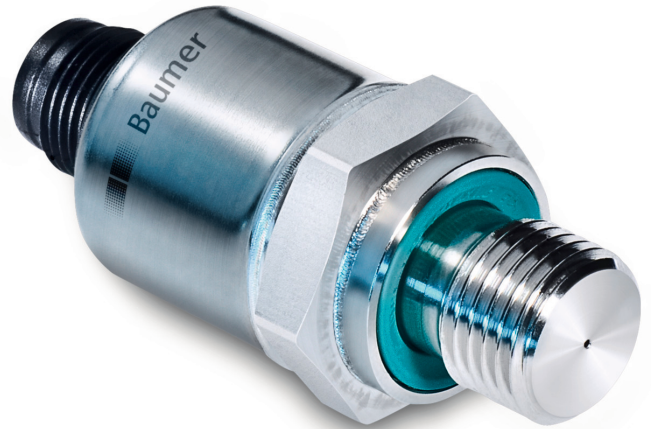


Overview

- Standard use in hydraulics from 10 to 1000 bar
- Robust stainless steel housing
- Compact design
- Fully welded, dry measuring cell
- E1 approval for mobile hydraulics
- Relative pressure measurement
- CANopen as option



Technical data

Performance characteristics

Pressure type	Relative (gauged)
Compensated temperature range	0... 80 °C
Long term stability	≤ 0.2 % FSR/a
Max. measuring error	± 0.5 % FSR ± 1 % FSR, 0 ... 105 °C ± 1.5 % FSR, 105 ... 125 °C ± 1.5 % FSR, -40 ... 0 °C Including zero-point and span error, non-linearity (by terminal base line), hysteresis and non-repeatability (EN 61298-2)
Max. measuring span	1000 bar
Measuring range	0... 1000 bar
Standard error of measurement (BFSL)	± 0.2 % FSR ± 0.5 % FSR, 0 ... 105 °C ± 0.8 % FSR, -40 ... 0 °C ± 0.8 % FSR, 105 ... 125 °C Including non-linearity, hysteresis and non-repeatability according BFSL
Min. measuring span	10 bar
Rise time (10 ... 90 %)	≤ 1 ms

Process conditions

Process pressure	Refer to section "Operating conditions"
Process temperature	-40 ... 150 °C

Process connection

Connection variants	Refer to section "Dimensional drawings"
Wetted parts material, gasket	FKM (Viton®), optional FKM (Viton®) gaskets require a minimum ambient temperature of -20 °C and a minimum medium temperature of -25 °C
Wetted parts material, membrane	AISI 630 (1.4548)
Wetted parts material, process connection	AISI 630 (1.4548)

Ambient conditions

Shock (EN 60068-2-27)	500 g
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Ambient conditions

Vibration (sinusoidal) (EN 60068-2-6)	20 g
Degree of protection (EN 60529)	IP 67
Operating temperature range	-40 ... 125 °C -25 ... 85 °C, with cable outlet
Storage temperature range	-40 ... 125 °C -25 ... 85 °C, with cable outlet

Output signal

Short circuit protection	Yes
Current output	4 ... 20 mA, 2-wire
Voltage output	0... 10 V, 3-wire 0... 5 V, 3-wire 0.5 ... 4.5 V, 3-wire 0.5 ... 4.5 V DC ratiometric, 3-wire 1 ... 6 V, 3-wire

Output signal	CANopen
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Housing

Overall size	Refer to section "Dimensional drawings"
Style	Compact transmitter
Material	AISI 304 (1.4301)

Electrical connection

Cable outlet	2 m, 3-wire
Connector	AMP superseal 1.5, 3-pin Bayonet connection DIN 72585, 4-pin DT04, 3-pin M12-A, 5-pin DT04, 4-pin

Technical data

Power supply

Voltage supply range	9 ... 36 V DC , with 4 ... 20 mA output signal
	14 ... 36 V DC , with 0 ... 10 V output signal
	9 ... 36 V DC , with 1 ... 6 V output signal
	9 ... 36 V DC , with 0 ... 5 V output signal
	9 ... 36 V DC , with 0.5 ... 4.5 V output signal
	5 V DC ratiometric , with 0.5 ... 4.5 V output signal

