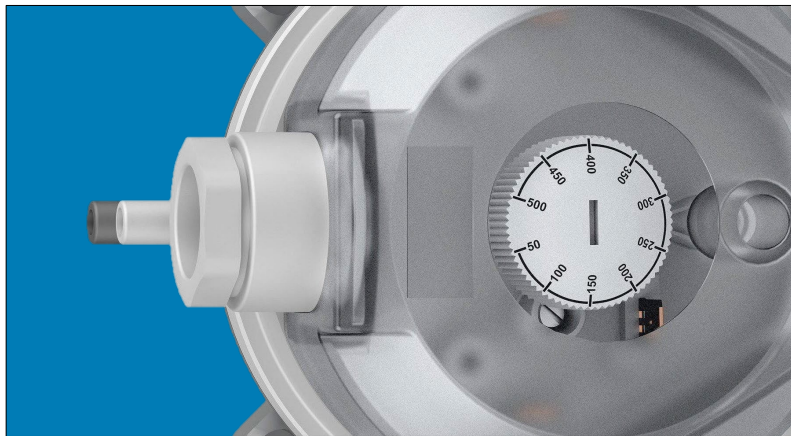


# Beck.

## The adjustable differential pressure switches in Ex zones



# Differential pressure switch 930..Ex Climair®

with adjustable switching pressure for  
Ex zones 1, 2 and 21, 22

## Applications

Adjustable differential pressure switch for monitoring overpressure, vacuum and differential pressure of air or other non-combustible, non-aggressive gases.

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
- Ex zones 1, 2 and 21, 22 with ATEX type examination

## Temperature range

Medium and ambient temperature from  $-20^{\circ}\text{C}$  to  $+85^{\circ}\text{C}$   
Storage temperature from  $-40^{\circ}\text{C}$  to  $+85^{\circ}\text{C}$

## Housing materials

Switch body and cover of plastic

## Diaphragm material

Silicone, free of gas emissions

## 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

## Cable conduit

Cap nut conduit AF20 with cable strain relief

## Mechanical working life

Over  $10^6$  switching operations

## Weight

With cover 150 g, without cover 110 g

## Maximum operating pressure

10 kPa

## Protection

IP 54 with cover

## Protection class

Protection class II (with cover).

## Accessories

See order matrix



## ATEX

EC type examination  
Device category  
Ignition protection type

EPS 24 ATEX 1 040 X  
II 2G and II 2D  
Ex ia IIC T4 Gb and  
Ex ia IIIB T135°C Db

Conformity

EU ATEX Directive  
EU RoHS Directive

## Ex i-circuits

This pressure switch can be used in potentially explosive zones 1 & 2 and 21 & 22. In the safe area, an associated isolating means (separating barrier, switching amplifier) must be connected before. The entire isolating circuit must then be proved to keep inherent safety. For this purpose, the power specifications (P, I, U) of the barrier must be lower and the characteristics (L, C) higher than those of the pressure switch and of the connection line (blue colour).

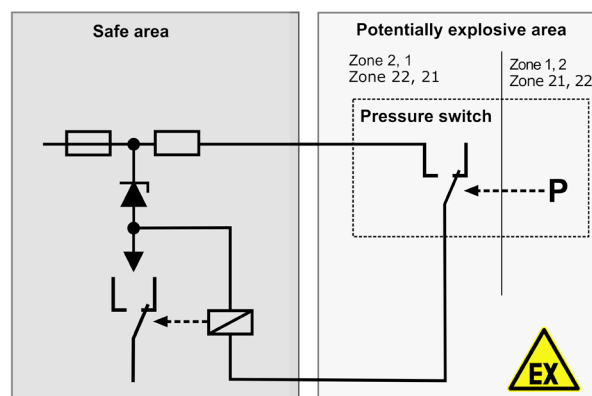
Characteristics:

Gas for IIC: 30 VDC / 60 mA; 24 VDC / 100 mA

Dust for IIIB: 30 VDC / 60 mA / 0,6 W

Capacitance - Ci 0  $\mu\text{F}$

Inductance - Li 0 mH



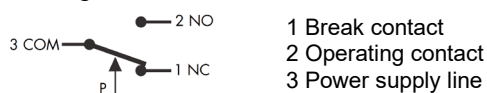
## Pressure connections

2 plastic pipe connection pieces (P1 and P2) with external diameter 6.0 mm:

P1 for connection to higher pressure (marked +).

