

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]	6	10	16	25	40	60	100	160	250	400	600	1000
(differential, gauge pre	essure)	O	10	16	25	40	60	100	160	230	400	600	1000
max. static pressure	[mbar]	200	345	345	345	345	345	345	1000	1000	3000	3000	3000

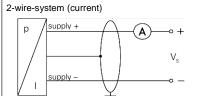
Output signal / Supply		
Standard	3-wire: 0 10 V	V_{S} = 19 32 V_{DC} / 24 V_{AC} ± 10 %
Option	2-wire: 4 20 mA	V _S = 11 32 V _{DC}
	3-wire: 4 20 mA	V _S = 19 32 V _{DC}
Performance		
Accuracy	≤±1% FSO BFSL	
Permissible load	current 2-wire: R _{max} = [(V _S - V _{Smin}) /	0,02 Α] Ω
l emissible load	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%)		r in the range of 500 msec up to 2.5 sec r in the range of 50 msec up to 2.5 sec
Long term stability	≤ ± 0,5% FSO / year at reference c	<u> </u>
Measuring rate	2-wire: 8 Hz	3-wire: 1 kHz
Thermal effects (Offset and S	pan) / Permissible temperatures	
Thermal error	≤ ± 0.3% FSO / 10 K (typ.)	
(offset and span)	2 ± 0.5% 30 / 10 K (typ.)	
in compensated range	0 50 °C	
Permissible temperatures	medium: 0 50°C electro	nics / 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 t	o EN 61326
Materials		
Pressure port	brass nickel plated	
Housing	ABS	
Diaphragm	sensor	
Media wetted parts	pressure port, PVC / silicon tube, d	liaphragm, sensor

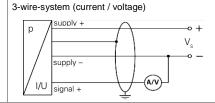
Miscellaneous					
Display (optional)	LC-Display, visible range 32.5 x 22.5 mm;				
	5-digit 7-segment-main display, digit size 8 mm,				
	8-digit 14-segment-additional display, digit size 5 mm; 52-segment-bargraph				
Current consumption	2-wire: signal output current: max. 22 mA				
	3-wire: signal output current: max. 30 mA				
	signal output voltage: 7.5 mA (20 mA short circuit)				
	display: + 1 mA				
Units	following units can be set at factory:				
	[bar], [mbar], [PSI], [lnch Hg], [cm Hg], [mm Hg], [hPa], [kPa], [MPa], [mWc], [Pa], [mm Wc]				
Ingress protection	IP 54				
Weight	approx. 165 g				
Installation position	vertical ¹				
The devices are calibrated in a	a vertical position with the pressure port down. If this position is changed on installation there can be slight deviations in the zero				

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



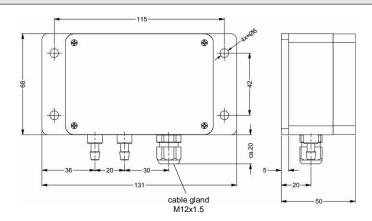


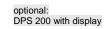
Pin configuration

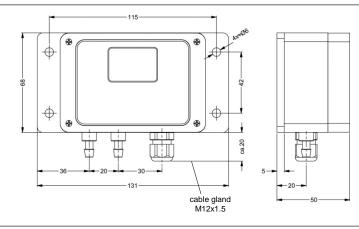
Electrical connections	Terminals 2-wire-system	Terminals 3-wire-system
supply + supply –	2/+ 3/-	2 / V _S + 3 / V _S -
signal + (only for 3-wire)	1 (not connected)	1 / SIG

Dimensions (in mm)

standard: DPS 200 without display







	Ordering code DPS 200	
DPS 200	<u> </u>	
differential pressure gauge pressure [mbar] 6 10 16 25 40 60	8 1 0 8 1 1 0 0 6 0 0 1 0 0 0 1 6 0 0 2 5 0 0 4 0 0 0 6 0 0	consult
100 160 250 400 600 1000 customer Dutput	1 0 0 0 1 6 0 0 2 5 0 0 4 0 0 0 6 0 0 0 1 0 0 1 9 9 9 9	consult
4 20 mA / 2-wire 4 20 mA / 3-wire customer Accuracy 1 % FSO BFSL	G G	consult
without display LC display customer Front foil BD SENSORS	0 C 9	consult
neutral customer ### dechanical connection ### Ø6.6 x 11 (for flex. tubes Ø6)	N 9 V 0 0	consult
Ø445 x 10 (for flex. tubes Ø4) Pressure port	Y 0 0 Y 0 2 9 9 9	consult
brass nickel plated customer	M 9	consult
pecial version standard customer	0 0 0 9 9	consult
		01.11.2013



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