



Baumer

Passion for Sensors

Sensors for Process Industry

Product Overview – Edition 2013



Partnership.
Precise.
Pioneering.

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 2500 workers worldwide in 36 subsidiaries and 18 countries. With marked customer orientation, consistently high quality and vast innovation potential worldwide, Baumer develops specific solutions for many industries and applications.

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.



Table of contents.

Electronic pressure	6
Mechanic pressure	10
Pressure switches	19
Seals	20
Pressure accessories	28
Electronic temperature	29
Thermometers	35
Temperature switches	39
Level measurement	40
Conductivity transmitters	43
Strain & Force	44
Mounting Adaptors	46
Accessories	47

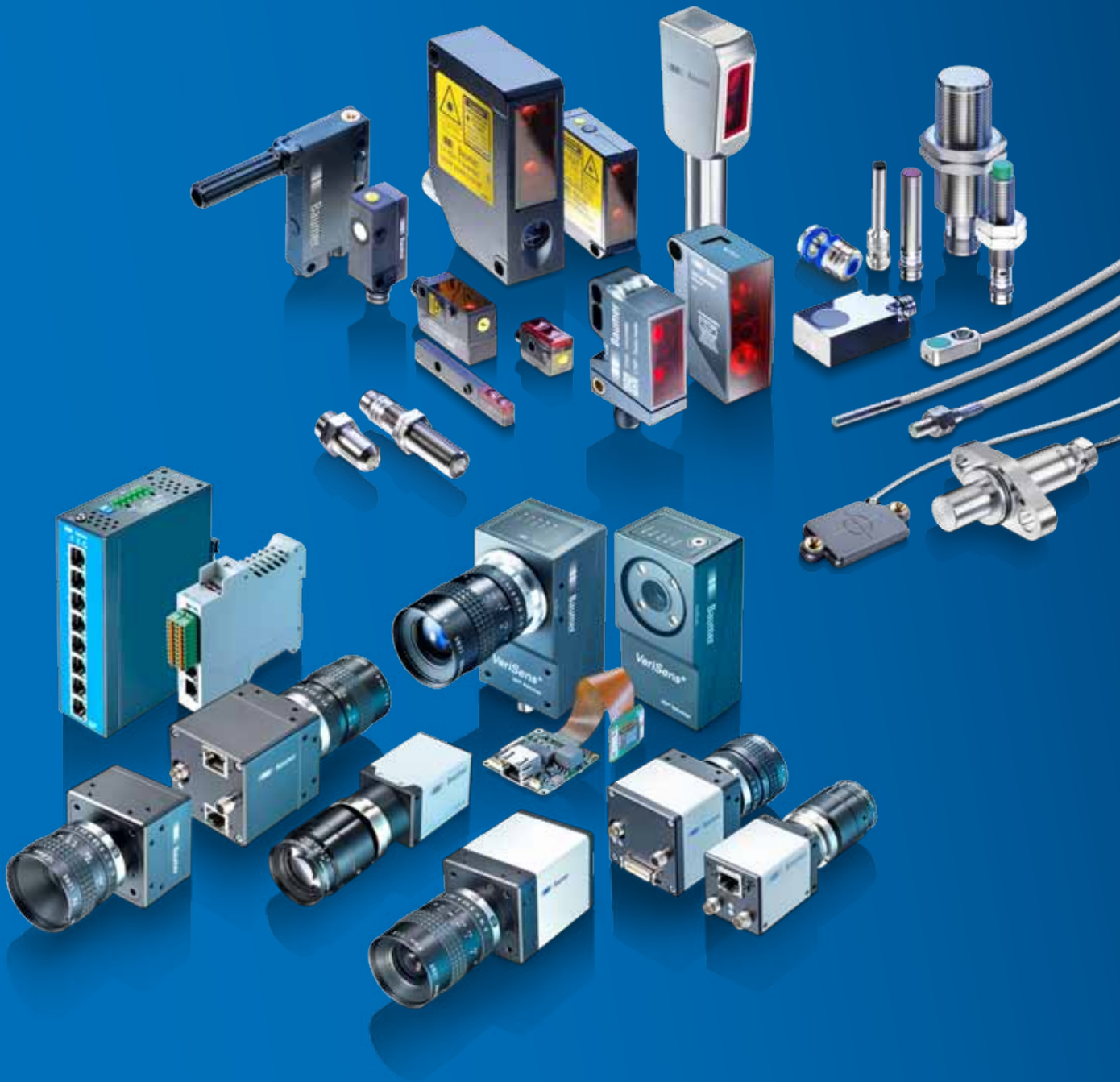


Baumer – setting standards with innovations.

The success story of the Baumer Group is characterized by innovations. By hardware and software engineers, designers or process engineers who work day in and day out to make our products and systems even better.

We pay particular attention to the increased miniaturization, precision as well as the measuring speed and robustness of the sensors. These features characterize our products even today. And that is something we are proud of.

The Baumer development teams are organized in an international network and are in close contact with well-known universities, recognized research institutes and highly specialized international engineering companies. As the technological leader, Baumer always endeavors to maintain its lead over the long term and protect its numerous innovations through patents.



Comprehensive product range

- Actuators and positioning drives
- Capacitive proximity sensors
- Conductivity sensors
- Counters
- Digital cameras
- Encoders
- Force and strain sensors
- Inductive sensors
- Level measurement
- Magnetic sensors
- Network Components
- OCR and code reader systems
- Optical inspection systems
- Photoelectric sensors
- Precision switches My-Com
- Pressure measurement
- Process analysis
- Process displays
- Resolvers
- Speed switches
- Spindle positioning systems
- Tachogenerators
- Temperature sensors
- Ultrasonic sensors
- Vision sensors

Electronic pressure

Baumer's in-house cell competence:
For your individual application Baumer provides optimum technology.



CTX-CTL



PBSN industrial



PBCN industrial

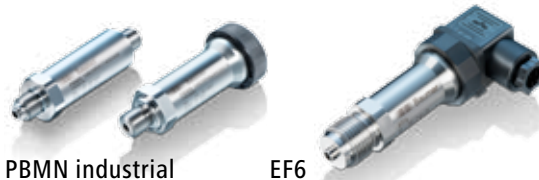


PDRx

	CTX-CTL	PBSN industrial	PBCN industrial	PDRx
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 ■ Abrasive and chemical resistant 	<ul style="list-style-type: none"> ■ Robust stainless housing ■ High overpressure resistance ■ Abrasive and chemical resistant 	<ul style="list-style-type: none"> ■ Full welded design ■ Excellent overpressure resistance ■ Compact design
Industries	Energy, Machinery	Laboraty & Medical, Energy, Machinery	Laboraty & Medical, Water / Waste Water	Energy, Transport & Logistics, Machinery
Measuring ranges	-1...0 bar to 0...200 bar	-1...0 bar to 0...400 bar	-1...0 bar to 0...40 bar	0...60 bar to 0...1600 bar
Media temperature	-25...+100 °C	-25...+100 °C	-25...+70 °C	-25...+85 °C
Technology	Ceramic thick film	Ceramic thick film	Ceramic capacitive	Metal thin film
Wetted parts material	Brass Stainless steel 1.4404 AISI 316L Ceramic (96% AL) NBR, EPDM, FKM	Stainless steel 1.4404 AISI 316L Ceramic (96% AL) NBR, EPDM, FKM	Stainless steel 1.4404 AISI 316L Ceramic (96% AL) NBR, EPDM, FKM	Stainless steel 1.4301 AISI 304 Stainless steel 1.4542
Accuracy (linearity, hysteresis, repeatability)	≤ 1% FS	≤ 0.7% FS	≤ 0.5% FS	≤ 0.3% FS
Output signal	4...20 mA 0...10 V	4...20 mA 0...10 V	4...20 mA 0...10 V	4...20 mA 0...10 V CANopen
Overpressure	> 2x nominal pressure, max 360 bar	> 2x nominal pressure, max 600 bar	> 5x nominal pressure, max 105 bar	> 2x nominal pressure
Process connection	G ¼ DIN 3852 (CTX) G ¼ EN 837 G ½ EN 837 (CTX)	G ¼ DIN 3852 G ¼ EN 837 G ½ EN 837	G ¼ DIN 3852 G ¼ EN 837 G ½ EN 837	G ¼ DIN 3852 G ¼ EN 837 M14x1.5 60° cone
Electrical connection	M12, 4 pins DIN 43650 Shielded cable	M12, 4 pins DIN 43650 Shielded cable	M12, 4 pins DIN 43650 Shielded cable	M12, 4 pins
Protection rating	IP 65, IP 67	IP 65, IP 67	IP 65, IP 67	IP 67
Additional information	Response time : ≤ 3 ms typical (10...90%)	External programming of zero point and span with FlexProgrammer 9701	External programming of zero point and span with FlexProgrammer 9701	Response time : ≤ 1 ms typical (10...90%)

Pressure control with EF6 for:

- braking
- slide regulation
- retarder cooling
- sanding system
- pantograph pressure



PBMN industrial

EF6

General Data	<ul style="list-style-type: none"> ■ Full 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	Laboraty & Medical, Oil & Gas / Chemical, Transport & Logistics, Machinery	Energy, Transport & Logistics
Measuring ranges	-1...0 bar to 0...40 bar / Piezoresistive silicon 0...60 bar to 0...1600 bar / Metal thin film	0...6 bar to 0...25 bar
Media temperature	-40...+120 °C	-40...+125 °C
Technology	Piezoresistive silicon / Metal thin film	Ceramic thick film
Wetted parts material	Stainless steel 1.4404 AISI 316L Stainless steel 1.4435 AISI 316L Stainless steel 1.4301 AISI 304 Stainless steel 1.4542 AISI 630	Stainless steel 1.4404 AISI 316L Ceramic (96% AL) FVMQ, NBR, EPDM, FKM
Accuracy (linearity, hysteresis, repeatability)	≤ 0.1% FS (Pnom ≥ 400 mbar) ≤ 0.25% FS, ≤ 0.5% FS	≤ 0.5% FS
Output signal	4...20 mA 0...10 V	4...20 mA 0...10 V
Overpressure	3x nominal pressure (Piezoresistive silicon) 2x nominal pressure (Metal thin film)	> 2x nominal pressure
Process connection	G ¼ DIN 3852 G ¼ EN 837 G ½ EN 837	G ¼ DIN 3852 G ¼ EN 837 G ½ EN 837
Electrical connection	M12, 4 pins DIN 43650 Shielded cable	M12, 4 pins DIN 43650 Shielded cable
Protection rating	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)
Additional information	External programming of zero point and span with FlexProgrammer 9701	

