industrial | -1 ... 200 | 1.0 | 0.5 (BFSL) | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | CTX/CTL | 6 |
| General industrial | -1 ... 400 | 1.0 | 0.5 | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | (Y)TED | 9 |
| General industrial | -1 ... 600 | 1.0 | 0.5; 0.7 | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | PBSN industrial | 6 |
| General industrial | -1 ... 600 | 1.0 | 0.5 (BFSL) | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | CPX | 9 |
| General industrial | 0 ... 1600 | 60 | 0.1; 0.25; 0.5 | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | PBMN industrial high pressure | 7 |
| General industrial | 0 ... 1600 | 60 | 0.3; 0.5 | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | PDRx | 7 |
| Hydraulics | 0 ... 1000 | 25 | 0.5 | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | PBM4 | 7 |
| Railway | -1 ... 250 | 1.0 | 0.5 | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | EF6 | 7 |



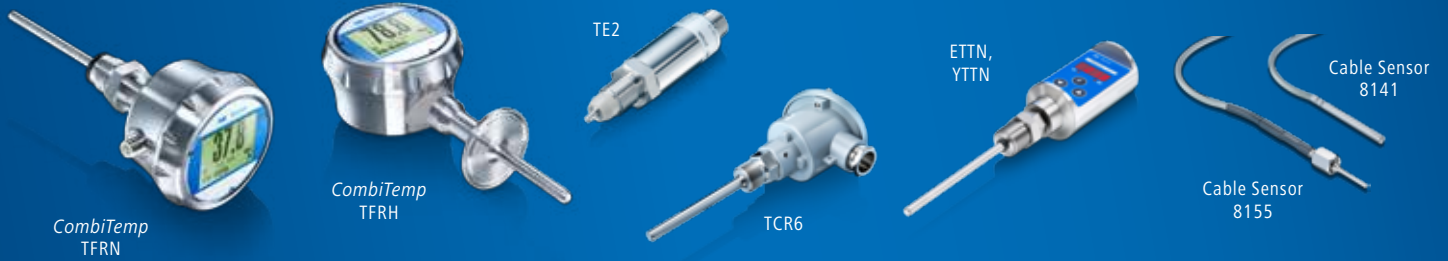
Conductivity measurement

| | Measuring range (mS/cm) | Min. span (mS/cm) | Switch | Current Loop 4...20 mA | HART | Type | Page |
|-----------------|-------------------------|-------------------|--------|------------------------|------|---------------|------|
| Compact version | 0 ... 1000 | 0.5 | ■ | ■ | ■ | CombiLyz AF14 | 19 |
| Split version | 0 ... 1000 | 0.5 | ■ | ■ | ■ | CombiLyz AF15 | 19 |



Temperature measurement

| | Measuring range (°C) | Pt 100 DIN Class | Transmitter accuracy (± °C) | Fit for mounting head transmitter | Compact OEM version | RTD resistance output | Wall or pipe mounted | Remote Sensor | Switch | Current Loop 4...20 mA | HART | Modbus | Display | ATEX | Type | Page |
|---------------------------|----------------------|--------------------|-----------------------------|-----------------------------------|---------------------|-----------------------|----------------------|---------------|--------|------------------------|------|--------|---------|------|---------------------------|------|
| Hygienic | -50 ... +250 | 1/6 B; 1/3 B; A; B | | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | CombiTemp TFRH | 10 |
| Hygienic | -50 ... +250 | 1/6 B; 1/3 B; A; B | 0.25 | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | Temperature sensor TE2 | 11 |
| Hygienic | -50 ... +205 | 1/6 B; 1/3 B; A; B | | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | Conical cable sensor 8155 | 14 |
| General industrial | -50 ... +400 | 1/6 B; 1/3 B; A; B | | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | CombiTemp TFRN | 10 |
| General industrial | -50 ... +400 | 1/6 B; 1/3 B; A; B | | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | TCR6 | 11 |
| General industrial | -200 ... +400 | B | 0.5 | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ETTN, YTTN | 11 |
| Environmental temperature | -40 ... +85 | 1/6 B; 1/3 B; A; B | | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | CombiTemp TFR5 | 10 |
| HVAC, general industrial | -50 ... +205 | 1/6 B; 1/3 B; B | | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | Cable sensor 8141 | 14 |



Temperature transmitter

| | Measuring range (°C) | Accuracy (± °C) | Pt100 | Pt500 | Pt1000 | T/C | Current Loop 4...20 mA | HART | ATEX | Type | Page |
|----------------------|----------------------|--------------------------|-------|-------|--------|-----|------------------------|------|------|---------------------------|------|
| Head transmitter | -200 ... +850 | 0.25 (0.1 % FS) | ■ | ■ | ■ | ■ | ■ | ■ | ■ | FlexTop 2202 (Pt100) | 12 |
| Head transmitter | -100 ... +1820 | 3.0; 4.0; 5.0 | ■ | ■ | ■ | ■ | ■ | ■ | ■ | FlexTop 2203 (T/C) | 12 |
| Head transmitter | -100 ... +160 | 0.25 | ■ | ■ | ■ | ■ | ■ | ■ | ■ | FlexTop 2204 (Pt500) | 12 |
| Head transmitter | -250 ... +2300 | 0.1 (Pt); 1.0; 2.0 (T/C) | ■ | ■ | ■ | ■ | ■ | ■ | ■ | FlexTop 2211 (Universal) | 13 |
| Head transmitter | -250 ... +2300 | 0.1 (Pt); 1.0; 2.0 (T/C) | ■ | ■ | ■ | ■ | ■ | ■ | ■ | FlexTop 2221 (HART) | 13 |
| DIN-rail transmitter | -200 ... +850 | 0.25 (0.1 % FS) | ■ | ■ | ■ | ■ | ■ | ■ | ■ | FlexTemp 2301 (Pt100) | 15 |
| DIN-rail transmitter | -250 ... +2300 | 0.1 (Pt); 1.0; 2.0 (T/C) | ■ | ■ | ■ | ■ | ■ | ■ | ■ | FlexTemp 2311 (Universal) | 15 |
| DIN-rail transmitter | -250 ... +2300 | 0.1 (Pt); 1.0; 2.0 (T/C) | ■ | ■ | ■ | ■ | ■ | ■ | ■ | FlexTemp 2321 (HART) | 15 |



Level measurement

| | Immersion length (mm) | Point level | Continuous level | Bulk solids | PC programmable | Direct teach-in | Switch | Current Loop 4...20 mA | ATEX | Type | Page |
|-----------------------|-----------------------|-------------|------------------|-------------|-----------------|-----------------|--------|------------------------|------|------------------|------|
| Frequency sweep | 0 ... 250 | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | CleverLevel LFFS | 16 |
| Frequency sweep | 0 ... 250 | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | CleverLevel LBFS | 16 |
| Conductive single rod | 0 ... 2000 | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | LSKx2x | 18 |
| Conductive multi rod | 0 ... 2000 | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | LSKx5x | 18 |
| Potentiometric | 200 ... 3000 | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | LSP051.x | 17 |



Process connections & accessories

| | Type | Page |
|------------------------------------|------------|------|
| Hygienic adapters | ZPH1 | 24 |
| Weld-in sleeves | ZPW1, ZPW2 | 31 |
| Vibronic level switch replacement | ZPH1-32xx | 38 |
| Standard threaded adapters | ZPI1 | 40 |
| Blind plugs, welding mandrels | ZPX5, ZPX6 | 42 |
| Additional parts, gaskets, o-rings | ZPXx | 46 |



ZPH1-524E



ZPH1-5236



ZPH1-327



ZPH1-626



ZPI1-32A



ZPH1-327



ZPX6-66



ZPH1-3213



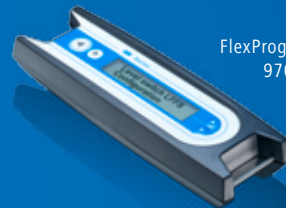
ZPX4-x10

Interfaces

| | ATEX Type | Page |
|---------------------------|---------------------|------|
| Graphics display | ■ CombiView DFON | 20 |
| USB programming interface | FlexProgrammer 9701 | 20 |
| Control relay for LSK | DNGA | |
| ATEX barrier for LxFS | ■ PROFSI3 | |



CombiView DFON



FlexProgrammer 9701

Compliance and approvals

Baumer products meet international industrial standards. Where appropriate or selected by options, they are FDA compliant, fulfil the requirements of the respective 3-A Sanitary Standard or comply with EU regulations 1935/2004, 10/2011 and 2023/2006. In addition certain products are EHEDG certified. For hazardous environments you have a choice of ATEX approved products. Please refer to the related data sheets for details.



Information on product characteristics may relate to defined product options. Only the applicable product data sheet is of relevance.

Visibly better: Baumer sensors.

The Baumer Group is leading at international level in the development and production of sensors, shaft encoders, measuring instruments as well as components for automatic image processing. As an owner-managed family business, we employ about 2300 workers worldwide in 38 subsidiaries and 19 countries. With marked customer orientation, consistently high quality and vast innovation capability, Baumer develops specific solutions for many industries and applications worldwide.

Our standards – your benefits.

- Passion coupled with expertise – both have made us a sensor pioneer and technology leader
- Our range of services is hard to beat – we have the right product, developed by our own team, for every task
- Inspiring through innovation – a challenge Baumer employees take on every day
- Reliability, precision and quality – our customers' requirements are what drives us
- Partnership from the start – together with our customers we develop suitable solutions
- Always a step ahead – thanks to our production depth, our flexibility and our delivery reliability
- Available worldwide – Baumer is Baumer everywhere





Baumer – rely on our technological advantage

Sophisticated and proven products, top precision and expert consultancy – Baumer meets all these demands in every respect. Our broad product portfolio provides optimally suited, dependable solutions, which provide a one-stop solution to meet your individual requirements. Our longstanding expertise, practical insights and technological supremacy give you the control you need to maximize production and equipment performance as well to reduce downtime and maintenance to a minimum.

Customization – our understanding of individual needs
Operating worldwide and present across the globe, we are always close to provide you with competent on-site support. The customer is at the very heart of our services, and our level of commitment is characterized by taking swift and effective action to respond to our customers' needs. Furthermore, beside our standard portfolio, we are specialized to produce your individual product in terms of your application demands.



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| User interface | 20 |
| Process connections & accessories | 22 |

Electronic pressure

The Baumer in-house cell competence: Baumer provides the optimum technology for your specific application.



