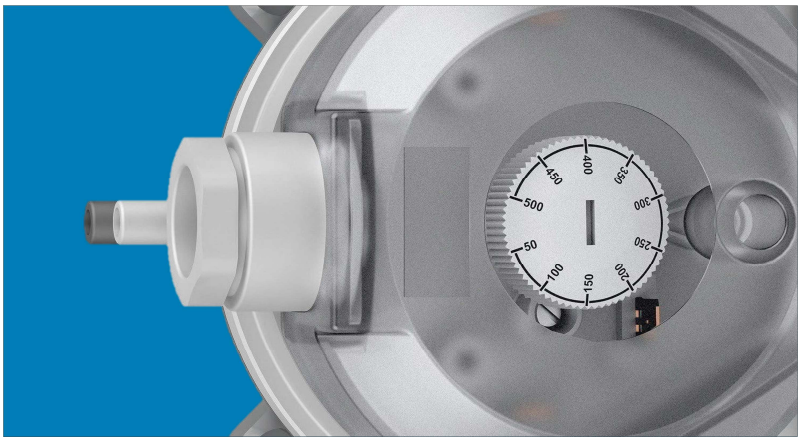
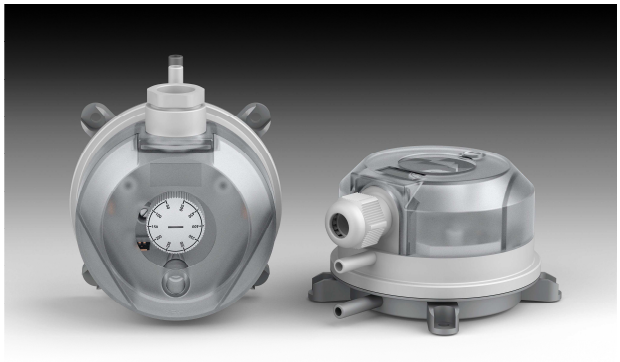
Beck.

The adjustable differential pressure switches



Differential pressure switch 930.8x Climair®

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.

Class of control and regulation function: A

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

The switching pressure can be adjusted without a pressure gauge using a scaled adjustment knob.

Type	Adjustment range from	to	Switching differential*	Repeatability of the switching pressure
930.80	20	200 Pa	10 Pa	±5 %, min. ±5 Pa
930.80B	20	300 Pa	10 Pa	±5 %, min. ±5 Pa
930.84	30	400 Pa	15 Pa	±5 %, min. ±5 Pa
930.83	50	500 Pa	20 Pa	±2.5 %, min. ±5 Pa
930.85B	100	1000 Pa	50 Pa	±2.5 %, min. ±5 Pa
930.85	200	1000 Pa	100 Pa	±1 %, min. ±5 Pa
930.86	500	2500 Pa	150 Pa	±1 %
930.87	1000	4000 Pa	250 Pa	±1 %
930.87B	1000	5000 Pa	250 Pa	±1 %

** 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 the tab 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, 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 10^6 switching operations

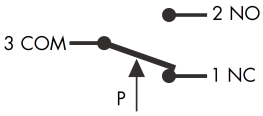
Electrical rating

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

Electrical connection

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

Arrangement of contacts



1 Break contact
2 Operating contact
3 Power supply line

Protection

IP54 or IP65 with cover, IP00 without cover

Protection class

Protection class II (with cover)

The pressure switch without cover is provided for installation in equipment. The construction of the equipment and the type of installation determine the protection class.

