

# Relative and differential pressure switch type 604

Pressure range  
0.2 ... 3 – 50 mbar

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.



- 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 laser etched scale
- Long-term stability of switching points through trapezoidal bead diaphragm
- Multi-layer gold plated contact

## Technical overview

### Pressure range

Relative and differential 0.2 ... 3 – 50 mbar

### Operating conditions

Medium		Air and neutral gases
Temperature	Medium / ambient	-30 ... +85 °C
	Storage	-40 ... +85 °C
Tolerable overload on one side	-30 ... +75 °C	75 mbar
	-30 ... +85 °C	50 mbar

### Materials in contact with the medium

Sensor	Silicon LSR <sup>1)</sup>
Case	PC 10% GF
Cover	PC

### Electrical overview

Switching load <sup>1)</sup>	Resistive load	5 A at 250 VAC
		4 A at 30 VDC
	Inductive <sup>3)</sup>	0.8 A at 250 VAC
		0.7 A at 30 VDC
Contact system	Changeover switch	
Service life	mechanical	> 10 <sup>6</sup> switching cycles

### Protection standard

Without cover	IP 00
With cover	IP 54

### Repeatability

Setting range	0.2 ... 3 mbar	between	± 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

### Electrical connection

Screw terminals

AMP connectors	6.3 mm
	4.8 mm

### Pressure connections

Pipe	Ø 6.2 mm
Inside thread	G 1/8

### Installation arrangement

Recommendation (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

### Tests / Admissions

DVGW acc. to DIN 1854	
Electromagnetic compatibility	CE conformity acc. to EN 61326-2-3
EU conformity	Low voltage directive 73/23/EWG
Gas appliance directive	90/396/EWG CE 0085 A P0918

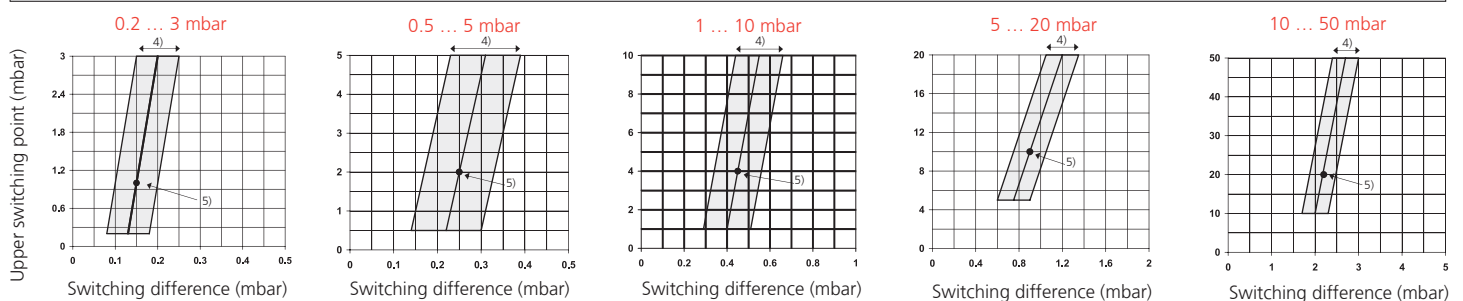
### Weight

Without bracket	~ 93 g
With combi-bracket type C	~ 143 g

### Packaging (Please state on order)

Single packaging in cardboard	
Multiple packaging in cardboard	20 pcs
	100 pcs
	320 pcs

## Setting ranges



<sup>1)</sup> at 200 °C tempered, free of gas emissions  
<sup>4)</sup> Tolerance switching difference

<sup>2)</sup> Multi-layer contact (suitable for DDC)  
<sup>3)</sup> Factory-setting

