

Differential Air Pressure Switches



The 930 range of Low Differential Pressure Switches are used in air conditioning systems to measure fan status and filter conditions.

The pressure switches measure pressure medium, air and non-inflammable, non-aggressive gasses and include an adjustment knob marked in pascals to indicate the pressure range. This manually adjustable and visible setpoint requires no manometer to set up. There is also a close switching differential feature on all the switches in the 930 range.

For greater protection an IP65 rated option is available. The IP65 rating is achieved by three fastening screws in the cover, an additional seal on the cable conduit and a further seal between the cover and the basic housing.

All switches include a duct fixing kit and an optional plastic or metal fixing bracket is available.

Specification

Material Body:	IP54 housing (IP65 option available)
Max Operating Pressure:	5000 Pa WC (30"WC)
Pressure Connections:	5mm ID push on tubing
Electrical Rating:	1.5A (0.4)/ 250V AC
Operating Temperature:	-40 - +100°C
Connections:	Spade terminals and screw terminal adaptors for cable up to 1.5mm max
Dimensions:	85mm x 58mm
Product Codes:	See below

Product Codes

Product Code Standard Housing	Product Code IP65 Housing	Range Pascals WC	Inches WC	Constant Switching Differential
930-80-ATP-300	930-80-ATP-300/IP65	20 - 300	0.08-1.2	10
930-83-ATP	930-83-ATP/IP65	50 - 500	0.20-2.0	20
930-85-ATP	930-85-ATP/IP65	200 - 1000	0.80-4.0	100

Installation

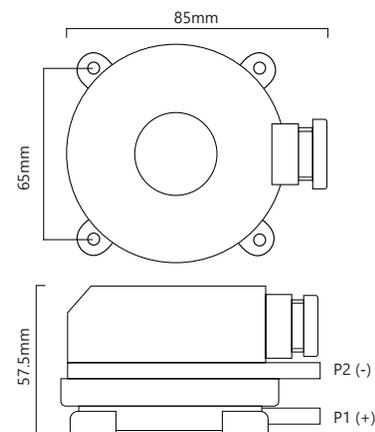
- The switch must be installed in a position free from vibration
- Do not install in a corrosive atmosphere
- Vertical or horizontal mounting is acceptable
- Use the 4 fixing lugs provided to secure to any flat surface. Do not overtighten fixing screws, this could distort the switch housing causing a shift in the switching setpoint. Alternatively use the 4 fixing points in the base of the switch. Use only correct screw size i.e M4 x 8 otherwise you risk penetrating the pressure capsule of the switch or distorting the switch housing causing a shift in the switching setpoint.

Connections

For Differential Pressure: Connect Low Pressure Supply to port marked P2. Connect High Pressure Supply to port marked P1.

For Pressure only (pressure supply must be above atmospheric pressure): Connect High Pressure Supply to port marked P1, leave P2 open to atmosphere. For Vacuum/negative Pressure (pressure supply must be below atmospheric pressure). Connect Low Pressure Supply to port marked P2, leave P1 open to atmosphere.

Dimensions



Cable Entry

Adjustable for 3 positions. Rotate cover with gland nut to required position after making all necessary electrical connections. Ensure adequate wire lengths are used to allow required cable entry position without straining switch connections. Fasten cable entry connector gland nut and the cover securely.

Pressure Switching Point Setting

Remove cover if fitted. The Pointer (a red arrow) indicating the pressure setting point is in line with the pressure port connections P1 and P2. Rotate pressure selection knob until desired trip pressure is opposite the set point indicator.

Please remember that with switches mounted vertically the switch actuation point will vary by approx. 20Pa from the indicated pressure on the adjustment knob. Replace cover and reinstate electrical supply if safe to do so.

Make final check that pressure connections remain secure at both switch and pressure source and check all tubing to ensure there are no sharp bends or kinks, tubing should be supported where necessary.