Compliance and approvals

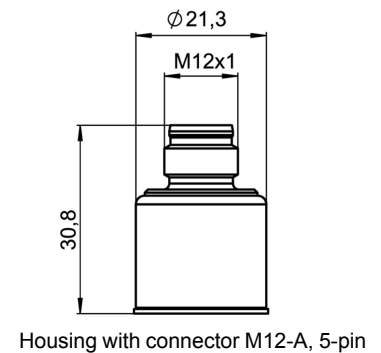
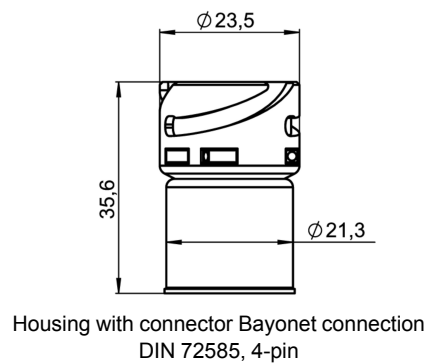
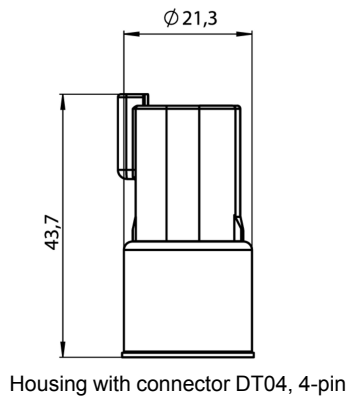
E1 accreditation	E1 accreditation
EMC	EN 61000-6-2
	EN 61000-6-3

Operating conditions

Measuring range (bar)	Proof pressure (bar)	Burst Pressure (bar)
0 ... 10	40	60
0 ... 25	40	60
0 ... 60	100	500
0 ... 100	200	1000
0 ... 160	500	2500
0 ... 250	500	2500
0 ... 400	800	4000
0 ... 600	800	4000
0 ... 1000	1200	> 4000

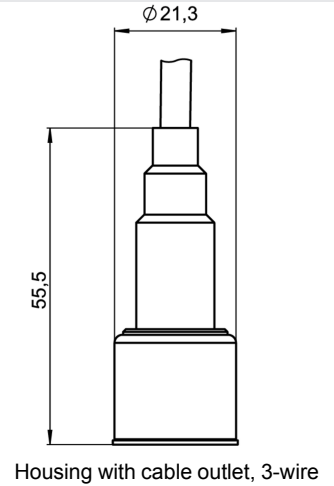
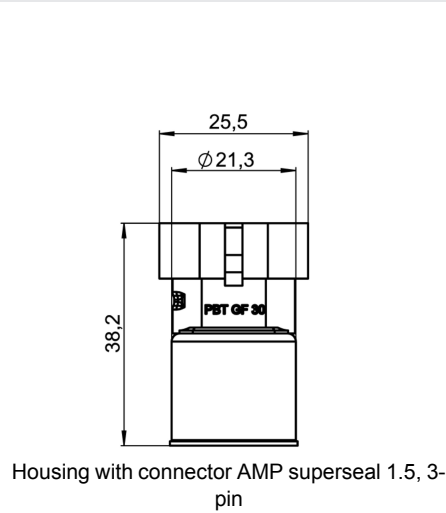
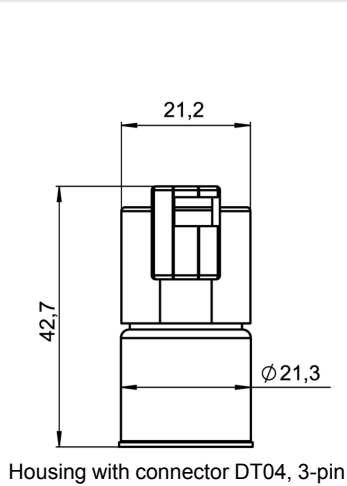
Dimensional drawings

Housing

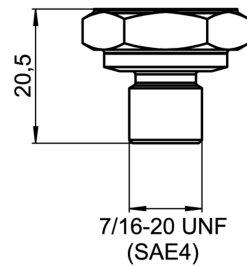
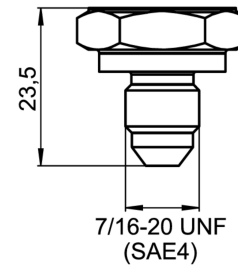
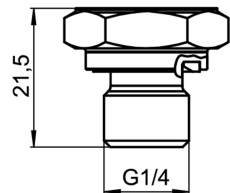
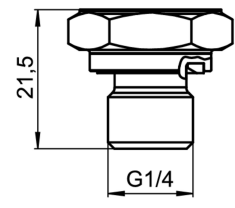
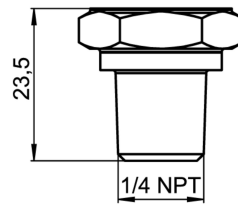
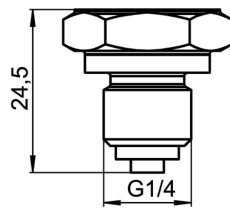


