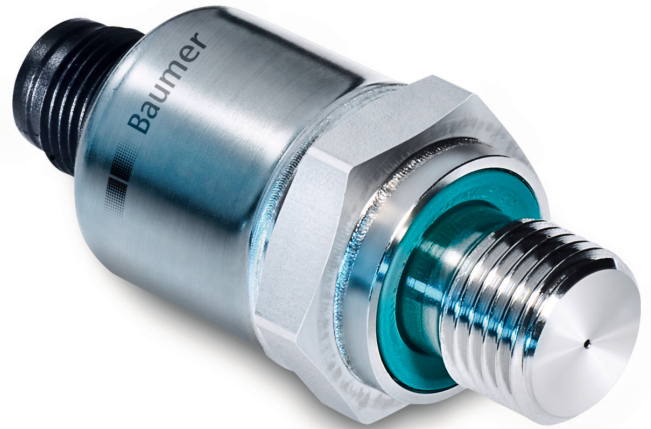


**Overview**

- 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**

Measuring range	0... 1000 bar
Min. measuring span	10 bar
Max. measuring span	1000 bar
Pressure type	Relative (gauged)
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
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)
Compensated temperature range	0... 80 °C
Long term stability	≤ 0.2 % FSR/a
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**

Current output	4 ... 20 mA , 2-wire
Output signal	CANopen
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
Short circuit protection	Yes

**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

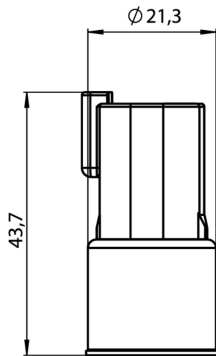
    EN 61000-6-3

**Operating conditions**

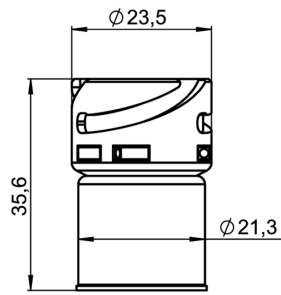
Measuring range (bar)	Proof pressure (bar)	Burst Pressure (bar)
0 ... 10	40	60
0 ... 25	40	60
0 ... 60	100	500
0 ... 100	200	1000
0 ... 160	500	2500
0 ... 250	500	2500
0 ... 400	800	4000
0 ... 600	800	4000
0 ... 1000	1200	> 4000

**Dimensional drawings**

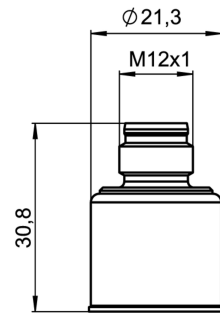
**Housing**



Housing with connector DT04, 4-pin

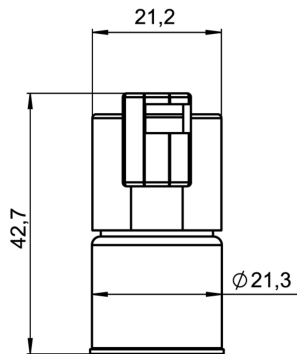


Housing with connector Bayonet connection DIN 72585, 4-pin

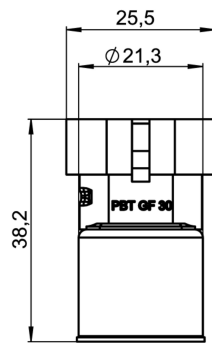


Housing with connector M12-A, 5-pin

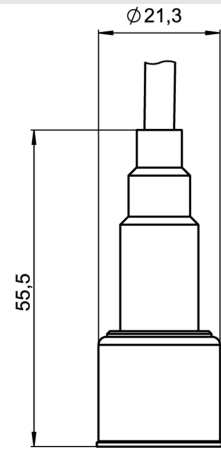
**Housing**



Housing with connector DT04, 3-pin

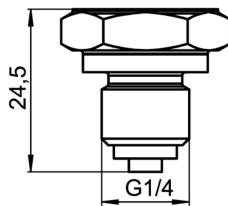


Housing with connector AMP superseal 1.5, 3-pin

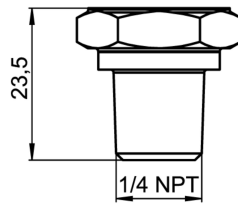


Housing with cable outlet, 3-wire

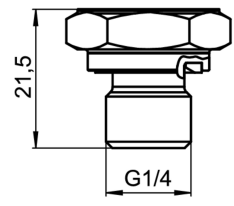
**Process connection**



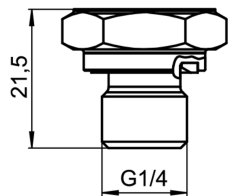
G 1/4 B EN 837-1 (BCID: G30)



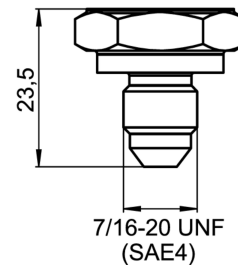
1/4-18 NPT (BCID: N01)



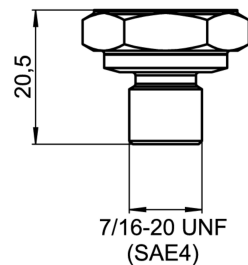
G 1/4 A DIN 3852-E (BCID: G50)



G 1/4 A DIN 3852-E with  $\varnothing$  0,6 mm pressure channel (BCID: G50)

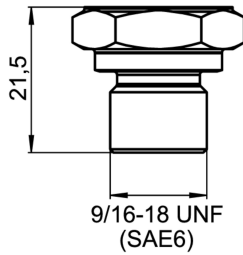


7/16-20 UNF with cone (SAE 4) (BCID: U01)



7/16-20 UNF with O-ring (SAE 4) (BCID: U02)

**Process connection**



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

**Electrical connection**

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

# PBM4

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

## Electrical connection

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

## Ordering information

Ordering key - Configuration possibilities see website

	PBM4	-	1	3	.	###	R	.	##	##	.	##	6	#
<b>Product</b>	PBM4													
<b>Housing material</b> SS 1.4301 AISI 304				1										
<b>Accuracy</b> ±0.5 % FS										3				
<b>Measuring range</b>														
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	

**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								
<b>Kind of pressure</b>														
Relative (gauged)							R							
<b>Output signal</b>														
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				
<b>Output Connection</b>														
M12-A, 5-pin													15	
M12-A, 5-pin, stainless steel													16	
Cable outlet 2 m, shielded													52	
Bayonet connection DIN 72585, 4-pin													85	
AMP Superseal 1.5, 3-pin													86	
DT04, 4-pin													87	
DT04, 3-pin													88	
<b>Process connection</b>														
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
<b>Process connection material</b>														
SS 1.4548 AISI 630														6
<b>Seal</b>														
None														0
FKM (Viton®)														3