

# DIFFERENTIAL PRESSURE / VOLUME FLOW CONTROLLER DPC200-R



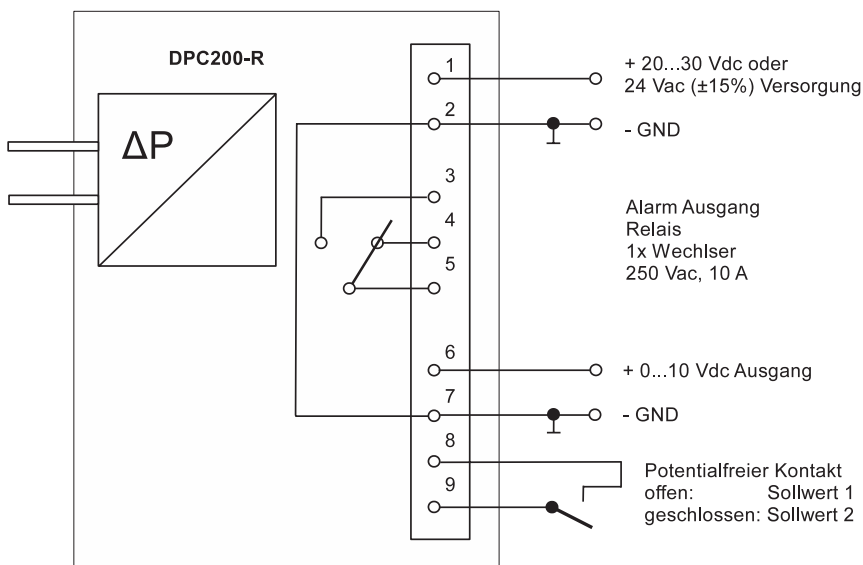
- ❑ Electromechanical diaphragm measuring system
- ❑ Measuring range from 0...50 Pa (0,5 mbar) up to 0...6000 Pa (60 mbar)
- ❑ Alphanumeric LCD-display
- ❑ Analogue output 0...10 V
- ❑ Relay alarm output for measuring and control mode
- ❑ Selectable measurements (differential pressure or volume flow)
- ❑ Selectable units (metric or imperial)
- ❑ Adjustable k-factor for volume flow calculation
- ❑ Controlling mode or measuring mode selectable
- ❑ Measuring mode with adjustable limit value
- ❑ Control mode with adjustable:
  - 2 setpoints
  - PI parameters for PI algorithm
  - maximum output voltage
  - Control action: positive / heat or negative / cool
- ❑ Supply voltage 10...30 Vdc; 24 Vac (+/-15%)
- ❑ Compact plastic housing IP 54

The DPCs are electromechanical differential pressure / volume flow controllers with a diaphragm measuring system and a comprehensive evaluation software. They are used to measure and control the smallest differential pressures of non-aggressive gases, in particular of air.

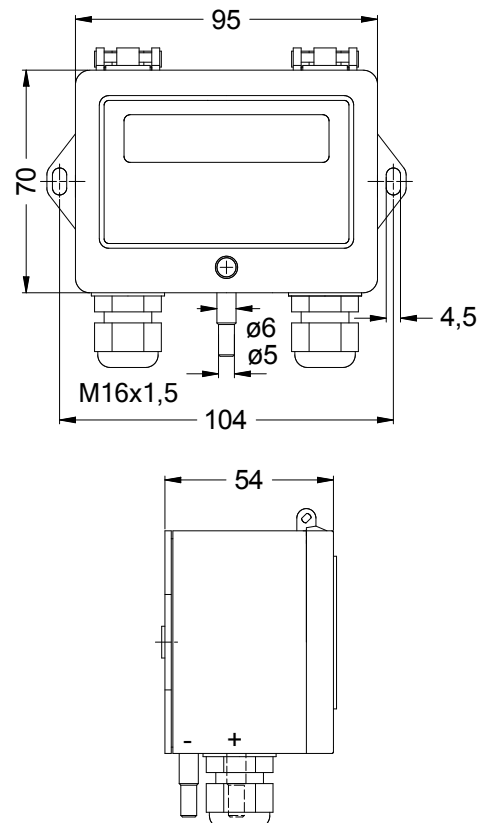
Their optimal application area can be found in the field of climatic technology for controlling fans, room pressure monitoring or filter control. The devices allow controlling of air flow or keeping up a constant pressure in a closed environment.

