

DIFFERENTIAL PRESSURE SENSOR with selectable measurement range DS200



- ❑ Diaphragm element
- ❑ Measuring range from 0...50 Pa to 0...6000 Pa
- ❑ 4 calibrated measuring ranges selectable via DIP-switch
- ❑ Alphanumeric LCD display
- ❑ Indication of differential pressure and flow in Pa / m³/h
- ❑ Analogue output signal 0/2...10 V or 0/4...20 mA
- ❑ Supply voltage 15...30 Vdc or 24 Vac
- ❑ Compact plastic housing IP 54; UL 94 HB

The differential pressure sensor DS200 is used to measure small differential pressures in ventilation and air conditioning. As transducer a soft silicone membrane is used, which moves under the influence of a differential pressure measuring spring.

The DS200 has four calibrated measuring ranges, which can be selected via a DIP switch. A two-line alphanumeric LCD display shows the measured pressure in the physical unit.

In combination with a differential pressure transducer (orifice plate, venturi or pitot tube), the DS200 also directly display the flow in a pipeline. For this purpose, the differential pressure of the differential pressure transducer is square root and multiplied by an adjustable factor of the differential pressure transducer.

A damping of output signal and display, because of fluctuating measured values, can be adjusted in three stages via DIP switches.

The differential pressure sensor DS200 delivers an analogue output signal of 0/2 ... 10 V or 0/4 ... 20 mA. The supply voltage is 15 ... 30 Vdc or 24 Vac.

Specifications:

Transmitter:	air or non-aggressive gas; silicone membrane with transmitter and differential transformer
Lowest range:	50 Pa
Widest range:	6000 Pa
Overload protection:	0,2 bar
Static pressure:	max. 0,2 bar
Pressure Connections:	hose liners 5 mm ø + 6 mm ø
Housing:	ultra mid with hinged lid made of ABS; UL94HB
Electrical Connections:	cable entry M16x1,5, protected screw terminals, electronic protected for false polarity
Supply voltage:	15...30 Vdc or 24 Vac ± 15 %
Power consumption:	approx. 12 mA (bei 24 Vdc)
Output:	0/2...10 V 3-wire technology switchable via jumper to 0/4...20 mA
Characteristics:	linear for pressure measurement or square root when flow measurement
Display:	double spaced alphanumeric LCD display, 2 x 16 digit
Absorb ability:	adjustable in 3 levels
Ambient temperature:	-10...+50 °C
Weight:	approx. 250 g
Operating position:	vertical, position sensitivity when turned by 90° about 25 Pa
EMC:	tested according EN 61000-6-2, EN 61000-6-3, CE mark

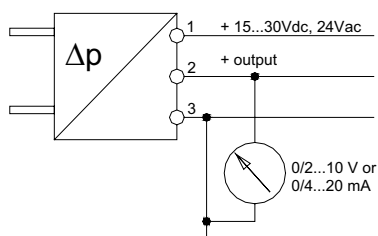
DIFFERENTIAL PRESSURE SENSOR with selectable measurement range DS200

Unit type	DS200-2	DS200-10	DS200-60
Range			
MB 1:	0...200 Pa	0...1000 Pa	0...6000 Pa
MB 2:	0...150 Pa	0...500 Pa	0...4000 Pa
MB 3:	0...100 Pa	0...300 Pa	0...3000 Pa
MB 4:	0...50 Pa	0...200 Pa	0...2000 Pa

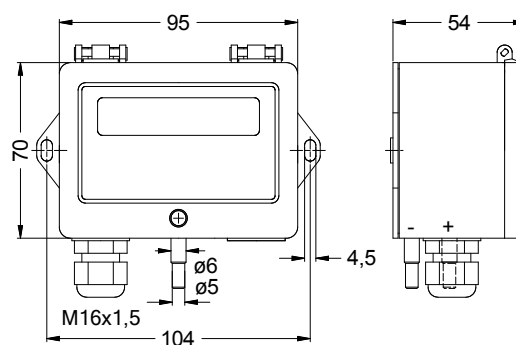
Error limits (related to the actual range)

	Zero deviation	Final value deviation	Linearity	Resolution	Hysteresis
DS200-2					
0...200 Pa	± 0.5 %	± 0.5 %	± 0.25 %	0.1 %	1 %
0...150 Pa	± 0.75 %	± 0.6 %	± 0.4 %	0.2 %	0.7 %
0...100 Pa	± 1 %	± 0.7 %	± 0.5 %	0.2 %	0.5 %
0...50 Pa	± 2 %	± 1 %	± 1 %	0.3 %	0.5 %
DS200-10					
0...1000 Pa	± 0.5 %	± 0.5 %	± 0.25 %	0.1 %	0.2 %
0...500 Pa	± 0.7 %	± 0.7 %	± 0.5 %	0.2 %	0.2 %
0...300 Pa	± 0.9 %	± 0.9 %	± 0.9 %	0.3 %	0.2 %
0...200 Pa	± 1 %	± 1 %	± 1.25 %	0.3 %	0.2 %
DS200-60					
0...6000 Pa	± 0.5 %	± 0.5 %	± 0.25 %	0.1 %	0.2 %
0...4000 Pa	± 0.7 %	± 0.7 %	± 0.4 %	0.15 %	0.2 %
0...3000 Pa	± 0.9 %	± 0.9 %	± 0.6 %	0.2 %	0.2 %
0...2000 Pa	± 1 %	± 1 %	± 0.75 %	0.25 %	0.2 %

Connections



Dimensions (mm)



Item no.

Differential pressure sensor DS200-2

2560

Output: 0/2...10 V, 0/4...20 mA, 3-wire technology
 Supply voltage: 15...30 Vdc, 24 Vac
 Measurement range: 0...200, 0...150, 0...100 and 0...50 Pa

Differential pressure sensor DS200-10

2561

Output: 0/2...10 V, 0/4...20 mA, 3-wire technology
 Supply voltage: 15...30 Vdc, 24 Vac
 Measurement range: 0...1000, 0...500, 0...300 and 0...200 Pa

Differential pressure sensor DS200-60

2562

Output: 0/2...10 V, 0/4...20 mA, 3-wire technology
 Supply voltage: 15...30 Vdc, 24 Vac
 Measurement range: 0...6000, 0...4000, 0...3000 and 0...2000 Pa

ACCESSORIES

Mounting set M-DS with screws, bleeder Connections and 2 m plastic hose (4 x 1,5 mm)

25110