

# HPT701 PRESSURE • DATASHEET•

### **HPT 701**

## Standard Industrial Air Differential Pressure Transmitter

#### Applications

- · HAVC Air differential pressure
- · Wind pipe pressure measurement
- · Wind machine
- · Industrial dust removal equipment
- Purification plant
- · Blow down expander
- · Leak detection device

#### Features

- · Pressure sensitive
- · Digital temperature compensation
- · Imported chip assembled
- · Strong anti-humidity and water-resistance
- IP65 enclosure
- · Advanced circuit linearity
- · Compact and easy to install





#### Profiles

HPT701 differential pressure transmitter is designed for monitoring pressure or differential pressure in industrial and OEM applications.

This differential pressure transmitter adopts imported chip and is made by advanced technology and processes. The circuit linearity and temperature compensation technologies make it better performance. It is compact with stable structure and light weight. This product is suitable for the pressure or differential pressure measurement of various dry and non-corrosive gases with high measurement accuracy, widely used in many fields such as electrical power, environmental protection, dust removal, textile, leakage detection and etc.

Its installation is very simple. There are M4 screw mounting holes on both sides of the housing, and the air nozzle is also threaded. The user can choose to fix it with screws or M10×1.5 nuts.

| Measuring range |  |  |  |  |  |  |
|-----------------|--|--|--|--|--|--|
| bar             | 0-0.001bar2bar max or $\pm$ 0.001bar1bar |  |  |  |  |  |
| KPa             | 0-0.1KPa200KPa max or $\pm$ 0.1KPa100KPa |  |  |  |  |  |
| Pa              | 0-100Pa200000pa max or $\pm$             |  |  |  |  |  |



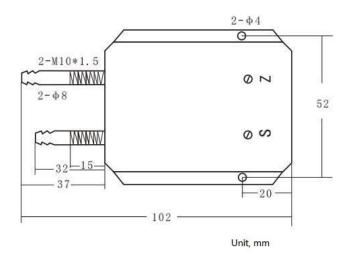
#### Specifications

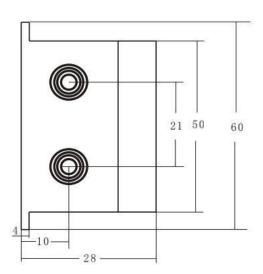
Ambient Temperature: 25°C (unless specified)

| Parameter             | HPT701   |                 |         |          |   |  |
|-----------------------|--|-----------------|---------|----------|---|--|
| Pressure Range        | 0-100Pa200KPa max or $\pm$ 100Pa200KPa                 |                 |         |          |   |  |
| Accuracy              | 0.5%F.S typical;<br>0.25%F.S(By customized) optional   |                 |         |          |   |  |
| Working Temp.         | -10℃~80℃ at  | -10℃~80℃ at 25℃ |         |          |   |  |
| Temp. compensation    | -10℃~80℃   |                 |         |          |   |  |
| Medium compatible     | Dry and non-corrosive gases                            |                 |         |          |   |  |
| Electrical wire       | 2 Wires  |                 | 3 Wires |          | 4 Wires   |  |
| Output                | 4-20mA   | 0-5V            | 0-10 V  | 0.5-4.5V | RS485 Modbus RTU  |  |
| Power Supply          | 8-30V with potentiometer; 24-30V without potentiometer |                 |         | 5Vdc     | 8-30V with potentiometer;<br>24-30V without potentiometer |  |
| Electrical connection | Fixed cable outlet                                     |                 |         |          |   |  |
| IP Rating             | IP65   |                 |         |          |   |  |
| Pressure connect port | Ф8 gas port, Ф6 gas port , quick connector optional    |                 |         |          |   |  |
| Pressure Type         | Differential pressure                                  |                 |         |          |   |  |
| Housing materials     | Aluminum   |                 |         |          |   |  |