In addition to the analog output, an additional alarm output (open collector, max. 30 V / 30 mA or relay 250 Vac / 10 A) is available for limit monitoring or filter monitoring. The device provides a radiated output signal as a volumetric flow sensor. In the case of the pressure or volume flow control, the output signal is the manipulated variable of the PI control.

**Connection diagram**



**Dimensions (mm)**



# DIFFERENTIAL PRESSURE / VOLUME FLOW CONTROLLER DPC200-R



Overpressure protection:	0,2 bar
Static pressure:	max. 0,2 bar
Zero point calibration:	Adjustable by REEDcontact, no cyclic zero-point calibration required
Reaktionszeit:	direct

## PERFORMANCE:

Zero drift:	± 0,75 %
Sum of linearity and hysteresis:	± 0,5 % ... ± 1 %
Temperature drift zero point:	± 0,3 % / 10 K
Temperature drift measuring range:	± 0,2 % / 10 K

## ACCURACY / ERROR LIMIT:

Operating mode:	Measuring mode or control mode
Measuring medium:	Air or non-aggressive gases
Measuring principle:	Electromechanical diaphragm measuring system
Measuring unit:	Pa / InH20 or m3/h or cfm
Smallest measuring range:	0...50 Pa (0,5 mbar)
Largest measuring range:	0...6000 Pa (60 mbar)
Measuring range:	0...50 Pa (0,5 mbar), 0...100 Pa (1 mbar), 0...500 Pa (5 mbar), 0...1000 Pa (10 mbar), 0...2000 Pa (20 mbar), 0...4000 Pa (40 mbar), 0...6000 Pa (60 mbar)
Measuring range selection:	Factory preset
Adjustable controlling parameters:	P/I - parameter, k-factor, maximum output voltage, normal/ inverse control
Characteristic:	linear for pressure measurement, radiated for volume flow measurement
Ambient temperature:	-10...+50 °C
Storage temperature:	-25...+60 °C
Control characteristic:	PI - algorithm
Setpoint settings:	2 setpoints can be set via keys, selection of setpoints via potential free contact
Limit signal Output / alarm output:	Open Collector, max. 30 V / 30 mA
Zeitverzögerung (Alarm delay time):	Freely adjustable in the range of 0 ... 60 seconds - 2 ... 15 minutes

## TECHNICAL SPECIFICATIONS:

## PHYSICALLY:

Housing:	UL 94 HB; Ultramid with hinged lid of ABS
Dimensions:	95 x 70 x 54 mm (w x h x d)
Weight:	approx. 250 g
Protection class:	IP 54 according EN 60529
Display:	Two-line alphanumeric LCD display, 2x16 characters
Electrical connections:	Cable entry M16x1.5, screw terminals, electronics protected against incorrect polarity
Pressure connections:	Hose connections 5 mm ø and 6 mm ø
Operational position:	Vertical, position dependence when rotated through 90 ° approx. 25 Pa

## ELECTRONIC:

Power supply:	20...30 Vdc; 24 Vac (±15%)
Power consumption:	approx. 10 mA @ 10 Vdc, ca. 12 mA @ 24 Vdc
Output:	0...10 V (Imax = 0,4 mA @ 10 Vdc, Imax = 2 mA @ 20 Vdc)

## CONFORMITY:

EMC:	EN 61000-6-2, EN 61000-6-3, CE-mark
RoHS:	According RoHS-directive 2011/65/EU

Item no.

Differential pressure controller DPC200-R

2590

Supply voltage 20...30 Vdc; 24 Vac (±15%)

Output: 0...10V, **Measuring range (Pa): Customer specific presetting required!**

## ACCESSORIES

Mounting set M-DS with screws, bleeders and 2m plastic tube (4 x 1,5 mm)

25110