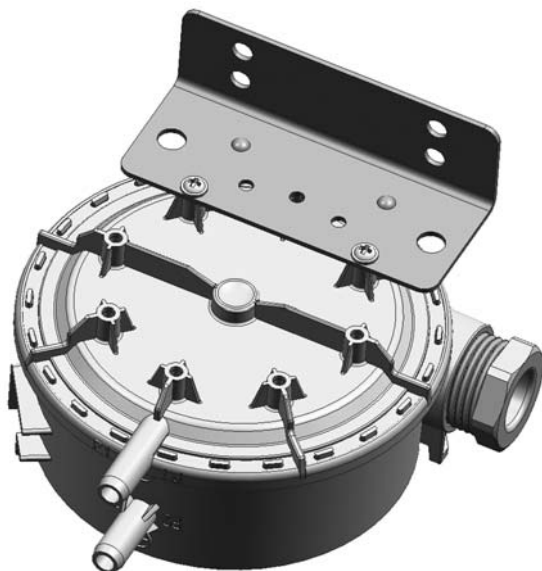


## Relativ and differential pressure switch

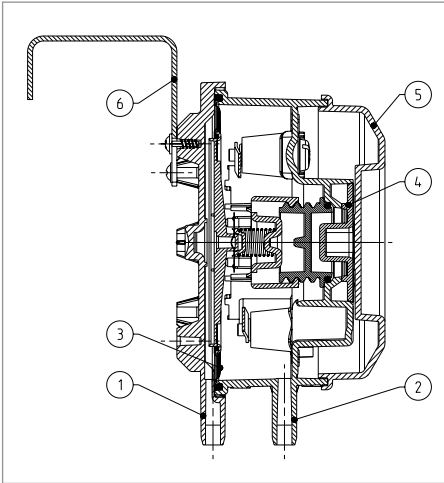
0.2 ... 50 mbar



## Technical overview

The type 604 pressure switch is used as a  $\Delta p$  flow switch in ventilation ducts for the control of filters and fans, and in primary and secondary control systems for the control of air dampers.

The 604 pressure monitoring switches are also ideally suited to protect heating coils from overheating and for monitoring industrial air cooling circuits.



## Legend to cross-section drawing

- 1 P1 Pressure connection (higher pressure)
- 2 P2 Pressure connection (lower pressure)
- 3 Diaphragm
- 4 Scale for switching point high
- 5 Snap fit cover
- 6 Mounting combi-bracket type C (option)

## The distinct advantages

- Extremely easy to install
- User-friendly snap fit cover
- Case geometry allows easy cable lead-in
- Cable strain relief integrated in PG11
- Combi-bracket for vertical or horizontal installation
- High adjustment accuracy through individual scale laser-etching per switch
- Long-term stability of switching points through trapezoidal bead diaphragm
- Multi-layer gold plated contact

## Medium

Air and neutral gases

## Pressure range

0.2 ... 50 mbar

## Tolerable overload on one side

75 mbar at -30 ... 75 °C  
50 mbar at -30 ... 85 °C

## Setting ranges / Switching differential

The switching differential is factory-set  
(See diagrams page 8)

## Repeatability

Setting range	between
0.2 ... 3 mbar	±0.025 mbar
0.5 ... 5 mbar	±0.05 mbar
1 ... 10 mbar	±0.05 mbar
5 ... 20 mbar	±0.05 mbar
10 ... 50 mbar	±0.15 mbar

## Switching load

Multi-layer contact (suitable for DDC)

Resistive load:  
5 A at 250 VAC  
4 A at 30 VDC

Inductive:  
(loads with 6-fold starting current  $\cos \varphi 0.6$ )  
0.8 A at 250 VAC  
0.7 A at 30 VDC

## Contact system

Changeover switch

## Materials in contact with the medium

Case: PC 10% GF  
Cover: PC  
Diaphragm: Silicone LSR  
tempered 200 °C, free of gas emissions

