



Features and Technical data

PSS-series air differential pressure switch is a high sensitivity for low differential pressure switching applications.

The air differential pressure switch PSS-series is suitable for use in air conditioning systems to provide an indication of fan status or 'filter dirty' condition.

The switching knob of PSS air differential pressure switch is mounted under the cover to avoid tampering, the scale is individually laser etched for high accuracy.

The air differential pressure switch PSS-series have a silicon rubber between the grey base and the transparent cover to achieve protection class IP65.

4 different types

PSS 20-300

Air differential pressure switch with protection class IP65, adjustment pressure range 20 to 300 Pa

PSS 50-500

Air differential pressure switch with protection class IP65, adjustment pressure range 50 to 500 Pa

PSS 100-1000

Air differential pressure switch with protection class IP65, adjustment pressure range 100 to 1000 Pa

PSS 500-2000

Air differential pressure switch with protection class IP65, adjustment pressure range 500 to 2000 Pa

Duct fixing kit included in scope of delivery for air differential pressure switch PSS-series

Duct fixing kit includes:

2 meter plastic tubing

2 x pitot tubes

4 x fixing screws.

Max. operating pressure 50 mbar (5000Pa)

Pressure connections 6 mm ID push-on tubing), P1 = Hi and P2 = Lo

Max. operating pressure 50 mbar (5000Pa)

Electrical rating 5A(0.8A)/230Vac or 2A@30Vdc

Connections screw terminals

Dimensions 81 mm diameter x 52 mm high

Housing material plastic moulding

Fixing metal mounting bracket

Protection IP65

Ambient range -30°C to +85°C

Installation category IEC 664 Category II

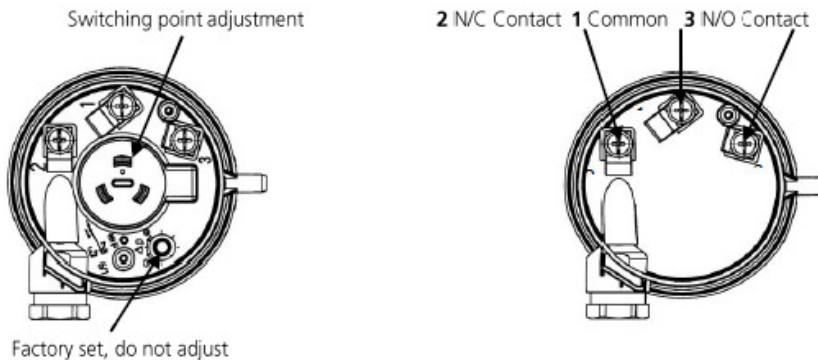
Installation

1. The PSS should only be installed by a competent, suitably trained technician, experienced in installation with hazardous voltages. (>50Vac & <1000Vac or >75Vdc & 1500Vdc)
2. Ensure that all power is disconnected before carrying out any work on the PSS.
3. It is recommended that the unit be mounted vertically, with the pressure ports pointing downwards (Fig. 1). If the unit is mounted horizontally (Fig. 2) with the cover uppermost, the switching points will be 11Pa higher than the scale reading. If the unit is mounted horizontally (Fig. 3) with the cover facing downwards, the switching points will be 11Pa lower than the scale reading.

4. Fig.1 Fig. 2 Fig. 3



5. If mounted externally, it is recommended that the unit be mounted with the cable entry at the bottom. If the cable is fed from above then into the cable gland at the bottom, it is recommended that a rain loop be placed in the cable before entry into the housing.
6. Remove the cover by unscrewing the single screw and terminate as required and set the desired switching pressure on the setting knob using a screwdriver. Replace the cover and tighten the single screw.



7. Push the pressure tubing onto the pressure ports on the unit. Ensure that the Hi and Lo ports have been correctly identified.

- P1 (+) High pressure
- P2 (-) Low pressure



CAUTION

The PSS will be damaged if subjected to excessive pressure. Do NOT test the unit by blowing into the inlet ports.

Applications

If the switch is to be used for filter status monitoring, the pitot tube ends should be cut square. If the switch is to be used for fan status monitoring, the ends of the pitot tube should be cut at an angle of 45°

Fan status monitoring:

The switch can be used across a fan to provide proof of air flow and hence fan status. **Fig. 1** shows how to connect the High and Low pressure ports:

Filter status monitoring:

The switch can be used across a filter to provide dirty filter status. **Fig. 2** shows the connections for this application.