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



PBMN flush



**CombiPress™
PFMN flush**



PBMH hygienic



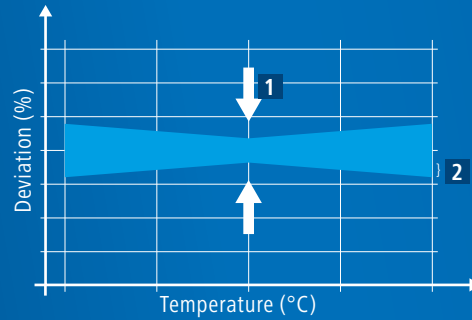
**CombiPress™
PFMH hygienic**

	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 ■ Built in graphical display, <i>CombiView™</i> DFON ■ Programmable by touch screen ■ SIP/CIP compatible 	<ul style="list-style-type: none"> ■ Compact design ■ SIP/CIP compatible ■ Excellent temperature characteristics 	<ul style="list-style-type: none"> ■ Built in graphical display, <i>CombiView™</i> 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	Stainless steel 1.4404 (316L) Stainless steel 1.4435 (316L) Hastelloy-C	Stainless steel 1.4404 (316L) Stainless steel 1.4435 (316L) Hastelloy-C	Stainless steel 1.4404 (316L) Stainless steel 1.4435 (316L) Hastelloy-C	Stainless steel 1.4404 (316L) Stainless steel 1.4435 (316L) Hastelloy-C
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 ≤ 0.5% 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
Process connection	G ½ A flush G 1" flush	G ½ A flush G 1" flush	TriClamp 1½", 3-A TriClamp 2", 3-A	DN38 3A Hygienic Connection TriClamp 1½", 3-A TriClamp 2", 3-A
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
Approval	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	ATEX II 1GD Ex ia IIC T5 Ga Ex ta IIIC IP67 T100 Da ATEX II 3G Ex nA II T5 3A EHEDG
Additional information	External programming of zero point and span with FlexProgrammer 9701		External programming of zero point and span 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



CPX



(Y)TED

General Data	<ul style="list-style-type: none"> ■ OEM applications ■ Vacuum measurement ■ Compact and light-weight design 	<ul style="list-style-type: none"> ■ Two threshold outputs ■ Totally stainless steel ■ 300° swivelling version
Industries	Machinery	Oil & Gas / Chemical Water / Waste Water
Pressure ranges	-1...0 bar to 0...250 bar	-1...0 bar to 0...250 bar
Medium temperature	-20...100 °C	-25...100 °C
Technology	Ceramic thick film	Ceramic thick film
Wetted parts material	Stainless steel 1.4404 AISI 316L Ceramic (96% AL) NBR, EPDM, FKM	Stainless steel 1.4404 AISI 316L Ceramic (96% AL) NBR, EPDM, FKM
Accuracy (linearity, hysteresis, repeatability)	≤ 1% FS	≤ 0.5% FS
Output signal	2 PNP switching output	4...20 mA and 2 PNP or 2 isolated switching output RS-485 Modbus™ and 2 isolated switching output
Overpressure	2x nominal pressure, max. 500 bar	2x nominal pressure, max. 500 bar
Process connection	G ¼ DIN 3852 G ¼ EN 837 G ½ EN 837	G ¼ DIN 3852 G ¼ EN 837 G ½ EN 837
Electrical connection	M12, 5 pins DIN 43650	M12, 5 pins M12, 8 pins
Protection rating	IP 65, IP 67	IP 67
Approval		ATEX M1 Ex ia I Ma ATEX II 1G Ex ia IIC T5/T6
Additional information	External programming with FlexProgrammer 9701	Explosion-proof version available Local programming on display

Mechanic pressure



Principle of a Bourdon tube

A flattened tube tends to straighten or regain its circular form in cross-section when pressurized. Although this change in cross-section may be nearly imperceptible, and thus involving only moderate stresses within the elastic range of easily workable materials, the strain of the material of the tube is magnified by forming the tube into a C shape or even a helix, such that the entire tube tends to straighten out or uncoil, elastically, as it is pressurized.



MMX1



MEX2



MEX3, MEM3



MEX5, MEM5

General Data	<ul style="list-style-type: none"> For corrosive gases and liquids Fully welded process connection 	<ul style="list-style-type: none"> For corrosive gases and liquids Fully welded process connection 	<ul style="list-style-type: none"> For corrosive gases and liquids Fully welded process connection 	<ul style="list-style-type: none"> For corrosive gases and liquids Fully welded process connection
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	Food & Beverage Laboratory & Medical Oil & Gas / Chemical Water / Waste Water Energy Transport & Logistics Machinery
Nominal size (mm)	40	50	63	100
Measuring ranges	0...1.6 bar to 0...25 bar	-1...0 bar to 0...1000 bar	-1...0 bar to 0...1000 bar	-1...0 bar to 0...1600 bar
Accuracy (according to EN 837-1)	Class 2.5	Class 1.6	Class 1.6	Class 1
Wetted parts material	Stainless steel 1.4404 (316L)	Stainless steel 1.4404 (316L)	Stainless steel or Monel 400	Stainless steel or Monel 400
Measuring element	Bourdon tube	Bourdon tube	Bourdon tube	Bourdon tube
Case material	Stainless steel 1.4301 (304)	Stainless steel 1.4301 (304)	Stainless steel 1.4301 (304)	Stainless steel 1.4301 (304)
Process connection	G $\frac{1}{8}$ G $\frac{1}{4}$ $\frac{1}{8}$ NPT $\frac{1}{4}$ NPT	G $\frac{1}{8}$ G $\frac{1}{4}$ $\frac{1}{8}$ NPT $\frac{1}{4}$ NPT	G $\frac{1}{8}$ G $\frac{1}{4}$ $\frac{1}{8}$ NPT $\frac{1}{4}$ NPT	G $\frac{1}{2}$ G $\frac{1}{4}$ $\frac{1}{2}$ NPT $\frac{1}{4}$ NPT
Protection rating	IP 65	IP 65	IP 65	IP 65
Approval	ATEX II2GDc-IM2c	ATEX II2GDc-IM2c Lloyd's Register Gost	ATEX II2GDc-IM2c Lloyd's Register Gost	ATEX II2GDc-IM2c Lloyd's Register Gost
Additional information		Option: With damping fluid	Option: With damping fluid	Option: With damping fluid

Baumer's portfolio provides various pressure measuring technologies on mechanic instruments. With Bourdon tube, diaphragm, capsule and bellow types we cover pressure ranges from 0...4 mbar to 0...1600 bar.



MIX7, MIM7



MEX8

General Data	<ul style="list-style-type: none"> ■ For corrosive gases and liquids ■ Long term reliability 	<ul style="list-style-type: none"> ■ For corrosive gases and liquids ■ Long term reliability
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
Nominal size (mm)	150	160
Measuring ranges	-1...0 bar to 0...1600 bar	-1...0 bar to 0...1600 bar
Accuracy (according to EN 837-1)	Class 1	Class 1
Wetted parts material	Stainless steel or Monel 400	Stainless steel 1.4404 (316L)
Measuring element	Bourdon tube	Bourdon tube
Case material	Stainless steel 1.4301 (304)	Stainless steel 1.4301 (304)
Process connection	G $\frac{1}{2}$ G $\frac{1}{4}$ $\frac{1}{2}$ NPT $\frac{1}{4}$ NPT	G $\frac{1}{2}$ G $\frac{1}{4}$ $\frac{1}{2}$ NPT $\frac{1}{4}$ NPT
Protection rating	IP 65	IP 65
Approval	ATEX II2GDc-IM2c Lloyd's Register Gost	ATEX II2GDc-IM2c Lloyd's Register Gost
Additional information	Option: With damping fluid	Option: With damping fluid

Today, original Bourdon Tube products, firmly founded on the brand's history and over 160 years of technological development, can be purchased only from Baumer.



MEP5



MMN5



MPE6, MPG6



MPF6, MPJ6

General Data	<ul style="list-style-type: none"> ■ For corrosive atmospheres and fluids ■ Long term reliability ■ Safety version S3 according to EN837-1 	<ul style="list-style-type: none"> ■ For corrosive atmospheres and fluids ■ Long term reliability ■ Safety version S3 according to EN837-1 	<ul style="list-style-type: none"> ■ For corrosive gases and liquids ■ With or without damping fluid 	<ul style="list-style-type: none"> ■ For corrosive gases and liquids ■ With or without damping fluid
Industries	Oil & Gas / Chemical Water / Waste Water Energy	Oil & Gas / Chemical Water / Waste Water Energy	Oil & Gas / Chemical Water / Waste Water Energy	Oil & Gas / Chemical Water / Waste Water Energy
Nominal size (mm)	100	100	130	130
Measuring ranges	-1...0 bar to 0...1600 bar	-1...0 bar to 0...600 bar	-1...0 bar to 0...1600 bar	-1...0 bar to 0...600 bar
Accuracy	Class 1 (according to EN 837-1)	Class 1 (according to EN 837-1)	Grade 2A (according to ASME B40.100)	Grade 2A (according to ASME B40.100)
Wetted parts material	Stainless steel 1.4404 (316L)	Monel 400	Stainless steel 1.4404 (316L)	Monel 400
Measuring element	Bourdon tube	Bourdon tube	Bourdon tube	Bourdon tube
Case material	Stainless steel 1.4301 (304)	Stainless steel 1.4301 (304)	Polypropylene / Phenolic	Polypropylene / Phenolic
Process connection	G½ G¼ ½ NPT ¼ NPT OD 12	G½ G¼ ½ NPT ¼ NPT OD 12		
Protection rating	IP 67	IP 67	IP 67	IP 67
Approval	ATEX II2GDc-IM2c Lloyd's Register Gost	ATEX II2GDc-IM2c Lloyd's Register Gost	Gost	Gost
Additional information	Option: For oxygen applications	Option: For oxygen applications	Option: For oxygen applications With damping fluid	

Baumer datasheets offer tables with full ordering details for each product line including typical options.