## Temperature

Medium and ambient -30 ... +85 °C  
Storage -40 ... +85 °C

## Service life

Mechanical > 10<sup>6</sup> switching cycles

## Electrical connection

Screw terminals or AMP connectors  
6.3 mm or 4.8 mm according to  
DIN 46244

Cable gland PG11 with cable strain relief

## Protection standard

Without cover IP 00  
With cover IP 54

## Pressure connections

Pipe  $\varnothing$  6.2 mm  
Adapter inside thread G1/8

## Installation arrangement

Recommended and factory set:  
Vertical, pressure connections facing  
downwards

Horizontal, cover facing downwards:  
Switching points approx. 11 Pa lower than  
on scale

Horizontal, cover facing upwards:  
Switching points approx. 11 Pa higher than  
on scale

## Mounting

Several brackets  
Fastening clip for quick mounting  
(see page 8)

## Tests / Admissions

ETL

CE conformity

DVGW according to DIN 1854

EU conformity:  
Low voltage directive 73/23/EWG

Gas appliance directive:  
90/396/EWG CE 0085 A P0918

## Weight

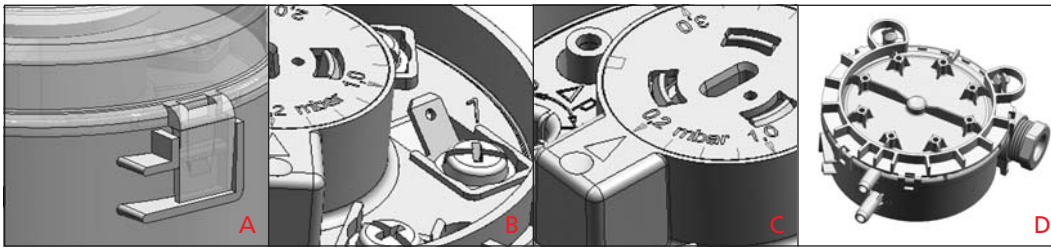
Without bracket approx. 93 g  
With combi-bracket type C approx. 144 g

## Packaging

Please state on order

Single packaging  
in cardboard

Multiple packaging  
in cardboard (20, 100 or 320 pcs)



## Versions

- A – Snap fit
- B – Electrical connections
- C – Individual scale engraving
- D – Switch with fastening clip

## Compact A/C set (standard)

Consisting of switch with hose connection  $\varnothing$  6.2 mm, scale in mbar, screw terminals, multi-layer contact up to 5 A (suitable for DDC), combi-bracket type C and hose connection set, single packaging.

## Setting range (mbar)

0.2 ... 3
0.5 ... 5
1 ... 10
5 ... 20
10 ... 50
0.2 ... 3
0.5 ... 5
1 ... 10
5 ... 20
10 ... 50

## Connection set

Fig. 1 (Metal)
Fig. 1 (Metal)
Fig. 1 (Metal)
Fig. 1 (Metal)
Fig. 1 (Metal)
Fig. 2 (Plastic)
Fig. 2 (Plastic)
Fig. 2 (Plastic)
Fig. 2 (Plastic)
Fig. 2 (Plastic)

## Order number

604.9000001
604.9100001
604.9200001
604.9400001
604.9500001
604.9000002
604.9100002
604.9200002
604.9400002
604.9500002

## Order code selection table

604. X X X X X X X X X

### Standard Version

9

### ETL execution, fire classification V0

E

### Setting range

mbar	Pa	inH <sub>2</sub> O
0.2 ... 3	20 ... 300	0.08 ... 1.2
0.5 ... 5	50 ... 500	0.2 ... 2
1 ... 10	100 ... 1 000	0.4 ... 4
5 ... 20	500 ... 2 000	2 ... 8
10 ... 50	1 000 ... 5 000	4 ... 20

0  
1  
2  
4  
5

### Scale

Scale in mbar
Scale in Pa
Scale in inH <sub>2</sub> O
Without scale (rating plate in mbar)
Without scale (rating plate in Pa)
Without scale (rating plate in inH <sub>2</sub> O)

0  
1  
2  
3  
4  
5

### Pressure connections

Pipe $\varnothing$ 6.2 mm without pressure orifice
Pipe $\varnothing$ 6.2 mm with pressure orifice on P2
Inside thread G1/8 without pressure orifice
Inside thread G1/8 with pressure orifice on P2