CTX/CTL



Y91



PBSN industrial

| | CTX/CTL | Y91 | PBSN industrial |
|---|---|---|---|
| General Data | <ul style="list-style-type: none"> ■ OEM applications ■ Compact design ■ Stainless steel or brass construction | <ul style="list-style-type: none"> ■ Robust stainless housing ■ High overpressure resistance ■ Abrasive and chemical resistant | <ul style="list-style-type: none"> ■ Robust stainless housing ■ Abrasive and chemical resistant |
| Industries | Energy, Machinery HVAC | Laboratory & Medical, Oil & Gas / Chemical, Machinery | Laboratory & Medical, Energy, Machinery |
| Measuring ranges | -1 ... 0 bar to 0 ... 200 bar | -1 ... 0 bar to 0 ... 600 bar | -1 ... 0 bar to 0 ... 600 bar |
| Media temperature | -25 ... +100 °C | -25 ... +100 °C | -40 ... +125 °C |
| Technology | Ceramic thick film | Ceramic thick film | Ceramic thick film |
| Wetted parts material | CTL: Brass CTX: AISI 316L (1.4404) Ceramic (96 % Al ₂ O ₃) NBR, EPDM, FKM | AISI 316L (1.4404) Ceramic (96 % Al ₂ O ₃) NBR, CR, EPDM, FKKM, FKM | AISI 316L (1.4404) Ceramic (96 % Al ₂ O ₃) NBR, EPDM, FKM |
| Accuracy (linearity, hysteresis, repeatability) | ≤ ± 0.5% FS (BFSL) | ≤ 0.3% FS (BFSL) | ≤ 0.5 % FS ≤ 0.7 % FS |
| Output signal | 4 ... 20 mA 0 ... 10 V 1 ... 5 V 0.5 ... 4.5 V ratiometric | 4 ... 20 mA 0 ... 10 V | 4 ... 20 mA 0 ... 10 V |
| Overpressure | > 2x nominal pressure, max. 360 bar | > 2x nominal pressure, max. 800 bar | > 2x nominal pressure, max. 600 bar |
| Versatile options for process connection | G 1/4 DIN 3852 (CTX) G 1/4 EN 837 G 1/2 EN 837 (CTX) | G 1/4 EN 837 G 1/2 EN 837 1/4 NPT 1/2 NPT M20x1.5 | G 1/4 DIN 3852 G 1/4 EN 837 G 1/2 EN 837 |
| Electrical connection | M12, 4 pins DIN 43650 Shielded cable | DIN 43650, 4 pins Shielded cable (1.5 m) M12, 4 pins Terminal strip outlet + screwed cap Terminal strip outlet + cap with M20x150 thread and gland | M12, 4 pins DIN 43650 Shielded cable |
| Protection rating | IP 65, IP 67 | IP 67 | IP 65, IP 67 |
| Approvals | | ATEX I M1 Ex ia I Ma ATEX II 1G D Ex ia IIC T6 or T5 Ga Ex ia IIIC T80°C or T95°C Da IP6x | |

Pressure control with EF6 for:

- Braking
- Slide regulation
- Retarder cooling
- Sanding system
- Pantograph pressure



| | PDRx | PBM4 | PBMN industrial | EF6 |
|---|--|--|---|---|
| General Data | <ul style="list-style-type: none"> ■ Fully welded design ■ Excellent overpressure resistance ■ Compact design | <ul style="list-style-type: none"> ■ Fully welded design ■ High temperature resistance | <ul style="list-style-type: none"> ■ Fully welded design ■ Excellent overpressure resistance ■ Low measurement ranges (0 ... 100 mbar) | <ul style="list-style-type: none"> ■ Designed and manufactured according to EN50155 ■ Abrasive and chemical resistant |
| Industries | Energy, Transport & Logistics, Machinery | Transports & Logistics, Machinery | Laboratory & Medical, Oil & Gas / Chemical, Transport & Logistics, Machinery | Energy, Transport & Logistics |
| Measuring ranges | 0 ... 60 bar to 0 ... 1600 bar | 0 ... 25 bar to 0 ... 1000 bar | -1 ... 0 bar to 0 ... 40 bar / Piezoresistive silicon 0 ... 60 bar to 0 ... 1600 bar / Metal thin film | 0...6 bar to 0...250 bar |
| Media temperature | -25 ... +85 °C | -40 ... +150 °C | -40 ... +120 °C | -40...+125 °C |
| Technology | Metal thin film | Metal thin film | Piezoresistive silicon / Metal thin film | Ceramic thick film |
| Wetted parts material | AISI 304 (1.4301) AISI 630 (1.4542) | AISI 630 (1.4548) | AISI 316L (1.4404) AISI 316L (1.4435) AISI 304 (1.4301) AISI 630 (1.4542) | AISI 316L (1.4404) Ceramic (96% Al ₂ O ₃) FVMQ, NBR, EPDM, FKM |
| Accuracy (linearity, hysteresis, repeatability) | ≤ 0.3 % FS | ≤ 0.5 % FS | ≤ 0.1 % FS (Pnom ≥ 400 mbar) ≤ 0.25 % FS, ≤ 0.5 % FS | ≤ 0.5 % FS |
| Output signal | 4 ... 20 mA 0 ... 10 V CANopen | 4 ... 20 mA 1 ... 6 V 0 ... 5 V 0 ... 10 V 0.5 ... 4.5 V ratiometric | 4 ... 20 mA 0 ... 10 V | 4...20 mA 0...10 V |
| Overpressure | > 2x nominal pressure | > 2x nominal pressure, max. 1200 bar | > 3x nominal pressure Low pressure ≤ 40 bar > 2x nominal pressure High pressure ≥ 60 bar | > 2x nominal pressure |
| Versatile options for process connection | G 1/4 DIN 3852 G 1/4 EN 837 M14x1.5 60° cone | G 1/4 DIN 3852 G 1/4 DIN 3852 with Ø 0.6 mm nozzle G 1/4 EN 837 1/4 NPT | G 1/4 DIN 3852 G 1/4 EN 837 G 1/2 EN 837 | G 1/4 DIN 3852 G 1/4 EN 837 G 1/2 EN 837 |
| Electrical connection | M12, 4 pins | M12, 5 pins | M12, 4 pins DIN 43650 Shielded cable | M12, 4 pins DIN 43650 Shielded cable |
| Protection rating | IP 67 | IP 67 | IP 65, IP 67 | IP 65, IP 67 |
| Approvals | | | ATEX II 1G Ex ia IIC T4/T6 Ga ATEX II 1/2G Ex ia IIC T4/T6 Ga/Gb ATEX II 1D Ex ia IIIC T107°C IP6X Da | Railway (EN 50155) |

Customization is our passion!
One of our strengths is
customizing products to your
individual needs.



PBMN flush



**CombiPress®
PFMN flush**



PBMH hygienic



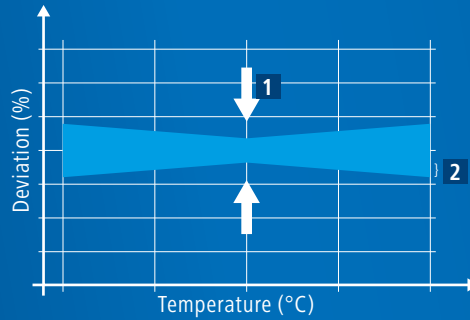
**CombiPress®
PFMH hygienic**

| General Data | <ul style="list-style-type: none"> ■ Compact design and flush diaphragm ■ Excellent temperature characteristics ■ SIP / CIP compatible | <ul style="list-style-type: none"> ■ Flush diaphragm ■ Optional display: CombiView® DFON ■ Programmable by touch screen ■ SIP / CIP compatible | <ul style="list-style-type: none"> ■ Compact and hygienic design ■ SIP / CIP compatible ■ Excellent temperature characteristics | <ul style="list-style-type: none"> ■ Hygienic design ■ Optional display: CombiView® DFON ■ Programmable by touch screen ■ SIP / CIP compatible |
|---|---|--|---|--|
| Industries | Food & Beverage Oil & Gas / Chemical Water / Waste Water | Food & Beverage Oil & Gas / Chemical Water / Waste Water | Food & Beverage Oil & Gas / Chemical Water / Waste Water | Food & Beverage Oil & Gas / Chemical Water / Waste Water |
| Measuring ranges | -1 ... 0 bar to 0 ... 400 bar | -1 ... 0 bar to 0 ... 400 bar | -1 ... 0 bar to 0 ... 40 bar | -1 ... 0 bar to 0 ... 60 bar |
| Media temperature | -40 ... +125 °C -40 ... +200 °C (with cooling neck) | -40 ... +125 °C -40 ... +200 °C (with cooling neck) | -40 ... +125 °C -40 ... +200 °C (with cooling neck) | -40 ... +125 °C -40 ... +200 °C (with cooling neck) |
| Technology | Piezoresistive silicon | Piezoresistive silicon | Piezoresistive silicon | Piezoresistive silicon |
| Wetted parts material | AISI 316L (1.4404) AISI 316L (1.4435) Hastelloy-C (optional) | AISI 316L (1.4404) AISI 316L (1.4435) Hastelloy-C (optional) | AISI 316L (1.4404) AISI 316L (1.4435) Hastelloy-C (optional) | AISI 316L (1.4404) AISI 316L (1.4435) Hastelloy-C (optional) |
| Accuracy (linearity, hysteresis, repeatability) | ≤ 0.1 % FS (Pnom ≥ 400 mbar) ≤ 0.25 % FS ≤ 0.5 % FS | ≤ 0.1 % FS (Pnom ≥ 400 mbar) ≤ 0.25 % FS | ≤ 0.1 % FS (Pnom ≥ 400 mbar) ≤ 0.25 % FS | ≤ 0.1 % FS (Pnom ≥ 400 mbar) ≤ 0.25 % FS |
| Output signal | 4 ... 20 mA 0 ... 10 V | 4 ... 20 mA HART® | 4 ... 20 mA 0 ... 10 V | 4 ... 20 mA HART® |
| Overpressure | 3x nominal pressure, max. 690 bar | 3x nominal pressure, max. 690 bar | > 3x nominal pressure | > 3x nominal pressure |
| Versatile options for process connection | G 1/2 A flush G 1" flush | G 1/2 A flush G 1" flush | TriClamp 1 1/2", 3-A TriClamp 2", 3-A | 3-A DN38 and DN76 TriClamp 1 1/2" and 2" Varivent® type N |
| Electrical connection | M12, 4 pins DIN 43650 Shielded cable | M12, 5 pins M12, 8 pins Cable gland, M16 | M12, 4 pins DIN 43650 Shielded cable | M12, 5 pins M12, 8 pins Cable gland, M16 |
| Protection rating | IP 65, IP 67 | IP 67, IP 69K | IP 65, IP 67 | IP 67, IP 69K |
| Approvals | ATEX II 1G Ex ia IIC T4/T6 Ga ATEX II 1/2G Ex ia IIC T4/ T6 Ga/Gb ATEX II 1G Ex ia IIC T3/T4/ T6 Ga ATEX II 1/2G Ex ia IIC T3/T4/ T6 Ga/Gb ATEX II 1D Ex ia IIIC T107°C IP6X DA | ATEX II 1GD Ex ia IIC T5 Ga Ex ta IIIC IP67 T100 Da ATEX II 3G Ex nA II T5 | ATEX II 1G Ex ia IIC T4/T6 Ga ATEX II 1/2G Ex ia IIC T4/ T6 Ga/Gb ATEX II 1G Ex ia IIC T3/T4/ T6 Ga ATEX II 1/2G Ex ia IIC T3/T4/ T6 Ga/Gb ATEX II 1D Ex ia IIIC T107°C IP6X DA 3-A, EHEDG, EL class 1 | ATEX II 1GD Ex ia IIC T5 Ga Ex ta IIIC IP67 T100 Da ATEX II 3G Ex nA II T5 3-A EHEDG, EL class 1 |
| Additional information | <ul style="list-style-type: none"> ■ External programming of zero point and span with FlexProgrammer 9701 | <ul style="list-style-type: none"> ■ Internal setting of 0-point ■ External programming with FlexProgrammer 9701 | <ul style="list-style-type: none"> ■ External programming of zero point and span with FlexProgrammer 9701 | <ul style="list-style-type: none"> ■ Internal setting of 0-point ■ External programming with FlexProgrammer 9701 |

Total error band

(accuracy and thermal drift)

The total error band specifies the characteristic deviation (linearity, hysteresis, repeatability) and the thermal drift over a temperature range.



