

# 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
- Combi-bracket for vertical or horizontal installation
- User friendly snap cover
- Case geometry allows easy cable lead-in
- Cable strain relief integrated in PG11
- 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		75 mbar
		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>2)</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 3	IP 00
With cover	IP 54 / IP 65

### 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

UL	MFHX2/8 or XAAK2/8
DVGW	acc. to DIN EN 1854
Low voltage directive	2014/35/EU
Gas appliance directive	2009/142/EC

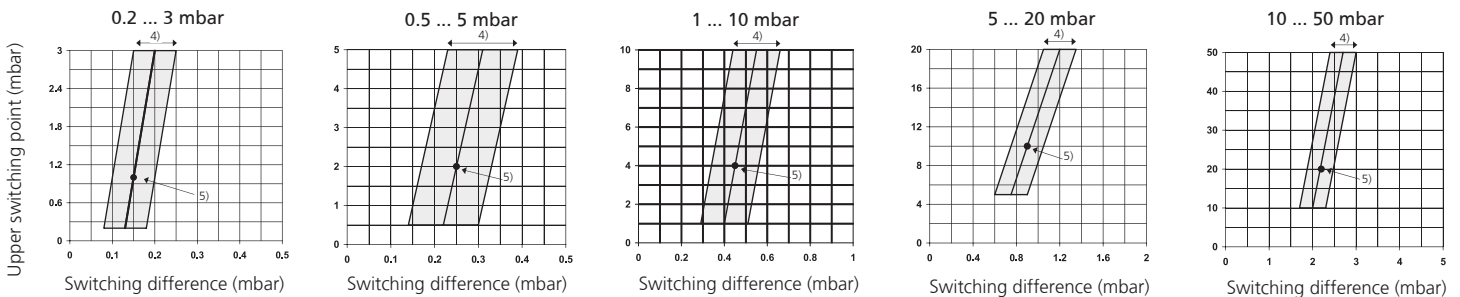
### Weight

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 / 30 / 40 / 50 / 60 / 100 / 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>5)</sup> Factory-setting

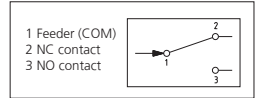
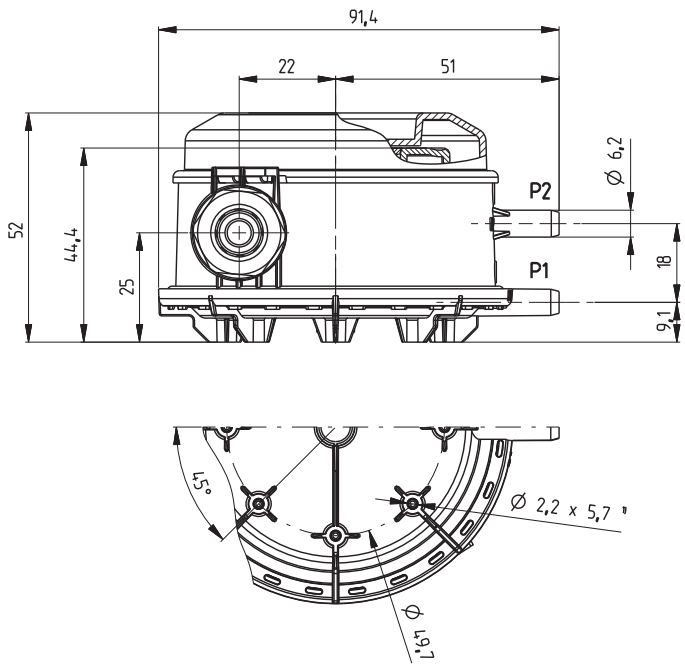
<sup>3)</sup> 6-fold starting current  $\cos \varphi 0.6$

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

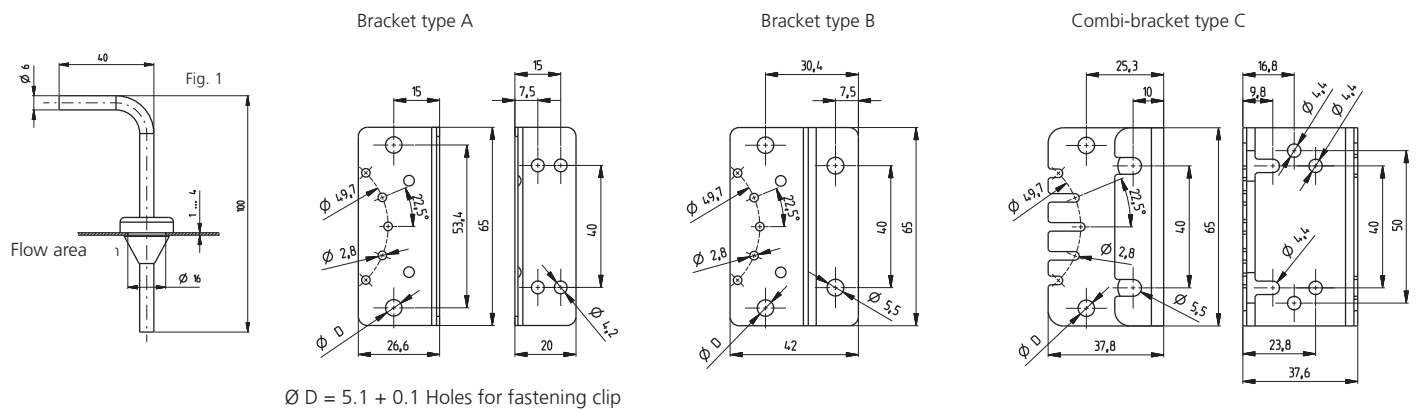
Order code selection table				1	2	3	4	5	6	7	8
				604.	X	X	X	X	X	X	X
Version	Standard version			9							
	UL version			S							
Setting range	0.2 ... 3 mbar	20 ... 300 Pa	0.08 ... 1.2 inH <sub>2</sub> O	0.08 ... 1.2 inWC	0						
	0.5 ... 5 mbar	50 ... 500 Pa	0.2 ... 2 inH <sub>2</sub> O	0.2 ... 2 inWC	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 <sup>1)</sup>	Scale in mbar				0						
	Scale in Pa				1						
	Scale in inH <sub>2</sub> O				2						
	Scale in inWC				6						
	Without Scale	(rating plate in mbar)			3						
	Without Scale	(rating plate in Pa)			4						
	Without Scale	(rating plate in inH <sub>2</sub> O)			5						
Pressure connections	Without Scale	(rating plate in inWC)			7						
	Pipe Ø 6.2 mm	without pressure tip orifice			0						
	Pipe Ø 6.2 mm	with pressure tip orifice on P2			1						
	Inside thread G ¼	without pressure tip orifice			2						
Electronical connection	Inside thread G ¼	with pressure tip orifice on P2			3						
	Screw terminals				0						
	AMP connector 6.3 mm				1						
Cover / Bracket	AMP connector 4.8 mm				2						
	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	
	With cover	combi bracket type C	IP 65	9						A	
	With cover	bracket type A	IP 65	9						B	
	With cover	bracket type B	IP 65	9						C	
Connection kit	With cover	without bracket	IP 65	9						D	
	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 (optional)	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			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

