

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 [mbar] (differential, gauge pressure)	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 3-wire: 4 ... 20 mA	V _S = 11 ... 32 V _{DC} V _S = 19 ... 32 V _{DC}											
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												
Long term stability	≤ ± 0,5% FSO / year at reference conditions												
Measuring rate	2-wire: 8 Hz											3-wire: 1 kHz	
Thermal effects (Offset and Span) / Permissible temperatures													
Thermal error (offset and span)	≤ ± 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												

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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 signal output voltage: 7.5 mA (20 mA short circuit) display: + 1 mA
Units	following units can be set at factory: [bar], [mbar], [PSI], [Inch 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	100 million load cycles

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

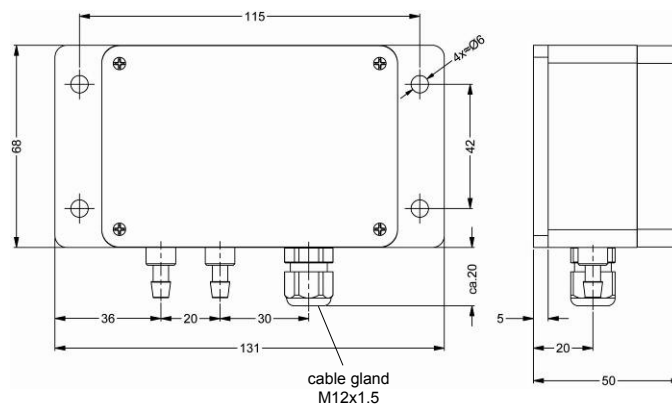


Pin configuration

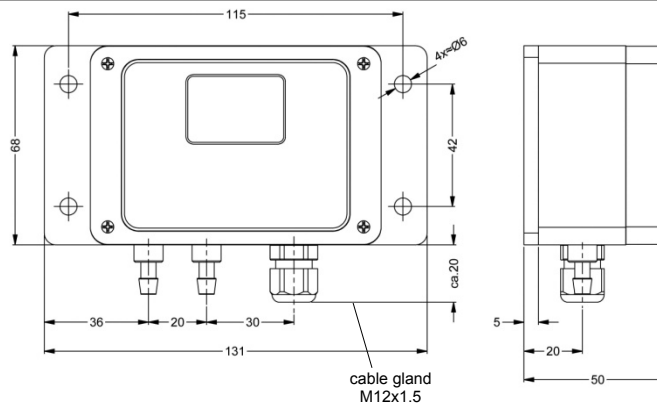
Electrical connections	Terminals 2-wire-system	Terminals 3-wire-system
supply +	2 / +	2 / V _S +
supply -	3 / -	3 / V _S -
signal + (only for 3-wire)	1 (not connected)	1 / SIG

Dimensions (in mm)

standard:
DPS 200 without display



optional:
DPS 200 with display



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Ordering code DPS 200

DPS 200

□	□	□	-	□	□	□	□	-	□	-	□	-	□	□	□	□	-	□	□	□
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Pressure																					
	differential pressure	8	1	0																	
	gauge pressure	8	1	1																	consult
Input																					
	[mbar]																				
	6				0	0	6	0													
	10				0	1	0	0													
	16				0	1	6	0													
	25				0	2	5	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													
	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									
	Ø4.4 x 10 (for flex. tubes Ø4)									Y	0	2									
	customer									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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