- DIFFERENTIAL PRESSURE METER

The selection is detailed on page 3

# DPT50 Differential Pressure Transmitter

#### Working principle

The waiting medium pressure is transmitted through the standard process connector and then affects the internal pressure sensor element. Internal electronics convert raw transmitter signals into filtered, amplified, temperature compensated and standardized signals such as 4... 20mA signal, etc. The output signal is transmitted to the next unit for signal processing via standardized connectors or cables.

#### **Product application**

Fans and blowers, filters Furnace body ventilation, clean room pressure Smoke mask control

Oven pressurization, medical equipment

#### **Product description**

DPT50 differential pressure meter adopts high precision transmitter and digital technology, easy installation, liquid crystal display, clear and accurate reading. Suitable for measuring the pressure of fans and blowers, filter resistance, wind speed, furnace body ventilation, orifice plate, medical equipment and other pressure difference; Optional switching output relays or NPN or PNP versions for flexible external control of other devices.

#### **Product description**

Input non-polarity: The input voltage source is connected in both positive and negative directions

Selected excellent materials, using flame retardant ABS injection molding shell, with good impact resistance, heat resistance and heat resistance

Measuring range :0~±100Pa/0~±1,000Pa/0~±10,000Pa

Accuracy :±1.0%FS

Multiple pressure units can be switched

Intuitive large display LCD

Manual key differential zero calibration

Manually press keys to restore factory Settings

View the lowest and highest pressure readings

Field programming digital damping filtering degree

The built-in buzzer provides audible and visual alarm, and can be programmed to alarm the pressure value on site

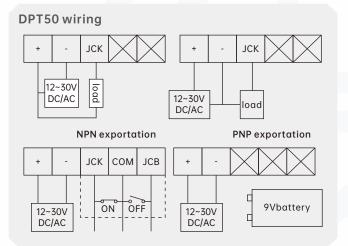
Adjustable range of pressure values for upper and lower limits of switching output type (DPT51 series only)



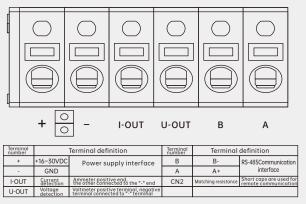
#### **Technical parameter**

| precision             | +1.0%FS   |                     |  |  |  |
|-----------------------|---|---------------------|--|--|--|
| Pressure unit         | Pa, kPa, mbar, mmHG, inWC, mmWC   |                     |  |  |  |
| Power supply          | Input voltage is 10~30VAC/VDC, 24VDC adapter (3.5×1.35mm) power supply; |                     |  |  |  |
|                       | Internal 9V battery (6F22 battery) powered (DPT50 only)                 |                     |  |  |  |
| Power dissipation     | 0.75 W or less  |                     |  |  |  |
| Measuring medium      | Air and neutral media   |                     |  |  |  |
| Service temperature   | - 10 ~ + 60 °C  |                     |  |  |  |
| Storage temperature   | - 10 ~ + 70 °C  |                     |  |  |  |
| Allowable overvoltage | range   | Overload capacity   |  |  |  |
|                       | -1000~+1000Pa   | -15,000~+15,000Pa   |  |  |  |
|                       | -10,000~+10,000Pa   | -150,000~+150,000Pa |  |  |  |
|                       | -100~+100Pa   | -4500~+4500Pa       |  |  |  |

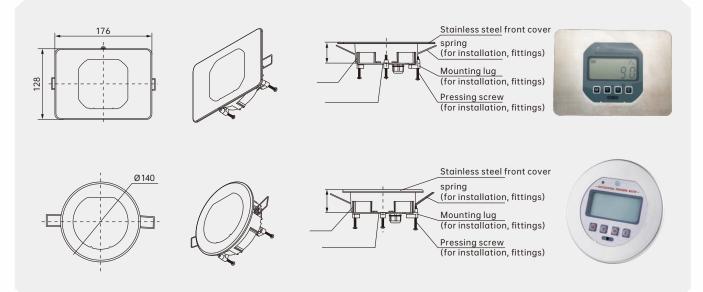
### **Connection mode**



## DPT51 wiring



#### Size mm





|                   | Selec    | tion exar        | mple <b>DF</b>                              | 150                            | A /<br>1 2      | и / п / S / U<br>з 4 5 |  |
|-------------------|----------|------------------|---|--------------------------------|-----------------|------------------------|--|
| 1.Measuring range | Α        | -1,000~1,000Pa   |   |                                |                 |                        |  |
|                   | -10,0    | -10,000~10,000Pa |   |                                |                 |                        |  |
|                   | С        | -100~100Pa       |   |                                |                 |                        |  |
| 2.Precisio        | n class  | s M ±1.0%FS      |   |                                |                 |                        |  |
| 3.Output signal   |          | signal           | н   | Relay Output                   |                 |                        |  |
|                   |          | I                | NPN Output                                  |                                |                 |                        |  |
| L                 |          |                  | PNP Output                                  |                                |                 |                        |  |
|                   |          | К                | 4~20mA and 0~5V/0~10V (simultaneous output) |                                |                 |                        |  |
|                   |          | L                | 4~20mA/ Three-wire system                   |                                |                 |                        |  |
|                   |          |                  | М   | 0~10V/ three wire system       |                 |                        |  |
|                   |          |                  | N   | 0~5V/ Three wire system        |                 |                        |  |
|                   |          | 0                | RS-485 Communication                        |                                |                 |                        |  |
|                   |          | Р                | 0~10V and RS-485 communication              |                                |                 |                        |  |
|                   |          | Q                | 0~ 5V and RS-485 communication              |                                |                 |                        |  |
|                   |          | R                | 4~20mA and RS-485 communication             |                                |                 |                        |  |
|                   | 4.Intake |                  | mode  | S Front panel intake           |                 |                        |  |
| 5.Mounting        |          |                  | Т   | Rear p                         | anel air intake |                        |  |
|                   |          | 5.M              | 5.Mounting panel                            |                                | U               | Plastic panel (round)  |  |
|                   |          |                  | V   | Stainless steel panel (square) |                 |                        |  |

#### Instructions:

DPT50 differential pressure transmitter, measuring range: -1,000~1,000Pa, accuracy class ±1.0%FS, relay output, front panel intake, plastic panel.

#### **Product Certification**

Compliance and approval; Rodeweig pressure gauges meet key standards and certifications for process measurement technology; Thus guaranteeing the highest reliability in such Settings;