MS5, MR5



MG5



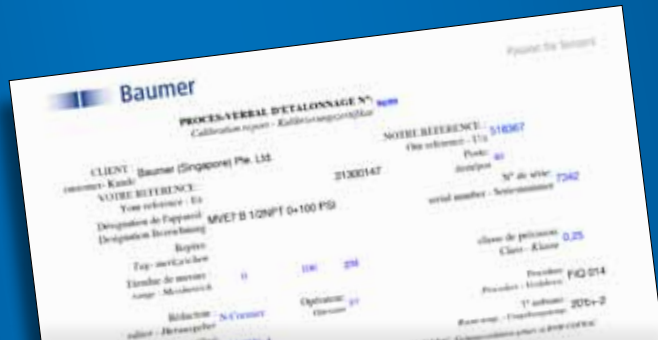
DPCE 100



MA35

General Data	<ul style="list-style-type: none"> Local indication of pressure 1 or 2 setpoints for regulation or alarm setting 	<ul style="list-style-type: none"> Local indication of pressure 1 or 2 setpoints for regulation or alarm setting 	<ul style="list-style-type: none"> Local indication of pressure 1 or 2 setpoints for regulation or alarm setting 	<ul style="list-style-type: none"> Local indication of pressure Output signal: 4...20 mA
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	Food & Beverage, Laboratory & Medical Oil & Gas / Chemical Water / Waste Water Energy Transport & Logistics, Machinery
Nominal size (mm)	100	100	100	100
Measuring ranges	-1...0 bar to 0...1600 bar	-1...0 bar to 0...1600 bar	0...100 mbar to 0...25 bar	0...0.6 bar to 0...600 bar
Accuracy	Class 2.5 (according to EN 837-1)	Class 1.6 (according to EN 837-1)	Class 1.6 (according to EN 837-1)	For gauge : Class 1 For output signal : ± 0.5%
Wetted parts material	Stainless steel 1.4404 (316L)	Stainless steel 1.4404 (316L)	Stainless steel 1.4571 (316Ti) Duratherm®	Stainless steel 1.4571 (316Ti)
Measuring element	Bourdon tube	Bourdon tube	Diaphragm	Bourdon tube and piezoresistive Sensor
Contact type	Mechanical sliding contact or magnetic spring contact	Inductive contact	Mechanical sliding contact, magnetic spring contact or inductive contact	
Case material	Stainless steel 1.4301 (304)	Stainless steel 1.4301 (304)	Stainless steel 1.4301 (304)	Stainless steel 1.4301 (304)
Process connection	G½ G¼ ½ NPT ¼ NPT	G½ G¼ ½ NPT ¼ NPT	G½ ½ NPT flanges DIN or ANSI	G½ G¼ ½ NPT ¼ NPT
Protection rating	IP 65	IP 65	IP 65	IP 54
Approval	Gost	ATEX II2G Ex ia T4 Gost	ATEX II2G Ex ia T4 Gost	
Additional information	Option: With damping fluid	Option: With damping fluid	Option: PTFE coating With damping fluid	Option: With damping fluid

Available for all pressure gauges:
Calibration certificates according
to EN 837 (11 points) and
simplified reports (5 points)



MCD7



MX7, MZ7, MT7, MQ7



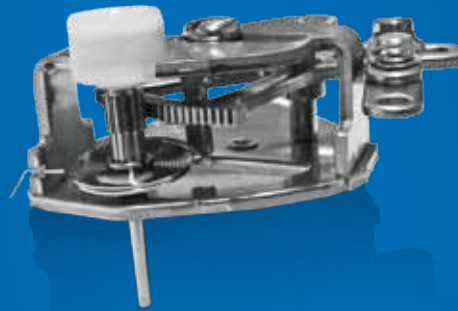
M21, M31



MFT5, MFT7

General Data	<ul style="list-style-type: none"> Very low differential pressure range Static pressure up to 250 mbar Safety valve on high pressure side 	<ul style="list-style-type: none"> For corrosive process fluids and atmospheres Static pressure up to 100 bar 	<ul style="list-style-type: none"> For corrosive process fluids and atmospheres Static pressure up to 100 bar 1 or 2 setpoints for regulation or alarm setting 	<ul style="list-style-type: none"> Low differential pressure Static pressure up to 100 bar (MFT5) High static pressure (MFT7)
Industries	Laboratory & Medical Oil & Gas / Chemical Water / Waste Water Energy	Laboratory & Medical Oil & Gas / Chemical Water / Waste Water Energy	Laboratory & Medical Oil & Gas / Chemical Water / Waste Water Energy	Laboratory & Medical Oil & Gas / Chemical Water / Waste Water Energy
Nominal size (mm)	150	150	150	100 (MFT5), 150 (MFT7)
Measuring ranges	0...10 mbar to 0...250 mbar	0...0.1 bar to 0...25 bar	0...0.25 bar to 0...25 bar	0...25 mbar to 0...25 bar
Static pressure	Max. 250 mbar	Max. 100 bar	Max. 100 bar	Max. 400 bar
Accuracy	± 2%	± 2%	± 3%	± 1% (ranges ≥ 100 mbar) ± 1.6% (ranges < 100 mbar) ± 1.6% (with damping fluid)
Wetted parts material	Stainless steel 1.4404 (316L)	Stainless steel 1.4404 (316L)	Stainless steel 1.4404 (316L)	Stainless steel 316L Monel Hastelloy C276
Measuring element	Capsule	Bellow	Bellow	Differential cell
Contact type	Mechanical sliding contact			
Case material	Stainless steel 1.4301 (304)	Stainless steel 1.4301 (304)	Stainless steel 1.4301 (304)	Stainless steel 1.4301 (304)
Process connection	2 x G½ 2 x ½NPT	2 x G½ 2 x ½NPT	2 x G½ 2 x ½NPT	2 x G½ 2 x ½NPT
Protection rating	IP 66	IP 65	IP 65	IP 65
Approval	Gost	ATEX II2Gdc-IM2c, Gost		Gost
Additional information		Option: With damping fluid With baffle wall		Option: With damping fluid With baffle wall

Minimizing vibrations or pulsations:
Filling with damping fluid
or dashpot in the movement.



DPC 100



DP 100 Hygienic

General Data	<ul style="list-style-type: none"> ■ Welded with blow-out disc, back ■ For gaseous and liquid, aggressive, high and low viscosity media ■ High overpressure safety 	<ul style="list-style-type: none"> ■ Hygienic process connections without transmission fluid ■ No risk of media contamination
Industries	Laboratory & Medical Oil & Gas / Chemical Water / Waste Water Energy	Food & Beverage Laboratory & Medical
Nominal size (mm)	100	100
Measuring ranges	0...60 mbar to 0...25 bar	0...6 bar 0 ...10 bar -1...5 bar -1...9 bar
Accuracy (according to EN 837-3)	Class 1.6	Class 1.6
Wetted parts material	Stainless steel 1.4571 (316Ti) Duratherm®	Stainless steel 1.4435 (316L)
Measuring element	Diaphragm	Diaphragm
Case material	Stainless steel 1.4301 (304)	Stainless steel 1.4301 (304)
Process connection	G½ ½ NPT flanges DIN or ANSI	Clamp Varivent®
Protection rating	IP 65	IP 65
Approval	ATEX II2GDc-IM2c Gost	
Additional information	Option: With damping fluid PTFE coating	Option: Movement with silicone damping

Various series of standard gauges according to EN 837 and ASME B40.



MA7



M61



ME7



M41

General Data	<ul style="list-style-type: none"> Absolute pressure measurement For corrosive process fluids and atmospheres 	<ul style="list-style-type: none"> Absolute pressure measurement For corrosive process fluids and atmospheres 1 or 2 setpoints for regulation or alarm setting 	<ul style="list-style-type: none"> High overpressure resistance For corrosive process fluids and atmospheres 	<ul style="list-style-type: none"> High overpressure resistance For corrosive process fluids and atmospheres 1 or 2 setpoints for regulation or alarm setting
Industries	Laboratory & Medical Oil & Gas / Chemical Water / Waste Water Energy	Laboratory & Medical Oil & Gas / Chemical Water / Waste Water Energy	Oil & Gas / Chemical Energy	Oil & Gas / Chemical Energy
Nominal size (mm)	150	150	150	150
Measuring ranges	0...0.1 bar to 0...16 bar abs	0...0.25 bar to 0...16 bar abs	0...0.06 bar to 0...10 bar	0...0.16 bar to 0...10 bar
Accuracy	± 2%	± 3%	± 2%	± 3%
Overpressure	Max. 100 bar	Max. 100 bar	Max. 100 bar	Max. 100 bar
Wetted parts material	Stainless steel 1.4404 (316L)	Stainless steel 1.4404 (316L)	Stainless steel 1.4404 (316L)	Stainless steel 1.4404 (316L)
Measuring element	Bellow	Bellow	Bellow	Bellow
Contact type		Mechanical sliding contact		Mechanical sliding contact
Case material	Stainless steel 1.4301 (304)	Stainless steel 1.4301 (304)	Stainless steel 1.4301 (304)	Stainless steel 1.4301 (304)
Process connection	G½ ½ NPT	G½ ½ NPT	G½ ½ NPT	G½ ½ NPT
Protection rating	IP 65	IP 65	IP 65	IP 65
Approval	ATEX II2GDc-IM2c Gost		ATEX II2GDc-IM2c Gost	
Additional information	Option: With damping fluid		Option: With damping fluid	

For cooling systems – pressure gauges with 2nd scale in °C for all standard refrigerants.



DRO80



DRO100



MTA2



MTA3

General Data	<ul style="list-style-type: none"> ■ For refrigeration applications ■ Multiscaling for pressure and related temperature ■ For R407C, R134 A, ... 	<ul style="list-style-type: none"> ■ For refrigeration applications ■ Multiscaling for pressure and related temperature ■ For NH3 	<ul style="list-style-type: none"> ■ Low pressure measurements ■ for clean and non-corrosive gases 	<ul style="list-style-type: none"> ■ Low pressure measurements ■ for clean and non-corrosive gases
Industries	Food & Beverage Transport & Logistics Machinery	Food & Beverage Transport & Logistics Machinery	Laboratory & Medical Machinery	Laboratory & Medical Machinery
Nominal size (mm)	80	100	50	63
Measuring ranges	-1 ...9 bar -1...12.5 bar -1...24 bar	-1 ...9 bar -1...12.5 bar -1...24 bar	0...60 mbar to 0...600 mbar	0...60 mbar to 0...600 mbar
Accuracy (according to EN 837-1)	Class 1	Class 1	Class 1.6	Class 1.6
Wetted parts material	Brass	Stainless steel	Bronze / Brass	Bronze / Brass
Measuring element	Bourdon tube	Bourdon tube	Capsule	Capsule
Case material	Black painted steel	Stainless steel 1.4301 (304)	Stainless steel 1.4301 (304)	Stainless steel 1.4301 (304)
Process connection	7/16 UNF	G½	G¼ ¼ NPT	G¼ ¼ NPT
Protection rating	IP 65	IP 65	IP33 / IP44	IP33 / IP44
Additional information	Option: With damping fluid	Option: With damping fluid	Zero adjustment	Zero adjustment



Baumer's portfolio supports criteria of Gost



MTA5



MTX5



MCX5



MCX7

General Data	<ul style="list-style-type: none"> Low pressure measurements for clean and non-corrosive gases 	<ul style="list-style-type: none"> Low pressure measurements for clean and non-corrosive gases 	<ul style="list-style-type: none"> Low pressure measurements High overpressure protection Suitable for corrosive gases 	<ul style="list-style-type: none"> Low pressure measurements High overpressure protection Suitable for corrosive gases
Industries	Laboratory & Medical Machinery	Laboratory & Medical Machinery	Laboratory & Medical Oil & Gas / Chemical Machinery	Laboratory & Medical Oil & Gas / Chemical Machinery
Nominal size (mm)	100	100	100	150
Measuring ranges	0...16 mbar to 0...600 mbar	0...16 mbar to 0...600 mbar	0...10 mbar to 0...600 mbar	0...6 mbar to 0...600 mbar
Accuracy (according to EN 837-3)	Class 1.6	Class 1.6	Class 1.6	Class 2.5
Wetted parts material	Bronze / Brass	Stainless steel	Stainless steel/FKM	Stainless steel/FKM
Measuring element	Capsule	Capsule	Capsule	Capsule
Case material	Stainless steel 1.4301 (304)	Stainless steel 1.4301 (304)	Stainless steel 1.4301 (304)	Stainless steel 1.4301 (304)
Process connection	G $\frac{1}{2}$ / $\frac{1}{2}$ NPT	G $\frac{1}{2}$ / $\frac{1}{2}$ NPT	G $\frac{1}{2}$ / $\frac{1}{2}$ NPT	G $\frac{1}{2}$ / $\frac{1}{2}$ NPT
Protection rating	IP33 / IP44	IP33 / IP44	IP 65	IP 65
Approval		Gost	ATEX II2GDc-IM2c Gost	ATEX II2GDc-IM2c Gost
Additional information	Zero adjustment	Zero adjustment	Zero adjustment, integrated overpressure protection valve for short time overload of 20 x span	Zero adjustment, integrated overpressure protection valve for short time overload of 20 x span

Pressure switches

Mechanical pressure switches
– a proven technology for
power plants.