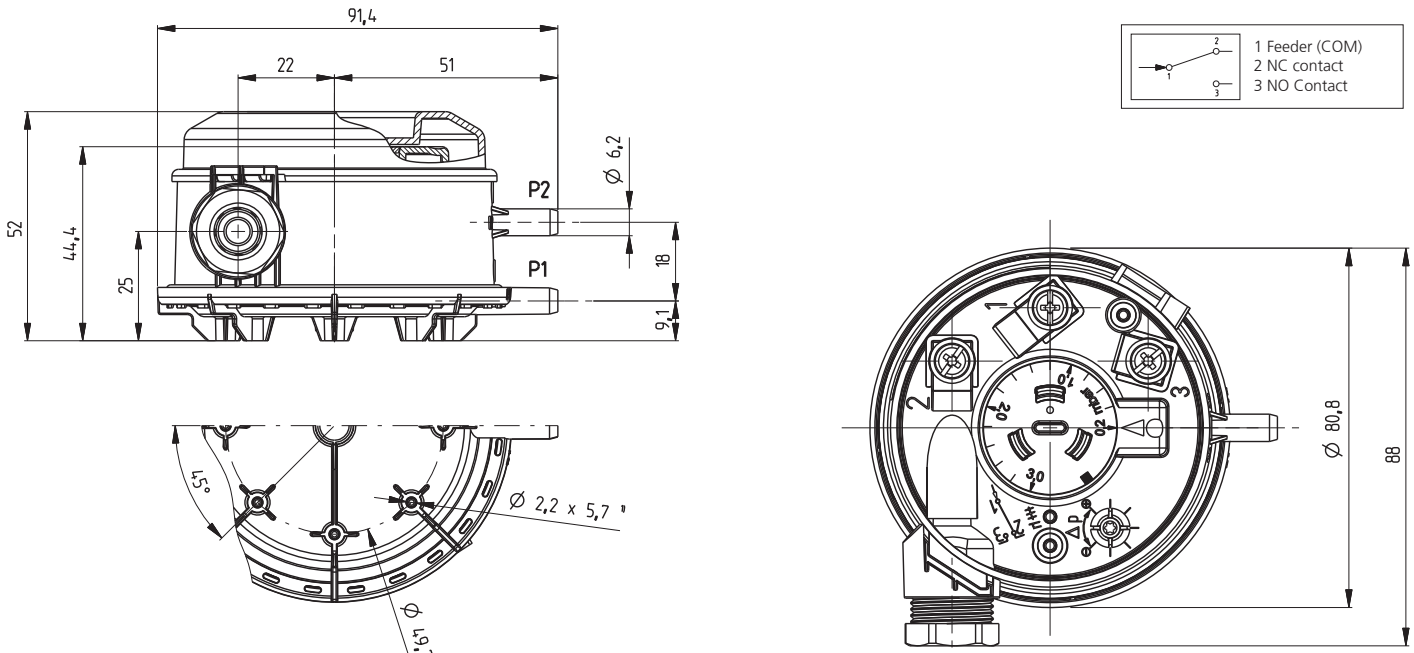
<sup>3)</sup> 6-fold starting current  $\cos \varphi 0.6$

Compact A/C set (standard)	Setting range (mbar)	Connection set	Order number
Consisting of switch with hose connection Ø 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.	0.2 ... 3 mbar	Fig. 1 (Metal)	604.9000001
	0.5 ... 5 mbar	Fig. 1 (Metal)	604.9100001
	1 ... 10 mbar	Fig. 1 (Metal)	604.9200001
	0.2 ... 3 mbar	Fig. 2 (Plastic)	604.9000002
	0.5 ... 5 mbar	Fig. 2 (Plastic)	604.9100002
	1 ... 10 mbar	Fig. 2 (Plastic)	604.9200002
	10 ... 50 mbar	Fig. 2 (Plastic)	604.9500002

Order code selection table				604. X X X X X X X X X																
Version	Standard version			9																
	ETL version			E																
Setting range	0.2 ... 3 mbar	20 ... 300 Pa	0.08 ... 1.2 inH <sub>2</sub> O	0.08 ... 1.2 inWC	0															
	0.5 ... 5 mbar	50 ... 500 Pa	0.2 ... 2 inH <sub>2</sub> O	0.2 ... 2 inWC	1															
	1 ... 10 mbar	100 ... 1000 Pa	0.4 ... 4 inH <sub>2</sub> O	0.4 ... 4 inWC	2															
	5 ... 20 mbar	500 ... 2000 Pa	2 ... 8 inH <sub>2</sub> O	2 ... 8 inWC	4															
	10 ... 50 mbar	1000 ... 5000 Pa	4 ... 20 inH <sub>2</sub> O	4 ... 20 inWC	5															
Scale	Scala in mbar				0															
	Scala in Pa				1															
	Scala in inH <sub>2</sub> O				2															
	Scala in inWC				6															
	Without Scala	(ratting plate in mbar)			3															
	Without Scala	(ratting plate in Pa)			4															
	Without Scala	(ratting plate in inH <sub>2</sub> O)			5															
Pressure connections	Pipe Ø 6.2 mm	without pressure tip orifice																		
	Pipe Ø 6.2 mm	with pressure tip orifice on P2																		
	Inside thread G 1/8	without pressure tip orifice																		
	Inside thread G 1/8	with pressure tip orifice on P2																		
Electronical connection	Screw terminals																		0	
	AMP connector 6.3 mm																		1	
	AMP connector 4.8 mm																		2	
Cover / Bracket	With cover	combi bracket type C	IP 54																0	
	With cover	bracket type A	IP 54																1	
	With cover	bracket type B	IP 54																2	
	With cover	without bracket	IP 54																3	
	Without cover	combi bracket type C																	5	
	Without cover	bracket type A																	6	
	Without cover	bracket type B																	7	
	Without cover	without bracket																	8	
Connection kit	Without																		0	
	With connection set (metal), 90° angled		incl. tube 2 m long (Fig. 1)																	1
	With connection set (plastic), straight		incl. tube 2 m long (Fig. 2)																	2
Switching points	Two factory set switching points		(please specify on order)																	W
	One factory set switching point high		(please specify on order)																	R
	One factory set switching point low		(please specify on order)																	U