0  
1  
2  
3

### Electrical connection

Screw terminals
AMP connector 6.3 mm
AMP connector 4.8 mm

0  
1  
2

### Cover / Bracket

With cover combi-bracket type C
With cover bracket type A
With cover bracket type B
With cover without bracket
Without cover combi-bracket type C
Without cover bracket type A
Without cover bracket type B
Without cover without bracket

0  
1  
2  
3  
5  
6  
7  
8

### Connection kit

Without
With connection kit (metal), 90° angled including tube 2 m long (Fig. 1) <sup>1)</sup>
With connection kit (plastic), straight including tube 2 m long (Fig. 2) <sup>1)</sup>

0  
1  
2

### Switching points

Two factory set switching points (please specify on order)
One factory set switching point high (please specify on order)
One factory set switching point low (please specify on order)

W  
R  
U

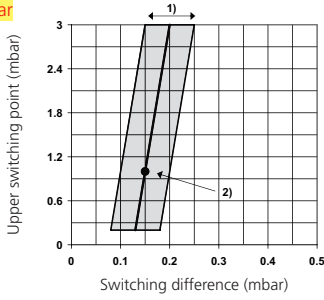
## Accessories

	Order number
Connection kit for vent duct (metal), 90° angled including tube 2 m long (Fig. 1) <sup>1)</sup>	104312
Connection kit for vent duct (plastic), straight including tube 2 m long (Fig. 2) <sup>1)</sup>	100064
Bracket type A <sup>1)</sup>	100295
Bracket type B <sup>1)</sup>	100098
Combi-bracket type C <sup>1)</sup>	100106
Special screws for fastening switches to bracket (2 screws per switch required)	102976
Fastening clip for bracket A, B, C or direct mounting for wall thickness 0.8 ... 1.1 mm	100294
Fastening clip for bracket A, B, C or direct mounting for wall thickness 1.8 ... 2.1 mm	100293

