

# **PK50**

**The adjustable  
differential pressure switches.**

# Differential pressure switch PK50

with adjustable switching pressure



## Applications

Adjustable differential pressure switch for monitoring overpressure, vacuum and differential pressure of air or other non-combustible, non-aggressive gases.

Possible fields of application include:

- Monitoring air filters and ventilators
- Monitoring industrial cooling-air circuits
- Overheating protection for fan heaters
- Monitoring flows in ventilation ducts
- Controlling air and fire-protection flaps
- Frost protection for heat exchangers

## Versions

With this pressure switch the switching pressure can be adjusted without a pressure gauge using a scaled adjustment knob.

| Type | Adjustment range<br>from to | Switching<br>differential* | Repeatability of the<br>switching pressure |
|------|-----------------------------|----------------------------|--|
| W    | 20 200 Pa                   | 10 Pa                      | ±5 %, min. ±5 Pa                           |
| S    | 20 300 Pa                   | 10 Pa                      | ±5 %, min. ±5 Pa                           |
| S1   | 30 400 Pa                   | 15 Pa                      | ±5 %, min. ±5 Pa                           |
| 0    | 50 500 Pa                   | 20 Pa                      | ±2.5 %, min. ±5 Pa                         |
| 1    | 200 1000 Pa                 | 100 Pa                     | ±1 %, min. ±5 Pa                           |
| 1B   | 100 1000 Pa                 | 100 Pa                     | ±1 %, min. ±5 Pa                           |
| 2    | 500 2500 Pa                 | 150 Pa                     | ±1 %, min. ±5 Pa                           |
| 3    | 1000 4000 Pa                | 250 Pa                     | ±1 %, min. ±5 Pa                           |
| 3B   | 1000 5000 Pa                | 250 Pa                     | ±1 %, min. ±5 Pa                           |

\* typically, at beginning of setting range.

Switching pressure specifications apply to vertical installation which is also the recommended position with pressure-pipe connections pointing downwards. If the switches are installed horizontally with AMP connection terminals uppermost, the switching values are approx. 20 Pa higher.

## Maximum operating pressure

10 kPa for all pressure ranges.

## Medium

Air, non-combustible and non-aggressive gases.

## Temperature range

Medium and ambient temperature from . 20°C to +85°C.  
Storage temperature from . 40°C to +85°C.

## Diaphragm material

Silicone, tempered at 200°C, free of gas emissions.  
Other materials available on request.

## Pressure connections

2 plastic pipe connection pieces (P1 and P2), external diameter 6.0 mm:

P1 for connection to higher pressure (marked +)  
P2 for connection to lower pressure (marked . )

## Housing materials

Switch body and cover of plastic.

## Weight

With cover 150 g, without cover 110 g.

## Mechanical working life

Over 10<sup>6</sup> switching operations.

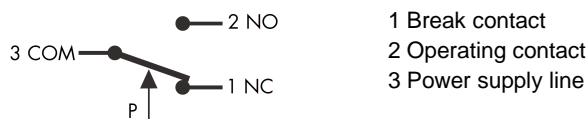
## Electrical rating

Standard version: max. 1.5 A (0.4 A) / 250 VAC  
Low-voltage version: max. 0.1 A / 24 VDC

## Electrical connections

AMP flat plug 6.3x0.8 mm in accordance with DIN 46244 or push-on screw terminals.  
Cable conduit with cable strain relief.

## Arrangement of contacts



## Protection category

IP 54 with cover, IP 00 without cover.

## Specifications according to EN1854

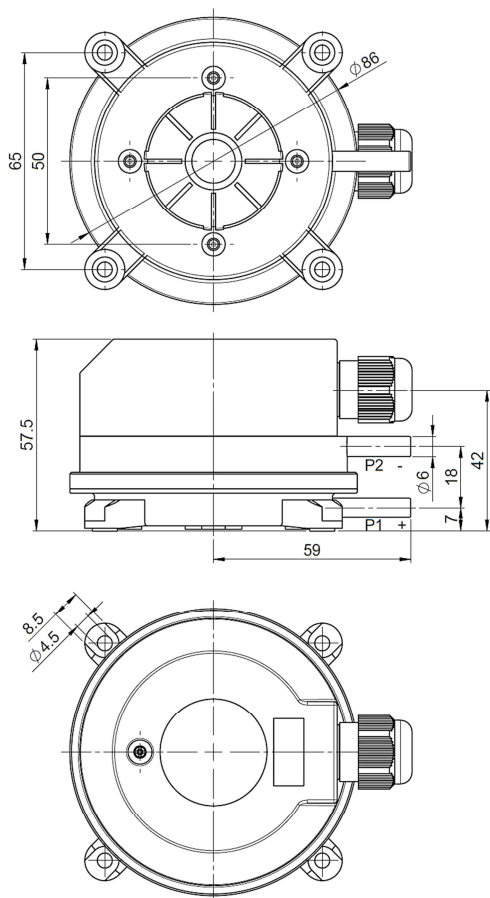
Class of control and regulation function: A

Deviation:  $m \pm 15$  %, min.  $\pm 10$  Pa

Drift:  $m \pm 15$  %

## Accessories

See order matrix.



**Mounting bracket 103102**

