



# HBS-101

## Differential Pressure Transducer

Here referred to as DPT

### Features

- Adopt high precision MEMS imported sensor
- Wide temperature compensation, sensitive pressure response
- Available in with or without LCD display
- Wide range, customizable
- Set the zero calibration button
- Three outputs :4-20mA , 0-5VDC/0-10VDC , RS-485
- Multiple pressure interfaces: 8mm/φ6mm/φ4mm
- Good stability
- Compact size for easy installation

### Structure design

HBS-101 DPT consists of the following components:

- Sensor mounting bracket, cable inlet, removable buckle cover with safety screws.
- The pressure is measured with a silicon piezoresistive element.
- Zero adjustment button.

### Operating mode

The sensor obtains the differential pressure value through the silicon piezoresistive element. The sensor forms linear 4-20mA / 0-5V / 0-10V temperature compensation output model or digital RS-485 communication through the induced deviation value.

### Applications

- Laboratory control automation
- Clean engineering
- Armarium
- HVAC
- Duct fans
- Building automation system

## Specifications

### Product data

Measuring Range	See“Order information”
Sensing Element	Silicon piezoresistive element
Indoor Temperature	20...25°C, Measurement During Proper Installation (FS=Full range measurement)
Accuracy	1%FS
Pressure media	Air or non-conductive, non-explosive gases
Pressure media temperature	-20 to 70°C
Maintain	Secular stability
Weight	153.1g

### Electrical characteristics

Power Supply	Safe ultra-low voltage
Voltage	4-20mA: 12-30VDC 0-10V: 16-30VDC / 12-24VAC RS-485: 12-30VDC / 12-24VAC
Power draw	<1.5W
Signal output	4-20mA, 0-5VDC/0-10VDC, RS-485
Load	≤250Ω
Input	Non-isolated power Non-polar Two-wire system,Rectifier bridge to prevent the reverse.

### Environmental data

Operating Temperature	-20~70°C
Compensated Temperate	-10~60°C
Storage Temperature	-20~70°C
Ingress protection (IP) rating	IP54

### Electrical connection

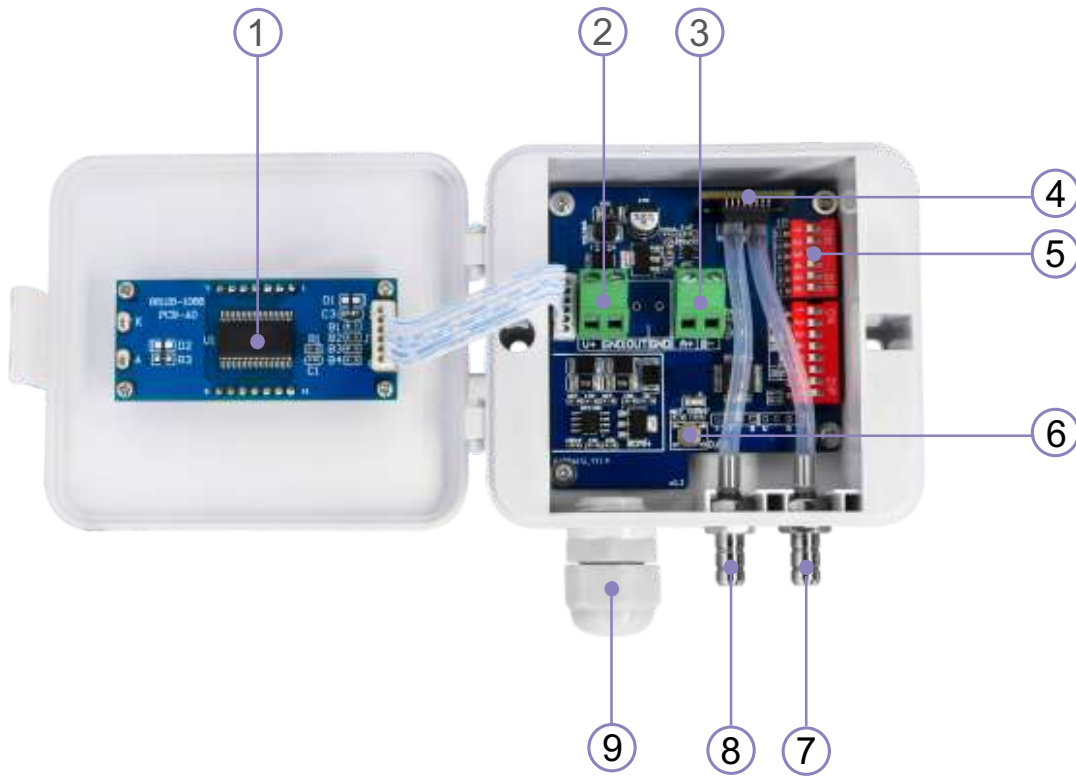
Screw Terminal	Max.1.5mm <sup>2</sup> cable
Wire	Shielded four core wire
Pressure Connection	Deluge nozzle, diameter of 6.2mm