RP2N, RP2Y, RP2E



RPPN,
RPPY, RPPE

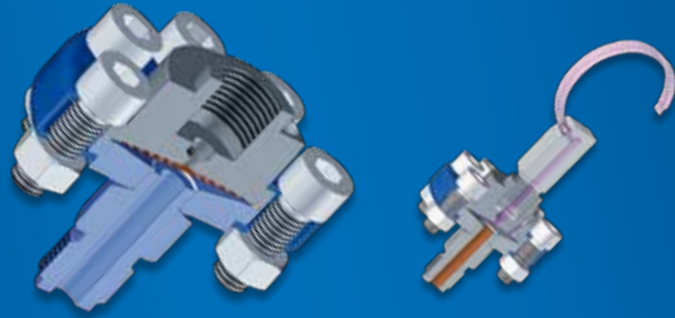


RDPN, RDY, RDE

General Data	<ul style="list-style-type: none"> Standard pressure switch Good resistance to vibrations and overpressure 	<ul style="list-style-type: none"> Pressure switch for low and high pressure Adjustable setpoint(s) and deadband 	<ul style="list-style-type: none"> Differential pressure switch Adjustable setpoint(s) and deadband
Industries	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	0...1 bar to 0...100 bar	-50...0 mbar to 60...600 bar	-2.5...2.5 mbar to 2.5...30 bar
Wetted part material	Stainless steel	Steel FKM Stainless steel EPDM (depending on the pressure range)	Steel FKM Stainless steel EPDM (depending on the pressure range)
Set points	1	1 or 2	1 or 2
Overpressure / Static pressure	Max. 200 bar	Max. 800 bar	0.15 to 220 bar
Repeatability	± 1% F.S.	± 1% F.S.	± 1% F.S.
Process Connection	G½ ½ NPT ¼ NPT	G½ ½ NPT ¼ NPT	G½ ½ NPT ¼ NPT
Protection rating	IP 66	IP 66	IP 66
Current rating	10 mA to 10 A max. 250 VAC/220 VDC	5 mA to 10 A max. 250 VAC/220 VDC	10 mA to 10 A max. 250 VAC/220 VDC
Housing / body material	Polyamid PA6 Aluminium for EEx d	ZnAl - alloy Aluminium for EEx d	ZnAl - alloy Aluminium for EEx d
Protection rating	IP 66	IP 66	IP 66
Approval	Options: ATEX, EEx ia (RP2Y) ATEX, EEx d (RP2E) Gost	Options: ATEX, EEx ia (RPPY) ATEX, EEx d (RPPE) Gost	Options: ATEX, EEx ia (RDY) ATEX, EEx d (RDE) Gost

Seals

Chemical seals – separating the measuring instrument from corrosive, highly viscous or dangerous media and high temperature.



D030



D04x



D050



DT1

	D030	D04x	D050	DT1
General Data	<ul style="list-style-type: none"> Suitable for very aggressive media No metallic part in contact with media 	<ul style="list-style-type: none"> Robust and compact Applicable for corrosive media 	<ul style="list-style-type: none"> Flush mounted Suitable for corrosive & viscous media Limited space needed 	<ul style="list-style-type: none"> Direct mounting Cleaning ring optional Suitable for corrosive media High temperature range
Industries	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	Oil & Gas / Chemical Water / Waste Water Energy Machinery
Process connection	G ½	G ¼ G ½ ¼ NPT ½ NPT	G ½ ½ NPT G ¾ ¾ NPT G1 1 NPT G1 ½ 1 ½ NPT G2 2 NPT	G ¼ G ½ ¼ NPT ½ NPT
Body material	PPT	Stainless steel	Stainless steel	Stainless steel Uranus B6 Hastelloy B Hastelloy C Tantalum Monel PVC PVDF PPH PTFE
Diaphragm material	EPDM / PTFE lining	Stainless steel	Stainless steel	Stainless steel Uranus B6 Hastelloy B Hastelloy C Tantalum Monel
Measuring ranges	0...2.5 bar to 0...10 bar	0...1 bar to 0...250 bar	0...1 bar to 0...600 bar	0...16 bar to 0...160 bar

Highly resistant membrane materials and coatings for extremely aggressive media.



DT2



DT3



DT5



DT8

General Data	<ul style="list-style-type: none"> ■ Direct mounting ■ Cleaning ring optional ■ Suitable for corrosive media ■ High temperature range 	<ul style="list-style-type: none"> ■ Direct mounting ■ Cleaning ring optional ■ Suitable for corrosive media ■ High temperature range 	<ul style="list-style-type: none"> ■ Direct mounting ■ Cleaning ring optional ■ Suitable for corrosive media ■ High temperature range 	<ul style="list-style-type: none"> ■ Direct mounting ■ Cleaning ring optional ■ Suitable for corrosive media ■ High temperature range
Industries	Oil & Gas / Chemical Water / Waste Water Energy Machinery	Oil & Gas / Chemical Water / Waste Water Energy Machinery	Oil & Gas / Chemical Water / Waste Water Energy Machinery	Oil & Gas / Chemical Water / Waste Water Energy Machinery
Process connection	G ¼ G ½ ¼ NPT ½ NPT	G ¼ G ½ ¼ NPT ½ NPT	G ¼ G ½ ¼ NPT ½ NPT	G ¼ G ½ ¼ NPT ½ NPT
Body material	Stainless steel Uranus B6 Hastelloy B Hastelloy C Tantalum Monel PVC PVDF PPH PTFE	Stainless steel Uranus B6 Hastelloy B Hastelloy C Tantalum Monel PVC PVDF PPH PTFE	Stainless steel Uranus B6 Hastelloy B Hastelloy C Tantalum Monel PVC PVDF PPH PTFE	Stainless steel Uranus B6 Hastelloy B Hastelloy C Tantalum Monel PVC PVDF PPH PTFE
Diaphragm material	Stainless steel Uranus B6 Hastelloy B Hastelloy C Tantalum Monel	Stainless steel Uranus B6 Hastelloy B Hastelloy C Tantalum Monel	Stainless steel Uranus B6 Hastelloy B Hastelloy C Tantalum Monel	Stainless steel Uranus B6 Hastelloy B Hastelloy C Tantalum Monel
Measuring ranges	0...1 bar to 0...25 bar	0...160 mbar to 0...6 bar	0...250 bar to 0...1000 bar	0...100 bar to 0...400 bar

Transmission fluids for
process temperatures from
-60 ... +400 °C.



1500

1510

General Data	<ul style="list-style-type: none"> ■ Longitudinal starshaped seal ■ Applicable for corrosive media ■ Compact diaphragm seal 	<ul style="list-style-type: none"> ■ Longitudinal starshaped seal ■ Applicable for corrosive media ■ Compact diaphragm seal
Industries	Oil & Gas / Chemical Water / Waste Water Energy Machinery	Oil & Gas / Chemical Water / Waste Water Energy Machinery
Process connection	G $\frac{3}{4}$ DIN 3852 G $\frac{1}{2}$ DIN 3852	Union nut G $\frac{3}{4}$ or G1
Body material	Stainless steel	Stainless steel
Diaphragm material	Stainless steel	Stainless steel
Measuring ranges	0...2.5 bar to 0...1000 bar	0...2.5 bar to 0...1000 bar

Oil and Gas – Highest safety and reliability standards for harsh environments and customized applications.



D82x



D4xx



D6xx



D912

General Data	<ul style="list-style-type: none"> ■ Flush diaphragm ■ Cleaning ring optional ■ Coating optional 	<ul style="list-style-type: none"> ■ Small diameter flange ■ Cleaning ring optional ■ Coating optional 	<ul style="list-style-type: none"> ■ Many process connection standards available ■ Cleaning ring optional ■ Coating optional 	<ul style="list-style-type: none"> ■ Process seals for transmitters ■ Pressure, level and flow measurement ■ High temperature resistant
Industries	Oil & Gas / Chemical Water / Waste Water Energy Transport & Logistics	Oil & Gas / Chemical Water / Waste Water Energy Transport & Logistics	Oil & Gas / Chemical Water / Waste Water Energy Transport & Logistics	Oil & Gas / Chemical Energy
Process connection	EN 1759-1 ASME B16.5 EN 1092-1	EN 1759-1 ASME B16.5 EN 1092-1	EN 1759-1 ASME B16.5 EN 1092-1	EN 1759-1 ASME B16.5 EN 1092-1
Body material	Stainless steel	Steel Stainless steel Uranus B6 Hastelloy B Hastelloy C Monel	Stainless steel Uranus B6 Hastelloy B Hastelloy C Monel PVC PVDF PPH PTFE	Steel Stainless steel Monel
Diaphragm material	Stainless steel Uranus B6 Hastelloy B Hastelloy C Tantalum Monel	Stainless steel Uranus B6 Hastelloy B Hastelloy C Tantalum Monel	Stainless steel Uranus B6 Hastelloy B Hastelloy C Tantalum Monel	Stainless steel Uranus B6 Hastelloy B Hastelloy C Monel
Measuring ranges	0...160 mbar to 0...420 bar	0...160 mbar to 0...420 bar	0...160 mbar to 0...160 bar	0...10 mbar to 0...250 bar
Nominal size	DN 15...100 ½" ... 4"	DN 10...65 ⅜" ... 2½"	DN 10...65 ⅜" ... 2½"	DN 15...50 ½" ... 2"
Pressure rating	PN 10...420 class 150...2500	PN 10...420 class 150...2500	PN 10...150 class 150...900	PN 10...250 class 150 ...1500

Optimized filling processes –
high accuracy and
low temperature coefficients.



