

Relative and differential pressure switch type 604

Pressure range
0.2 ... 3 – 50 mbar



The type 604 pressure switch is used as a Δp 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
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Operating conditions

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

Materials in contact with the medium

Sensor	Silicon LSR ¹⁾
Case	PC 10% GF
Cover	PC

Electrical overview

Switching load ²⁾	Resistive load	5 A	at 250 VAC
		4 A	at 30 VDC
	Inductive ³⁾	0.8 A	at 250 VAC
Contact system	Changeover switch	0.7 A	at 30 VDC
Service life	mechanical	> 10 ⁶ 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	2016/426/EU

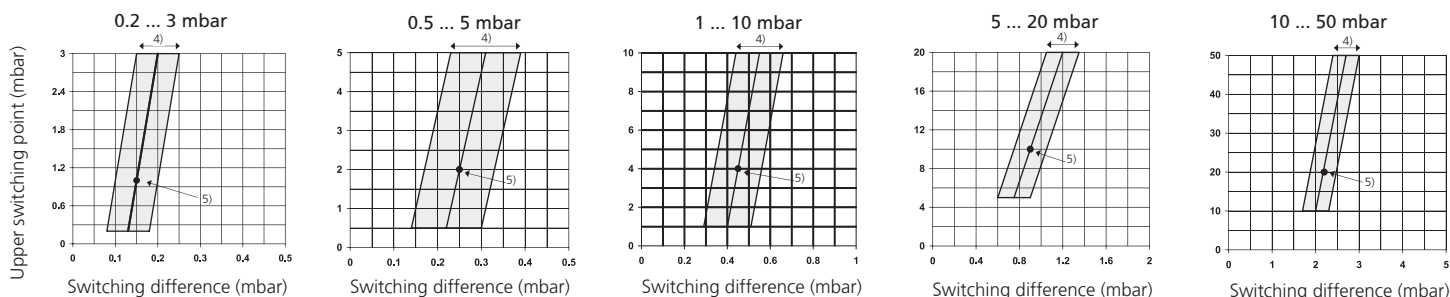
Weight

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



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

²⁾ Multi-layer contact (suitable for DDC)
⁵⁾ Factory-setting

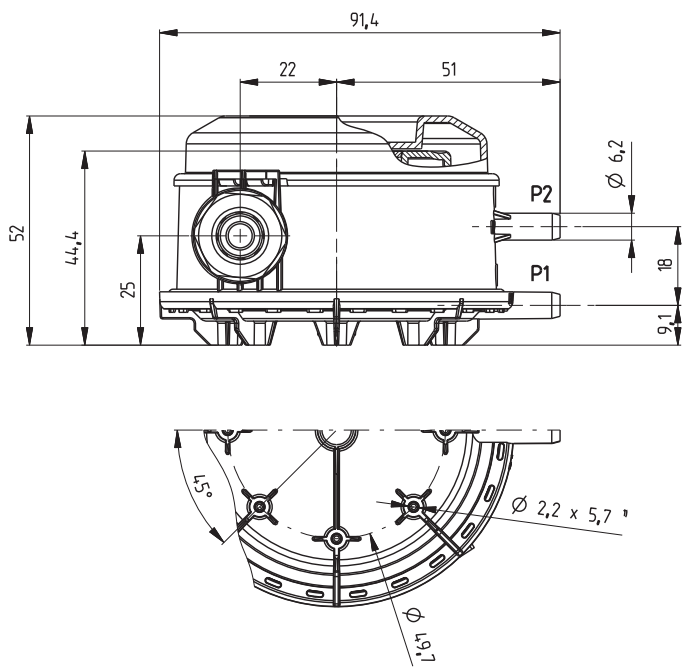
³⁾ 6-fold starting current $\cos \varphi 0.6$

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

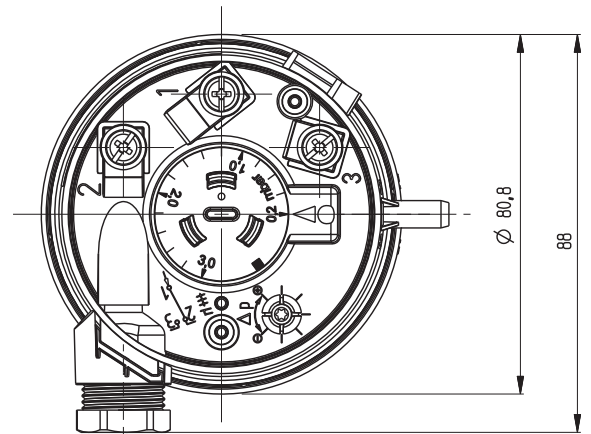
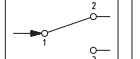
Order code selection table					1	2	3	4	5	6	7	8
					604.	X	X	X	X	X	X	X
Version	Standard version				9							
	UL version				5							
Setting range	0.2 ... 3 mbar	20 ... 300 Pa	0.08 ... 1.2 inH ₂ O	0.08 ... 1.2 inWC	0							
	0.5 ... 5 mbar	50 ... 500 Pa	0.2 ... 2 inH ₂ O	0.2 ... 2 inWC	1							
	1 ... 10 mbar	100 ... 1000 Pa	0.4 ... 4 inH ₂ O	0.4 ... 4 inWC	2							
	5 ... 20 mbar	500 ... 2000 Pa	2 ... 8 inH ₂ O	2 ... 8 inWC	4							
	10 ... 50 mbar	1000 ... 5000 Pa	4 ... 20 inH ₂ O	4 ... 20 inWC	5							
Scale ¹⁾	Scale in mbar					0						
	Scale in Pa					1						
	Scale in inH ₂ 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 ₂ O)					5						
	Without Scale (rating plate in inWC)					7						
Pressure connections	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 1/8 without pressure tip orifice						2					
	Inside thread G 1/8 with pressure tip orifice on P2						3					
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			
	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			
	With cover without bracket	IP 65	9						D			
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 (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 (at factory set switching points)			104551