1 Characteristic deviation at ambient temperature

2 Thermal drift



PBMH autoclavable



CPX



(Y)TED

| | | | |
|---|--|---|---|
| General Data | <ul style="list-style-type: none"> Fully autoclavable pressure transmitter for common sterilisation processes SIP/CIP compatible Surface roughness of process connection ≤ 0.8 Ra | <ul style="list-style-type: none"> Vacuum measurement Compact and light-weight design | <ul style="list-style-type: none"> Two threshold outputs Totally stainless steel 300° swivelling version |
| Industries | Health care Biotechnology Pharmaceutical | Machinery | Oil & Gas / Chemical Water / Waste Water / Food & Beverage / Machinery |
| Pressure ranges | -1 ... 0 bar to 0 ... 40 bar | -1 ... 0 bar to 0 ... 600 bar | -1 ... 0 bar to 0 ... 400 bar |
| Medium temperature | -10 ... +125 °C -10 ... +200 °C (with cooling neck) | -20 ... +100 °C | -20 ... +100 °C |
| Technology | Piezoresistive silicon | Ceramic thick film | Ceramic thick film |
| Wetted parts material | AISI 316L (1.4404) AISI 316L (1.4435) | AISI 316L (1.4404) Ceramic (96 % Al ₂ O ₃) NBR, EPDM, FKM | AISI 316L (1.4404) Ceramic (96 % Al ₂ O ₃) NBR, EPDM, FKM |
| Accuracy (linearity, hysteresis, repeatability) | $\leq \pm 0.1$ % FS, 0.25 % FS | ≤ 0.5 % FS (BFSL) | ≤ 0.5 % FS |
| Output signal | 4 ... 20 mA 0 ... 10 V | 2 PNP switching outputs | 4 ... 20 mA and 2 PNP or 2 isolated switching outputs RS-485 Modbus™ and 2 isolated switching outputs |
| Overpressure | max. 135 bar | 2x nominal pressure, max. 500 bar | 2x nominal pressure, max. 500 bar |
| Versatile options for process connection | TriClamp 1 1/2", 3-A TriClamp 3/4" | G 1/4 DIN 3852 G 1/4 EN 837 G 1/2 EN 837 | G 1/4 DIN 3852 G 1/4 EN 837 G 1/2 EN 837 Clamp DIN ISO 2852 |
| Electrical connection | M12, 4 pins Fischer plug, 4 pins | M12, 5 pins DIN 43650 | M12, 5 pins M12, 8 pins |
| Protection rating | IP 67 | IP 65, IP 67 | IP 67 |
| Approvals | 3-A, EHEDG EL class 1 | | 3-A, ATEX M1 Ex ia I Ma ATEX II 1G Ex ia IIC T5/T6 |
| Additional information | <ul style="list-style-type: none"> External programming with FlexProgrammer 9701 Available with optional electropolished process connection | <ul style="list-style-type: none"> External programming with FlexProgrammer 9701 | <ul style="list-style-type: none"> Explosion-proof version available Local programming on display Available with hygienic connection |

Electronic temperature



CombiSeries –
Safe and convenient process
monitoring and control.



CombiTemp® TFRN



CombiTemp® TFRH



CombiTemp® TFR5

| General Data | CombiTemp® TFRN | CombiTemp® TFRH | CombiTemp® TFR5 |
|--|---|---|--|
| General Data | <ul style="list-style-type: none"> ■ Industrial RTD temperature sensor ■ Optional display: <i>CombiView</i>® DFON ■ Threaded process connections ■ 4 ... 20 mA, HART® or Pt100-output | <ul style="list-style-type: none"> ■ Hygienic RTD temperature sensor ■ Optional display: <i>CombiView</i>® DFON ■ Hygienic process connections ■ 4 ... 20 mA, HART® or Pt100-output | <ul style="list-style-type: none"> ■ Room temperature or out-door temperature sensor ■ Can be used for remote temperature reading ■ Optional display: <i>CombiView</i>® DFON ■ Wall or pipe mounted ■ Housing and sensor in stainless steel |
| Industries | Oil & Gas / Chemical Water / Waste Water Energy Transport & Logistics Machinery | Food & Beverage Laboratory & Medical Water / Waste Water | Oil & Gas / Chemical, Water / Waste Water Energy Transport & Logistics Machinery Food & Beverage |
| Measuring ranges | -50 ... +400 °C | -50 ... +250 °C | Ambient -30 ... 80 °C (with DFON display) |
| Sensor element | Pt100 | Pt100 | Pt100 |
| Accuracy | DIN A 1/1 DIN B 1/1, 1/3, 1/6 | DIN A 1/1 DIN B 1/1, 1/3, 1/6 | DIN A 1/1 DIN B 1/1, 1/3, 1/6 |
| Wetted parts material | AISI 316L (1.4404) | AISI 316L (1.4404) | N/A |
| Versatile options for process connection | Tube without connection G1/2 male DIN 3852 G1/2 male ISO 228-1 R1/2 male ISO 7/1 1/2"-14 NPT male | G1/2 B Hygienic 3 A DN38 Hygienic DN25/DN38 Clamp, 3-A DN51 Clamp, 2" 3-A Varivent® type N | N/A |
| Display | <i>CombiView</i> ® DFON and BattTemp (optional) | <i>CombiView</i> ® DFON and BattTemp (optional) | <i>CombiView</i> ® DFON and BattTemp (optional) |
| Protection rating | IP 67 IP 69K | IP 67 IP 69K | IP 67 |
| Approvals | ATEX II 1G, Ex ia IIC T5 ATEX II 3G, Ex nA II T5 | 3-A ATEX II 1G, Ex ia IIC T5 ATEX II 3G, Ex nA II T5 | ATEX II 1G, Ex ia IIC T5/T6 ATEX II 3G, Ex nA II T5 |

To measure temperature accurately is a question of proper sensor placement. With Baumer you can always rely on competent advice.



TE2



TCR6



ETTN, YTTN

| | | | |
|--|---|--|--|
| General Data | <ul style="list-style-type: none"> ■ Compact and light weight ■ -50 ... +250 °C transmitter ■ 4 ... 20 mA or Pt100 output | <ul style="list-style-type: none"> ■ Industrial RTD temperature sensor ■ High level of modularity ■ Available with 4 ... 20 mA, HART or Pt100 / Pt1000 output | <ul style="list-style-type: none"> ■ Switching outputs ■ On site configuration ■ Suitable for hazardous areas ■ Ideal for safety circuits ■ Robust design for rugged industrial environment |
| Industries | Food & Beverage Laboratory & Medical Oil & Gas / Chemical Water / Waste Water Energy Transport & Logistics Machinery | Oil & Gas / Chemical Water / Waste Water Energy Transport & Logistics Machinery | Oil & Gas / Chemical Water / Waste Water Energy Transport & Logistics Machinery |
| Measuring ranges | -50 ... +250 °C | -50 ... 400 °C | Display range -200 ... +400 °C |
| Sensor element | Pt100 | Pt100 / Pt1000 | Pt1000 |
| Accuracy | DIN A 1/1 DIN B 1/1, 1/3, 1/6 | DIN A 1/1 DIN B 1/1, 1/3, 1/6 | DIN B 1/1 |
| Wetted parts material | AISI 316L (1.4404) (PEEK) | AISI 316L (1.4404) | AISI 316L (1.4404) |
| Versatile options for process connection | Process connections G1/2" male nipple G1/2 B Hygienic M12 x 1.5 Hygienic M12 x 1.5 Hygienic cone Conical sensor G1/4" DIN 3852-E DN25/DN38 clamp Triclamp® 1/2", 3/4" 3-A DN38 | Tube without connection G1/2 Male DIN 3852 A/E R1/2 Male ISO 7/1 1/2"-14 NPT Male M18, M20 G1/2, G3/4, G1 male rotating G1/2, G3/4 female union | Without union G 1/4 G 1/2 1/4 NPT 1/2 NPT |
| Display | No | No | 4 digit 7-segment LED (red) |
| Protection rating | M12: IP 67 DIN 43650: IP 65 | IP 65 | IP 67 |
| Approvals | 3-A | ATEX II 1G, Ex ia IIC T5/T6 ATEX II 3G, Ex nA II T5 | ATEX I M1 Ex ia I ATEX II 1G Ex ia IIC T6 to T5 |

User configurable transmitters for head mounting.



FlexTop 2202



FlexTop 2203



FlexTop 2204

| | | | |
|-------------------|--|--|--|
| General Data | <ul style="list-style-type: none"> ■ In-head transmitter for <i>CombiTemp</i>® or OEM applications ■ User configurable | <ul style="list-style-type: none"> ■ In-head transmitter for OEM applications ■ User configurable | <ul style="list-style-type: none"> ■ In-head transmitter for OEM applications ■ User configurable |
| Industries | Food & Beverage Laboratory & Medical Oil & Gas / Chemical Water / Waste Water Energy Transport & Logistics Machinery | Food & Beverage Laboratory & Medical Oil & Gas / Chemical Water / Waste Water Energy Transport & Logistics Machinery | Food & Beverage Laboratory & Medical Oil & Gas / Chemical Water / Waste Water Energy Transport & Logistics Machinery |
| Supply | 8 ... 35 VDC | 8 ... 35 VDC | 8 ... 35 VDC |
| Accuracy | < 0.25 °C (Pt100) | < 4 ... 5 °C | < 0.25 °C (Pt500) |
| Measuring range | -200 ... +850 °C | -100 ... +1820 °C -10 ... 100 mV | -100 ... +160 °C 0 ... 1000 Ohm |
| Input | Pt100, 2-, 3-, 4 wire | T/C and mV | Pt500 and Ohm |
| Output | 4 ... 20 mA | 4 ... 20 mA | 4 ... 20 mA |
| Protection rating | IP 40 | IP 40 | IP 40 |
| Approvals | Ex ia IIC T5/T6, ATEX II 1G Ex nA II T5, ATEX II 3G | Ex ia IIC T5/T6, ATEX II 1G Ex nA II T5, ATEX II 3G | Ex ia IIC T5/T6, ATEX II 1G Ex nA II T5, ATEX II 3G |

Transmitters with your individual logo and in your individual housing color.



FlexTop 2211



FlexTop 2221

| | | |
|-------------------|--|--|
| General Data | <ul style="list-style-type: none"> ■ In-head transmitter for <i>CombiTemp</i>® or OEM applications ■ User configurable | <ul style="list-style-type: none"> ■ In-head transmitter for <i>CombiTemp</i>® or OEM applications ■ User configurable |
| Industries | Food & Beverage Laboratory & Medical Oil & Gas / Chemical Water / Waste Water Energy Transport & Logistics Machinery | Food & Beverage Laboratory & Medical Oil & Gas / Chemical Water / Waste Water Energy Transport & Logistics Machinery |
| Supply | 6.5 ... 35 VDC / 8 ... 35 VDC | 6.5 ... 35 VDC / 8 ... 35 VDC |
| Accuracy | < 0.1 °C (Pt100) | < 0.1 °C (Pt100) |
| Measuring range | RTD: -200 ... +850 °C T/C: -270 ... +2300 °C Ohm: 0 ... 2200 Ω | RTD: -200 ... +850 °C T/C: -270 ... +2300 °C Ohm: 0 ... 2200 Ω |
| Input | RTD T/C mV and Ohm | RTD T/C mV and Ohm |
| Output | 4 ... 20 mA | 4 ... 20 mA and HART® |
| Protection rating | IP 40 | IP 40 |
| Approvals | Ex ia IIC T5/T6, ATEX II 1G Ex nA II T5, ATEX II 3G | Ex ia IIC T5/T6, ATEX II 1G Ex nA II T5, ATEX II 3G |

Precise and reliable temperature measurement.



Conical sensor

Cable sensor

| | | |
|--|---|---|
| General Data | <ul style="list-style-type: none"> ■ Compact and light weight ■ Hygienic cable sensor ■ Pt100 output | <ul style="list-style-type: none"> ■ Cable sensor with standard or air sensor ■ Cable length according to customer specification ■ Various Pt100 and Pt1000 elements available |
| Industries | Food & Beverage Laboratory & Medical Water / Waste Water | Oil & Gas / Chemical Energy Transport & Logistics Machinery |
| Measuring ranges | -50 ... +205 °C | -50 ... +205 °C |
| Sensor element | Pt100 | Pt100 Pt1000 |
| Accuracy | DIN A 1/1 DIN B 1/1, 1/3, 1/6 | DIN A 1/1 DIN B 1/1, 1/3, 1/6 |
| Wetted parts Material | AISI 316L (1.4404) | AISI 316Ti (1.4571) |
| Versatile options for process connection | G1/8 union, conical | |
| Protection rating | IP 65 | IP 65 |

When temperature measurement is crucial.