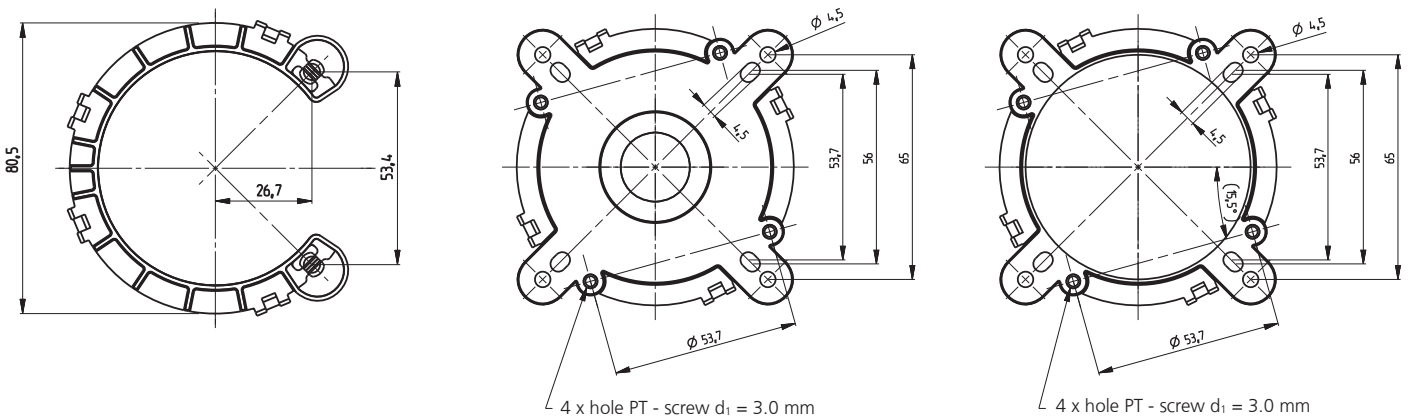
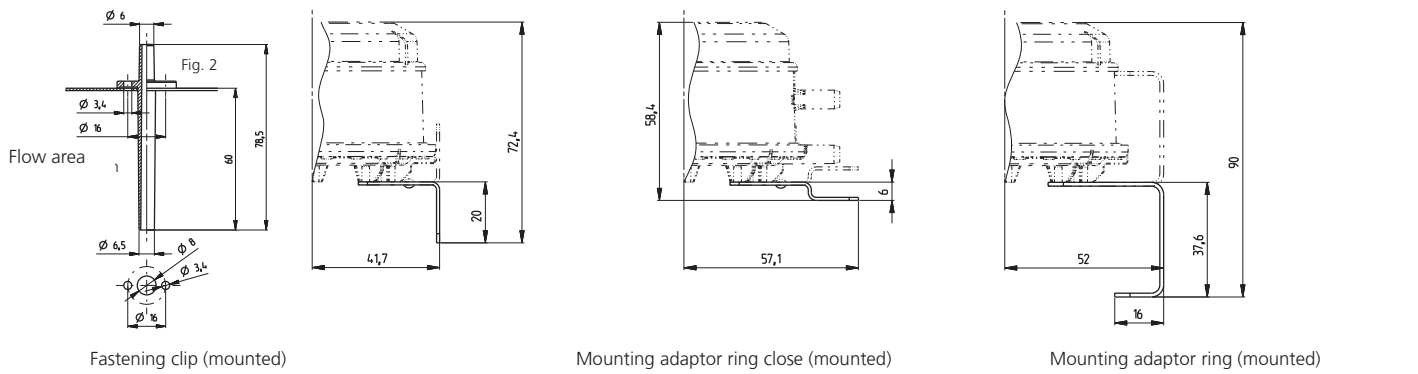
<sup>1)</sup> For customer specific calibration without scale and with fixed scale



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



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



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

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

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