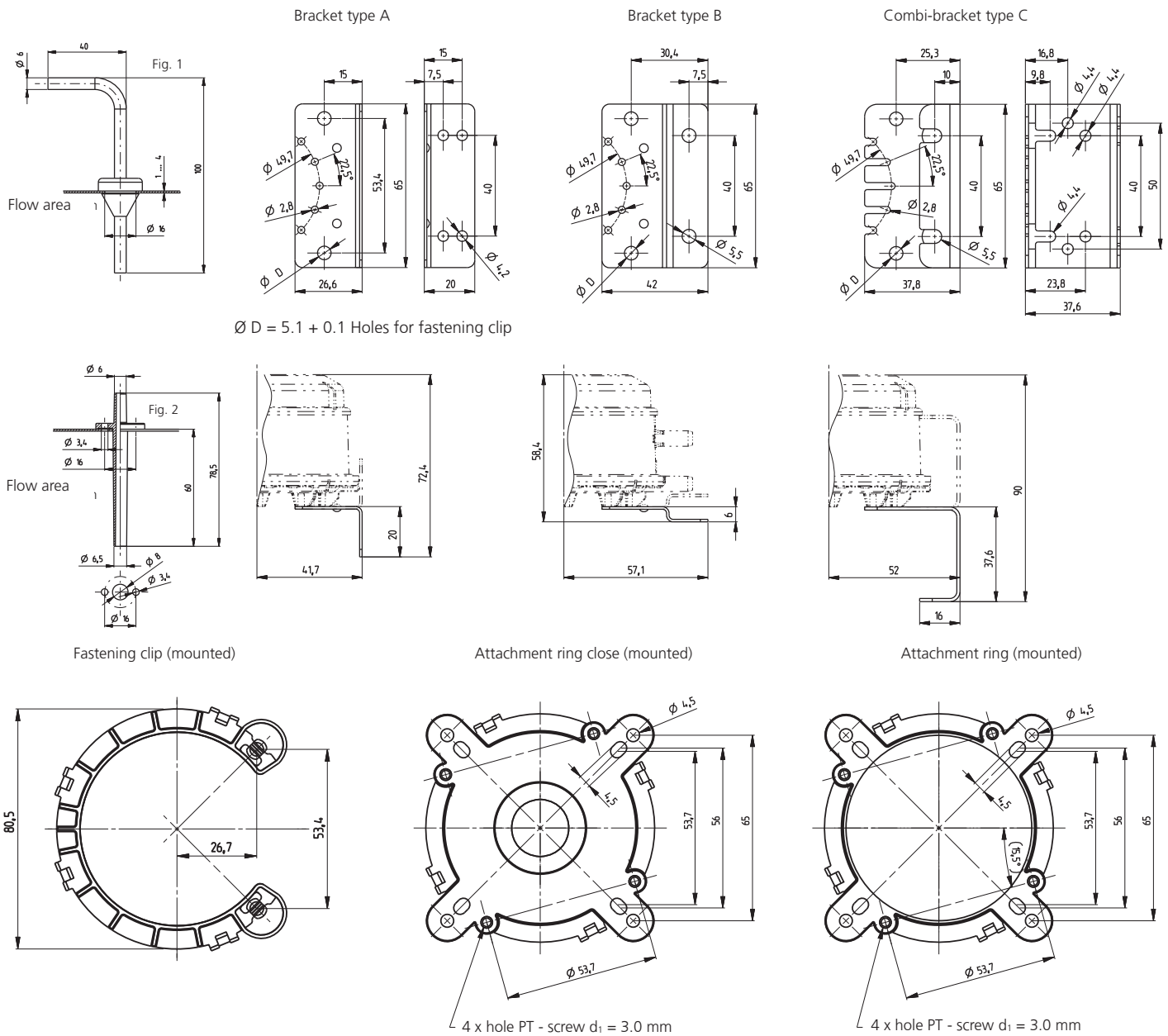
Accessories			Accessories supplied loose
			Order number
Connection kit for vent duct (metal), 90° angled	including tube 2 m long (Fig. 1)		104312
Connection kit for vent duct (plastic), straight	including tube 2 m long (Fig. 2)		100064
Bracket type A			100295
Bracket type B			100098
Combi-bracket type C			100106
Attachment ring			110005
Attachment ring close			110006
Special screws for fastening bracket to switch	(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
	for wall thickness 1.8 ... 2.1 mm		100293
Calibration certificate			104551

Dimensions in mm / Electrical connections



<sup>1)</sup> Hole for PT screws KA25

Accessories



$\varnothing D = 5.1 + 0.1$  Holes for fastening clip

Attachment ring close (mounted)

Attachment ring (mounted)

4 x hole PT - screw  $d_1 = 3.0$  mm

4 x hole PT - screw  $d_1 = 3.0$  mm