

DPS18 series differential pressure switch
Specifications and installation instructions



Applications

DPS18 series differential pressure switches are capably used to monitor the air flow of fans, filters and fans in ventication ducts. It is also suitable for overheat protection of heating coil and frost protection of industrial cooling circuit. The switch can be visually adjusted according to the actual situation.

Possible fields of application include:

- Monitoring air filters and ventilato
- Monitoring industrial cooling-air circuits
- Fan heater overheat protection
- Monitoring flows in ventilation ducts
- Controlling air and fire-protection flaps
- Clean room, intelligent building

Models

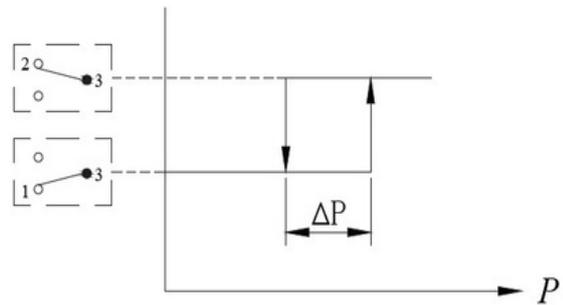
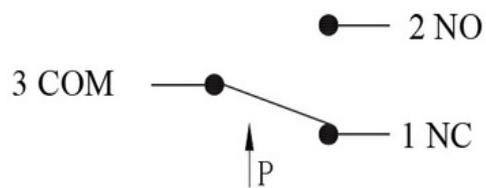
Model	Pressure Range (Pa)	Differential (Pa)	Setting Point Deviation
DPS18-01	20-200	10	≤±15%, min±10Pa
DPS18-02	30-300	10	≤±15%, min±10Pa
DPS18-03	40-400	20	≤±15%, min±10Pa
DPS18-04	50-500	20	≤±15%, min±10Pa
DPS18-05	200-1000	100	≤±15%
DPS18-06	100-1000	50	≤±15%
DPS18-07	500-2500	150	≤±15%
DPS18-08	1000-5000	250	≤±15%

NOTICE: The pressures are accurate when the switch is vertically installed. If installed horizontally with the conection terminals uperward, the pressure of switch will be 20Pa higher. Theswitches were set to the first gear, and the set point can be adjusted by rotating the knob.

Specifications

Max.operating pressure	10kPa (all models)	
Medium	Air, non-combustible and non-aggressive gases	
Weight	With cover 139g; Without cover 100g	
Mechanical life	cycles 1000000	
Wire clip nut	PG11 or M20	
IP grade	IP54 with cover; IP00 without cover	
Temperature range	Medium ambient: -20°C~+85°C, Storage: -40°C~+85°C	
Electrical rating	Resistive (inductive) load: 1.5A (0.4A) /250VAC; 0.1A/24VDC	
Electrical connections	6.35×0.8 Amp standard flat plug or screw terminal	
Pressure connections	External diameter 6 mm, P1(marked +) is higher connection P2(marked -) is lower connection	