CE Conformity

Each depending on technical specification:
Low Voltage Directive; RoHS Directive;
EU Gas Appliances Regulation; ATEX Directive

Specifications according to EN1854

Deviation: ≤±15 %, min. ±10 Pa
Drift: ≤±15 %

Accessories

See order matrix

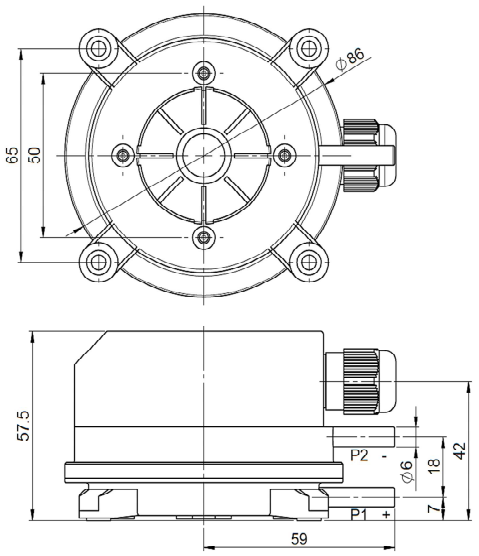
Order matrix		**930.8**	**X**	**X**	**2**	**X**	**X**	**X**	**X**
Pressure ranges	20 to 200 Pascal (0.2 to 2.0 mbar)		0						
	20 to 300 Pascal (0.2 to 3.0 mbar)		0B						
	30 to 400 Pascal (0.3 to 4.0 mbar)		4						
	50 to 500 Pascal (0.5 to 5.0 mbar)		3						
	100 to 1000 Pascal (1.0 to 10.0 mbar)		5B						
	200 to 1000 Pascal (2.0 to 10.0 mbar)		5						
	500 to 2500 Pascal (5.0 to 25.0 mbar)		6						
	1000 to 4000 Pascal (10 to 40 mbar)		7						
	1000 to 5000 Pascal (10 to 50 mbar)		7B						
Switching contacts	gold-plated for low voltages, screw terminals enclosed			1					
	up to maximum 1.5 A (0.4) / 250 VAC, screw terminals enclosed			2					
	up to maximum 1.5 A (0.4) / 250 VAC with tab terminals 6.3x0.8 mm			3					
	gold-plated for low voltages with tab terminals 6.3x0.8 mm			4					
Fitting method	mounted directly without bracket				2				
Adjustment knob	scale in mbar					1			
	scale in Pascal					2			
	scale in Pascal and inWC					3			
IP protection category	IP54 with cable conduit M20x1.5						2		
	IP54 with cable conduit NPT1/2						3		
	IP00 without cover						4		
	IP54 with cap nut conduit AF20						5		
	IP65 with cable conduit M20x1.5						6		
	IP65 with cap nut conduit AF20						7		
	IP65 with cable conduit NPT1/2						8		
Packaging	bulk packed, 45 pcs. per carton							1	
	bulk packed, 45 pcs. per carton, folding boxes included							2	
	individually boxed							3	
Accessories	without accessories								1
	with S-shaped metal mounting bracket 6402								2
	with L-shaped metal mounting bracket 6401								3
	with Climaset® 6555								4
	with Climaset® 6550								5
	with S-shaped metal mounting bracket 6402 and Climaset® 6555								6
	with S-shaped metal mounting bracket 6402 and Climaset® 6550								7
	with L-shaped metal mounting bracket 6401 and Climaset® 6555								8
	with L-shaped metal mounting bracket 6401 and Climaset® 6550								9
	with S-shaped snap-on plastic bracket 6482								A
	with L-shaped snap-on plastic bracket 6481								B
	with S-shaped snap-on plastic bracket 6482 and Climaset® 6555								C
	with S-shaped snap-on plastic bracket 6482 and Climaset® 6550								D
	with L-shaped snap-on plastic bracket 6481 and Climaset® 6555								E
	with L-shaped snap-on plastic bracket 6481 and Climaset® 6550								F
	with Climaset® 6557								G
	with Climaset® 6556								H
	with universal bracket set made of stainless steel 6596								I