P2 for connection to lower pressure (marked -).

## Arrangement of contacts



## Warning

Read instructions before use. This regulating and control unit must be installed in compliance with the applicable regulations.

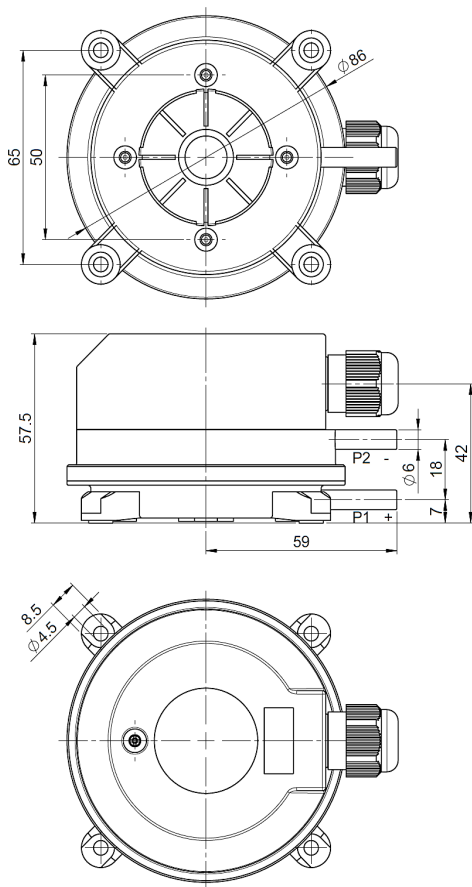
Order matrix					930.8	X	X	2	X	X	X	X
Pressure ranges from		to	Switching differential	Repeatability of the switching pressure								
20 Pa	(0.2 mbar)	200 Pa	(2.0 mbar)	10 Pa	±5 %, min. ±5 Pa	0Ex						
20 Pa	(0.2 mbar)	300 Pa	(3.0 mbar)	10 Pa	±5 %, min. ±5 Pa	0BEx						
30 Pa	(0.3 mbar)	400 Pa	(4.0 mbar)	15 Pa	±5 %, min. ±5 Pa	4Ex						
50 Pa	(0.5 mbar)	500 Pa	(5.0 mbar)	20 Pa	±2.5 %, min. ±5 Pa	3Ex						
100 Pa	(1.0 mbar)	1000 Pa	(10.0 mbar)	100 Pa	±2.5 %, min. ±5 Pa	5BEx						
200 Pa	(2.0 mbar)	1000 Pa	(10.0 mbar)	100 Pa	±1 %, min. ±5 Pa	5Ex						
500 Pa	(5.0 mbar)	2500 Pa	(25.0 mbar)	150 Pa	±1 %	6Ex						
1000 Pa	(10.0 mbar)	5000 Pa	(50 mbar)	250 Pa	±1 %	7BEx						
Switching contacts		gold-plated for low voltages, screw terminals enclosed up to maximum 1.5 A (0.4) / 250 VAC, screw terminals enclosed up to maximum 1.5 A (0.4) / 250 VAC with tab terminals 6.3x0.8 mm gold-plated for low voltages with tab terminals 6.3x0.8 mm					1 2 3 4					
Fitting method		mounted directly without bracket						2				
Adjustment knob		scale in mbar scale in Pascal scale in Pascal and inWC							1 2 3			
IP protection category		IP54 with cable conduit M20x1.5 IP54 with cap nut conduit AF20 IP65 with cable conduit M20x1.5 IP65 with cap nut conduit AF20								2 5 6 7		
Packaging		bulk packed, 45 pcs. per carton bulk packed, 45 pcs. per carton, folding boxes included individually boxed									1 2 3	
Accessories		without accessories with S-shaped metal mounting bracket 6402 with L-shaped metal mounting bracket 6401 with Climaset® 6555 with Climaset® 6550 with S-shaped metal mounting bracket 6402 and Climaset® 6555 with S-shaped metal mounting bracket 6402 and Climaset® 6550 with L-shaped metal mounting bracket 6401 and Climaset® 6555 with L-shaped metal mounting bracket 6401 Climaset® 6550 with S-shaped snap-on plastic bracket 6482 with L-shaped snap-on plastic bracket 6481 with S-shaped snap-on plastic bracket 6482 and Climaset® 6555 with S-shaped snap-on plastic bracket 6482 and Climaset® 6550 with L-shaped snap-on plastic bracket 6481 and Climaset® 6555 with L-shaped snap-on plastic bracket 6481 and Climaset® 6550 with Climaset® 6557 with Climaset® 6556 with universal bracket set made of stainless steel 6596									1 2 3 4 5 6 7 8 9 A B C D E F G H	