Contact Arrangement



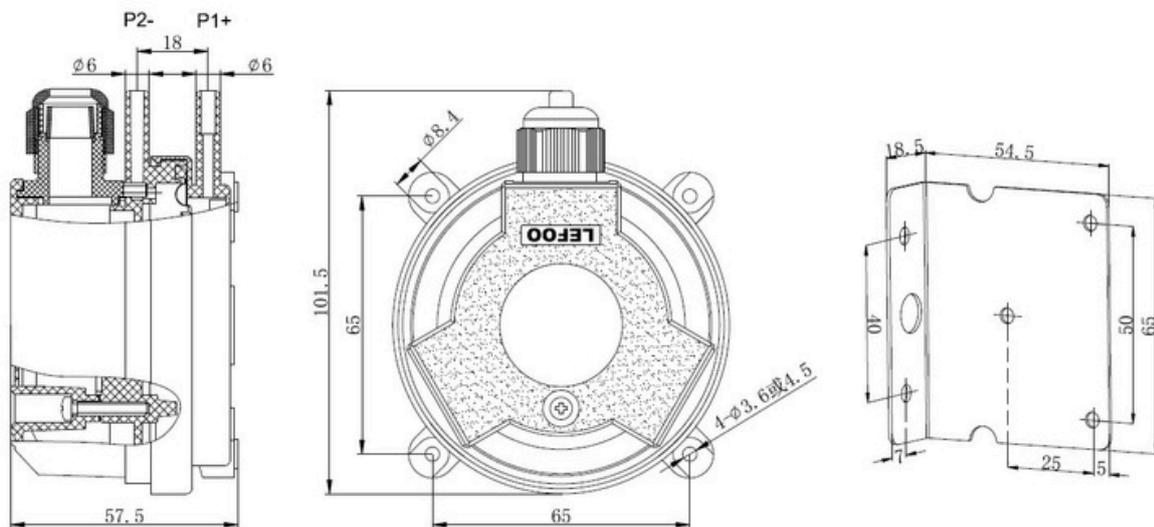
Standard & Certification



Packing List

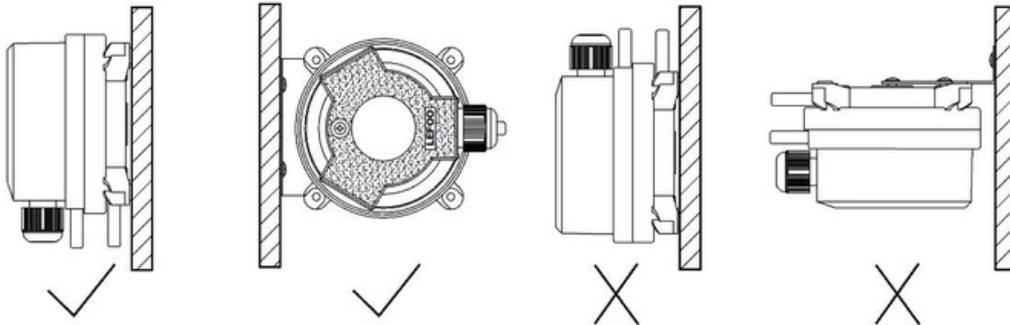
● DPS18 series differential pressure switch	
● 1PCS DPS18 instruction 1PCS Plastic tube	
● 2PCS and Mounting screw 4PCS	
● 1.5m PVC hose	
● Ltype metal bracket 1PCS (optional) Bracket screw 4PCS (optional)	
● Female quick plug terminal 3PCS	
Standard Accessories	

Dimensions



Installation Guide

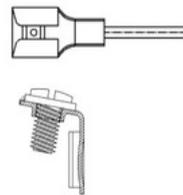
1. Recommended installation : Vertical installation with the interface facing downwards, which can prevent dust and condensation from entering the switch ; if the switch installed horizontally with the cover upward, the pressure of switch will be 20Pa higher. It is NOT recommended to install switches horizontally with the cover facing downwards.



2. Wiring : AMP plug connection or Screw connection, the force of plug and the torque of screw should be controlled according to the following diagram.



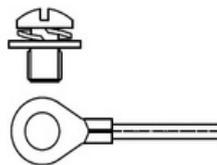
Plug connection



- ①: The inserting force $\leq 76\text{N}$
- ②: The recommended max. torque is $0.7\text{N}\cdot\text{m}$



Screw connection

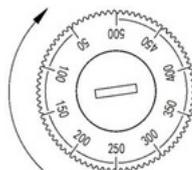


- ①: Wire with M4 OT terminals
- ②: The recommended max. torque is $1\text{N}\cdot\text{m}$

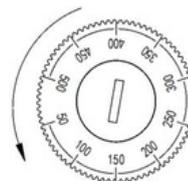
3. The max. operating pressure of all DPS18 models is 10kPa, it may cause abnormal performance by operating under overpressure.
4. The recommended length of hose is within 2 meters, and the hose should not be knotted under any circumstances, otherwise the switch will not work properly.
5. It is strictly prohibited to connect the hose and interface in reverse, otherwise the switch will not work properly.
6. The recommended outer diameter of cable is 5~10mm; the recommended torque for tightening the cover screw is $1\text{N}\cdot\text{m}$.
7. Dropping or being impacted may damage the switch structure.
8. Adjusting the knob clockwise to increase the pressure or anticlockwise to decrease .



Factory setting



Increase



Decrease