PA-DPS-9x

IP65 Air Differential Pressure Switch

Features:

- Close switching differential
- IP65 Housing
- Duct fixing kit included

Benefits:

- Switching point easily adjusted with scale in Pascal's
- One screw needed for housing cover

Technical Overview

The PA-DPS-9x range, are high sensitivity air differential pressure switches for low differential pressure switching applications. Suitable for use in air conditioning systems to provide an indication of fan status or 'filter dirty' condition.

The switching knob is mounted under the cover to avoid tampering. The scale is individually laser etched for high accuracy.

For pricing or any further information, please contact Omni Instruments Ltd.

Measurement and data acquisition solutions

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Specification:

Operating ranges:

Type	Adjustment range
PA-DPS-90W	20 - 300Pa
PA-DPS-91W	50 - 500Pa
PA-DPS-92W	100 - 1000Pa
PA-DPS-94W	500 - 2000Pa

Max. operating pressure	50 mbar (5000Pa)
Pressure connections	6mm ID push-on tubing P1 = Hi P2 = Lo
Electrical rating	5A(0.8A)/230Vac or 2A@30Vdc
Connections	Screw terminals
Dimensions	81mm dia. x 52mm
Housing material	Plastic moulding
Fixing	Metal mounting bracket
Protection	IP65
Ambient range	-30°C to +85°C
Installation category	IEC 664 Category II
Origin	Switzerland

CE

The products referred to in this data sheet meet the requirements of 2006/95/EC

Part Codes:

PA-DPS-90W
20 to 300Pa Air DP switch

PA-DPS-91W
50 to 500Pa Air DP switch

PA-DPS-92W
100 to 1000Pa Air DP switch

PA-DPS-94W
500 to 2000Pa Air DP switch

Accessories

DFK
Duct Fixing Kit

TEE
Tee-Piece (pack of 10)

PA-TUBE-8MM
PVC Tube 8mm o/d x 1.5mm Wall, 30m Reel

A 'duct fixing kit' is supplied with the PA-DPS-9x, consisting of 2m of 5mm i/d plastic tubing, 2 x pitot tubes and 4 x fixing screws (see page 4).

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Installation:

1. The PA-DPS-9x should only be installed by a competent, suitably trained technician, experienced in installation with hazardous voltages. (>50Vac & <1000Vac or >75Vdc & 1500Vdc)

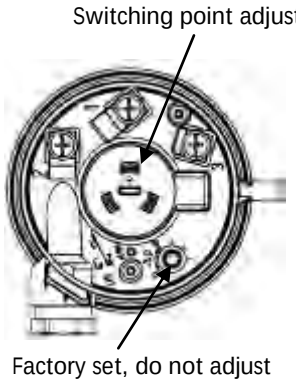
2. Ensure that all power is disconnected before carrying out any work on the PA-DPS-9x.

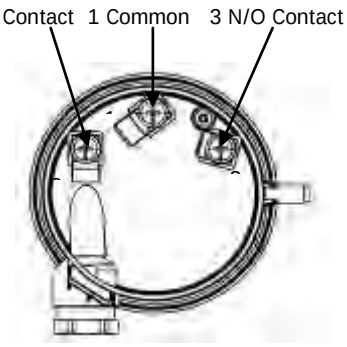
3. 1. It is recommended that the unit be mounted vertically, with the pressure ports pointing downwards (Fig. 1). If the unit is mounted horizontally (Fig. 2) with the cover uppermost, the switching points will be 11Pa higher than the scale reading. If the unit is mounted horizontally (Fig. 3) with the cover facing downwards, the switching points will be 11Pa lower than the scale reading.

Fig.1 Fig. 2 Fig. 3

4. 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.

5. 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.





6. 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 PA-DPS-9x will be damaged if subjected to excessive pressure. Do NOT test the unit by blowing into the inlet ports.

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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.

Fig. 1

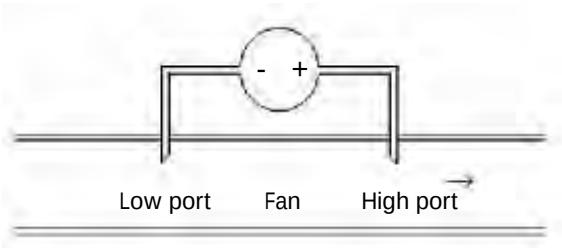
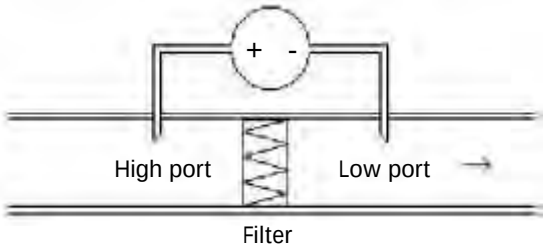


