

# 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"> <li>■ OEM applications</li> <li>■ Compact design</li> <li>■ Stainless steel or brass construction</li> </ul>	<ul style="list-style-type: none"> <li>■ Robust stainless housing</li> <li>■ High overpressure resistance</li> <li>■ Abrasive and chemical resistant</li> </ul>	<ul style="list-style-type: none"> <li>■ Robust stainless housing</li> <li>■ Abrasive and chemical resistant</li> </ul>
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 <sub>2</sub> O <sub>3</sub> ) NBR, EPDM, FKM	AISI 316L (1.4404) Ceramic (96 % Al <sub>2</sub> O <sub>3</sub> ) NBR, CR, EPDM, FKKM, FKM	AISI 316L (1.4404) Ceramic (96 % Al <sub>2</sub> O <sub>3</sub> ) 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"> <li>■ Fully welded design</li> <li>■ Excellent overpressure resistance</li> <li>■ Compact design</li> </ul>	<ul style="list-style-type: none"> <li>■ Fully welded design</li> <li>■ High temperature resistance</li> </ul>	<ul style="list-style-type: none"> <li>■ Fully welded design</li> <li>■ Excellent overpressure resistance</li> <li>■ Low measurement ranges (0 ... 100 mbar)</li> </ul>	<ul style="list-style-type: none"> <li>■ Designed and manufactured according to EN50155</li> <li>■ Abrasive and chemical resistant</li> </ul>
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 <sub>2</sub> O <sub>3</sub> ) 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**



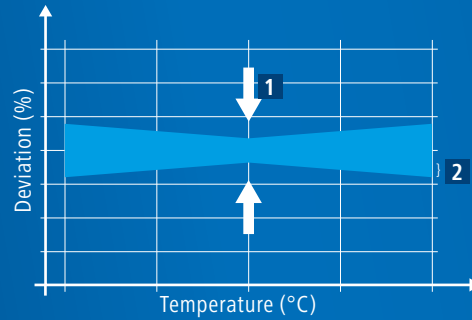
**CombiPress®  
PFMH hygienic**

	<b>PBMN flush</b>	<b>CombiPress® PFMN flush</b>	<b>PBMH hygienic</b>	<b>CombiPress® PFMH hygienic</b>
General Data	<ul style="list-style-type: none"> <li>■ Compact design and flush diaphragm</li> <li>■ Excellent temperature characteristics</li> <li>■ SIP / CIP compatible</li> </ul>	<ul style="list-style-type: none"> <li>■ Flush diaphragm</li> <li>■ Optional display: CombiView® DFON</li> <li>■ Programmable by touch screen</li> <li>■ SIP / CIP compatible</li> </ul>	<ul style="list-style-type: none"> <li>■ Compact and hygienic design</li> <li>■ SIP / CIP compatible</li> <li>■ Excellent temperature characteristics</li> </ul>	<ul style="list-style-type: none"> <li>■ Hygienic design</li> <li>■ Optional display: CombiView® DFON</li> <li>■ Programmable by touch screen</li> <li>■ SIP / CIP compatible</li> </ul>
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"> <li>■ External programming of zero point and span with FlexProgrammer 9701</li> </ul>	<ul style="list-style-type: none"> <li>■ Internal setting of 0-point</li> <li>■ External programming with FlexProgrammer 9701</li> </ul>	<ul style="list-style-type: none"> <li>■ External programming of zero point and span with FlexProgrammer 9701</li> </ul>	<ul style="list-style-type: none"> <li>■ Internal setting of 0-point</li> <li>■ External programming with FlexProgrammer 9701</li> </ul>

# 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"> <li>Fully autoclavable pressure transmitter for common sterilisation processes</li> <li>SIP/CIP compatible</li> <li>Surface roughness of process connection <math>\leq 0.8</math> Ra</li> </ul>	<ul style="list-style-type: none"> <li>Vacuum measurement</li> <li>Compact and light-weight design</li> </ul>	<ul style="list-style-type: none"> <li>Two threshold outputs</li> <li>Totally stainless steel</li> <li>300° swivelling version</li> </ul>
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 <sub>2</sub> O <sub>3</sub> ) NBR, EPDM, FKM	AISI 316L (1.4404) Ceramic (96 % Al <sub>2</sub> O <sub>3</sub> ) NBR, EPDM, FKM
Accuracy (linearity, hysteresis, repeatability)	$\leq \pm 0.1$ % FS, 0.25 % FS	$\leq 0.5$ % FS (BFSL)	$\leq 0.5$ % 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"> <li>External programming with FlexProgrammer 9701</li> <li>Available with optional electropolished process connection</li> </ul>	<ul style="list-style-type: none"> <li>External programming with FlexProgrammer 9701</li> </ul>	<ul style="list-style-type: none"> <li>Explosion-proof version available</li> <li>Local programming on display</li> <li>Available with hygienic connection</li> </ul>