



DPS 200

Differential Pressure Transmitter for Gas and Compressed Air

Applications:

- ▶ for HVAC-applications

Characteristics:

- ▶ piezoresistive pressure sensor
- ▶ differential pressure range 1 ... 1000 mbar



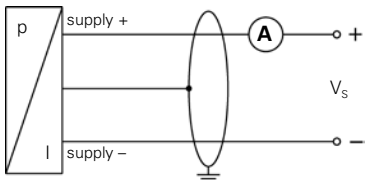
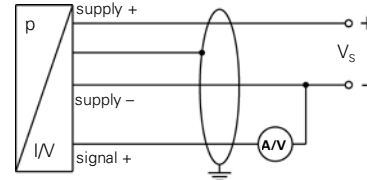
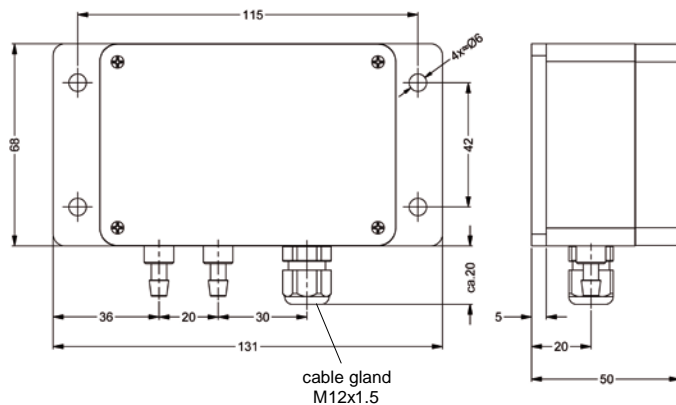
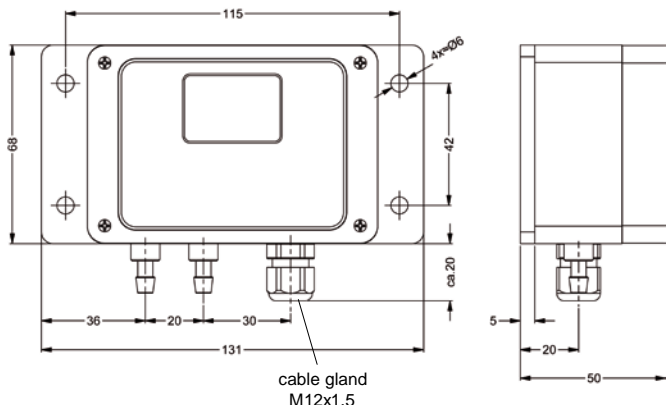
Technical Data

Input pressure range							
Nominal pressure P _N [mbar] (differential, gauge pressure)	1	1.6	2.5	4	6	10	40
max. static pressure [mbar]	200	200	200	200	200	345	345
Nominal pressure P _N [mbar] (differential, gauge pressure)	60	100	160	250	400	600	1000
max. static pressure [mbar]	345	345	1000	1000	3000	3000	3000
Output signal / Supply							
Standard	3-wire: 0 ... 10 V			V _S = 19 ... 32 V _{DC} / 24 V _{AC} ± 10 %			
Option	2-wire: 4 ... 20 mA 3-wire: 0 ... 20 mA / 3-wire: 4 ... 20 mA			V _S = 11 ... 32 V _{DC} V _S = 19 ... 32 V _{DC} / 24 V _{AC} ± 10 %			
Performance							
Accuracy	1 % FSO BFSL						
Permissible load	current 2-wire: R _{max} = [(V _S - V _{Smin}) / 0,02] Ω current 3-wire: 330 Ω voltage 3-wire: 10 kΩ						
Influence effects	supply: ≤ ± 0.1 % FSO			load: ≤ ± 0.1 % FSO			
Response time (0 ... 100%)	2-wire: adjustable by potentiometer in the range of 500 msec up to 2.5 sec 3-wire: adjustable by potentiometer in the range of 50 msec up to 2.5 sec						
Measuring rate	2-wire: 8 Hz 3-wire: 1 kHz						
Thermal effects (Offset and Span) / Permissible temperatures							
Thermal error (offset and span)	0.5 % FSO / 10 K (typ.) for nominal pressure ≤ 5 mbar 0.3 % FSO / 10 K (typ.) for P _N > 5 mbar						
in compensated range	0 ... 50 °C						
Permissible temperatures	medium: 0 ... 50°C		electronics / environment: 0 ... 50°C			storage: -10 ... 70°C	
Electrical protection							
Short-circuit protection	permanent						
Reverse polarity protection	no damage, but also no function						
Electromagnetic protection	emission and immunity according to EN 61326						
Materials							
Pressure port	brass nickel plated						
Housing	ABS						
Diaphragm	sensor						
Media wetted parts	pressure port, PVC / silicon tube, diaphragm, sensor						

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Miscellaneous		
Display (optional)	LC-Display, visible range 32.5 x 22.5 mm; 5-digit 7-segment-main display, digit size 8 mm, 8-digit 14-segment-additional display, digit size 5 mm; 52-segment-bargraph	
Current consumption	2-wire: signal output current: max. 22 mA 3-wire: signal output current: max. 30 mA display: + 1 mA	signal output voltage: 7.5 mA (20 mA short circuit)
Ingress protection	IP 54	
Weight	approx. 165 g	
Installation position	vertical ¹	
¹ The devices are calibrated in a vertical position with the pressure port down. If this position is changed on installation there can be slight deviations in the zero point.		
Mechanical connections (dimensions in mm)		
Standard	Ø 6.6 x 11 (for flex. tubes Ø 6)	
Option	Ø 4.4 x 10 (for flex. tubes Ø 4)	
Wiring diagram		
2-wire-system (current)	3-wire-system (current / voltage)	
		
Pin configuration		
Electrical connections	Terminals 2-wire-system	Terminals 3-wire-system
supply + supply - signal + (only for 3-wire)	2 / + 3 / - 1 (not connected)	2 / V _S + 3 / V _S - 1 / SIG
Dimensions (in mm)		
standard: DPS 200 without display		
optional: DPS 200 with display		

This data sheet contains product specification, properties are not guaranteed. Subject to change without notice.

Ordering code DPS 200

DPS 200

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Pressure										
differential pressure	8	1	0							
gauge pressure	8	1	1							
Input [mbar]										
1.0	0	0	1	0						
1.6	0	0	1	6						
2.5	0	0	2	5						
4.0	0	0	4	0						
6.0	0	0	6	0						
10	0	1	0	0						
40	0	4	0	0						
60	0	6	0	0						
100	1	0	0	0						
160	1	6	0	0						
250	2	5	0	0						
400	4	0	0	0						
600	6	0	0	0						
1000	1	0	0	1						
customer	9	9	9	9						consult
Output										
0 ... 10 V / 3-wire									3	
4 ... 20 mA / 2-wire									1	
0 ... 20 mA / 3-wire									2	
4 ... 20 mA / 3-wire									7	
customer									9	consult
Accuracy										
1 % FSO BFSL									G	
Display										
without display									0	
LC display									C	
customer									9	consult
Front foil										
neutral									N	
customer									9	consult
Mechanical connection										
Ø6.6 x 11 (for flex. tubes Ø6)									Y 0 0	
Ø445 x 10 (for flex. tubes Ø4)									Y 0 2	
									9 9 9	consult
Pressure port										
brass nickel plated									M	
customer									9	consult
Special version										
standard									0 0 0	
customer									9 9 9	consult

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