### Regulatory compliance

EU:CE, RoHS

## Functional

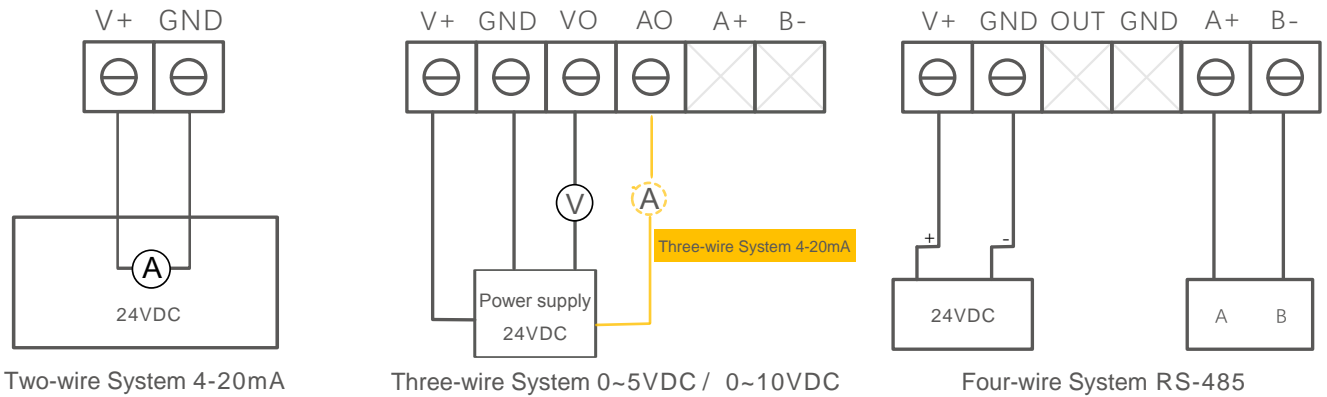
Example: RS-485 output



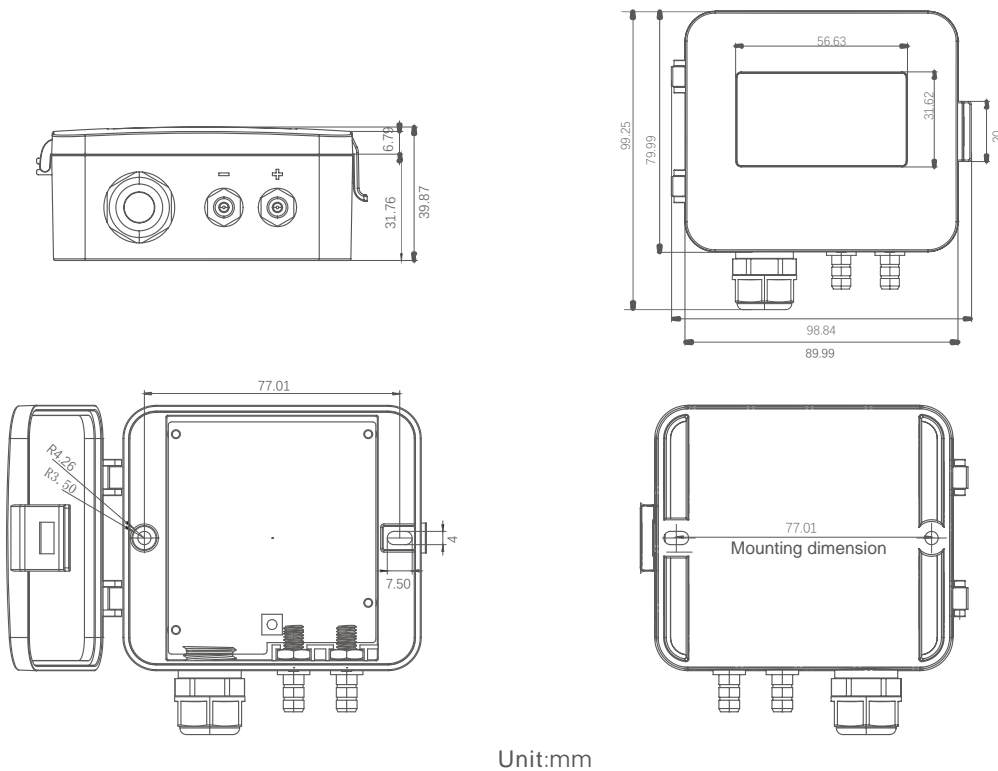
No.	Function
1	Display window
2	Power port
3	Signal port
4	High and low internal connection ports
5	Dip switch, set the ID address
6	Zero button
7	“+” High voltage port
8	“-” Low voltage port
9	Terminal Lead Outlet



### Wiring connection



### Outline & Installation diagram



First mark the installation hole on the wall with the back scale, drill a 30mm deep Ø6mm wall hole to place the expansion tube, then open the differential pressure transmitter latch, open the cover, fix the self-tapping screw (ST3.5×25) on the designated position on the wall through the fixing hole of the differential pressure transmitter, connect the inlet and outlet wires through the waterproof connector, and finally cover the cover.

Note: Please read the instructions carefully and operate according to the wiring diagram. If the product is damaged due to wiring reasons, it cannot be guaranteed.