FlexTemp 2301



FlexTemp 2311



FlexTemp 2321

| General Data | <ul style="list-style-type: none"> ■ Rail mounted transmitter ■ Damping and status indication configurable | <ul style="list-style-type: none"> ■ Rail mounted transmitter ■ Damping and status indication configurable | <ul style="list-style-type: none"> ■ Rail mounted transmitter ■ Damping and status indication configurable |
|-------------------|--|--|--|
| Industries | Food & Beverage Laboratory & Medical Oil & Gas / Chemical Water / Waste Water Energy Transport & Logistics Machinery | Food & Beverage Laboratory & Medical Oil & Gas / Chemical Water / Waste Water Energy Transport & Logistics Machinery | Food & Beverage Laboratory & Medical Oil & Gas / Chemical Water / Waste Water Energy Transport & Logistics Machinery |
| Input | Pt100 | RTD, T/C, mV and R | RTD, T/C, mV and R |
| Output | 4 ... 20 mA | 4 ... 20 mA | 4 ... 20 mA and HART® |
| Measuring range | -200 ... +850 °C | RTD: -200 ... +850 °C T/C: -270 ... 2300 °C Ohm: 0 ... 2200 Ω | RTD: -200 ... +850 °C T/C: -270 ... 2300 °C Ohm: 0...2200 Ω |
| Accuracy | > 0,25°C (Pt100) | < 0.1°C (Pt100) | < 0.1°C (Pt100) |
| Supply | 8 ... 35 VDC | 6.5 ... 35 VDC | 8 ...35 VDC |
| Protection rating | Housing: IP 30 Terminals: IP 10 | Housing: IP 30 Terminals: IP 10 | Housing: IP 30 Terminals: IP 10 |

Level measurement



CleverLevel Switch
The clever alternative
to vibrating forks.



CleverLevel LBFS

CleverLevel LFFS

| | | |
|--|--|--|
| General Data | <ul style="list-style-type: none"> ■ Minimal insertion length ■ Detects all kinds of media (solid, liquid, viscous, pasty) ■ Compact and light weight | <ul style="list-style-type: none"> ■ Detects all kinds of media (solid, liquid, viscous, pasty) ■ Bright, blue light on top when triggered ■ Visible from long distance |
| Industries | Food & Beverage Laboratory & Medical Oil & Gas / Chemical Water / Waste Water Energy Transport & Logistics Machinery | Food & Beverage Laboratory & Medical Water / Waste Water |
| Process conditions | -40 ... +115 °C | -40 ... +115 °C -40 ... +200 °C |
| Versatile options for process connection | G1/2" G3/4" 3/4" NPT G1" G1/2" B hygienic M18x1 G1/2" for reverse assembly | G1/2" B hygienic 3A DN38 G1/2" sliding connection |
| Switching points | 1 | 1 |
| Wetted parts material | PEEK AISI 316L (1.4404) or AISI 304 (1.4301) | PEEK |
| Protection rating | IP67 / IP69K | IP 67 |
| Approvals | ATEX II 1G, Ex ia IIC T5 ATEX II 1D, Ex ta IIIC T100 Da T100°C ATEX II 3G, Ex nA II T5 3-A EHEDG WHG EN50155 (railway) DNV GL Lloyd's register CCS | ATEX II 1G, Ex ia IIC T5 ATEX II 1D, Ex A20 IP67 ATEX II 3G, Ex nA II T5 3-A EHEDG WHG EN50155 (railway) DNV |
| Additional information | <ul style="list-style-type: none"> ■ M18x1 replaces a capacitive sensor directly ■ G1/2" reverse for inside mounting in a tank ■ Hanging version ■ Adaptors for other hygienic connections available (see accessories) | <ul style="list-style-type: none"> ■ Available with sliding connection 100 mm and 250 mm for reaching media which is difficult to access or for high temperatures up to 200 °C |

Robust and reliable.



LSP051.X



LSP056.X



PSMN submersible



PSSN submersible

| | | | | |
|---|--|--|--|---|
| General Data | <ul style="list-style-type: none"> Fast response time < 10 ms Insensitive to foam, bubbles and sticky media Top-, bottom- or side mounting | <ul style="list-style-type: none"> Fast response time < 10 ms Insensitive to foam, bubbles and sticky media Separate electronics | <ul style="list-style-type: none"> Excellent long term stability Piezoresistive silicon sensor | <ul style="list-style-type: none"> High long term stability Abrasive and chemical resistant |
| Industries | Food & Beverage Laboratory & Medical Water / Waste Water | Food & Beverage, Laboratory & Medical Water / Waste Water | Water / Waste Water | Water / Waste Water |
| Operating temperature | Sensor -20 ... +140 °C Ambient -20 ... +60 °C | Sensor -20 ... +140 °C Ambient -20 ... +100 °C | -5 ... +80 °C | -5 ... +40 °C |
| Measuring ranges | | | 0 ... 250 mH ₂ O | 0 ... 20 mH ₂ O |
| Versatile options for process connection | G1" B hygienic | G1" B hygienic | | |
| Media conductivity | min. 50 µS | min. 50 µS | | |
| Technology | Potentiometric | Potentiometric | Piezoresistive silicon | Ceramic thick film |
| Wetted parts material | PEEK AISI 316L (1.4404) | PEEK AISI 316L (1.4404) | AISI 316L (1.4404) AISI 904L (1.4539) for seawater applications AISI 316L (1.4435) Hastelloy-C PUR or PTFE (Cable) NBR, FKM (sealing) | AISI 316L (1.4404) Ceramic (96 % AL) PUR (Cable) NBR (sealing) |
| Accuracy (linearity, hysteresis, repeatability) | ± 0.5 % FS | ± 0.5 % FS | ≤ 0.1 % FS (Pnom ≥ 4 mH ₂ O) ≤ 1 % FS ≤ 0.25 % FS | |
| Output signal | 4 ... 20 mA | 4 ... 20 mA | 4 ... 20 mA 0 ... 10 V | 4 ... 20 mA |
| Cable | | Silicone Length up to 5 m | PUR or ETFE with integrated humidity filter up to 250 m length | PUR black with integrated humidity filter up to 25 m length |
| Protection rating | IP 67 | IP 67 | IP 68 | IP 68 |
| Approvals | 3-A | 3-A | ATEX II 1G Ex ia IIC T4 / T6 Ga | |
| Additional information | <ul style="list-style-type: none"> Adaptors for other hygienic connections available (see accessories) | <ul style="list-style-type: none"> Adaptors for other hygienic connections available (see accessories) | <ul style="list-style-type: none"> External programming of zero point and span with FlexProgrammer 9701 | |

Level control.
Simply done.



LSKx2x



LSKx5x

| | | |
|--|---|---|
| General Data | <ul style="list-style-type: none"> ■ Top- or side mounted ■ Adjustable rod length ■ Robust stainless steel housing | <ul style="list-style-type: none"> ■ Multipoint level detection ■ Adjustable rod length ■ Robust stainless steel housing |
| Industries | Food & Beverage, Laboratory & Medical Water / Waste Water | Food & Beverage Laboratory & Medical Water / Waste Water |
| Process conditions | -20 ... +140 °C | -20 ... +140 °C |
| Versatile options for process connection | G1/2" B hygienic | G1" B hygienic |
| Switching points | 1 | 2 ... 4 |
| Wetted parts material | PEEK PTFE AISI 316L (1.4404) | PEEK PTFE AISI 316L (1.4404) |
| Protection rating | IP 67 | IP 67 |
| Approvals | 3-A | 3-A |
| Additional information | <ul style="list-style-type: none"> ■ Adaptors for other hygienic connections available (see accessories) | <ul style="list-style-type: none"> ■ Adaptors for other hygienic connections available (see accessories) |

Conductivity measurement



Innovative and compact.



CombiLyz® AF14



CombiLyz® AF15

| | | |
|--|--|---|
| General Data | <ul style="list-style-type: none"> ■ Conductivity or concentration output ■ Fast internal temperature compensation ■ Fast response time ■ High accuracy < 1.0 % ■ Programmable via touch screen or FlexProgrammer 9701 | <ul style="list-style-type: none"> ■ Remote sensor with 2.5 / 5 / 10 meter cable ■ Conductivity or concentration output ■ Fast internal temperature compensation ■ Fast response time ■ High accuracy < 1.0 % ■ Programmable via touch screen or FlexProgrammer 9701 |
| Industries | Food & Beverage Laboratory & Medical Water / Waste water | Food & Beverage Laboratory & Medical Water / Waste water |
| Operating temperature | -20 ... 140 °C (150 °C < hour) | -20 ... 140 °C (150 °C < hour) |
| Measuring range | 500 µS/cm ... 1 S/cm | 500 µS/cm ... 1 S/cm |
| Versatile options for process connection | G1" B hygienic | G1" B hygienic |
| Wetted parts material | PEEK | PEEK |
| Output | 4 ... 20 mA 4 ... 20 mA – HART | 4 ... 20 mA 4 ... 20 mA – HART |
| Accuracy | 1.0 % of selected range | 1.0 % of selected range |
| Protection rating | IP67 / IP69K | IP67 / IP69K |
| Approvals | 3-A EHEDG | 3-A EHEDG |
| Additional information | <ul style="list-style-type: none"> ■ Adaptors for other hygienic connections available (see accessories) ■ CombiView® DFON (optional) | <ul style="list-style-type: none"> ■ Adaptors for other hygienic connections available (see accessories) ■ CombiView® DFON (optional) |

User interface

Your individual alarm system.



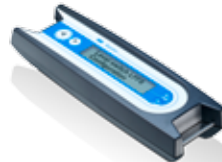
Red = take action



Green = ok



CombiView® DFON



FlexProgrammer 9701

| | | |
|-------------------|---|---|
| General Data | <ul style="list-style-type: none"> ■ Large digits and illustration visible from long distance ■ Configurable via touch screen or FlexProgrammer ■ Backlight color change according to alarm settings | <ul style="list-style-type: none"> ■ Easy configuring with menu control function ■ Data transfer from PC to device via USB ■ Configuration of a device on the spot without a PC ■ Robust plastic case with digital display and buttons ■ Rechargeable battery ■ Free FlexProgram updates from Baumer web site |
| Industries | Food & Beverage Laboratory & Medical Oil & Gas / Chemical Water / Waste Water Energy Transport & Logistics Machinery | Food & Beverage Laboratory & Medical Oil & Gas / Chemical Water / Waste Water Energy Transport & Logistics Machinery |
| Backlight | 3 configurable backlight colors | |
| Display modes | Digits, analog, bargraph | |
| Supply voltage | Loop-powered | From USB-port or from rechargeable battery |
| Accuracy | 0.1 % ± 1 digit | |
| Relays | 2 configurable relays | |
| Ambient values | -30 ... +80 °C | 0 ... +50 °C, rel. humidity < 90 % |
| Protection rating | IP 10 on terminals IP 67 in housing | IP 42 |
| Software | | FDT / DTM based |
| Approvals | ATEX II GD – Ex ia IIC T5 Ga. ATEX ta IIIC IP 67 T100 Da. ATEX II 3G – Ex nA II T5 | |

A brilliant solution.

The *CombiView*® display by Baumer – designed for a safe and convenient control of your processes.