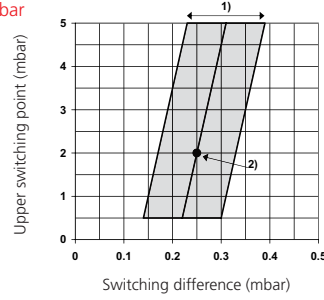
<sup>1)</sup> See page 8

## Setting ranges

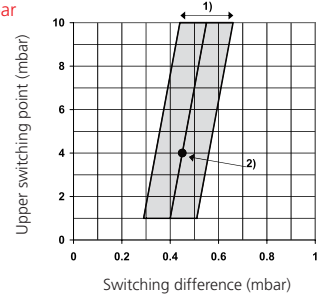
0.2 ... 3 mbar



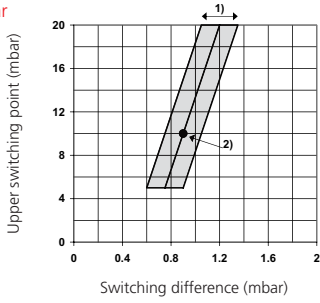
0.5 ... 5 mbar



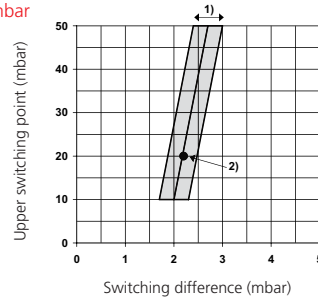
1 ... 10 mbar



5 ... 20 mbar

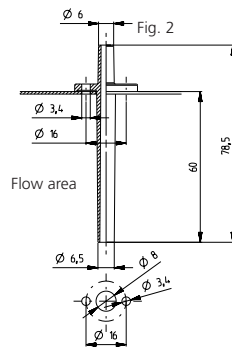
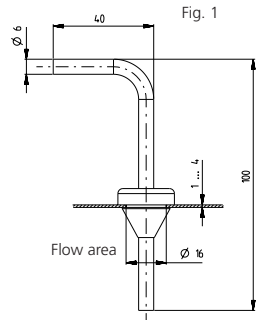
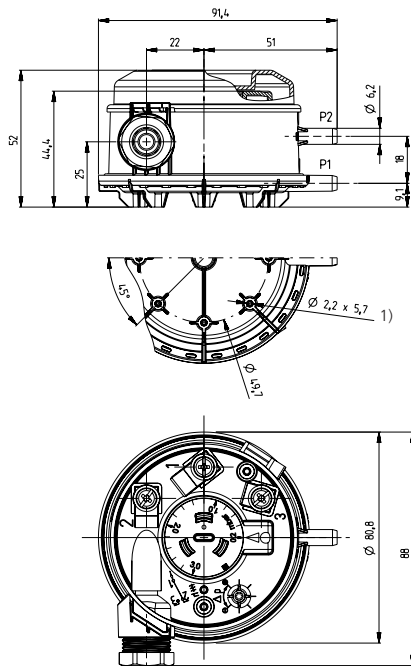


10 ... 50 mbar

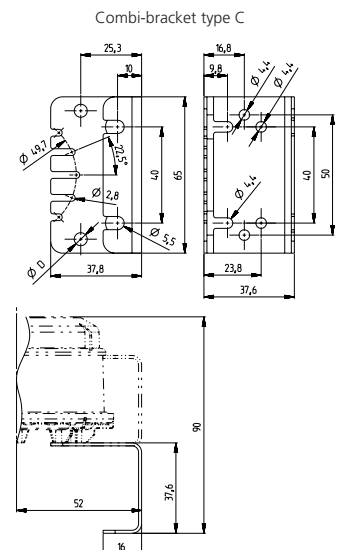
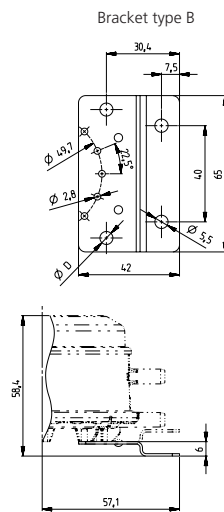
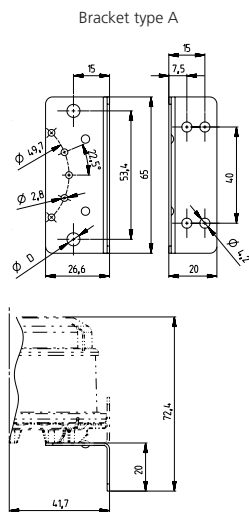
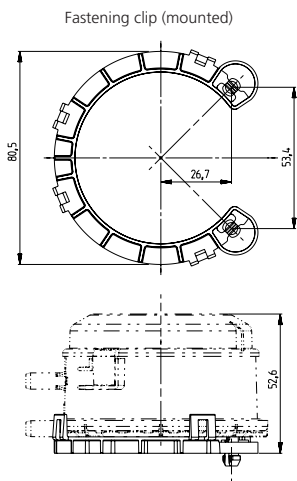
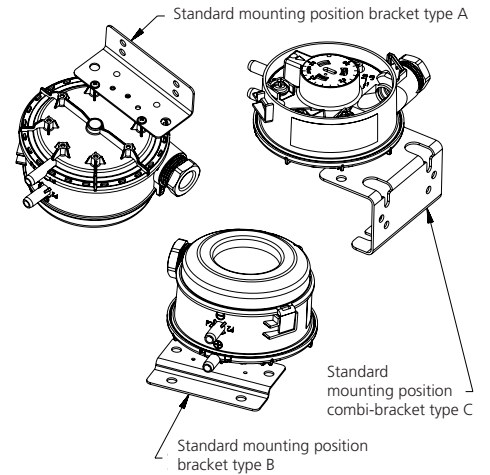
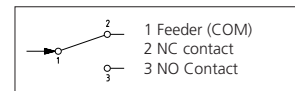


1) Tolerance switching difference  
2) Factory-setting

## Dimensions in mm



## Electrical connections



$\varnothing D = 5,4 \varnothing^1$  Holes for fastening clip  
1) Hole for PT screws KA25