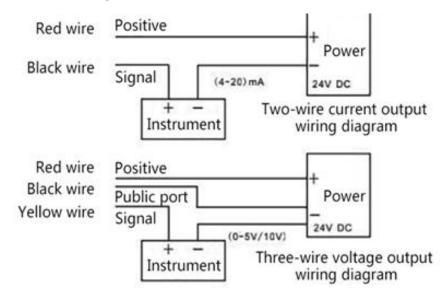
#### Dimensions and Drawing



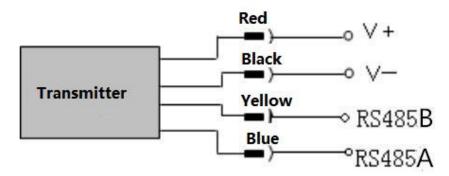


#### Electrical Connections

#### Wiring for current and voltage output



#### Wiring for RS485 output





#### How to Order

#### 1. Pressure Range Selection Table:

| 01 | ±1   | 09 | ±200 | 17 | 25 | 25 | 50  | 33 | 500           |
|----|------|----|------|----|----|----|-----|----|---------------|
| 02 | ±2   | 10 | ±250 | 18 | 30 | 26 | 100 | 34 | 600           |
| 03 | ±5   | 11 | ±300 | 19 | 25 | 27 | 150 | 35 | 700           |
| 04 | ±10  | 12 | 1    | 20 | 30 | 28 | 200 | 36 | 800           |
| 05 | ±20  | 13 | 2    | 21 | 25 | 29 | 250 | Х  | By Customized |
| 06 | ±50  | 14 | 5    | 22 | 30 | 30 | 300 |    |               |
| 07 | ±100 | 15 | 10   | 23 | 25 | 31 | 350 |    |               |
| 08 | ±150 | 16 | 20   | 24 | 30 | 32 | 400 |    |               |

Kindly according to your application select suitable range code , Example: Code 16 = 20 . Unit of measure select on the Part Number Selection Table . Example: Code K=kPa , that's 20KPa.

#### 2. Part Number Selection Table

| <b>701</b> Selection Type | 18   | K                      | <b>E5</b> | S12      | 40 | P1              | 1 | 002 |
|---------------------------|--|------------------------|-----------|----------|----|-----------------|---|-----|
| Pressure range            | Range reference to pressure range selection table code                                 |                        |           |          |    |                 |   |     |
| Pressure unit             | A=Pa K=kPa B=ba  | ar                     |           |          |    |                 |   |     |
| Signal output             | E7=0-10V(3 wire) E5=<br>E6=0-5V(3 wire) E8=<br>E11=RS485 Modbus RT<br>X= By customized | 0.5-4.5V               |           |          |    |                 |   |     |
| Power supply              |  | 24-30Vdc<br>customiz   |           |          |    |                 |   |     |
| Pressure connection       |  | 0= Ø8 gas<br>= By cust |           |          |    |                 |   |     |
| Max static pressure       | P1= Standard by DP R   | ange                   |           |          |    |                 |   |     |
| Accuracy                  | 1=0.5%F.S 2=0.25°  | %(by cust              | omized)   |          |    |                 |   |     |
| Cable length              | 000=Non-Cable 001=   | Cable 1N               | 002= C    | Cable 2M |    | X= By customize | d |     |

#### Accessories

(Notes: Please purchase separately. For the price of accessories, please contact our sales.)

|  | Description  | Order number |
|--|--|--------------|
| ### ################################## | Liquid level display control device  With all kinds of liquid level sensor, measurement according to liquid level, and according to the setting of the container structure and size and the density of liquid, calculation, display liquid volume or quality.  | 0008         |
| KOB                                    | Adapter Converter  It is able to convert RS-232 signal to RS-485 balanced differential signal and extend the communication distance to 1.2km.lt uses a particular pump to gain power from RS-232 signal (RTS, DTR, TXD) without initializing the RS-232 series interface. This interface converter does this without requiring any AC or DC power. | 0005         |
|  | <b>Surge electrostatic protector</b> Anti-surge ±2000V/±4000V, anti-static 18KV, suitable for protecting 4-20mA and RS485 circuits.  | 0014         |
|  | <b>Terminal box</b> The terminal box, with IP67 and watertight ventilation element, provides a moisture-free electrical termination for the submersible pressure transmitter. It should be mounted in dry environment or directly in the switch cabinet.   | 0003         |

#### **Order information**

Model /Measuring range /Output Signal/Medium/Cable length/Case/Accessories