## Optional Accessories

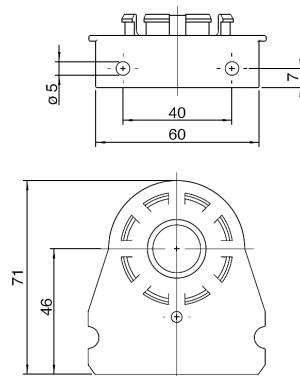
Metal mounting bracket, S-shaped	Article No. 6402
Metal mounting bracket, L-shaped	Article No. 6401
Snap-on plastic bracket, S-shaped	Article No. 6482
Snap-on plastic bracket, L-shaped	Article No. 6481
Universal bracket set made of stainless steel	Article No. 6596
Climaset® consisting of 2 m PVC hose 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

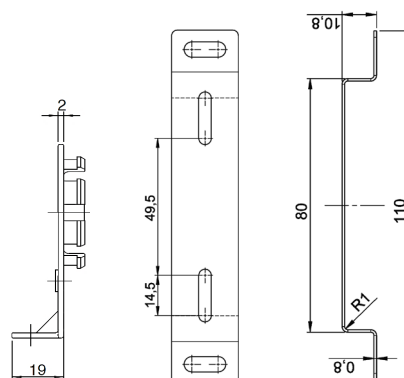
**930.8xEx Climair®**



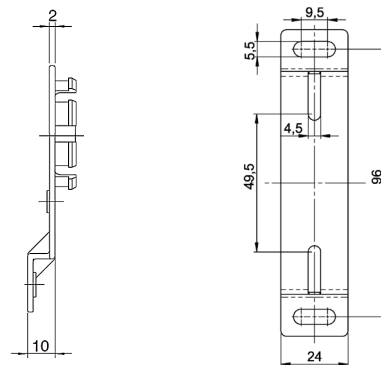
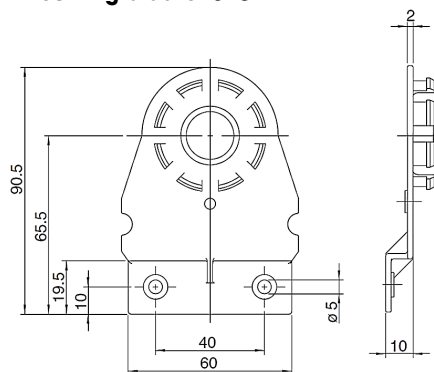
**Mounting bracket 6481**



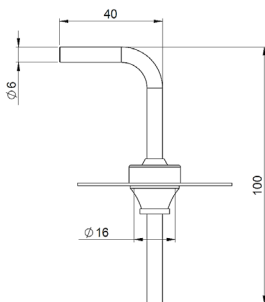
**Universal bracket set 6596**



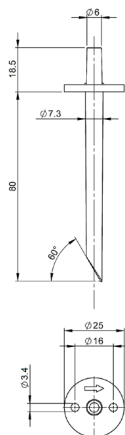
**Mounting bracket 6482**



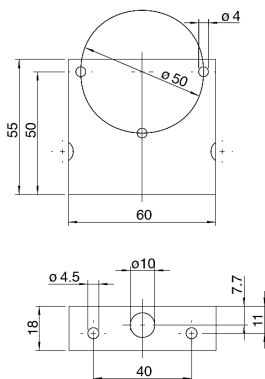
**Climaset®  
6550/6556**



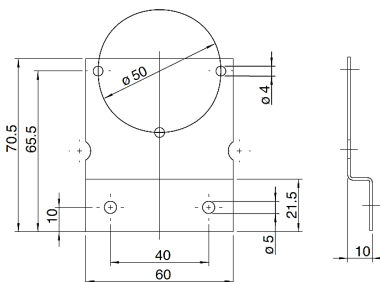
**Climaset®  
6555/6557**



**Mounting bracket 6401**



**Mounting bracket 6402**



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