Please find further information about the entire *CombiSeries*® at www.baumer.com/CombiSeries



Ready to fit your process: Baumer sensors support off-the-shelf standard and brand compatible process connections.

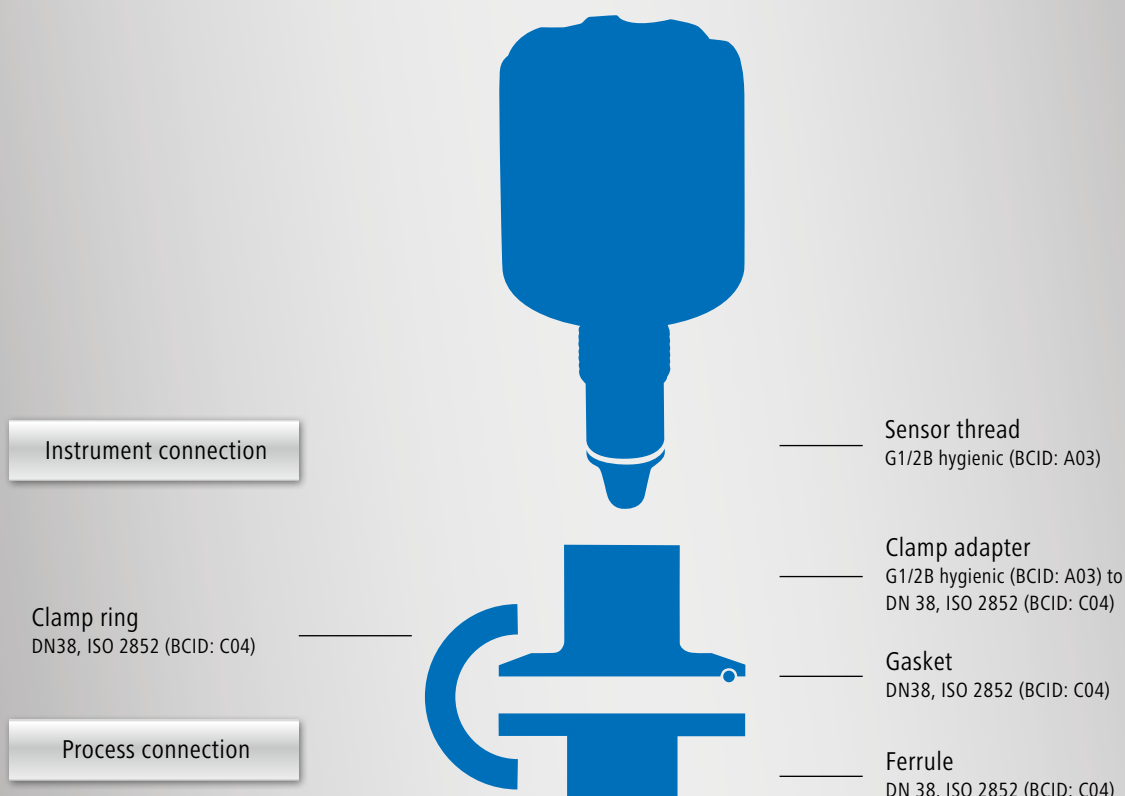
Baumer instruments fit almost every process connection you have in place. With more than 40 connection types readily available, you needn't modify your system design in any way. The Baumer Connection Identifier (BCID) provides you a convenient and safe system to identify the right process adapter to get your Baumer sensor mounted to your application.

provides you with the BCID code for the selected connection type. Each adaptor or sleeve comes also with a BCID code. Same BCID codes always mean matching accessories – whether adaptors, ferrules, clamp rings or gaskets.

How to select the fitting adaptor to your instrument

In the first place, you should decide which process connection – threaded, clamped or welded. Please refer to the table on next page for more information. Afterwards, the sensor data sheet

Example for the Baumer Connection Identifier (BCID) System



| Threaded connections | | Hygienic | BCID |
|----------------------|--|------------------|---|
| ISO 228-1 | G1/2B G1 1/4B G1 1/2B G2B G1/2A cone G1/2A O-ring at the front G1A O-ring at the front | | G07 G13 G14 G16 G08 G09 G12 |
| EH FTL EE2 | Rd52 | ■ | T02 |
| EH FTL GW2 (ø 29.0) | G1B | ■ | T03 |
| EH FTL GQ2 (ø 23.7) | G3/4B | ■ | T04 |
| VS (ø 21.3) | G3/4 | ■ | T06 |
| VS (ø 21.3) | G1 | ■ | T07 |
| Hygienic (cone) | G1/8 M12 × 1,5 G1/2B G1B | ■ ■ ■ ■ | A01 A02 A03 A04 |

| Clamp and nut connections | | Hygienic | BCID |
|----------------------------|---|-------------|---------------------------------|
| Baumer Hygienic Connection | BHC 3A DN 38 BHC 3A DN 76 | ■ ■ | B01 B02 |
| ISO 2852 | 1" 1 1/2" 2" | ■ ■ ■ | C03 C04 C05 |
| DIN 11851 | DN 25 DN 32 DN 40 DN 50 DN 65 | | D01 D02 D03 D04 D05 |
| SMS 1145 | DN 38 DN 51 | ■ ■ | S01 S02 |
| VARIVENT® | Type N | ■ | V02 |

| Welded connections | | | BCID |
|----------------------------|--|--|---|
| Thin wall tank (collar) | Ø16 × 12,2 Ø25 × 17 Ø45 × 34 | | W01 W05 W20 |
| Thick wall tank (cylinder) | Ø30 × 26 Ø30 × 34 with inspection hole Ø35 × 20,0 Ø50 × 23 Ø55 × 32 Ø60 × 20,5 Ø120 × 32 | | W10 W21 W35 W45 W65 W50 W70 |
| Angular mounting (ball) | Ø35 | | W30 |
| Pipe without extrusion | Ø16, DN 25 | | W02 |
| Pipe extrusion | Ø29, DN 25 ... DN 50 Ø30, DN 65 ... DN 150 Ø40, DN 40 ... DN 50 Ø41, DN 65 ... DN 150 Ø38, DN 38 | | W25 W26 W40 W41 W60 |

Process connections & accessories

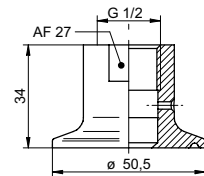
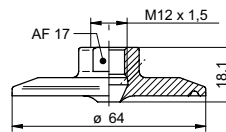
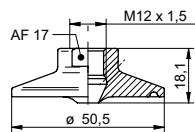


Hygienic clamp adapters acc. ISO 2852, DIN 32676



| | ZPH1-2213 | ZPH1-2216 | ZPH1-3213 |
|--|-----------------------------|-----------------------------|--|
| Process connection | DN 38 (BCID: C04) | DN 51 (BCID: C05) | DN 38 (BCID: C04) |
| Instrument connection | M12 hygienic (BCID: A02) | M12 hygienic (BCID: A02) | G1/2B hygienic (BCID: A03) |
| Instrument series | TE2 | TE2 | LBFS, LFFS LSKx2 TFRH, TE2 PBMN-flush PFMN |
| Material | AISI 316L (1.4404) | AISI 316L (1.4404) | AISI 316L (1.4404) |
| Surface roughness (µm) | Ra ≤ 0.8 | Ra ≤ 0.8 | Ra ≤ 0.8 |
| Max. pressure | PN 40 | PN 40 (PN 64 w. ZPX4-610) | PN 40 (Safe at PN 64) |
| Approvals | | | 3-A, EHEDG for LBFS / LFFS |
| Union nut | | | |
| Ferrule | ZPX4-320 | | ZPX4-320 |
| Clamp-ring | ZPX4-310 | ZPX4-610 | ZPX4-310 |
| O-ring | | | |
| Gasket EPDM (3-A, FDA) EPDM (EHEDG) | ZPX3-7233 ZPX3-7234 | ZPX3-7263 ZPX3-7264 | ZPX3-7233 ZPX3-7234 |

Drawing



Hygienic clamp adapters acc. ISO 2852, DIN 32676



ZPH1-3216



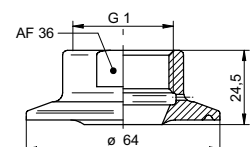
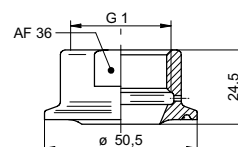
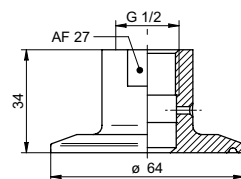
ZPH1-5213



ZPH1-5216

| | | | |
|--|--|--|--|
| Process connection | DN 51 (BCID: C05) | DN 38 (BCID: C04) | DN 51 (BCID: C05) |
| Instrument connection | G1/2B hygienic (BCID: A03) | G1B hygienic / G1B cone (BCID: A04) | G1B hygienic / G1B cone (BCID: A04) |
| Instrument series | LBFS, LFFS LSKx2 TFRH, TE2 PBMN-flush PFMN | PBMN flush PFMN LSP, LSKx5 AFix | PBMN flush PFMN LSP, LSKx5 AFix |
| Material | AISI 316L (1.4404) | AISI 316L (1.4404) | AISI 316L (1.4404) |
| Surface roughness (µm) | Ra ≤ 0.8 | Ra ≤ 0.8 | Ra ≤ 0.8 |
| Max. pressure | PN 40 (Safe at PN 64) | PN 40 (Safe at PN 64) | PN 40 (Safe at PN 64) |
| Approvals | 3-A, EHEDG for LBFS / LFFS | 3-A, EHEDG for AFI4 / AFI5 | 3-A, EHEDG for AFI4 / AFI5 |
| Union nut | | | |
| Ferrule | | ZPX4-320 | |
| Clamp-ring DN 38, DN 51 | ZPX4-610 | ZPX4-310 | ZPX4-610 |
| O-ring | | | |
| Gasket EPDM (3-A, FDA) EPDM (EHEDG) | ZPX3-7263 ZPX3-7264 | ZPX3-7233 ZPX3-7234 | ZPX3-7263 ZPX3-7264 |

Drawing



Hygienic VARIVENT® adapters



ZPH1-324E

ZPH1-524E

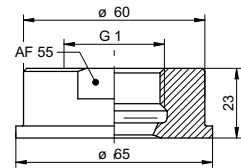
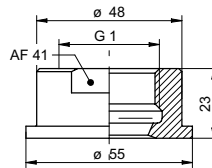
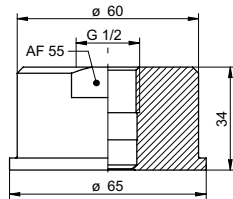
| | | |
|------------------------|--|--|
| Process connection | VARIVENT® type N (BCID: V02) | VARIVENT® type N (BCID: V02) |
| Instrument connection | G1/2B hygienic (BCID: A03) | G1B hygienic / G1B cone (BCID: A04) |
| Instrument series | LBFS, LFFS LSKx2 TFRH, TE2 PBMN-flush PFMN | PBMN flush PFMN LSP, LSKx5 AFix |
| Material | AISI 316L (1.4404) | AISI 316L (1.4404) |
| Surface roughness (µm) | Ra ≤ 0.8 | Ra ≤ 0.8 |
| Max. pressure | 10 bar | 10 bar |
| Approvals | 3-A, EHEDG for LBFS / LFFS | 3-A, EHEDG for AFi4 / AFi5 |
| Union nut | | |
| Ferrule | | |
| Clamp-ring | | |
| O-ring | ZPX2-323 | ZPX2-323 |
| Gasket | | |
| Drawing | | |