D801



D850

General Data	<ul style="list-style-type: none"> ■ Cell type ■ Flush diaphragm 	<ul style="list-style-type: none"> ■ Flange type with extended diaphragm
Industries	Oil & Gas / Chemical Water / Waste Water Energy Transport & Logistics	Oil & Gas / Chemical Water / Waste Water Energy Machinery
Process connection	Cell mounting	Flange with extension
Body material	Stainless steel	Stainless steel
Diaphragm material	Stainless steel Uranus B6 Hastelloy B Hastelloy C Tantalum Monel	Stainless steel Uranus B6 Hastelloy B Hastelloy C Tantalum Monel
Measuring ranges	0...160 mbar to 0...400 bar	0...160 mbar to 0...40 bar
Nominal size	DN 50...100 2" ... 4"	DN 50...100 2" ... 4"
Pressure rating	PN 10...400 class 150...2500	PN 10...40 class 150...600

Material certificates – full traceability of all wetted materials guaranteed by a dedicated material handling system.



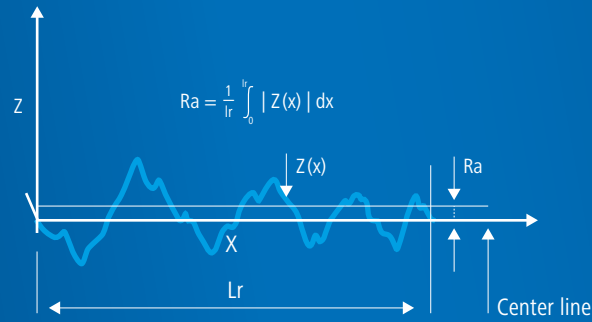
1650



1620, 1530, 1520, 1540

General Data	<ul style="list-style-type: none"> ■ In line seals for process industry ■ No dead volume 	<ul style="list-style-type: none"> ■ In line seals for hygienic applications ■ No dead volume
Industries	Laboratory & Medical Oil & Gas / Chemical Energy Machinery	Food & Beverage Laboratory & Medical Machinery
Process connection	Cell mounting	DIN 32676 ISO 2852 SMS1146 DIN 11851 DIN 11864, ...
Body material	Stainless steel	Stainless steel
Diaphragm material	Stainless steel	Stainless steel
Measuring ranges	0...1.6 bar to 0...250 bar	0...1.6 bar to 0...40 bar
Nominal size	DN 25...100	DN 15...80 ½" ... 3"
Wetted part material	Stainless steel	Stainless steel

For hygienic processes –
surface quality
Ra = 0,4 ... 0,8 µm



DANC



DAEL



DAEF



DAVA

General Data	<ul style="list-style-type: none"> ■ According NFE 29521, ISO 2852 ■ DIN 32676 	<ul style="list-style-type: none"> ■ SMS 1145 ■ With union nut 	<ul style="list-style-type: none"> ■ SMS 1145 ■ Threaded socket 	<ul style="list-style-type: none"> ■ Varivent®
Industries	Food & Beverage, Laboratory & Medical Water / Waste Water Machinery	Food & Beverage, Laboratory & Medical Water / Waste Water Machinery	Food & Beverage, Laboratory & Medical Water / Waste Water Machinery	Food & Beverage, Laboratory & Medical Water / Waste Water Machinery
Normal size	DN 25, 38, 40, 50, 51	DN 25, 38, 51, 1", 1½", 2"	DN 38, 51, 1½", 2"	DN 25, 40/125
Body material	Stainless steel 1.4435 (316L)	Stainless steel 1.4435 (316L)	Stainless steel 1.4435 (316L)	Stainless steel 1.4435 (316L)
Diaphragm material	Stainless steel 1.4435 (316L) Hastelloy C	Stainless steel 1.4435 (316L) Hastelloy C	Stainless steel 1.4435 (316L) Hastelloy C	Stainless steel 1.4435 (316L) Hastelloy C
Measuring ranges	0...1 bar to 0...40 bar	0...1 bar to 0...40 bar	0...1 bar to 0...40 bar	0...1 bar to 0...40 bar
Approval	3A Gost	3A Gost	3A Gost	3A Gost
Additional information	Ra < 0.8 µm, option electropolished Ra < 0.4 µm	Ra < 0.8 µm, option electropolished Ra < 0.4 µm	Ra < 0.8 µm, option electropolished Ra < 0.4 µm	Ra < 0.8 µm, option electropolished Ra < 0.4 µm



Wetted materials and transmission fluids conform to hygienic requirements.



DAIL



DARL



DADF



DADL

General Data	<ul style="list-style-type: none"> ■ IDF according to BS 4825 	<ul style="list-style-type: none"> ■ RJT according BS 4825 ■ CIP and SIP 	<ul style="list-style-type: none"> ■ DIN 11851 ■ Threaded socket 	<ul style="list-style-type: none"> ■ DIN 11851 ■ With union nut
Industries	Food & Beverage, Laboratory & Medical Water / Waste Water Transport & Logistics Machinery	Food & Beverage, Laboratory & Medical Water / Waste Water Transport & Logistics Machinery	Food & Beverage, Laboratory & Medical Water / Waste Water Transport & Logistics Machinery	Food & Beverage, Laboratory & Medical Water / Waste Water Transport & Logistics Machinery
Normal size	1½", 2"	1½", 2"	DN 32, 40, 50	DN 25, 32, 40, 50
Body material	Stainless steel 1.4435 (316L)	Stainless steel 1.4435 (316L)	Stainless steel 1.4435 (316L)	Stainless steel 1.4435 (316L)
Diaphragm material	Stainless steel 1.4435 (316L) Hastelloy C	Stainless steel 1.4435 (316L) Hastelloy C	Stainless steel 1.4435 (316L) Hastelloy C	Stainless steel 1.4435 (316L) Hastelloy C
Measuring ranges	0...1 bar to 0...40 bar	0...1 bar to 0...40 bar	0...1 bar to 0...40 bar	0...1 bar to 0...40 bar
Approval	3A Gost	Gost	3A Gost	3A Gost
Additional information	Ra < 0.8 µm, option electropolished Ra < 0.4 µm	Ra < 0.8 µm, option electropolished Ra < 0.4 µm	Ra < 0.8 µm, option electropolished Ra < 0.4 µm	Ra < 0.8 µm, option electropolished Ra < 0.4 µm

Pressure accessories

On remote seals Baumer provides complete assembly with flushing ring and drain/vent valves.



ARPX



AMFD

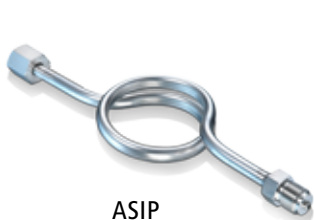


AORP



ARA

General Data	<ul style="list-style-type: none"> Shut off valves Separation of gauge or transmitter from the process 	<ul style="list-style-type: none"> Manifold 2, 3 or 5 ways 	<ul style="list-style-type: none"> Pressure limiter Protection of pressure gauges and transmitters from overpressure 	<ul style="list-style-type: none"> Pulsation dampener Protection of pressure gauges and transmitters from pulsations
Industries	Oil & Gas / Chemical Water / Waste Water Energy Transport & Logistics Machinery	Oil & Gas / Chemical Water / Waste Water Energy	Oil & Gas / Chemical Water / Waste Water Energy Transport & Logistics Machinery	Oil & Gas / Chemical Water / Waste Water Energy Transport & Logistics Machinery
Process temperature	-20...+250 °C	Max. 200 °C	Max. 150 °C	Max. 250 °C
Max. pressure	400 bar	420 bar	700 bar	Max. 600 bar
Materials	Brass Steel Stainless steel PTFE	Stainless steel PTFE	Stainless steel Viton®	Brass Steel Stainless steel
Set points	-1...400 bar			



ASIP



AKPL

General Data	<ul style="list-style-type: none"> Siphon Protects gauge from high fluid temperatures- recommended for steam 	<ul style="list-style-type: none"> Capillary Reduces medium temperature Separates the instrument from heat sources Reduces pulsations
Industries	Oil & Gas / Chemical Water / Waste Water Energy	Oil & Gas / Chemical Water / Waste Water Energy
Process temperature	Max. 400 °C	Max. 400 °C (depending on process pressure)
Max. pressure	Max. 400 bar	Max. 400 bar (depending on process temperature)
Materials	Steel Stainless steel	Stainless steel



CombiSeries –
Safe and convenient process
monitoring and control.



CombiTemp™ TFRN

CombiTemp™ TFRH

General Data	<ul style="list-style-type: none"> ■ Available with displays: <i>CombiView™</i> DFON ■ Available with 4...20 mA, HART or Profibus transmitter or Pt100 output 	<ul style="list-style-type: none"> ■ Available with display: <i>CombiView™</i> DFON ■ Various different process connections available ■ Available with 4...20 mA, HART or Profibus transmitter or Pt100 output
Industries	Oil & Gas / Chemical Water / Waste Water Energy Transport & Logistics Machinery	Food & Beverage Laboratory & Medical Water / Waste Water
Operating temperature	Sensor -50...+400 °C Ambient -40...+160 °C	Sensor -50...+250 °C Ambient -40...+160 °C
Sensor element	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
Wetted parts Material	AISI 316L	316L
Process connections	Tube without connection G½ male DIN 3852 G½ male ISO 228/1 R½ male ISO 7/1 ½"-14 NPT male	G½ hygienic 3A DN38 Hygienic connection 3A DN25/DN38 Clamp, 1" 1½" 3A DN51 Clamp, 2" 3A DN40 Varivent Gea Tuchenhagen
Display	<i>CombiView™</i> DFON	<i>CombiView™</i> DFON
Protection rating	IP 67 IP 69K	IP 67 IP 69K
Approval	3A ATEX II 1G, Ex ia IIC T5/T6 ATEX II 3G, Ex nA II T5	3A EHEDG 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