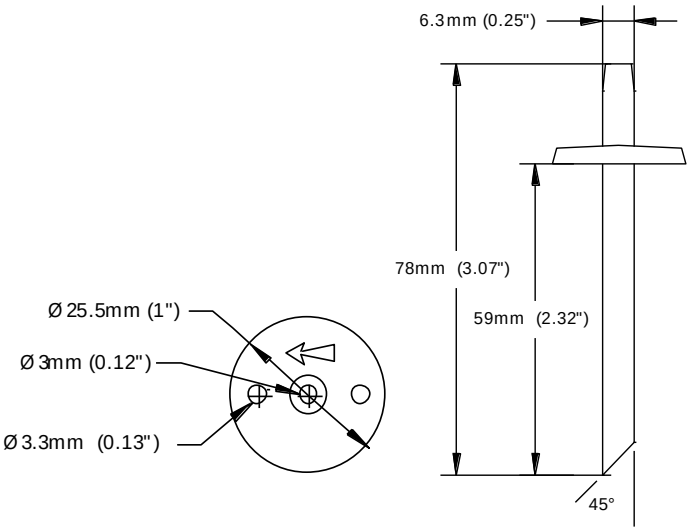
Fig. 2



Duct Fixing Kit:

A 'duct fixing kit' is supplied with the PA-DPS-9x, consisting of 2m of 5mm i/d plastic tubing, 2 x pitot tubes and 4 x fixing screws.

Pitot tube dimensions;



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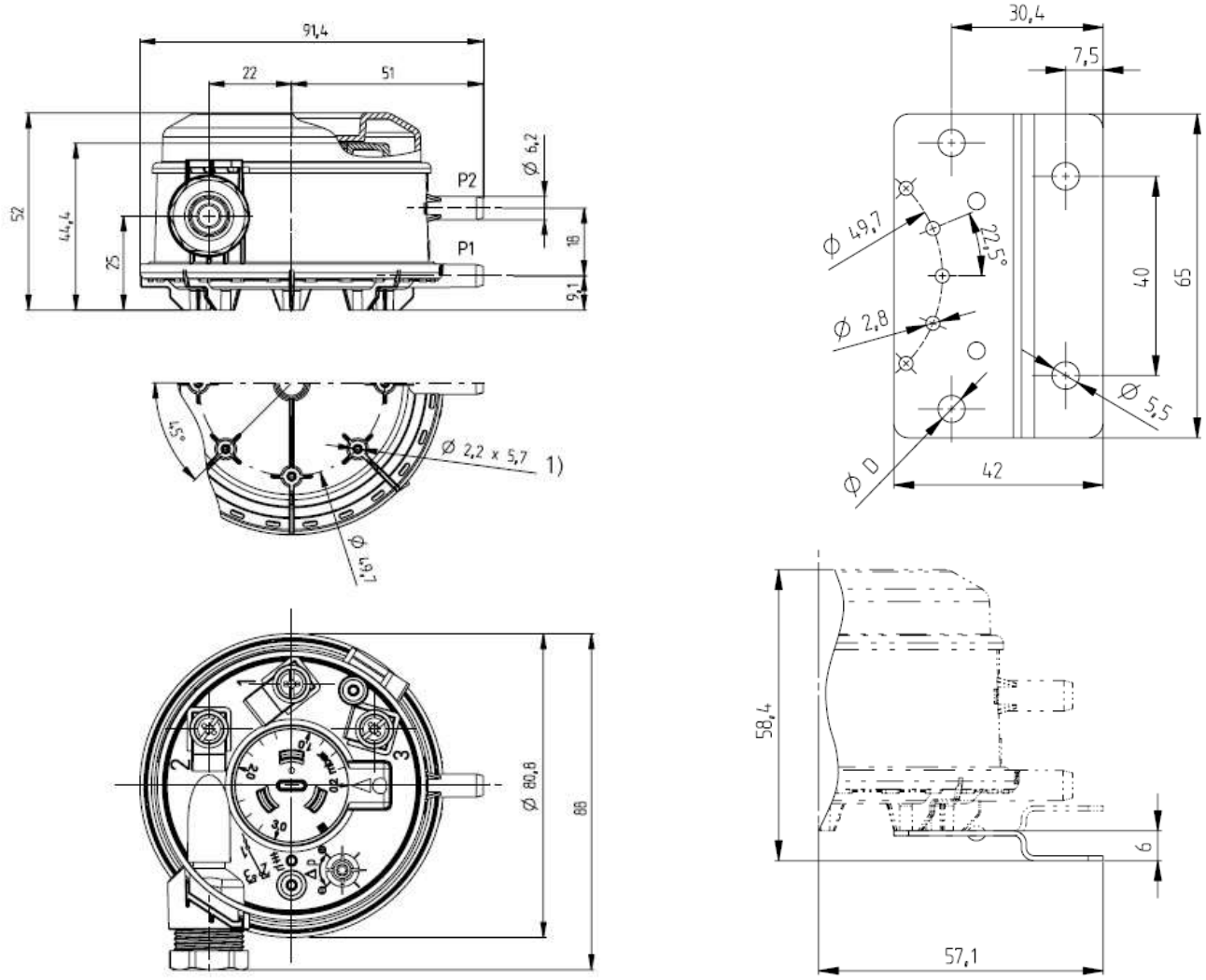
Dimensions:



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