Hygienic adapters acc. SMS 1145



| | ZPH1-3236 | ZPH1-5233 | ZPH1-5236 |
|------------------------|----------------------------------|--|--|
| Process connection | DN 51 (BCID: S02) | DN 38 (BCID: S01) | DN 51 (BCID: S02) |
| Instrument connection | G1/2B hygienic (BCID: A03) | G1B hygienic / G1B cone (BCID: A04) | G1B hygienic / G1B cone (BCID: A04) |
| Instrument series | LBFS, LFFS LSKx2 TFRH, TE2 | PBMN flush PFMN LSP, LSKx5 AFix | PBMN flush PFMN LSP, LSKx5 AFix |
| Material | AISI 316L (1.4404) | AISI 316L (1.4404) | AISI 316L (1.4404) |
| Surface roughness (µm) | Ra ≤ 0.8 | Ra ≤ 0.8 | Ra ≤ 0.8 |
| Max. pressure | 25 bar | 40 bar | 25 bar |
| Approvals | | | |
| Union nut SMS 1145 | ZPX4-630 | ZPX4-330 | ZPX4-630 |
| Ferrule | | | |
| Clamp-ring | | | |
| O-ring | | | |
| Gasket NBR | ZPX3-8160 | ZPX3-8130 | ZPX3-8160 |

Drawing



Hygienic adapters acc. DIN 11851



ZPH1-3221



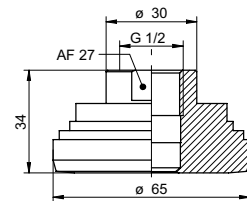
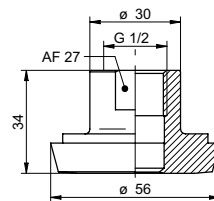
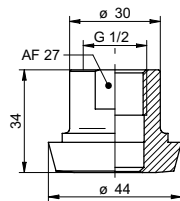
ZPH1-3224



ZPH1-3225

| | | | |
|------------------------|--|--|--|
| Process connection | DN 25 (BCID: D01) | DN 40 (BCID: D03) | DN 50 (BCID: D04) |
| Instrument connection | G1/2B hygienic (BCID: A03) | G1/2B hygienic (BCID: A03) | G1/2B hygienic (BCID: A03) |
| Instrument series | PBMN flush PFMN LBFS, LFFS LSKx2 TFRH, TE2 | PBMN flush PFMN LBFS, LFFS LSKx2 TFRH, TE2 | PBMN flush PFMN LBFS, LFFS LSKx2 TFRH, TE2 |
| Material | AISI 316L (1.4404) | AISI 316L (1.4404) | AISI 316L (1.4404) |
| Surface roughness (µm) | Ra ≤ 0.8 | Ra ≤ 0.8 | Ra ≤ 0.8 |
| Max. pressure | 40 bar | 40 bar | 10 bar |
| Approvals | | | |
| Union nut | ZPX4-140 | ZPX4-440 | ZPX4-540 |
| Ferrule | | | |
| Clamp-ring | | | |
| O-ring | | | |
| Gasket | ZPX3-9110 | ZPX3-9140 | ZPX3-9150 |

Drawing



Hygienic adapters acc. DIN 11851



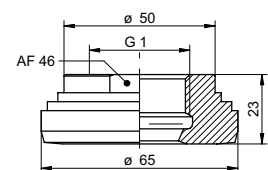
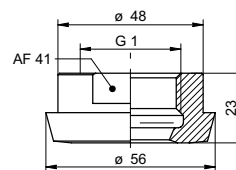
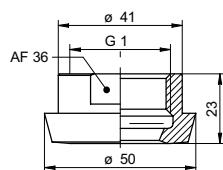
ZPH1-5222

ZPH1-5224

ZPH1-5225

| | | | |
|------------------------|--|--|--|
| Process connection | DN 32 (BCID: D02) | DN 40 (BCID: D03) | DN 50 (BCID: D04) |
| Instrument connection | G1B hygienic / G1B cone (BCID: A04) | G1B hygienic / G1B cone (BCID: A04) | G1B hygienic / G1B cone (BCID: A04) |
| Instrument series | PBMN flush PFMN LBFS, LFFS LSKx5 TFRH, TE2 | PBMN flush PFMN LBFS, LFFS LSKx5 TFRH, TE2 | PBMN flush PFMN LBFS, LFFS LSKx5 TFRH, TE2 |
| Material | AISI 316L (1.4404) | AISI 316L (1.4404) | AISI 316L (1.4404) |
| Surface roughness (µm) | Ra ≤ 0.8 | Ra ≤ 0.8 | Ra ≤ 0.8 |
| Max. pressure | 40 bar | 40 bar | 25 bar |
| Approvals | | | |
| Union nut | | ZPX4-440 | ZPX4-540 |
| Ferrule | | | |
| Clamp-ring | | | |
| O-ring | | | |
| Gasket NBR | | ZPX3-9140 | ZPX3-9150 |

Drawing

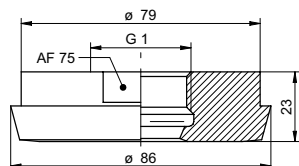


Hygienic adapters
acc. DIN 11851



ZPH1-5227

| | |
|------------------------|--|
| Process connection | DN 65 (BCID: D05) |
| Instrument connection | G1B hygienic / G1B cone (BCID: A04) |
| Instrument series | PBMN flush PFMN LSP, LSKx5 AFix |
| Material | AISI 316L (1.4404) |
| Surface roughness (µm) | Ra ≤ 0.8 |
| Max. pressure | 25 bar |
| Approvals | |
| Union nut | ZPX4-740 |
| Ferrule | |
| Clamp-ring | |
| O-ring | |
| Gasket | |
| Drawing | |



Hygienic weld-in sleeves



ZPW2-122

ZPW2-125

ZPW2-222

| | | | |
|------------------------|----------------------------------|-----------------------------|----------------------------------|
| Process connection | Thin-walled tanks (BCID: W01) | Pipe DN 25 (BCID: W02) | Thin-walled tanks (BCID: W05) |
| Instrument connection | G1/8 conical (BCID: A01) | G1/8 conical (BCID: A01) | M12 hygienic (BCID: A02) |
| Instrument series | TE2 Conical cable sensor | TE2 Conical cable sensor | TE2 |
| Material | AISI 316L (1.4404) | AISI 316L (1.4404) | AISI 316L (1.4404) |
| Surface roughness (µm) | Ra ≤ 0.8 | Ra ≤ 0.8 | Ra ≤ 0.8 |
| Max. pressure | PN 40 | PN 40 | PN 40 |

Approvals

Union nut

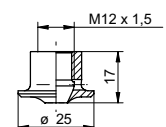
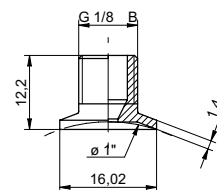
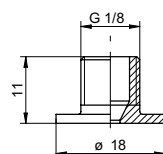
Ferrule

Clamp-ring

O-ring

Gasket

Drawing



Industrial weld-in sleeves



ZPW1-711



ZPW1-721



ZPW1-121

| | | | |
|------------------------|---------------------------|---------------------------|---------------------------|
| Process connection | Tank Pipes (BCID: W10) | Tank Pipes (BCID: W10) | Tank Pipes (BCID: W35) |
| Instrument connection | LBFS G1/2B (BCID: G07) | LBFS G1/2B (BCID: G07) | G1/2A cone (BCID: G08) |
| Instrument series | LBFS | LBFS | PBMN flush |
| Material | AISI 304 (1.4301) | AISI 316L (1.4404) | AISI 316L (1.4404) |
| Surface roughness (µm) | Ra ≤ 0.8 | Ra ≤ 0.8 | Ra ≤ 0.8 |
| Max. pressure | PN 100 | PN 100 | PN 100 |

Approvals

Union nut

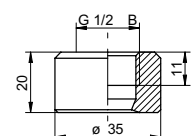
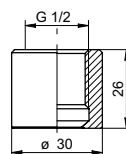
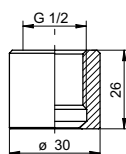
Ferrule

Clamp-ring

O-ring

Gasket

Drawing



Hygienic weld-in sleeves



| | ZPW2-321 | ZPW2-327 | ZPW2-326 |
|------------------------|--|--|--|
| Process connection | Tank with inspection hole (BCID: W21) | Pipe extrusion DN 65 ... DN 150 (BCID: W26) | Pipe extrusion DN 25 ... DN 50 (BCID: W25) |
| Instrument connection | G1/2B hygienic (BCID: A03) | G1/2B hygienic (BCID: A03) | G1/2B hygienic (BCID: A03) |
| Instrument series | LBFS, LFFS LSKx2 TFRH, TE2 PBMN-flush PFMN | LBFS, LFFS LSKx2 TFRH, TE2 PBMN-flush PFMN | LBFS, LFFS LSKx2 TFRH, TE2 PBMN-flush PFMN |
| Material | AISI 316L (1.4404) | AISI 316L (1.4404) | AISI 316L (1.4404) |
| Surface roughness (µm) | Ra ≤ 0.8 | Ra ≤ 0.8 | Ra ≤ 0.8 |
| Max. pressure | PN 100 | PN 40 | PN 40 |
| Approvals | 3-A, EHEDG | | |
| Union nut | | | |
| Ferrule | | | |
| Clamp ring | | | |
| O-ring | | | |
| Gasket | | | |
| Drawing | | | |

Industrial flush weld-in sleeves

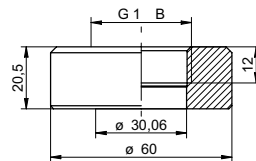
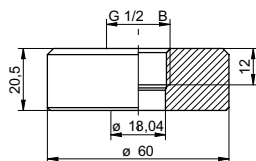


ZPW1-221



ZPW1-621

| | | |
|------------------------|--|---|
| Process connection | Tank Pipes (BCID: W50) | Tank Pipes (BCID: W50) |
| Instrument connection | G1/2A o-ring at the front (BCID: G09) | G1A, o-ring at the front (BCID: G12) |
| Instrument series | PBMN flush | PBMN flush PFMN |
| Material | AISI 316L (1.4404) | AISI 316L (1.4404) |
| Surface roughness (µm) | | Ra ≤ 0.8 |
| Max. pressure | | |
| Approvals | | |
| Union nut | | |
| Ferrule | | |
| Clamp-ring | | |
| O-ring NBR | ZPX2-610 | ZPX2-710 |
| EPDM | ZPX2-620 | ZPX2-720 |
| FKM | ZPX2-630 | ZPX2-730 |
| Gasket NBR | ZPX3-410 | ZPX3-510 |
| EPDM | ZPX3-420 | ZPX3-520 |
| FKM | ZPX3-430 | ZPX3-530 |
| Drawing | | |



Hygienic weld-in sleeves

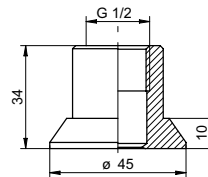
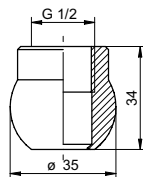


ZPW2-324



ZPW2-322

| | | |
|------------------------|--|--|
| Process connection | Tanks Pipes (BCID: W30) | Thin walled tanks Pipes (BCID: W20) |
| Instrument connection | G1/2B hygienic (BCID: A03) | G1/2B hygienic (BCID: A03) |
| Instrument series | LBFS, LFFS LSKx2 TFRH, TE2 PBMN-flush PFMN | LBFS, LFFS LSKx2 TFRH, TE2 PBMN-flush PFMN |
| Material | AISI 316L (1.4404) | AISI 316L (1.4404) |
| Surface roughness (µm) | | Ra ≤ 0.8 |
| Max. pressure | | PN 40 |
| Approvals | | |
| Union nut | | |
| Ferrule | | |
| Clamp-ring | | |
| O-ring | | |
| Gasket | | |
| Drawing | | |