¹⁾ For customer specific calibration without scale and with fixed scale

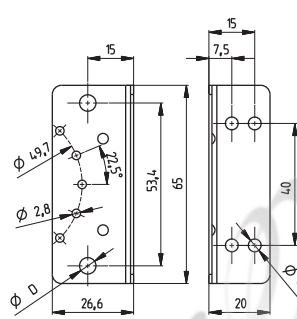
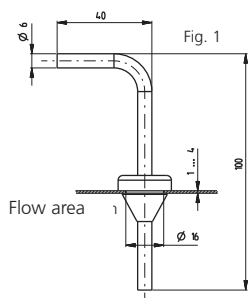


1 Feeder (COM)
2 NC contact
3 NO contact

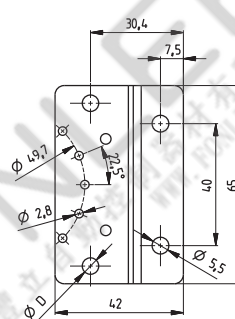


¹⁾ Hole for PT screws KA25

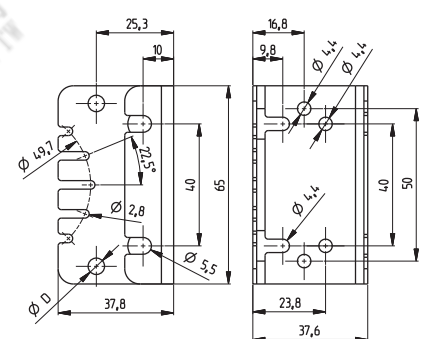
Bracket type A



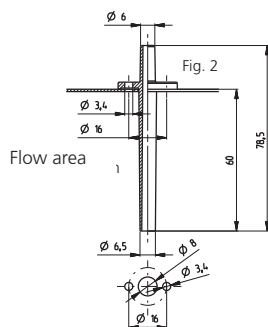
Bracket type B



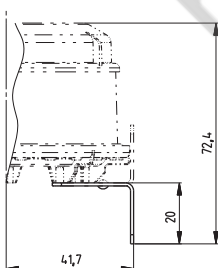
Combi-bracket type C



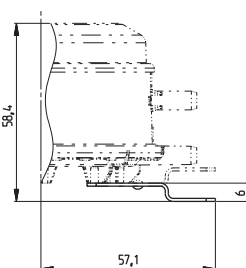
$\varnothing D = 5.1 + 0.1$ Holes for fastening clip



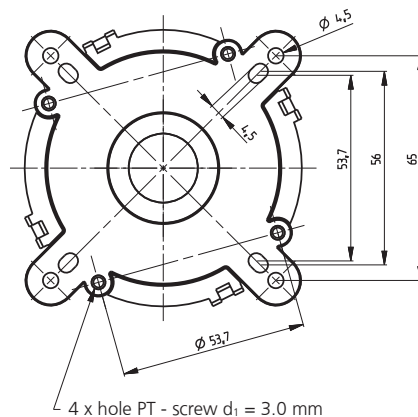
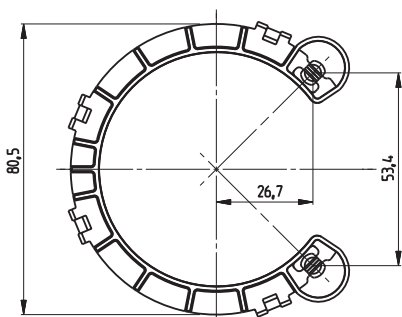
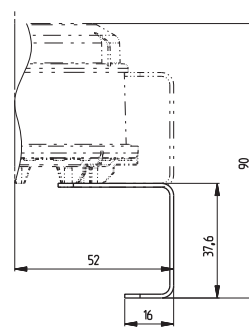
Fastening clip (mounted)



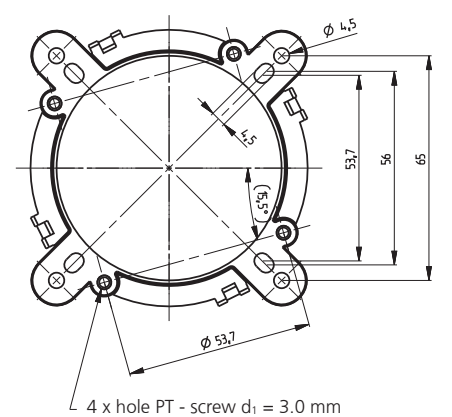
Mounting adaptor ring close (mounted)



Mounting adaptor ring (mounted)



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



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

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