

1. Description.

The **PA-DPS-83 50** is an air differential pressure transmitter. Suitable for low differential pressure switching applications, ideal for providing indication of fan status or "filter dirty" conditions in air, non-combustible, non-aggressive gases in air conditioning and ventilating installations.

The switching knob is mounted under the cover to avoid tampering.



Picture 1 - Product Image

2. Features & Benefits.

- Switching point easily adjusted with scale in Pascals
- Conduit entry can be rotated in steps of 120°
- One screw needed for housing cover
- Close switching differential
- Duct fixing kit included

3. Applications.

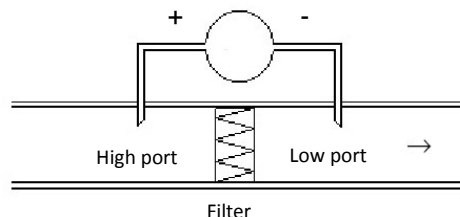
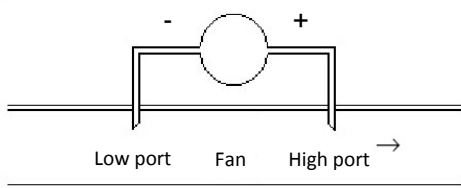
If the switch is to be used for filter status monitoring, the pilot tube ends should be cut square. If the switch is to be used for fan status monitoring, the ends of the pilot tube should be cut at an angle of 45°.

Fan status monitoring.

The switch can be used across a fan to provide proof of air flow and hence fan status. **Picture 2** 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. **Picture 3** shows the connections for this application.



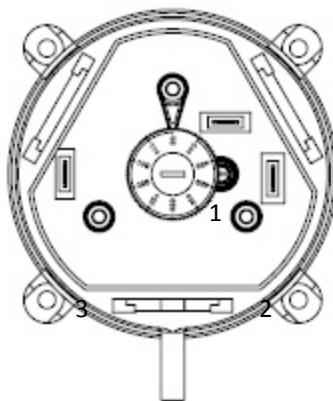
4. Installation.

- The **PA-DPS-83 50** should only be installed by a competent, suitably trained technician, experienced in installation with hazardous voltages ($>50Vac$ & $<1,000Vac$ or $>75Vdc$ & $1,500Vdc$).
- Ensure that all power is disconnected before carrying out any work on the **PA-DPS-83 50**.
- Fix the switch to a suitable flat surface, maximum diameter of the screws must not be bigger than 8mm. Do not over tighten the screws, in order to avoid deformation of the devices base. Mount the pressure switch horizontally (*electrical connectors pointing upwards*) only, if no condensate can form. In this position, the switching values are approximately 20Pa higher as indicated on the scale.
- Remove the cover by unscrewing the single screw.
- Terminate at the crimp-type sockets as required and set the desired switching pressure on the setting knob using a screwdriver.
- Replace the cover and tighten the single screw, it is possible to move the cable entry in steps of 120°.
- Push the pressure tubing onto the pressure ports on the unit. Ensure that the Hi and Lo ports have been correctly identified.
 - P1(+) Over pressure measurement
 - P2(-) Vacuum measurement
 - P1 & P2 Differential pressure measurement

CAUTION

The PA-DPS-83 50 will be damaged if subjected to excessive pressure. Do NOT test the unit blowing into the inlet ports.

5. Connection layout.



- 1 N/C contact
- 2 N/O contact
- 3 Common

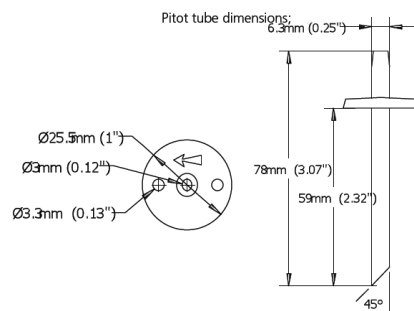
Picture 2 - Connections layout

6. Technical Information.

Measurement range	50 to 500Pa (0.20 to 2" w/c)
Differential	20Pa (0.08" w/c)
Maximum pressure	5,000Pa (20" w/c)
Pressure connections	6mm ID push-on tubing
Electrical rating	1.5A (0.4) @ 250Vac
Approvals	Switch according to VDE0630
Connections	UG1652 Via 6.3mm crimp-type sockets
Cable entry	PG11
Material	Plastic moulding
Dimensions	130 x 130 x 99mm
Ambient	<ul style="list-style-type: none"> Temp: -20 to +85°C RH: 0 to 95% non-condensing
Protection	IP54

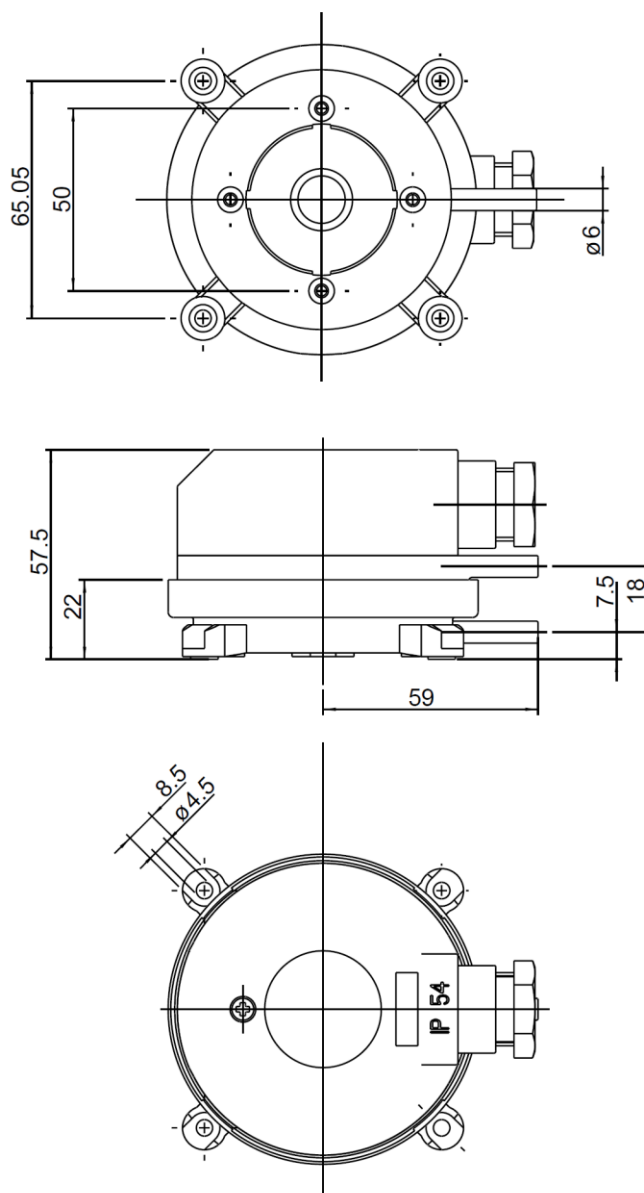
7. Duct fixing kit

A "duct fixing kit" is supplied with the PA-DPS-83 50, consisting of 2m of 6mm i/d plastic tubing, 2 x pitot tubes and 4 fixing screws.



Picture 3 - Duck fixing kit

8. Mechanical dimensions.



Picture 4 - Mechanical dimensions

9. Reference standards.

EN 61010 -1

For electromagnetic compatibility

EN 61000 - 3 - 2

EN 61000 - 3 - 3

EN 300 220 -2

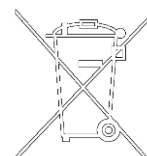
EN 301 489 - 03

EN 61000 - 6 -1

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