# The adjustable differential pressure switches. 



# Differential pressure switch 930.8x Climair ${ }^{\circledR}$ 

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. 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

With this pressure switch the switching pressure can be adjusted without a pressure gauge using a scaled adjustment knob. The switching differential can also be adjusted with a screwdriver.

| Type | Adjustment range for <br> upper switching <br> pressure <br> from to |  | Switching <br> differential <br> set to | Tolerance for <br> upper and lower <br> switching pressure |
| :--- | ---: | :--- | :--- | :--- |
| 930.80 | $20 \quad 200 \mathrm{~Pa}$ | 10 Pa | $\pm 15 \%$ |  |
| 930.84 | 30 | 400 Pa | 15 Pa | $\pm 15 \%$ |
| 930.83 | $50 \quad 500 \mathrm{~Pa}$ | 20 Pa | $\pm 15 \%$ |  |
| 930.85 | $200 \quad 1000 \mathrm{~Pa}$ | 100 Pa | $\pm 15 \%$ |  |
| 930.86 | $500 \quad 2500 \mathrm{~Pa}$ | 150 Pa | $\pm 15 \%$ |  |
| 930.87 | $1000 \quad 4000 \mathrm{~Pa}$ | 250 Pa | $\pm 15 \%$ |  |

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 AMP connection 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 $-20^{\circ} \mathrm{C}$ to $+85^{\circ} \mathrm{C}$.
Storage temperature from $-40^{\circ} \mathrm{C}$ to $+85^{\circ} \mathrm{C}$.

## Diaphragm material

Silicone, tempered at $200^{\circ} \mathrm{C}$, 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 made of PA 6.6.
Cover made of PS.

## Weight

With cover 150 g
Without cover 110 g

## Mechanical working life

Over $10^{6}$ switching operations.

## Electrical rating

Standard version Low-voltage version
max. 1.0 A $(0.4 \mathrm{~A}) / 250 \mathrm{VAC}$
max. 0.1 A / 24 VDC

## Electrical connections

AMP flat plug $6.3 \mathrm{~mm} \times 0.8 \mathrm{~mm}$ in accordance with DIN 46244 or push-on screw terminals.
Cable conduit PG-1 1 or $\mathrm{M} 20 \times 1.5$ with cable strain relief.

## Arrangement of contacts



1 Break contact
2 Operating contact
3 Power supply line

## Protection category

IP 54 with cover
IP 00 without cover

## Approvals

CE marking according to EC Low Voltage Directive 73/23/EEC.

## Accessories

See order matrix.

## Order matrix

| Pressure ranges | 20 to 200 Pascal ( 0.2 to 2.0 mbar ) <br> 30 to 400 Pascal ( 0.3 to 4.0 mbar ) <br> 50 to 500 Pascal ( 0.5 to 5.0 mbar ) <br> 200 to 1000 Pascal ( 2.0 to 10.0 mbar) <br> 500 to 2500 Pascal ( 5.0 to 25.0 mbar) <br> 1000 to 4000 Pascal ( 10 to 40 mbar ) | $\begin{aligned} & 0 \\ & 4 \\ & 3 \\ & 5 \\ & 6 \\ & 7 \end{aligned}$ |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Switching contacts | gold-plated for low voltages, screw terminals enclosed up to maximum 1.0 A (0.4) / 250 VAC, screw terminals enclosed up to maximum $1.0 \mathrm{~A}(0.4) / 250 \mathrm{VAC}$ with $6.3 \times 0.8 \mathrm{~mm}$ flat plugs gold-plated for low voltages with $6.3 \times 0.8 \mathrm{~mm}$ flat plugs |  | 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 | IP 54 with cable conduit PG-11 <br> IP 54 with cable conduit M $20 \times 1.5$ <br> IP 54 with cable conduit NPT1/2" <br> IP 00 without cover |  |  |  |  | 1 2 3 4 |  |  |
| Packaging | bulk packed, 45 pcs. per carton bulk packed, folding boxes included individually boxed |  |  |  |  |  | 1 2 3 |  |
| Accessories | without accessories <br> with S-shaped metal mounting bracket 6402 <br> with L-shaped metal mounting bracket 6401 <br> with Climaset ${ }^{\circledR} 6555$ <br> with Climaset ${ }^{\circledR} 6550$ <br> with S-shaped metal mounting bracket 6402 and Climaset ${ }^{\circledR} 655$ <br> with S-shaped metal mounting bracket 6402 and Climaset ${ }^{\circledR} 6550$ <br> with L-shaped metal mounting bracket 6401 and Climaset ${ }^{\circledR} 6555$ <br> with L-shaped metal mounting bracket 6401 and Climaset ${ }^{\circledR} 6550$ <br> with S-shaped snap-on plastic bracket 6482 <br> with L-shaped snap-on plastic bracket 6481 <br> with S-shaped snap-on plastic bracket 6482 and Climaset ${ }^{\circledR} 6555$ <br> with S-shaped snap-on plastic bracket 6482 and Climaset ${ }^{\circledR} 6550$ <br> with L-shaped snap-on plastic bracket 6481 and Climaset ${ }^{\circledR} 6555$ <br> with L-shaped snap-on plastic bracket 6481 and Climaset ${ }^{\oplus} 6550$ |  |  |  |  |  |  | $\begin{aligned} & 1 \\ & 2 \\ & 2 \\ & 3 \\ & 4 \\ & 5 \\ & 5 \\ & 6 \\ & 7 \\ & 8 \\ & 9 \\ & \text { A } \\ & \text { B } \\ & \text { C } \\ & \text { D } \\ & \text { E } \\ & \text { F } \end{aligned}$ |

## Accessories

Metal mounting bracket S -shaped
Metal mounting bracket L -shaped
Snap-on plastic bracket $S$-shaped
Snap-on plastic bracket L-shaped
Climaset ${ }^{\oplus}$ consisting of 2 mPVC hose and 2 plastic tubes
Climaset ${ }^{\oplus}$ consisting of 2 m Silicone hose and 2 plastic tubes
Climaset ${ }^{\oplus}$ consisting of 2 mPVC hose and 2 angled metal pipes
Climaset ${ }^{\oplus}$ consisting of 2 m Silicone hose and 2 angled metal pipes
Set consisting of three push-on screw terminals
Plastic tube for Climaset 6555
Angled metal pipe for Climaset 6550
Rubber grommet for Climaset 6550
Roll with 100 m PVC hose
PG-1 1 cable conduit including sealing and counter screw
M20x1.5 cable conduit including sealing and counter screw
NPT1 / ${ }^{\prime \prime}$ " cable conduit without counter parts
Cardbox for single packing (without accessories)
Cardbox for single packing (with accessories)

Article No. 6402
Article No. 6401
Article No. 6482
Article No. 6481
Article No. 6555
Article No. 6557
Article No. 6550
Article No. 6556
Article No. 6415
Article No. 6551
Article No. 6552
Article No. 6553
Article No. 6424
Article No. 6358
Article No. 6568
Article No. 6561
Article No. 6428
Article No. 6429

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