BD|SENSORS
pressure measurement

26.600 G

OEM Pressure Transmitter Standard

Applications

- mechanical and plant engineering
- general industrial applications

Characteristics

- ceramic sensor
- accuracy 0.5 % FSO according to IEC 60770
- nominal pressure ranges from 0 … 1 bar up to 0 … 400 bar
- option: oil and grease free version

CE

Technical Data

Input pressure range																
Nominal pressure gauge	[bar]	-1…0 [1]	1	1.6	2.5	4	6	10	16	25	40	60	100	160	250	400
Nominal pressure abs.	[bar]	-	1	1.6	2.5	4	6	10	16	25	40	60	100	160	250	400
Overpressure	[bar]	3	3	5	5	12	12	20	50	50	120	120	200	400	400	650
Burst pressure ≥	[bar]	4	4	7	7,5	15	18	30	70	75	150	180	300	500	750	1000
Vacuum resistance		unlimited														
[1] *for this pressure range accuracy is ≤ 1 % FSO IEC 60770*																

Output signal / Supply		
Standard	2-wire:	4 ... 20 mA / V_S = 8 ... 32 V_{DC}
Options	3-wire:	0 ... 10 V / V_S = 14 ... 30 V_{DC}
	3-wire ratiometric:	10 … 90% of V_S / V_S = 2.7 … 5 V_{DC}
Performance		
Accuracy [2]	≤ ± 0.5 % FSO	
Permissible load	2-wire: $R_{max} = [(V_S - V_{S\,min}) / 0.02\ A]\ \Omega$	3-wire: R_{min} = 10 kΩ
Influence effects	supply: 0.05 % FSO / 10 V	load: 0.05 % FSO / kΩ
Response time	2-wire: ≤ 10 msec	3-wire: ≤ 3 msec
Long term stability	≤ ± 0.3 % FSO / year at reference conditions	
Measuring rate	1 kHz	
[2] *accuracy according to IEC 60770 – limit point adjustment (non-linearity, hysteresis, repeatability)*		
Thermal effects (Offset and Span) / Permissible temperatures		
Thermal error	≤ ± 0.3 % FSO / 10 K	in compensated range: -25 ... 85 °C
Permissible temperatures	medium: -25 ... 125 °C	electronics / environment: -25 ... 85 °C storage: -40 ... 85 °C
Electrical protection		
Short-circuit protection	permanent	3-wire ratiometric: none
Reverse polarity protection	no damage, but also no function	
Electromagnetic protection	emission and immunity according to EN 61326	
Mechanical stability		
Vibration	10 g, 25 Hz … 2 kHz	according to DIN EN 60068-2-6
Shock	500 g / 1 msec	according to DIN EN 60068-2-27

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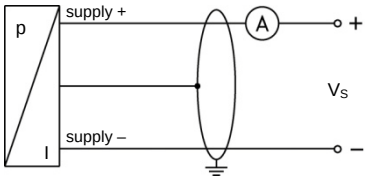
Materials	
Pressure port / housing	stainless steel 1.4301 (304)
Seals (media wetted)	FKM others on request
Diaphragm	ceramics Al_2O_3 96 %
Media wetted parts	pressure port, seals, diaphragm
Miscellaneous	
Option oxygen application	for $P_N \leq 15$ bar: O-ring in 70 EPDM 281 (with BAM-approval); permissible maximum values are 15 bar / 60° C and 10 bar / 90° C for $P_N \leq 25$ bar: O-ring in FKM Vi 567 (with BAM-approval); permissible maximum values are 25 bar / 150° C
Weight	approx. 120 g
Current consumption	2-wire: max. 25 mA 3-wire ratiometric: typ. 1.5 mA 3-wire voltage: max. 7 mA (short circuit current: max. 20 mA)
Operational life	> 100 x 10^6 cycles
CE-conformity	EMC Directive: 2004/108/EC Pressure Equipment Directive: 97/23/EC (module A) [3]

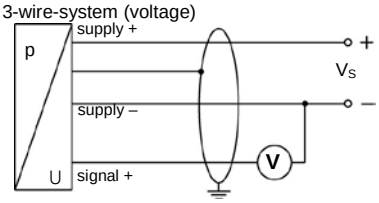
[3] This directive is only valid for devices with maximum permissible overpressure > 200 bar

Wiring diagrams

2-wire-system (current)



