

DPS 200



Differential Pressure Transmitter for Gas and Compressed Air

Applications:

- ▶ for HVAC-applications

Characteristics:

- ▶ piezoresistive silicon 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 V_S = 11 ... 32 V_{DC} 3-wire: 0 ... 20 mA / 3-wire: 4 ... 20 mA 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 A] Ω current 3-wire: 330 Ω voltage 3-wire: 10 kΩ
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
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
Elektromagnetic 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

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 signal output voltage: 7.5 mA (20 mA short circuit) display: + 1 mA	
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

□	□	□	-	□	□	□	-	□	-	□	-	□	□	□	-	□	□	□	-	□	□	□
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

Pressure																							
	differential pressure	8	1	0																			
	gauge pressure	8	1	1																		consult	
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																							
	BD SENSORS							1															
	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

This price list contains product specification; properties are not guaranteed. Detailed information about options are defined in the datasheet. Subject to change without notice.

14.01.2013

