

Differential Pressure Controller DPC200



- Diaphragm element with differential transformer
- Measuring ranges: 0...50, 0...500, 0...1000, 0...2000, 0...4000 [Pa]
- LCD-Display
- Analog output 0...10 V
- Controlling mode or measuring mode selectable
- Controlling mode with PI algorithm
- 2 setpoints adjustable
- Selectable measurements (differential pressure or volume flow)
- Selectable units (metric or imperial)
- Maximum output voltage adjustable
- Open Collector Alarm output (measuring and control mode)
- Compact plastic housing IP 54; UL 94 HB
- Supply voltage 10...30 Vdc or 24 Vac (+/-15%)

Application

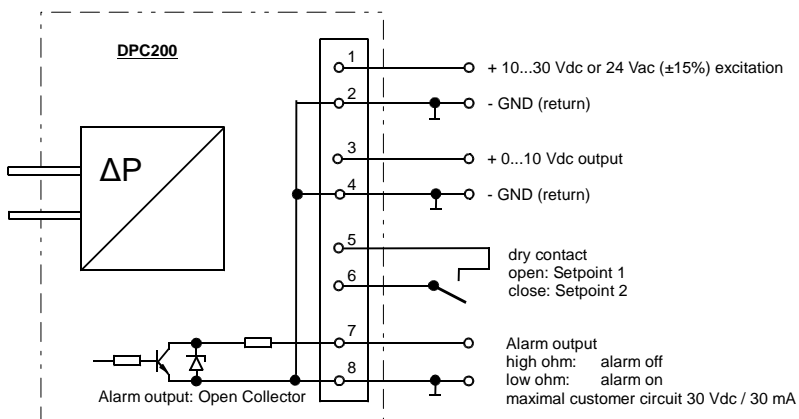
The differential pressure controller DPC200 measures low pressure of non-aggressive gases, particularly of air.

The customer can use an analog signal (0...10V). The device offers two different settings. On the one hand the output signal stands for a pressure proportional signal during measuring mode or volume flow square root signal. And on the other hand the output signal stands for a PI closed-loop control signal for differential pressure during control mode or volume flow during control mode.

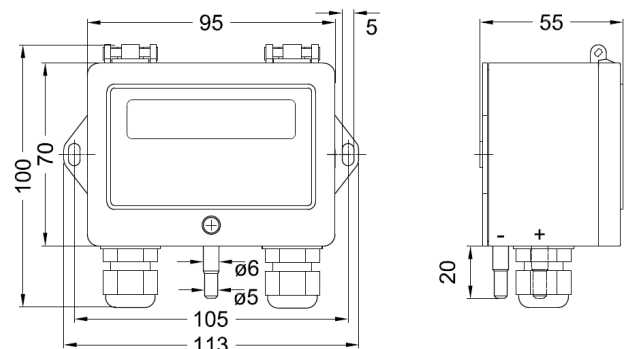
This static pressure transducer with controller is primarily intended for air conditioning systems, room pressure control and filter control with continuously variable speed fans.

The DPC has an additional alarm output (open collector) for limit value monitoring or for filter monitoring next to the analog output.

Electrical connection



Dimensions [mm]



Technical data	
Measuring medium:	Air or non-aggressive gases
Measuring principle:	Silicon diaphragm with spring and differential transformer
Measuring ranges:	0...50 Pa, 0...500 Pa, 0...1000 Pa, 0...2000 Pa, 0...4000 Pa
Overpressure protection:	0,2 bar
Static pressure:	Max. 0,2 bar
Pressure connections:	Hose line \varnothing 5 mm and \varnothing 6 mm
Case:	UL 94 HB; Case polyamid, cover ABS
Supply voltage:	10...30 Vdc or 24 Vac \pm 15 % Electronic protection against reversed polarization
Current consumption:	Approx. 10 mA @ 10Vdc; 12 mA @ 24 Vdc
Output:	0...10 V ($I_{max} = 0,5 \text{ mA @ } 10 \text{ Vdc}$, $I_{max} = 2 \text{ mA @ } 20 \text{ Vdc}$)
Alarm output:	Open Collector, max. 30 V / 30 mA
Display:	LCD-Display, 2x16 characters
Mode:	Measuring mode or controlling mode
Control:	PI algorithm
Setpoints:	2 setpoints adjustable within software, Setpoints are selectable with floating contact input
Protection class:	IP 54 according EN 60529
Ambient temperature:	-10...+50 °C
Storage temperature:	-25...+60 °C
Weight:	Approx. 250 g
Mounting:	Vertical, position dependence by turning of 90° approx. 25 Pa
Interference emission:	According EN 61000-6-2, EN 61000-6-3, CE
limits of accuracy:	Zero error: $\pm 0,75 \%$ Sum of linearity and hysteresis (depends on measuring range): $\pm 0,5 \%$... $\pm 1 \%$ Temperature drift, zero point: $\pm 0,3 \%$ / 10 K Temperature drift, span: $\pm 0,2 \%$ / 10 K

Part number p/n		
Differential Pressure Controller DPC200-EP50 Measuring range: 0...50 Pa	p/n	2570
Differential Pressure Controller DPC200-EP500 Measuring range: 0...500 Pa	p/n	2572
Differential Pressure Controller DPC200-EP1000 Measuring range: 0...1000 Pa	p/n	2574
Differential Pressure Controller DPC200-EP2000 Measuring range: 0...2000 Pa	p/n	2576
Differential Pressure Controller DPC200-EP4000 Measuring range: 0...4000 Pa	p/n	2578
Mounting set M-DS With screws, bleeders and 2 m plastic tube	p/n	25110