Dimensional drawings

Housing

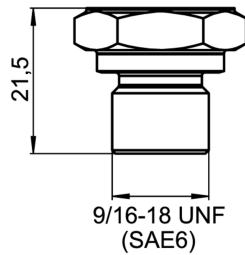


Process connection



Dimensional drawings

Process connection



9/16-18 UNF with O-ring (SAE 6) (BCID: U04)

Electrical connection

Output signal	Equivalent circuit	Electrical connection	Function	Pin assignment
Current output, 2-wire (e.g. 4 ... 20 mA)			+Vs	1
			lout	3
			n.c.	2, 4, 5
			+Vs	1
			lout	3
			Frame ground	Plug thread
			n.c.	2, 4, 5
			+Vs	1
			lout	2
			n.c.	3, 4
			+Vs	A
			lout	C
			n.c.	B
			+Vs	3
			lout	1
			n.c.	2
			+Vs	BN
			lout	BU
			n.c.	BK
			+Vs	1
			lout	2
			n.c.	3, 4

Electrical connection

Output signal	Equivalent circuit	Electrical connection	Function	Pin assignment
Voltage output, 3-wire (e.g. 0 ... 10 V)			+Vs	1
			Uout	4
			GND (0 V)	3
			n.c.	2, 5
			+Vs	1
			Uout	4
			GND (0 V)	3
			Frame ground	Plug thread
			n.c.	2, 5
			+Vs	1
			Uout	3
			GND (0 V)	2
			n.c.	4
			+Vs	A
			Uout	B
			GND (0 V)	C
			+Vs	3
			Uout	2
			GND (0 V)	1
			+Vs	BN
			Uout	BK
			GND (0 V)	BU
			+Vs	1
			Uout	3
			GND (0 V)	2
			n.c.	4

Ordering information

Ordering key - Configuration possibilities see website

Product	PBM4	-	1	3	.	###	R	.	##	##	.	##	6	#
Housing material	PBM4													
SS 1.4301 AISI 304				1										
Accuracy														
±0.5 % FS				3										
Measuring range														
0 ... 10 bar (EN)						B22								
0...25 bar (EN)						B26								
0...60 bar (EN)						B29								
0...100 bar (EN)						B31								
0 ... 160 bar (EN)						B33								
0...250 bar (EN)						B35								

PBM4

PBM4-13.###R.###.##6#

Ordering information

Ordering key - Configuration possibilities see website
PBM4 - 1 3 . ### R . ## ## . ## 6 #

0...400 bar (EN)	B38
0...600 bar (EN)	B39
0...1000 bar (EN)	B41
0...400 psi (ANSI)	H26
0...1000 psi (ANSI)	H30
0...1500 psi (ANSI)	H31
0...3000 psi (ANSI)	H34
0...6000 psi (ANSI)	H38
0...9000 psi (ANSI)	H39
0...15000 psi (ANSI)	H41

Kind of pressure

Relative (gauged)	R
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Output signal

4...20 mA	A1
0...10 V	A2
0...5 V	A4
0.5...4.5 V	A5
0.5...4.5 V ratiometric	A6
1...6 V	A8
CANopen	C2

Output Connection

M12-A, 5-pin	15
M12-A, 5-pin, stainless steel	16
Cable (2 m)	52
Bayonet connection DIN 72585, 4-pin	85
AMP Superseal 1.5, 3-pin	86
DT04, 4-pin	87
DT04, 3-pin	88

Process connection

G 1/4 B EN 837-1 (G30)	02
1/4-18 NPT (N01)	04
G 1/4 A DIN 3852-E (G50)	06
G 1/4 A DIN 3852-E, pressure channel 0.6 mm (G50)	26
7/16-20 UNF cone (SAE 4) (U01)	34
7/16-20 UNF o-ring (SAE 4) (U02)	35
9/16-18 UNF o-ring (SAE 6) (U04)	36

Process connection material

SS 1.4548 AISI 630	6
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Seal

None	0
FKM (Viton®)	3