TE1



CombiTemp™ 8141



TAR

	TE2	TE1	CombiTemp™ 8141	TAR
General Data	<ul style="list-style-type: none"> ■ Compact and light weight ■ Available with 4...20 mA transmitter or Pt100 output 	<ul style="list-style-type: none"> ■ Possibility of surface mounting ■ Various different process connections available ■ Available with 4...20 mA, HART or Profibus transmitter or Pt100 output 	<ul style="list-style-type: none"> ■ High level of modularity ■ Various different process connections available ■ Available with 4...20 mA, HART or Profibus transmitter or Pt100 output 	<ul style="list-style-type: none"> ■ Supplied with inline pipe in various dimensions ■ No «dead» zones ■ Available with 4...20 mA transmitter or Pt100 output
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	Food & Beverage, Laboratory & Medical Water / Waste Water
Operating temperature	Sensor -50...+250 °C Transmitter -40...+85 °C ambient	Sensor -50...+250 °C Transmitter -40...+85 °C ambient	Sensor -50...+400 °C Ambient -40...+160 °C	Sensor -20...+200 °C Ambient -25...+80 °C
Sensor element	Pt100	Pt100	Pt100/ Pt1000	Pt100
Accuracy	DIN A 1/1 DIN B 1/1, 1/3, 1/6	DIN A 1/1 DIN B 1/3	DIN A 1/1 DIN B 1/1, 1/3, 1/6	DIN B 1/1
Wetted parts Material	316L/PEEK	316L/PEEK	316L	316L
Process connections	G½" male nipple G½A male nipple, hygienic M12 x 1.5 male nipple hygienic M12 x 1.5 male nipple, hygienic, PEEK cone Conical sensor, ø3 x 20mm or 25 mm sensor tip	Surface mounted sensor tip, ø6 x 9mm sensor tip G½A male nipple G½A male nipple, hygienic M12 x 1.5 male nipple, hygienic M12 x 1.5 male nipple, hygienic, PEEK cone, 5 x 3 mm sensor tip 3A/DN38 hygienic connection 3A Clamp, DN38 3A Clamp, DN51 3A	R½ male nipple ½" - 14 NPT male nipple, 3A/DN38 hygienic, sensor tube, 3-A conform, 3A/DN38 hygienic, flush mounted surface sensor, 3-A conform GEA Tuchenhausen Varivent flange Clamp DN25/38, 3-A conform Clamp DN51, 3-A conform ½" - ¾" Tri-clamp®	Clamp ISO 2852 DN ½" 627 DN ¾" 621 DN 1" 622 DN 1½" 623 DN 2" 624 DN 2 ½" 625 Thread type DIN 11887/11887 DN 15 531 DN 25 532 DN 32 537 DN 40 534 DN 50 533 DN 65 536 DN 80
Display	No	No	CombiView™ DFON	No
Protection rating	M12: IP 67 DIN 43650: IP 65	IP 67	IP 67	IP 65
Approval			3A ATEX II 1G, Ex ia IIC T5/T6 ATEX II 3G, Ex nA II T5	

Precise and reliable temperature measurement.



Conical sensor



Cable sensor



Insertion 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 	<ul style="list-style-type: none"> ■ Insertion sensor ■ Tolerates high humidity ■ For freezing or smoking processes
Industries	Food & Beverage Laboratory & Medical Water / Waste Water	Oil & Gas / Chemical Energy Transport & Logistics Machinery	Food & Beverage Laboratory & Medical Water / Waste Water
Operating temperature	-50...+205 °C	-50...+205 °C	-50...+205 °C
Sensor element	Pt100	Pt100 Pt1000	Pt100
Accuracy	DIN A 1/1 DIN B 1/1, 1/3, 1/6	DIN A, 1/1 DIN B 1/1	DIN B 1/1
Wetted parts material	316L	AISI 316Ti	AISI 304
Protection rating	IP 65	IP 65	IP 65

User configurable transmitters for head mounting.



BattTemp



FlexTop 2202



FlexTop 2203



FlexTop 2204

General Data	<ul style="list-style-type: none"> ■ Battery life <3 years ■ Configurable via push-buttons ■ Memorization of highest and lowest temperature 	<ul style="list-style-type: none"> ■ In-head transmitter for <i>CombiTemp™</i> or OEM applications ■ User configurable 	<ul style="list-style-type: none"> ■ OEM applications ■ User configurable 	<ul style="list-style-type: none"> ■ 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	Food & Beverage Laboratory & Medical Oil & Gas / Chemical Water / Waste Water Energy Transport & Logistics Machinery
Supply	Battery-powered	8...35 VDC	8...35 VDC	8...35 VDC
Accuracy	0.3 °C	< 0.25 °C (Pt100)	< 4...5 °C	< 0.25 °C (Pt500)
Measuring range	-200...+850 °C	-200...+850 °C	-100...+1820 °C -10...100 mV	-100...+160 °C 0...1000 Ohm
Operating temperature	-10...+70 °C			
Input	Pt100, 2-wire, DIN/EN/IEC 60751	Pt100, 2-, 3-, 4 wire	T/C, mV	Pt500 and Ohm
Output	No	4...20 mA	4...20 mA	4...20 mA
Protection rating	IP 65	IP 40	IP 40	IP 40
Approval	Ex ia IIC T4/T5, ATEX II 1G	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



FlexTop 2231

General Data	<ul style="list-style-type: none"> ■ For <i>CombiTemp™</i> or OEM applications ■ User configurable 	<ul style="list-style-type: none"> ■ For <i>CombiTemp™</i> or OEM applications ■ User configurable 	<ul style="list-style-type: none"> ■ 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	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	9...32 VDC
Accuracy	< 0.1°C (Pt100)	< 0.1°C (Pt100)	< 0.1°C (Pt100)
Measuring range	-270...+2300 °C 0...2200 Ohm	-270...+2300 °C 0...2200 Ohm	-270...+2300 °C 0...2200 Ohm
Input	RTD T/C mV and R inputs	RTD T/C mV and R	RTD dual RTD T/C mV and R
Output	4...20 mA	4...20 mA and HART	Profibus PA
Protection rating	IP 40	IP 40	IP 40
Approval	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

When temperature measurement is crucial.



FlexTemp 2301



FlexTemp 2311



FlexTemp 2321

General Data	FlexTemp 2301	FlexTemp 2311	FlexTemp 2321
General Data	■ Damping and status indication configurable	■ Damping and status indication configurable	■ 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	-270...+2300 °C 0...2200 Ohm	-270...+2300 °C 0...2200 Ohm
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: IP10	Housing: IP 30 Terminals: IP10	Housing: IP 30 Terminals: IP10

Thermometers



TB40, TB63



TB80, TB100, TB160



TBH



TBL

	TB40, TB63	TB80, TB100, TB160	TBH	TBL
General Data	<ul style="list-style-type: none"> Industrial applications Small size All stainless steel design 	<ul style="list-style-type: none"> Multi purpose standard thermometer Zero adjustment 	<ul style="list-style-type: none"> HVAC applications Short immersion tube for pipes up to Ø 2" Zero adjustment 	<ul style="list-style-type: none"> For airducts in ventilation systems Rear flange for wall mounting Zero adjustment
Industries	Laboratory & Medical Energy Machinery	Water / Waste Water Energy Machinery HVAC	HVAC	HVAC
Nominal size (mm)	40, 63	80, 100, 160	80, 100	100
Measuring range	-30...+500 °C	-30...+500 °C	-20...+250 °C	-30...+80 °C
Accuracy (according to EN 13190)	Class 1 (≤ 250 °C) Class 2 (> 250 °C)	Class 1 (≤ 250 °C) Class 2 (> 250 °C)	Class 1	Class 1
Immersion tube material	Stainless steel 1.4571 (316Ti)	Cu-alloy (≤ 250 °C) Stainless steel 1.4571 (316Ti)	Cu-alloy (≤ 120 °C) Stainless steel 1.4571 (316Ti)	Cu-alloy
Immersion tube outlet	Center back	Center back or bottom	Center back	Center back
Immersion tube diameter	4 mm	8 mm	8 mm	8 mm
Immersion tube length	60...400 mm	100...1000 mm	48...88 mm	165 mm
Case material	Stainless steel 1.4301 (304)	Stainless steel 1.4301 (304)	Stainless steel 1.4301 (304)	Stainless steel 1.4301 (304)
Sensing element	Bi-metal	Bi-metal	Bi-metal	Bi-metal
Approval	Gost IP 52	Gost IP 50	IP 50	IP 50

Chemical and Petrochemical industry – thermometers for harsh environments.



	TBX	TBI	TBHI	TBHA
General Data	<ul style="list-style-type: none"> ■ HVAC applications ■ Conical immersion tube for good heat transfer ■ Zero adjustment 	<ul style="list-style-type: none"> ■ All stainless steel thermometer ■ For corrosive applications 	<ul style="list-style-type: none"> ■ Heavy industry version ■ Oil filling available as option 	<ul style="list-style-type: none"> ■ Clamp-on thermometer ■ For insulated pipes up to Ø 2" ■ Insulating material thickness 30...110 mm
Industries	HVAC	Oil & Gas / Chemical Water / Waste Water Energy	Oil & Gas / Chemical Water / Waste Water Energy	HVAC
Nominal size (mm)	80, 100, 160	80, 100, 120, 130, 160	100, 130	80, 100
Measuring range	-20...+250 °C	-70...+600 °C	-70...+600 °C	-20...+160 °C
Accuracy (according to EN 13190)	Class 1	Class 1 (≤ 250 °C) Class 2 (> 250 °C)	Class 1 (≤ 250 °C) Class 2 (> 250 °C)	Class 1
Immersion tube material	Cu-alloy	Stainless steel 1.4571 (316Ti)	Stainless steel 1.4571 (316Ti)	Stainless steel 1.4571 (316Ti)
Immersion tube outlet	Center back or bottom	Bottom, center back, center back every angle	Center back every angle	Center back
Immersion tube diameter	Conical	6 mm, 8 mm	6 mm, 8 mm	n/a
Immersion tube length	60 mm	60...1000 mm	60...1000 mm	n/a
Case material	Stainless steel 1.4301 (304)	Stainless steel 1.4301 (304)	Stainless steel 1.4301 (304)	Stainless steel 1.4301 (304)
Sensing element	Bi-metal	Bi-metal	Bi-metal	Bi-metal
Protection rating	IP 50	IP 67	IP 68	IP 50
Approval		Gost	Gost	

Gas filled thermometers – remote temperature measurement and applications with setpoints.



TSS



TSF



TSSE



TSFE

General Data	<ul style="list-style-type: none"> ■ Direct reading industrial thermometer ■ Liquid filling as option ■ Zero adjustment 	<ul style="list-style-type: none"> ■ Remote measurement industrial thermometer ■ Liquid filling as option ■ Zero adjustment 	<ul style="list-style-type: none"> ■ Direct reading industrial thermometer ■ With contacts ■ Liquid filling as option 	<ul style="list-style-type: none"> ■ Remote measurement industrial thermometer ■ With contacts ■ Liquid filling as option
Industries	Oil & Gas / Chemical Water / Waste Water Energy Machinery	Oil & Gas / Chemical Water / Waste Water Energy Machinery	Oil & Gas / Chemical Water / Waste Water Energy Machinery	Oil & Gas / Chemical Water / Waste Water Energy Machinery
Nominal size (mm)	63, 80, 100, 160, 250	63, 80, 100, 160, 250	100, 160	100, 160
Measuring range	-200...+800 °C	-200...+800 °C	-200...+800 °C	-200...+800 °C
Accuracy (according to EN 13190)	Class 1	Class 1	Class 1	Class 1
Immersion tube material	Stainless steel 1.4541 (321)	Stainless steel 1.4541 (321)	Stainless steel 1.4541 (321)	Stainless steel 1.4541 (321)
Immersion tube diameter	6 mm, 8 mm, 11 mm, 14 mm	6 mm, 8 mm, 11 mm, 14 mm	6 mm, 8 mm, 11 mm, 14 mm	6 mm, 8 mm, 11 mm, 14 mm
Immersion tube length	100...1000 mm	100...1000 mm	100...1000 mm	100...1000 mm
Capillary	n/a	0.5 to 100 m	n/a	0.5 to 100 m
Contacts	n/a	n/a	1 or 2 set points sliding, magnetic spring or inductive contacts	1 or 2 set points sliding, magnetic spring or inductive contacts
Case and sleeve material	Stainless steel 1.4301 (AISI 304)	Stainless steel 1.4301 (AISI 304)	Stainless steel 1.4301 (AISI 304)	Stainless steel 1.4301 (AISI 304)
Sensing element	Gas filled plunger	Gas filled plunger and capillary	Gas filled plunger	Gas filled plunger and capillary
Protection rating	IP 65	IP 65	IP 65	IP 65
Approval	Gost	Gost	Gost	Gost

Highest quality standards – thermowells produced, tested and certified up to 1 m length.