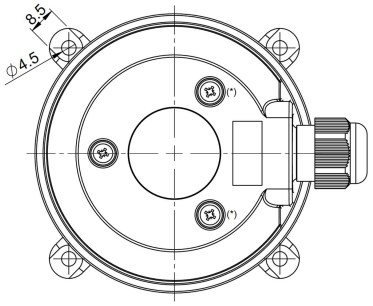
Optional Accessoires

Metal mounting bracket, S-shaped	Article No. 6402
Metal mounting bracket, L-shaped	Article No. 6401
Snap-on plastic bracket, S-shaped	Article No. 6482
Snap-on plastic bracket, L-shaped	Article No. 6481
Universal bracket set made of stainless steel	Article No. 6596
Climaset® consisting of 2 m PVC hose and two plastic tubes	Article No. 6555
Climaset® consisting of 2 m silicone hose and two plastic tubes	Article No. 6557
Climaset® consisting of 2 m PVC hose and two angled metal pipes	Article No. 6550
Climaset® consisting of 2 m silicone hose and two angled metal pipes	Article No. 6556
Set consisting of three push-on screw terminals, bagged	Article No. 6415
Roll with 100 m PVC hose	Article No. 6424
Roll with 100 m silicone hose	Article No. 6425

Dimensional Drawings

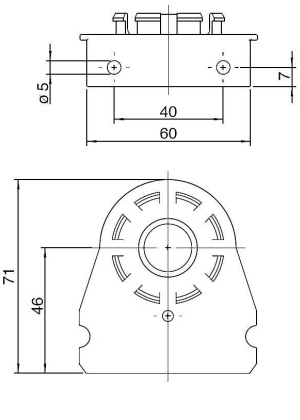
930.8x Climair®



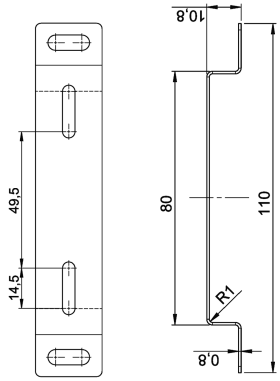


(*) only for IP65

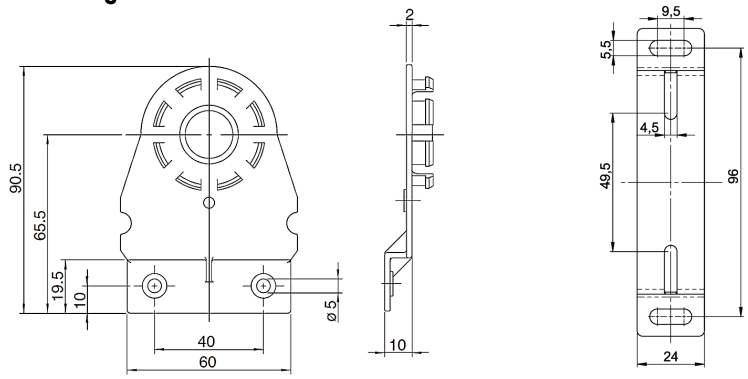
Mounting bracket 6481



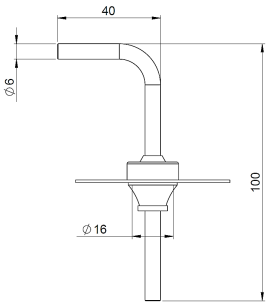
Universal bracket set 6596



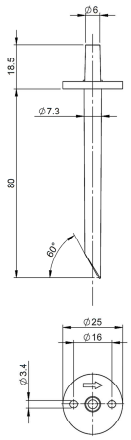
Mounting bracket 6482



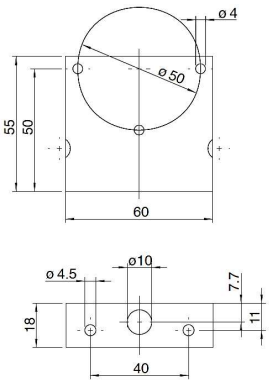
Climaset® 6550/6556



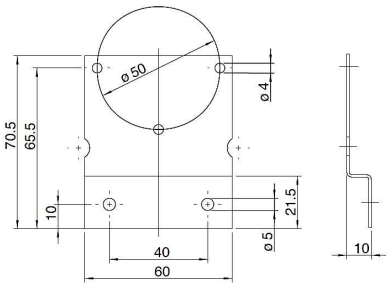
Climaset® 6555/6557



Mounting bracket 6401



Mounting bracket 6402



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