



• Electromechanical diaphragm measuring system • Measuring range from 0...50 Pa (0.5 mbar) to 0...6000 Pa (60 mbar) • Alphanumeric LCD display • Analog output 0...10 V • Selectable measured variables (differential pressure or volume flow) • Selectable units (metric or imperial) • Adjustable k-factor for volume flow calculation • Selectable control or measurement mode • Measurement and control mode with adjustable limit value • Control mode with adjustable: - 2 setpoints

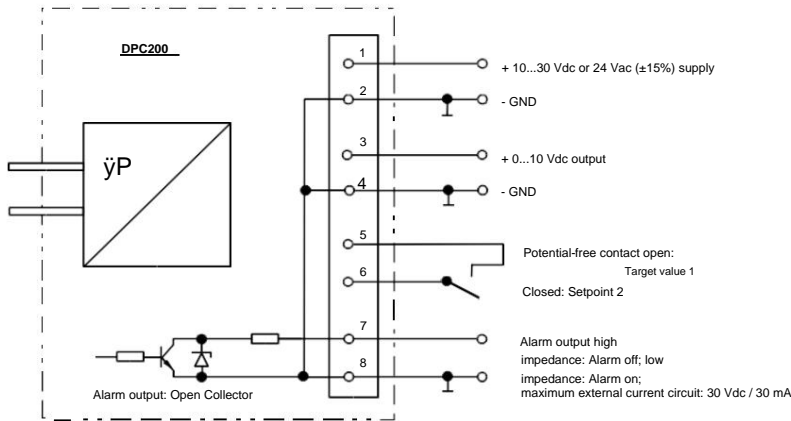
- PI parameters for PI algorithm -
 - maximum output voltage -
 - minimum output voltage •
Supply voltage 10...30 Vdc; 24 Vac (+/-15%) • Compact plastic housing IP65 according to DIN EN 60529/VDE 0470 Part 1: 2014
 • Selectable characteristic curve: linear/square root

The DPC200-EP series devices are electromechanical differential pressure/flow rate controllers with a diaphragm measuring system and comprehensive evaluation software. They are used for measuring and controlling minute differential pressures of non-aggressive gases, especially air.

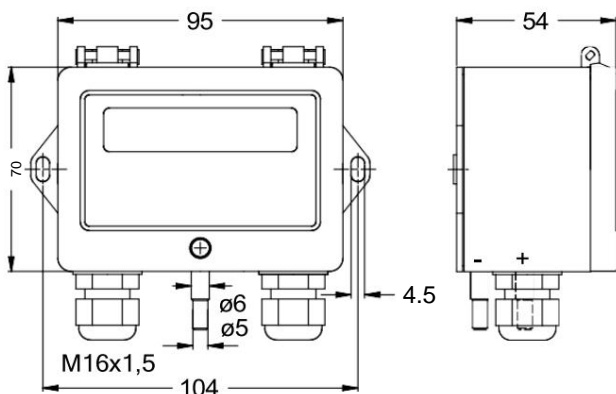
Their ideal application lies in HVAC technology for controlling fans, monitoring room pressure, or controlling filters. These devices enable the regulation of airflow or the maintenance of constant pressure in a closed environment.

The device provides a 0...10 V output signal with a selectable characteristic curve (linear/squared). In the case of pressure or volume flow control, the output signal is the manipulated variable of the PI controller. 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 or filter monitoring.

Electrical connection diagram



Construction dimensions



PERFORMANCE:

Overload protection: 0.2 bar
 Static pressure: Max. 0.2 bar
 Zero-point calibration: Adjustable via reed contact, no cyclic zero-point calibration required. Immediate
 Response time:

ACCURACY / ERROR LIMITS:

Zero point deviation: ± 0.75%
 Sum of linearity and hysteresis: ± 0.5% ... ± 1%
 Temperature drift at zero point: ± 0.3% / 10 K
 Temperature drift measuring range: ± 0.2% / 10 K

TECHNICAL SPECIFICATIONS:

Operating mode: Measurement mode or control mode:
 Measuring medium: air or non-aggressive gases
 Sensor: Electromechanical diaphragm measuring device Pa /
 Unit of measurement: inH O or m₃ /h or cfm
 Smallest measuring span: 0..50 Pa (0.5 mbar)
 Largest measuring range: 0..6000 Pa (60 mbar)
 Measuring ranges: 0..50 Pa (0.5 mbar), 0...100 Pa (1 mbar), 0...200 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)
 Measurement range selection: Factory preset
 Adjustable controller parameters: P/I parameters, k-factor, maximum & minimum output voltage, normal/inverse control
 Characteristic curve: Selectable characteristic curve in measurement mode: linear / square root
 Ambient temperature: -20...+60 °C
 Storage temperature: -30...+70 °C
 Rule characteristics: Pi algorithm
 Target value setting: Two setpoints adjustable via buttons, setpoint selection via potential-free open collector contact, max. 30 V / 30 mA
 Limit signal / alarm output: 12 seconds
 Alarm delay time:

PHYSICALLY:

Housing: UL 94 HB; Ultramid with hinged ABS lid
 Dimensions: 95 x 70 x 54 mm (W x H x D)
 Weight: Approx. 250 g
 Protection class: IP65 according to EN 60529/VDE0470 Part 1: 2014
 Advertisement: Two-line alphanumeric LCD display, 2x16 characters
 Electrical connections: Cable entry M16 x 1.5, screw terminals, electronics protected against reverse polarity, hose nozzles 5 mm ø and 6 mm ø
 Pressure connections: Vertical, position-dependent upon rotation by 90° approx. 25 Pa
 Usage position:

ELECTRONICS:

Supply voltage: 10...30 Vdc; 24 Vac (±10%)
 Power consumption: Approx. 8 mA @ 10 Vdc, approx. 10 mA @ 24 Vdc
 Exit: 0...10 V
 @ 10 Vdc: I_{max} = 0.5 mA / R_{min} = 20 k Ω @ 24 Vdc: I_{max} = 2.0 mA / R_{min} = 5 k Ω

COMPLIANCE:

EMC: EN 61000-6-2, EN 61000-6-3, CE marking
 RoHS: Complies with RoHS Directive 2011/65/EU

	Item No.
Differential pressure regulator DPC200-EP50	2570
Measuring range: 0 ... 50 Pa, supply voltage 10...30 Vdc; 24 Vac (±15%) Output: 0...10V, three-wire technology	
Differential pressure regulator DPC200-	2572
EP-500 Measuring range: 0 ... 500 Pa, Supply voltage 10...30 Vdc; 24 Vac (±15%) Output: 0...10V, three-wire technology	
Differential pressure regulator DPC200-	2574
EP-1000 Measuring range: 0 ... 1,000 Pa, Supply voltage 10...30 Vdc; 24 Vac (±15%) Output: 0...10V, three-wire technology	
Differential pressure regulator DPC200-	2576
EP-2000 Measuring range: 0 ... 2,000 Pa, Supply voltage 10...30 Vdc; 24 Vac (±15%) Output: 0...10V, three-wire technology	
Differential pressure regulator DPC200-EP-4000	2578
Measuring range: 0 ... 4,000 Pa, supply voltage 10...30 Vdc; 24 Vac (±15%) Output: 0...10V, three-wire technology	