



DPS 200

Differential Pressure Transmitter for Gas and Compressed Air

Applications:

► for HVAC-applications

Characteristics:

- piezoresistive silicon sensor
- ▶ differential pressure range 6 ... 1000 mbar









Technical Data

Input pressure range													
Nominal pressure P _N (differential, gauge pre	[mbar] ssure)	6	10	16	25	40	60	100	160	250	400	600	1000
max. static pressure	[mbar]	200	345	345	345	345	345	345	1000	1000	3000	3000	3000

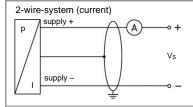
Output signal / Supply						
Standard	3-wire: 0 10 V	V _S = 19 32 V _{DC}				
Option	2-wire: 4 20 mA	V _S = 11 32 V _{DC}				
·	3-wire: 4 20 mA	V _S = 19 32 V _{DC}				
Performance						
Accuracy	≤±1% FSO BFSL					
Permissible load	current 2-wire: $R_{max} = [(V_S - V_{Smin}) / 0.02 \text{ A}] \Omega$ current 3-wire: 330 Ω	voltage 3-wire: 10 k Ω				
Influence effects	supply: ≤ ± 0.1 % FSO/10V	load: ≤ ± 0.1 % FSO/kΩ				
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					
Long term stability	≤ ± 0.5 % FSO / year at reference conditions					
Measuring rate	2-wire: 8 Hz	3-wire: 1 kHz				
Thermal effects (offset and sp	an)					
Thermal error	≤ ± 0.3 % FSO / 10 K (typ.)					
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					
Sensor	ceramic, silicon, epoxy, RTV					
Media wetted parts	pressure port, PVC / silicone tube, sensor					

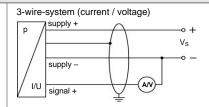
Differential Pressure Transmitter

Miscellaneous							
LC-Display (optional)	visible range 32.5 x 22.5	mm; 5-digit 7-segment-r	main display, digit size 8 mm;				
			mm; 52-segment-bargraph				
Current consumption	2-wire: signal output cui 3-wire: signal output cui						
	signal output vol	Itage: 7.5 mA (20 mA s	hort circuit)				
	display: + 1 mA		,				
Units	following units can be set at factory:						
	[bar], [mbar], [PSI], [lnch Hg], [cm Hg], [mm Hg], [hPa], [kPa], [MPa], [mH ₂ O], [Pa], [mmH ₂ O]						
Ingress protection	IP 54						
Weight	approx. 165 g						
Installation position	vertical ¹						
Operational life	Do million load cycles Doselion with the pressure port down. If this position is changed on installation there can be slight deviations in the zero point.						
Mechanical connections (dim		wii. Ii tiiis position is changed	on installation there can be slight deviations in the zero point.				
Standard	Ø 6.6 x 11 (for flex. tubes	: Ø 6)					
Option	Ø 4.4 x 10 (for flex. tubes						
Wiring diagrams	2 4.4 X TO (IOI HEX. LUDGE	, , , , , , , , , , , , , , , , , , , 					
		0					
2-wire-system (current)		3-wire-system (curr	ent / voltage)				
p / Sappiy ! (A)	∘ +	р / варргу г	· +				
			Vs				
/	Vs	supply –	· · · · · ·				
supply –							
<u> </u>	∘ -	/ I/U signal +					
Pin configuration			=				
Electrical connections	terminals 2-w	vira-evetam	terminals 3-wire-system				
supply		•	2 / V _S +				
supply			3 / V _S -				
signal + (only for 3-wire) 1 (not con	nnected)	1 / SIG				
Dimensions (mm / in)							
without display	115 [4.53]						
······our anopius	100 [3.94]						
			3)				
<u>†</u> ()	⊕	(4x)≈ \$\phi 6 \text{(\$\phi 0.2}\$,				
+ + +							
		T					
		T					
1.65]—							
-68,5 [2.7]— -42 [1.65]—		1,5 [0.77]					
		n. 19.5 [0.77]					
- 68.5 [2.7] - 42 [1.65] -		- g					
	⊕						
	⊕	- g					
	⊕	- g					
		⊕					
	[1.41] - 20 [0.79] - 30 [1.18] -	-46 [1.8]	5 [0.2]————————————————————————————————————				
	[1.41] - 20 [0.79] - 30 [1.18] -	⊕	5 [0.2]————————————————————————————————————				
E2'0] 9'81	[1.41] - 20 [0.79] - 30 [1.18] -	-46 [1.8]	ca. 20 [0.79]—				
	[1.41] 20 [0.79] -30 [1.18] cable	-46 [1.8]	ca. 20 [0.79]—				
E2'0 9'81	[1.41] 20 [0.79] 30 [1.18] cable	-46 [1.8]	ca. 20 [0.79]————————————————————————————————————				
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E2'0 9'81	[1.41] 20 [0.79] -30 [1.18] cable	-46 [1.8]	ca. 20 [0.79]————————————————————————————————————				
with display	[1.41] 20 [0.79] -30 [1.18] cable	-46 [1.8] gland M12x1.5	ca. 20 [0.79]————————————————————————————————————				
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with display with display	[1.41] 20 [0.79] 30 [1.18] cable 115 [4.53] 100 [3.94]	8 gland M12x1.5 gland M12x1.5	ca. 20 [0.79]————————————————————————————————————				
with display	[1.41] 20 [0.79] -30 [1.18]	-46 [1.8] gland M12x1.5 (4x)≈φ6 (φ0.23) (4x)≈φ6 (φ0.23)	ca. 20 [0.79]————————————————————————————————————				
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with display with display	[1.41] - 20 [0.79] - 30 [1.18] - cable	-46 [1.8] ————————————————————————————————————	ca. 20 [0.79]————————————————————————————————————				
with display with display	(1.41) 20 [0.79] 30 [1.18] cable 115 [4.53] 100 [3.94] PS 200 BD BENSOR9	46 [1.8] -46 [1.8] -46 [1.8] -46 [1.8]	5 [0.2]				
with display with display	(1.41) 20 [0.79] 30 [1.18] cable 115 [4.53] 100 [3.94] PS 200 BD BENSOR9	-46 [1.8] ————————————————————————————————————	ca. 20 [0.79]————————————————————————————————————				