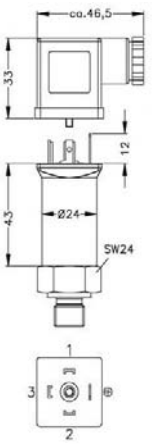
3-wire-system (voltage)



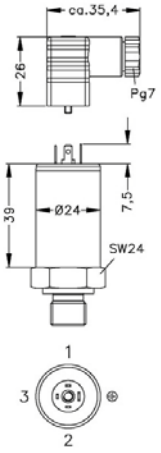
Pin configuration

Electrical connection	ISO 4400	Micro (contact distance 9.4 mm)	M12x1 (4-pin), plastic	cable colours (DIN 47100)
Supply +	1	1	1	wh (white)
Supply –	2	2	2	bn (brown)
Signal + (for 3-wire)	3	3	3	gn (green)
Shield	ground pin	ground pin	4	ye/gn (yellow / green)

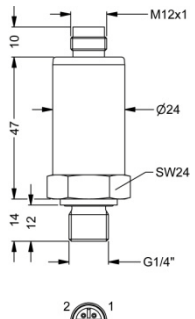
Electrical connections (dimensions in mm)



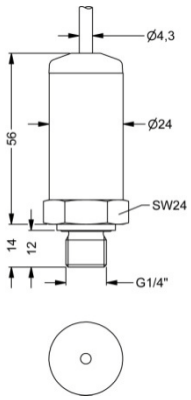
ISO 4400
(IP 65)



Micro, contact
distance 9.4 mm (IP 65)



M12x1, 4-pin
(IP 67)

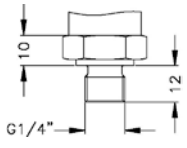


cable outlet with
PVC-cable (IP 67) [4,5]

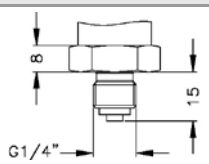
* pressure range P_N = 400 bar: total length increases by12 mm.

[4] standard: 2 m PVC cable without ventilation tube (permissible temperature: -5 ... 70 °C)
[5] different cable types and lengths available, permissible temperature depends on kind of cable

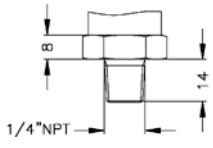
Mechanical connection (dimensions in mm)



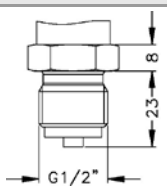
G1/4" DIN 3852



G1/4" EN 837



1/4" NPT



G1/2" EN 837

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BD|SENSORS pressure measurement

Ordering code 26.600 G

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Input	**[bar]**																
1.0		1	0	0	1												
1.6		1	6	0	1												
2.5		2	5	0	1												
4.0		4	0	0	1												
6.0		6	0	0	1												
10		1	0	0	2												
16		1	6	0	2												
25		2	5	0	2												
40		4	0	0	2												
60		6	0	0	2												
100		1	0	0	3												
160		1	6	0	3												
250		2	5	0	3												
400		4	0	0	3												
-1 … 0 [1]		X	1	0	2												
customer		9	9	9	9												consult
Pressure																	
gauge						R											
absolute						A											
Output																	
4 … 20 mA / 2-wire							1										
0 … 10 V / 3-wire							3										
10 … 90% of V_S / 3-wire ratiometric							R										
customer							9										consult
Accuracy																	
0.5 % FSO								5									
customer								9									consult
Electrical connection																	
Male and female plug ISO 4400									1	0	0						
Male and female plug Micro									C	1	0						
Male plug M12x1 (4-pin), plastic									M	0	0						
Cable outlet with PVC cable [2]									T	A	0						
customer									9	9	9						consult
Mechanical connection																	
G1/4" DIN 3852												3	0	0			
G1/4" EN 837												4	0	0			
1/4" NPT												N	4	0			
G1/2" EN 837												2	0	0			
customer												9	9	9			consult
Seal																	
FKM															1		
EPDM															3		
customer															9		consult
Special version																	
standard																0 0 0	
oxygen application [3]																0 0 7	
oil and grease free																0 0 8	
customer																9 9 9	consult

[1] for nominal pressure range -1 ... 0 bar accuracy is 1 % FSO

[2] standard: 2 m PVC cable without ventilation tube (permissible temperature: -5 … 70 °C)

[3] oxygen application with FKM seal up to 25 bar or with EPDM seal up to 15 bar posible

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