Hygienic weld-in sleeves



ZPW2-526

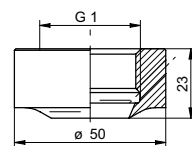
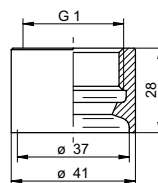
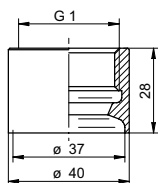


ZPW2-527



ZPW2-521

| | | | |
|------------------------|--|--|--|
| Process connection | Pipe extrusion DN 40...DN 50 (BCID: W40) | Pipe extrusion DN 65...DN 150 (BCID: W041) | Tanks (BCID: W45) |
| Instrument connection | G1B hygienic (BCID: A04) | G1B hygienic (BCID: A04) | G1B hygienic (BCID: A04) |
| Instrument series | PBMN flush PFMN LSP, LSKx5 AFIx | PBMN flush PFMN LSP, LSKx5 AFIx | PBMN flush PFMN LSP, LSKx5 AFIx |
| Material | AISI 316L (1.4404) | AISI 316L (1.4404) | AISI 316L (1.4404) |
| Surface roughness (µm) | Ra ≤ 0.8 | Ra ≤ 0.8 | Ra ≤ 0.8 |
| Max. pressure | PN 40 | PN 40 | PN 100 |
| Approvals | | | 3-A, EHEDG |
| Union nut | | | |
| Ferrule | | | |
| Clamp-ring | | | |
| O-ring | | | |
| Gasket | | | |
| Drawing | | | |



Hygienic weld-in sleeves acc. Baumer Hygienic Connection (BHC 3A)



ZPW2-621



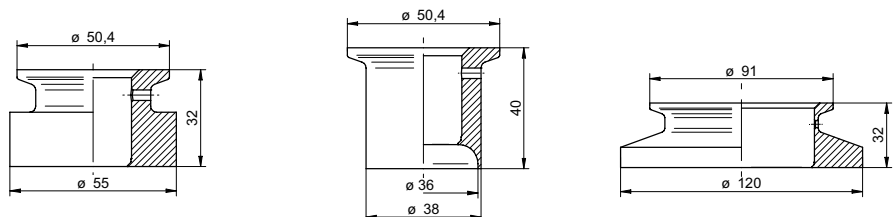
ZPW2-626



ZPW2-721

| | | | |
|------------------------|-----------------------------------|---|--|
| Process connection | DN 38 Tanks (BCID: W65) | DN 38 Pipe extrusion DN 38 (BCID: W60) | DN 76 Tanks level measurement (BCID: W70) |
| Instrument connection | BHC 3A DN 38 (BCID: B01) | BHC 3A DN 38 (BCID: B01) | BHC 3A DN 76 (BCID: B02) |
| Instrument series | PBMH PFMH, TE2 TFRH LFFS | PBMH PFMH, TE2 TFRH LFFS | PBMH PFMH |
| Material | AISI 316L (1.4404) | AISI 316L (1.4404) | AISI 316L (1.4404) |
| Surface roughness (µm) | Ra ≤ 0.8 | Ra ≤ 0.8 | Ra ≤ 0.8 |
| Max. pressure | PN 40 | PN 40 | PN 10 |
| Approvals | 3-A, EHEDG | 3-A, EHEDG | 3-A, EHEDG |
| Union nut | | | |
| Ferrule | | | |
| Clamp-ring | ZPX4-310 | ZPX4-310 | ZPX4-810 |
| O-ring NBR | ZPX2-112 | ZPX2-112 | ZPX2-212 |
| EPDM | ZPX2-123 | ZPX2-123 | ZPX2-222 |
| FKM | ZPX2-132 | ZPX2-132 | ZPX2-232 |
| Gasket | | | |

Drawing



Vibronic level switch replacement



ZPH1-32BA



ZPH1-32CB



ZPH1-32A1

| | | | |
|------------------------|--|--|--|
| Process connection | EH FTL G3/4B Ø23.7 G3/4" Hygienic adapter (BCID: T04) | EH FTL G1B Ø29 G1" Hygienic adapter (BCID: T03) | EH Rd52 (BCID: T01) |
| Instrument connection | G1/2B hygienic (BCID: A03) | G1/2B hygienic (BCID: A03) | G1/2B hygienic (BCID: A03) |
| Instrument series | LBFS, LFFS LSKx2 TFRH, TE2 PBMN-flush PFMN | LBFS, LFFS LSKx2 TFRH, TE2 PBMN-flush PFMN | LBFS, LFFS LSKx2 TFRH, TE2 PBMN-flush PFMN |
| Material | AISI 316L (1.4404) | AISI 316L (1.4404) | AISI 316L (1.4404) |
| Surface roughness (µm) | Ra ≤ 0.8 | Ra ≤ 0.8 | Ra ≤ 0.8 |
| Max. pressure | PN 40 | PN 40 | 40 bar |

Approvals

Union nut

ZPX4-140

Ferrule

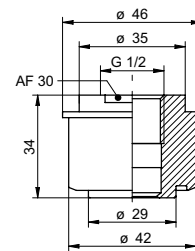
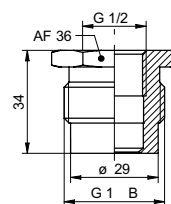
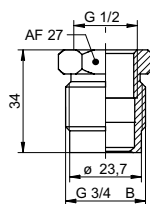
Clamp-ring

O-ring

Gasket

ZPX3-9110

Drawing



Vibronic level switch replacement



ZPH1-32BC

ZPH1-32CD

ZPH1-32C0

| | | | |
|------------------------|---|---|--|
| Process connection | VS G3/4B, Ø21.3 G3/4" Hygienic adapter (BCID: T06) | VS G1B, Ø21.3 G1" Hygienic adapter (BCID: T07) | G1B (For mounting G1/2B hygienic in G1 conical adapter) (BCID: A04) |
| Instrument connection | G1/2" B hygienic (BCID: A03) | G1/2" B hygienic (BCID: A03) | G1/2" B hygienic (BCID: A03) |
| Instrument series | LBFS, LFFS LSKx2 TFRH, TE2 PBMN-flush PFMN | LBFS, LFFS LSKx2 TFRH, TE2 PBMN-flush PFMN | LBFS, LFFS LSKx2 TFRH, TE2 PBMN-flush PFMN |
| Material | AISI 316L (1.4404) | AISI 316L (1.4404) | AISI 316L (1.4404) |
| Surface roughness (µm) | Ra ≤ 0.8 | Ra ≤ 0.8 | Ra ≤ 0.8 |
| Max. pressure | PN 40 | PN 40 | PN 40 |

Approvals

Union nut

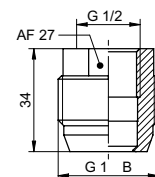
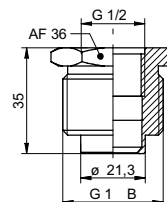
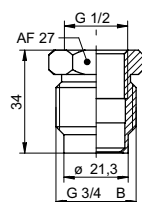
Ferrule

Clamp-ring

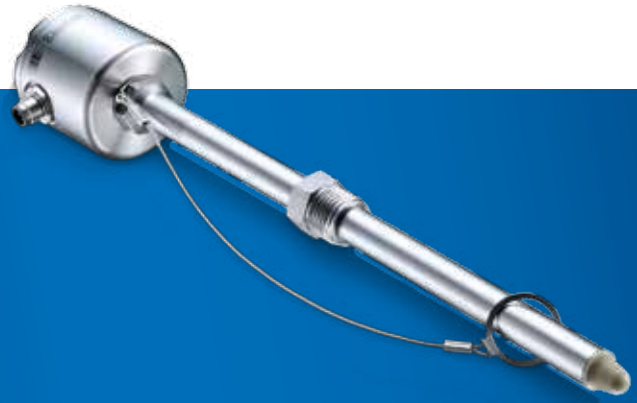
O-ring

Gasket

Drawing



Standard threaded adapters



ZPI1-32B



ZPI1-32D



ZPI1-32E

| | | | |
|------------------------|--|--|--|
| Process connection | Industrial thread G1B (BCID: G11) | Industrial thread G11/2B (BCID: G14) | Industrial thread G2B (G16) |
| Instrument connection | G1/2B hygienic (BCID: A03) | G1/2B hygienic (BCID: A03) | G1/2B hygienic (BCID: A03) |
| Instrument series | LBFS, LFFS LSKx2 TFRH, TE2 PBMN-flush PFMN | LBFS, LFFS LSKx2 TFRH, TE2 PBMN-flush PFMN | LBFS, LFFS LSKx2 TFRH, TE2 PBMN-flush PFMN |
| Material | AISI 316L (1.4404) | AISI 316L (1.4404) | AISI 316L (1.4404) |
| Surface roughness (µm) | Ra ≤ 0.8 | Ra ≤ 0.8 | Ra ≤ 0.8 |
| Max. pressure | PN 40 | PN 40 | PN 40 |

Approvals

Union nut

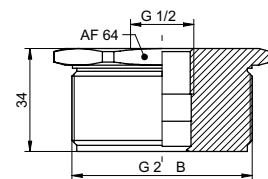
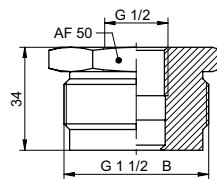
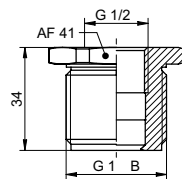
Ferrule

Clamp-ring

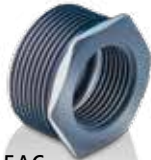
O-ring

Gasket

Drawing



Standard threaded adapters Threaded cable hanger



ZPI1-5AC



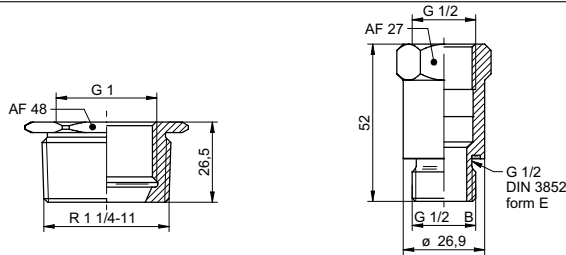
ZPI1-32A



ZPI1-A2D

| | | | |
|---------------------------|--|--|-------------------------------------|
| Process connection | G11/4B industrial (BCID: G13) | G1/2 industrial DIN 3852 form E Tanks and pipes (BCID: G51) | G11/2B industrial (BCID: G14) |
| Instrument connection | G1B hygienic / G1B cone (BCID: A04) | G1/2B hygienic (BCID: A03) | Cable holder |
| Instrument series | PBMN flush PFMN LSP, LSKx5 AFix | LFFS sliding connection | LBFS-Hanging |
| Material | PVC | AISI 316L (1.4404) | |
| Surface roughness (µm) | | Ra ≤ 0.8 | |
| Max. pressure | PN 10, 20°C | PN 16 | PN 10 |
| Approvals | | | |
| Union nut | | | |
| Ferrule | | | |
| Clamp-ring | | | |
| O-ring | | | |
| Gasket NBR EPDM FKM | | ZPX2-410 ZPX2-420 ZPX2-430 | |

Drawing



Blind plugs G1/8, M12, G1/2



ZPX5-12



ZPX5-22



ZPX5-32

Process connection

| | | | |
|-------------------------------------|--------------------------------|-----------------------------|--|
| Instrument connection | G1/8 (BCID: A01) | M12 hygienic (BCID: A02) | G1/2B hygienic (BCID: A03) |
| Instrument series | TE2 Conical cable sensor | TE2 | LBFS, LFFS LSKx2 TFRH, TE2 PBMN-flush PFMN |
| Material | AISI 316L (1.4404) | AISI 316L (1.4404) | AISI 316L (1.4404) |
| Surface roughness (μm) | $Ra \leq 0.8$ | $Ra \leq 0.8$ | $Ra \leq 0.8$ |
| Max. pressure | PN 40 | PN 40 | PN 100 |