T8410, T8911,
T9093, T9143, T9346



T8416, T8916,
T9144, T9367



AGW, AGF

	T8410, T8911, T9093, T9143, T9346	T8416, T8916, T9144, T9367	AGW, AGF
General Data	<ul style="list-style-type: none"> ■ HVAC and industrial applications ■ Fitting all TBx and TSx ■ Threaded process connection 	<ul style="list-style-type: none"> ■ HVAC and industrial applications ■ Fitting all TBx and TSx ■ Welded process connection 	<ul style="list-style-type: none"> ■ Process applications ■ DIN / ISO / ANSI / Flanges ■ Threaded connections (NPT or G)
Industries	Water / Waste Water Machinery HVAC	Water / Waste Water Machinery HVAC	Oil & Gas / Chemical Water / Waste Water Energy
Process temperature	Max. 650 °C	Max. 650 °C	Max. 600 °C (depending on process pressure)
Max. pressure	Max. 250 bar	Max. 250 bar	Max. 400 bar (depending on process temperature)
Materials	Brass / steel / stainless steel	Steel / stainless steel	Stainless steel
Length	50...1000 mm	50...1000 mm	100...1000 mm
For immersion tube Ø	4, 6, 8, 14 mm	6, 8, 14 mm	7 to 18 mm

Temperature switches



From mechanic to electronic.
From digital to analogue.
Baumer's portfolio provides various product families with ATEX approvals.



ETTN, YTTN

General Data	<ul style="list-style-type: none"> On site configuration Suitable for hazardous areas Ideal for safety circuits Robust design for rugged industrial environment
Industries	Oil & Gas / Chemical Water / Waste Water Energy Transport & Logistics Machinery
Operating temperature	Sensor: -200...400 °C Ambient: -25...85 °C
Set points	2
Accuracy (linearity, hysteresis, repeatability)	1/1 DIN B
Sensor type	Pt1000
Wetted parts material	316L
Process connections	Without union G ¼ G ½ ¼ NPT ½ NPT
Protection rating	IP 67
Approval	ATEX I M1 Ex ia I ATEX II 1G Ex ia IIC T6 to T5



RT2, RT2Y, RT2E

General Data	<ul style="list-style-type: none"> Compact temperature switch Good vibration resistance
Industries	Oil & Gas / Chemical Water / Waste Water Energy Machinery
Measuring ranges	-40...+ 350 °C
Wetted parts material	Stainless steel
Set points	1
Repeatability	± 1 % F.S.
Current rating	10 mA to 10 A max. 250 VAC/220 VDC
Sensor type	Stem 9.5 mm (rigid or with capillary)
Connection	G½ ½NPT
Body / Housing material	Polyamid PA6 Aluminium for EEx d
Protection rating	IP 66
Approval	Options: ATEX, EEx ia (RT2Y) ATEX, EEx d (RT2E) Gost



RT, RTY, RTE

General Data	<ul style="list-style-type: none"> Standard temperature switch Adjustable setpoint(s) and deadband
Industries	Oil & Gas / Chemical Water / Waste Water Energy Machinery
Measuring ranges	-40...+ 350 °C
Wetted parts material	Stainless steel
Set points	1 or 2
Repeatability	± 1 % F.S.
Current rating	5 mA to 10 A max. 250 VAC/220 VDC
Sensor type	Stem 14 mm (rigid or with capillary)
Connection	G½ ½NPT
Body / Housing material	ZnAl - alloy Aluminium for EEx d
Protection rating	IP 66
Approval	Options: ATEX, EEx ia (RTY) ATEX, EEx d (RTE) Gost

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 great 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
Process connection	G½" G¾" ¾" NPT G1" M18x1 G½" for reverse assembly	G½" hygienic 3A DN38 G½" sliding connection
Switching points	1	1
Wetted parts material	AISI 304/316 - PEEK	PEEK
Protection rating	IP 67	IP 67
Approval	Ex ia IIC T5, ATEX II 1G (Gas) Ex ta IIIC T100 Da, ATEX II 1D (Dust) Ex nA II T5, ATEX II 3G Ex ia IIC T5 / Ex ta IIC T100 Da (combined gas/dust) ATEX II 2GDc-IM2c Lloyd's Register Gost 3A EHEDG DNV EN50155 (railway)	3A EHEDG DNV EN50155 (railway) Ex ia IIC T5, ATEX II 1G (Gas) Ex tD A20 IP 67 T100 °C, ATEX II 1D (Dust) Ex nA II T5, ATEX II 3G
Additional information	Available with various industrial threaded connections: <ul style="list-style-type: none"> M18x1 replaces a capacitive sensor directly G½" reverse for inside mounting in a tank Adaptors for other hygienic connections available (see mounting accessories) 	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. Adaptors for other hygienic connections available (see mounting accessories)

Level control.
Simply done.



LSKx2x



LSKx5x

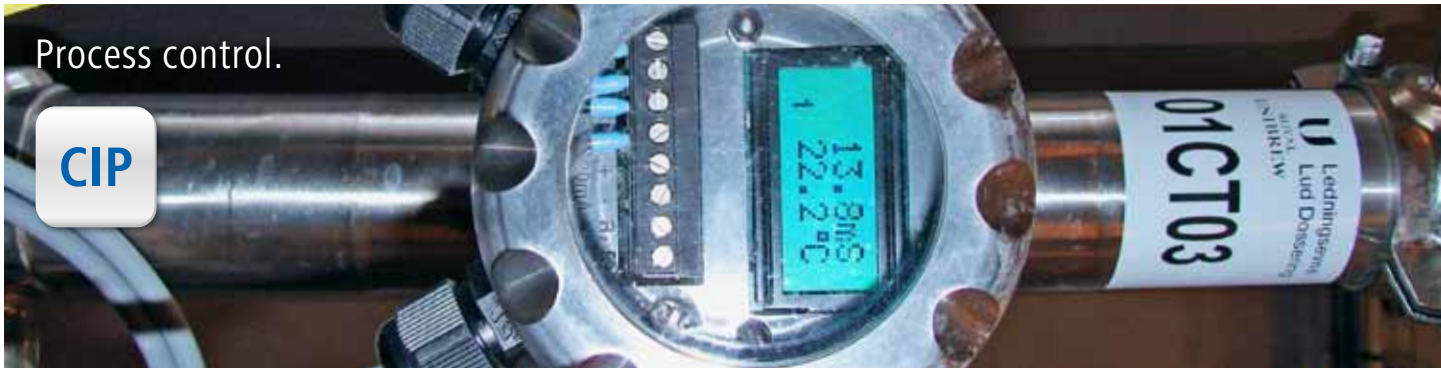
General Data	<ul style="list-style-type: none"> ■ Top- or side mounted ■ Adjustable rod length ■ Robust stainless steel housing 	<ul style="list-style-type: none"> ■ Multipoint level detection ■ Adjustable rod length ■ Robust stainless steel housing
Industries	Food & Beverage, Laboratory & Medical Water / Waste Water	Food & Beverage Laboratory & Medical Water / Waste Water
Process conditions	-20...+140 °C	-20...+140 °C
Process connection	G½" hygienic	G1" hygienic
Switching points	1	2...4
Wetted parts material	AISI316L / PTFE / PEEK	AISI316L / PTFE / PEEK
Protection rating	IP 67	IP 67
Approval	3A	3A
Additional information	Adaptors for other hygienic connections available (see mounting accessories)	Adaptors for other hygienic connections available (see mounting accessories)

Robust and reliable.



	LSP051.X	LSP056.X	PSMN submersible	PSSN submersible
General Data	<ul style="list-style-type: none"> Fast response time < 10ms Insensitive to foam, bubbles and sticky media Top-, bottom- or side mounting 	<ul style="list-style-type: none"> Fast response time < 10ms 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
Process connection	G1" hygienic	G1" hygienic		
Media conductivity	min. 50 mS	min. 50 mS		
Technology			Piezoresistive silicon	Ceramic thick film
Wetted parts material	AISI 316L - PEEK	AISI 316L - PEEK	Stainless steel 1.4404 AISI 316L Stainless steel for seawater applications (AISI 904L) Stainless steel 1.4435 AISI 316L Hastelloy-C PUR or PTFE (Cable) NBR, FKM (sealing)	Stainless steel 1.4404 AISI 316L Ceramic (96% AL) PUR (Cable) NBR (sealing)
Accuracy (linearity, hysteresis, repeatability)			≤ 0.1% FS (P _{nom} ≥ 4 mH ₂ O) ≤ 0.25% FS	≤ 1% FS
Output signal			4...20 mA 0...10 V	4...20 mA
Cable			PUR or ETFE with integrated humidity filter up to 250m length	PUR black with integrated humidity filter up to 25m length
Protection rating	IP 68	IP 68	IP 68	IP 68
Approval	3A	3A	ATEX II 1G Ex ia IIC T4/ T6 Ga	
Additional information	Adaptors for other hygienic connections available (see adaptors)	Adaptors for other hygienic connections available (see adaptors)	External programming of zero point and span with FlexProgrammer 9701	

Conductivity transmitters



ISL050.1

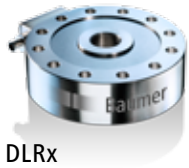


ISL051.1

General Data	<ul style="list-style-type: none"> ■ Internal temperature compensation ■ Fast reaction time < 3 s. ■ LCD display for conductivity and temperature 	<ul style="list-style-type: none"> ■ Internal temperature compensation ■ Fast reaction time < 3 s. ■ LCD display for conductivity and temperature
Industries	Food & Beverage Laboratory & Medical Water / Waste Water	Food & Beverage Laboratory & Medical Water / Waste Water
Operating temperature	-20...+130 °C (140°C < 1 hour)	-20...+130 °C (140°C < 1 hour)
Measuring range	0...0.5 to 0...999 mS/cm	0...0.5 to 0...999 mS/cm
Process connections	G1" hygienic	G1" hygienic
Wetted parts material	AISI 316L / PEEK	AISI 316L / PEEK
Accuracy	±1% of the selected range	±1% of the selected range
Protection rating	IP 67	IP 67
Approval	3A	
Additional information	Adaptors for other hygienic connections available (see adaptors)	

Strain & Force

Reducing load control systems for multi-megawatt wind turbines in the offshore area with DSRT.