Standard	Ø 6.6 x 11 (for flex. tubes Ø 6)
Option	Ø 4.4 x 10 (for flex. tubes Ø 4)

Wiring diagrams

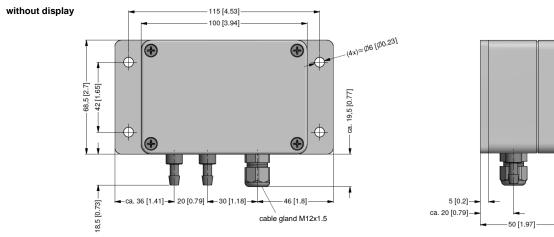


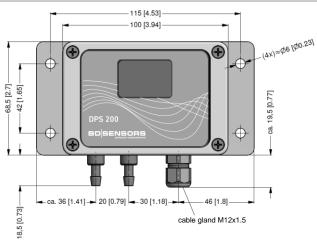


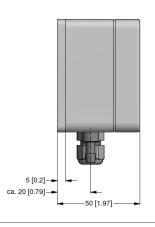
Pin configuration

terminals 2-wire-system	terminals 3-wire-system
2/+	2 / V _S +
3 / -	3 / V _S -
1 (not connected)	1 / SIG
	2/+ 3/-

Dimensions (mm / in)







DPS200_E_230522

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Ordering code DPS 200 **DPS 200** Pressure differential pressure 8 1 0 8 1 1 gauge pressure consult Input [mbar] 0 0 6 0 0 1 0 0 0 1 6 0 0 2 5 0 0 4 0 0 0 6 0 0 1 0 0 0 1 6 0 0 2 5 0 0 4 0 0 0 6 0 0 0 1 0 0 1 10 16 25 40 60 100 160 250 400 0 0 0 0 0 1 9 9 9 600 1000 customer consult Output 0 ... 10 V / 3-wire 4 ... 20 mA / 2-wire 3 4 ... 20 mA / 3-wire 7 customer 9 consult Accuracy 1 % FSO BFSL G Display without display 0 C 9 LC display customer consult Front foil **BD SENSORS** neutral Ν customer 9 consult Mechanical connection Y 0 0 Y 0 2 9 9 9 Ø6.6 x 11 (for flex. tubes Ø6) Ø4.4 x 10 (for flex. tubes Ø4) consult Pressure port brass nickel plated M customer 9 consult Special version 0 0 0 9 9 9 customer consult

modifications to the specifications and materials

the right to make

BD/SENSORS GmbH - The specifications given in this document represent the state of engineering at the time of publishing. We reserve