Approvals

Union nut

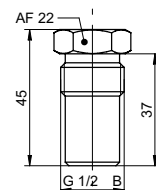
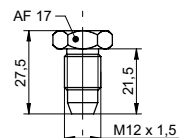
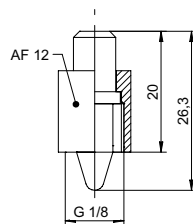
Ferrule

Clamp-ring

O-ring

Gasket

Drawing



Blind plugs
G1, BHC 3A DN 38,
BHC 3A DN 76



ZPX5-62



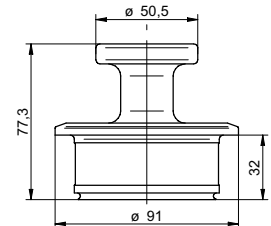
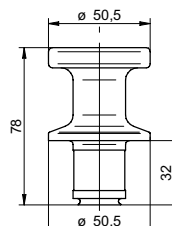
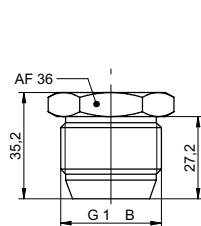
ZPX5-82



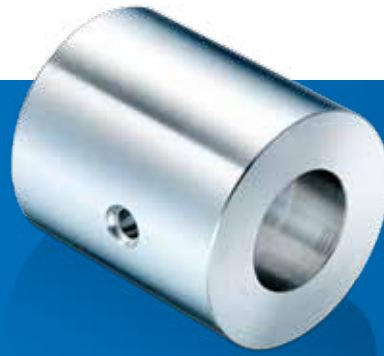
ZPX5-92

| | | | |
|------------------------|--|-----------------------------------|-----------------------------|
| Process connection | | BHC 3A DN 38 | BHC 3A DN 76 |
| Instrument connection | G1B hygienic / G1B cone (BCID: A04) | BHC 3A DN 38 (BCID: B01) | BHC 3A DN 76 (BCID: B02) |
| Instrument series | PBMN flush PFMN LSP, LSKx5 AFix | PBMH PFMH, TE2 TFRH LFFS | PBMH PFMH |
| Material | AISI 316L (1.4404) | AISI 316L (1.4404) | AISI 316L (1.4404) |
| Surface roughness (µm) | Ra ≤ 0.8 | Ra ≤ 0.8 | Ra ≤ 0.8 |
| Max. pressure | PN 70 | PN 40 | PN 10 |
| Approvals | | 3-A | 3-A |
| Union nut | | | |
| Ferrule | | | |
| Clamp-ring | | | |
| O-ring NBR | | ZPX2-112 | ZPX2-212 |
| EPDM | | ZPX2-123 | ZPX2-222 |
| FKM | | ZPX2-132 | ZPX2-232 |
| Gasket | | | |

Drawing



Welding mandrels for threaded hygienic welded connections



ZPX6-26



ZPX6-36



ZPX6-66

Process connection

| | | | |
|-----------------------|--------------------------|----------------------------|-------------------------------------|
| Instrument connection | M12 hygienic (BCID: A02) | G1/2B hygienic (BCID: A03) | G1B hygienic / G1B cone (BCID: A04) |
|-----------------------|--------------------------|----------------------------|-------------------------------------|

| | | | |
|-------------------|-----|--|--|
| Instrument series | TE2 | LBFS, LFFS LSKx2 TFRH, TE2 PBMN-flush PFMN | PBMN flush PFMN LSP, LSKx5 AFix |
|-------------------|-----|--|--|

| | | | |
|----------|-------|-------|-------|
| Material | Brass | Brass | Brass |
|----------|-------|-------|-------|

Surface roughness (µm)

Max. pressure

Approvals

Union nut

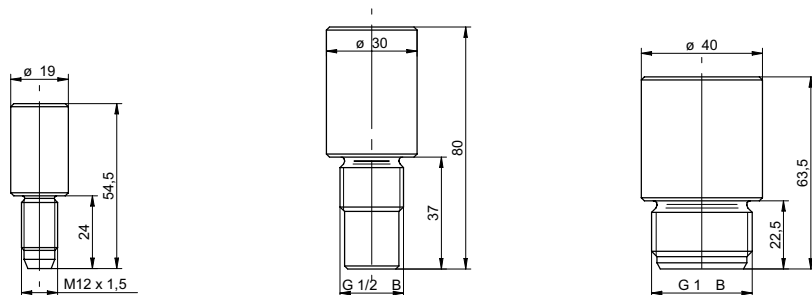
Ferrule

Clamp-ring

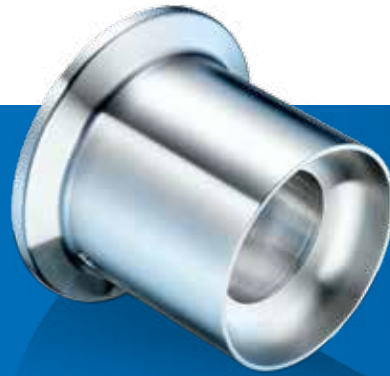
O-ring

Gasket

Drawing



Welding mandrels for BHC hygienic welded connections

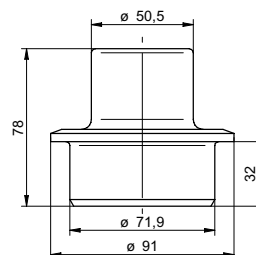
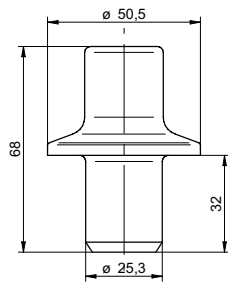


ZPX6-86



ZPX6-96

| | | |
|------------------------|-----------------------------|-----------------------------|
| Process connection | | |
| Instrument connection | BHC 3A DN 38 (BCID: B01) | BHC 3A DN 76 (BCID: B02) |
| Instrument series | PBMH PFMH, TE2 TFRH | PBMH PFMH |
| Material | Brass | Brass |
| Surface roughness (µm) | | |
| Max. pressure | | |
| Approvals | | |
| Union nut | | |
| Ferrule | | |
| Clamp-ring | | |
| O-ring | | |
| Gasket | | |
| Drawing | | |



Additional parts for hygienic clamp connections
acc. ISO 2852, DIN 32676



ZPX4-320



ZPX4-x10



ZPX3-7xxx

| | | | |
|-----------------------------------|------------------------------------|--|--|
| Process connection | Ferrule ISO 2852 (BCID: C04) | Closure clamp ISO 2852 (BCID: B0x, C0x) | Gasket ISO 2852 (BCID: C04, C05) |
| Instrument connection | | | |
| Instrument series | | | |
| Material | AISI 304 (1.4301) | Stainless steel AISI 304 (1.4301) | EPDM |
| Surface roughness (µm) | Ra ≤ 0.8 | | |
| Max. pressure | DN 38 - 16 bar | DN 38 - 100 bar DN 51 - 100 bar DN 76 - 90 bar | |
| Approvals | 3-A | | 3-A, FDA EHEDG |
| Dimension / material / type code: | DN 38 / ZPX4-320 | DN 38 / ZPX4-310 (BCID: B01, C04) DN 51 / ZPX4-610 (BCID: C05) DN 76 / ZPX4-810 (BCID: B02) | 3-A, FDA DN 38 / EPDM / ZPX3-7233 (BCID: C04) DN 51 / EPDM / ZPX3-7263 (BCID: C05) EHEDG DN 38 / EPDM / ZPX3-7234 (BCID: C04) |

Additional parts for hygienic threaded connections
acc. SMS 1145, DIN 11851



ZPX4-xx0

ZPX3-x1x0

| | | |
|-----------------------------------|--|--|
| Process connection | Ring nut SMS 1145 DIN 11851 (BCID: D0x / S0x) | Union gasket SMS 1145 DIN 11851 (BCID: D0x / S0x) |
| Instrument connection | | |
| Instrument series | | |
| Material | Stainless steel AISI 304 (1.4301) | NBR |
| Surface roughness (µm) | | |
| Max. pressure | | |
| Approvals | | |
| Dimension / material / type code: | SMS, DN 38 / ZPX4-330 (BCID: S01) SMS, DN 51 / ZPX4-630 (BCID: S02) DIN, DN 25 / ZPX4-140 (BCID: D01) DIN, DN 40 / ZPX4-440 (BCID: D03) DIN, DN 50 / ZPX4-540 (BCID: D04) DIN, DN 65 / ZPX4-740 (BCID: D05) | SMS, DN 38 / NBR / ZPX3-8130 (BCID: S01) SMS, DN 51 / NBR / ZPX3-8160 (BCID: S02) DIN, DN 25 / NBR / ZPX3-9110 (BCID: D01) DIN, DN 40 / NBR / ZPX3-9140 (BCID: D03) DIN, DN 50 / NBR / ZPX3-9150 (BCID: D04) DIN, DN 65 / NBR / ZPX3-9170 (BCID: D05) |

O-ring acc.
3A DN 38 and DN 76
Varivent type N



ZPX2-1xx



ZPX2-2x2



ZPX2-323

| | | | |
|-----------------------------------|--|---|--|
| Process connection | O-ring BHC 3A DN 38 (BCID: B01) | O-ring BHC 3A DN 76 (BCID: B02) | O-ring Varivent type N (BCID: V02) |
| Instrument connection | | | |
| Instrument series | | | |
| Material | NBR, EPDM, FKM | NBR, EPDM, FKM | EPDM |
| Surface roughness (µm) | | | |
| Max. pressure | DN 38 - 16 bar | DN 38 - 100 bar DN 51 - 100 bar DN 76 - 90 bar | |
| Approvals | 3-A, FDA | FDA | 3-A, FDA |
| Dimension / material / type code: | Ø66×3.1 / NBR (FDA) / ZPX2-112 Ø19×3 / EPDM (3-A, FDA) / ZPX2-123 Ø19×3 / FKM (FDA) / ZPX2-132 | Ø66×3.1 / NBR (FDA) / ZPX2-212 Ø66×3.1 / EPDM (FDA) / ZPX2-222 Ø66×3.1 / FKM (FDA) / ZPX2-232 | Ø62×3 / EPDM / ZPX2-323 |

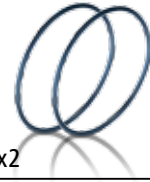
Gasket acc.
DIN 3852 form E,
O-ring at the front
for G1/2 and G1



ZPX2-4x0



ZPX2-6x0



ZPX2-7x2

| | | | |
|-----------------------------------|---|--|--|
| Process connection | Sealing ring (DIN 3869) G1/2, DIN 3852 Form E (BCID: G51) | O-rings G1/2A, O-ring at the front (BCID: G09) | O-rings G1A, O-ring at the front (BCID: G12) |
| Instrument connection | | | |
| Instrument series | | | |
| Material | NBR, EPDM, FKM | NBR, EPDM, FKM | NBR, EPDM, FKM |
| Surface roughness (µm) | | | |
| Max. pressure | | | |
| Approvals | | | |
| Dimension / material / type code: | G1/2 / NBR / ZPX2-410 G1/2 / EPDM / ZPX2-420 G1/2 / FKMM / ZPX2-430 | Ø15×2 / NBR / ZPX2-610 Ø15×2 / EPDM / ZPX2-620 Ø15×2 / FKMM / ZPX2-630 | Ø26×2 / NBR / ZPX2-712 Ø26×2 / EPDM / ZPX2-722 Ø26×2 / FKMM / ZPX2-732 |

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Bulgaria
Croatia
Czech Republic
Denmark
Finland
France
Germany
Greece
Hungary
Italy
Malta
Martinique
Netherlands
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