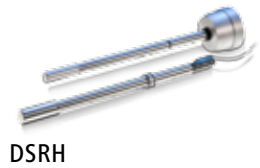
DLRx



DSRT



DSRC



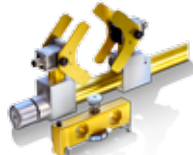
DSRH

General Data	<ul style="list-style-type: none"> ■ Static and dynamic force measurement ■ Characteristic curve deviation < 0.3% FS ■ Measuring range 0.5...100kN 	<ul style="list-style-type: none"> ■ Strain measurement on rigid structures ■ Measuring range from 100µε up to ±750µε ■ Characteristic curve deviation < 0.8% FS 	<ul style="list-style-type: none"> ■ Strain measurement on tie bars and shafts ■ Measuring range ±1000µε ■ Characteristic curve deviation < 1% FS 	<ul style="list-style-type: none"> ■ Strain measurement in wells ■ Measuring range ±1000µε ■ Characteristic curve deviation < 1% FS
Industries	Laboratory & Medical Transport & Logistics Machinery	Food & Beverage Laboratory & Medical Transport & Logistics Machinery	Machinery	Machinery
Amplification with	DABx AD2T			
Output signal	0-10 V +/-10 V 4...20mA	CANopen +/-10 V, 4...20mA	1mV/V	1mV/V +/-10 V 4...20mA
Load transmission	Tension/compression	Tension/compression		
Characteristics		For static and dynamic applications	For cyclical applications	For cyclical applications
Protection rating	IP65, IP67	IP 67	IP 54	IP 54

Precise technology
from precise production.
The key: Our people!



DABx



DSRV + DSRM SET

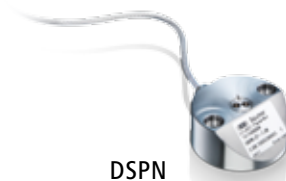


DDBF

General Data	<ul style="list-style-type: none"> ■ Analysis of S/G bridges ■ 2 x ¼ bridge or full bridge ■ Current or voltage output 	<ul style="list-style-type: none"> ■ Portable measuring system ■ Fast and easy installation ■ Measuring range ±1000µε 	<ul style="list-style-type: none"> ■ Signal analysis of strain rings, strain probes and extensometers) ■ 2 or 4 channels ■ Display range ±1999µε
Industries	Food & Beverage Laboratory & Medical Oil & Gas / Chemical Transport & Logistics Machinery	Food & Beverage Laboratory & Medical Oil & Gas / Chemical Transport & Logistics Machinery	Food & Beverage Laboratory & Medical Oil & Gas / Chemical Transport & Logistics Machinery
Performance			Display in µε, kN, t
Output signal	+/-10 V, 4...20 mA	mV/V	2 analog outputs
Characteristics	For cyclic and static applications with reset	Strain measurement on tie bars and plates	A/C or Battery operation
Protection rating	IP65	IP 54	IP 40



DLPP



DSPN



DPPC



DACx

General Data	<ul style="list-style-type: none"> ■ Piezo electric force sensor ■ Measurement of dynamic force 	<ul style="list-style-type: none"> ■ Height resolution piezoelectric strain sensor ■ Mold protection and crash detection 	<ul style="list-style-type: none"> ■ Piezoelectric pressure sensor ■ Direct and indirect cavity pressure measurement 	<ul style="list-style-type: none"> ■ Industrial multi range charge amplifier ■ Analysis of piezo electric sensors
Industries	Food & Beverage Laboratory & Medical Oil & Gas / Chemical Transport & Logistics Water / Waste Water	Food & Beverage Laboratory & Medical Oil & Gas / Chemical Transport & Logistics Water / Waste Water	Food & Beverage Laboratory & Medical Oil & Gas / Chemical Transport & Logistics Water / Waste Water	Food & Beverage Laboratory & Medical Oil & Gas / Chemical Transport & Logistics Water / Waste Water
Performance	Measuring range from 2.5 to 30 kN	Measuring range up to 500 µε	Measuring range 2000 bar	Measuring range 100 pC to 1 000 000 pC
Output signal	pC/N	pC/µε	pC/bar or pC/N	+/-10 V, 4...20 mA
Protection rating	IP 65	IP 65	IP 65	IP 40

Mounting Adaptors



With a mounting adaptor you can refit a Baumer instrument in any application.



CAM, VAM, LAM, RAM, SAM



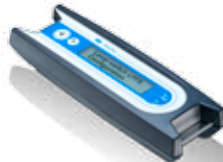
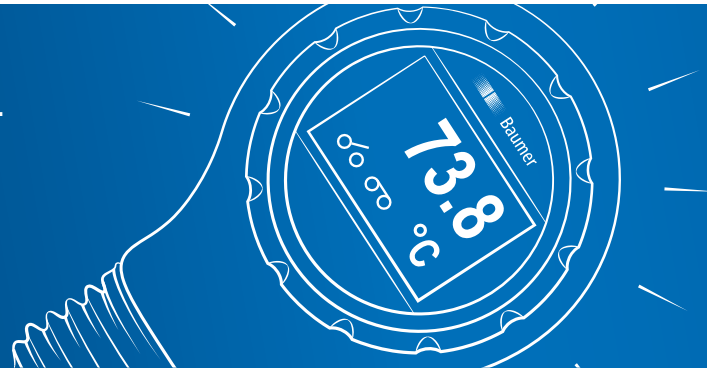
Welding sleeves, Tanks, PM023, PM053, PM200



Welding sleeves, Pipes PM022, PM025, PM033, PM053

	CAM, VAM, LAM, RAM, SAM	Welding sleeves, Tanks, PM023, PM053, PM200	Welding sleeves, Pipes PM022, PM025, PM033, PM053
Compatible sensors	LSP LSK ISL LFFS LBFS TE2 TE1 TFRH PBMN PFMN TFRH	LSP LSK ISL LFFS LBFS TE2 TE1 TFRH PBMN PFMN TFRH	LSP LSK ISL LFFS LBFS TE2 TE1 TFRH PBMN PFMN TFRH
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
Use	Adaptor for: ISO-Clamp GEA Variline G½ G1" SMS 1145	Welding sleeve	Welding sleeve
Sensor thread options	M12 / G½" / G1"	G½" / G1"	M12 / G½" / G1"
Material	AISI 316L	AISI 316L	AISI 316L
Cleaning	CIP/SIP	CIP/SIP	CIP/SIP
Approval	3A on some	3A on some	3A on some
Additional information		A mark indicates the final gland or plug position	

Functionality,
safety and flexibility.



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 type NiMH 2,4 V, 450mAh ■ 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 or tank	
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	
Approval	ATEX II GD - Ex ia IIC T5 Ga. ATEX ta IIIC IP 67 T100 Da. ATEX II 3G - Ex nA II T5	

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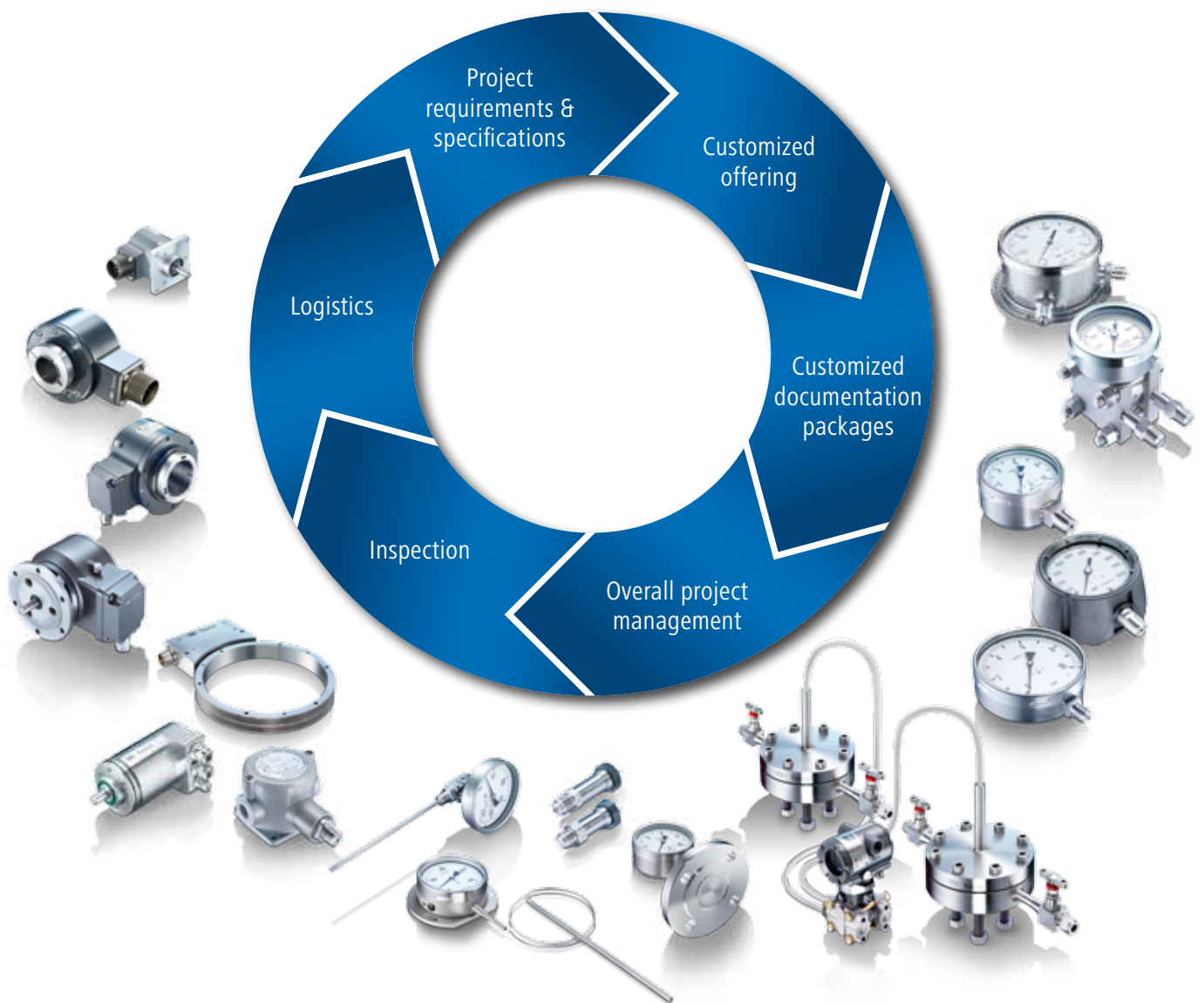
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