# T2906- Intelligent Differential Pressure Transmitter

## Features

- Advanced monocrystalline silicon differential pressure sensor adopted
- Wide pressure range covering 0-0.2kPa～3MPa
- Double-wire mode, 4～20mA analog output, HART® protocol digital communication option
- Intelligent LCD gauge outfit with backlight
- With both the remote transmission and the local zero and pressure range adjustment
- Complete varieties, high accuracy, good stability,
- Isolation ex-proof housing structure, strong resistance to the frequency conversion interference
- High static pressure, high overload protection
- Patented double overload protection diaphragm design
- Lightning protection circuit design

## Applications and industries

- Process control fields for the industries such as petroleum, chemical industry, metallurgy, electricity, food, papermaking, medicine, machine manufacturing, scientific experiment and military aviation etc.

**Notes:**

1 Do not touch the diaphragm with hard objects, which may cause damage to the diaphragm.

2 Please read the Instruction Manual of the product carefully before installation and check the relevant information of the product.

3 Strictly follow the wiring method for wiring, otherwise it may cause product damage or other potential faults.

4 Misuse of the product may cause danger or personal injury.




## Product overview

T2906 -DP intelligent differential pressure transmitter is a well-developed high performance pressure transmitter based on the international leading technology, adopting the world advanced monocrystalline silicon pressure sensor technology and the patented packaging process. This product adopts the patented double overload protection diaphragm design, with the internal circuit surge protection design, and can accurately measure the gauge pressure, flow, vacuum degree, liquid level and density.

**Notes:**

1 Do not misuse documentation.

2 The information presented in this product sheet is for reference only. Do not use this document as a product installation guide.

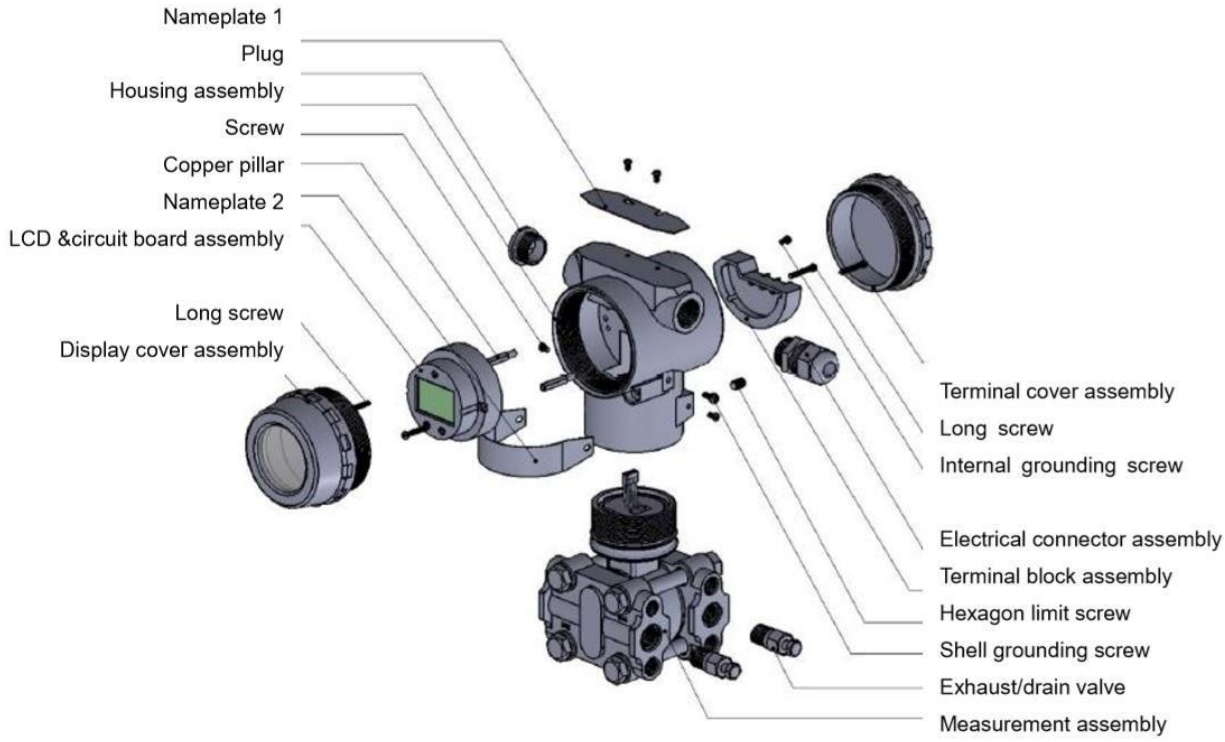
3 Complete installation, operation, and maintenance information is provided in the instructions of the product.

4 Misuse of the product may cause danger or personal injury.

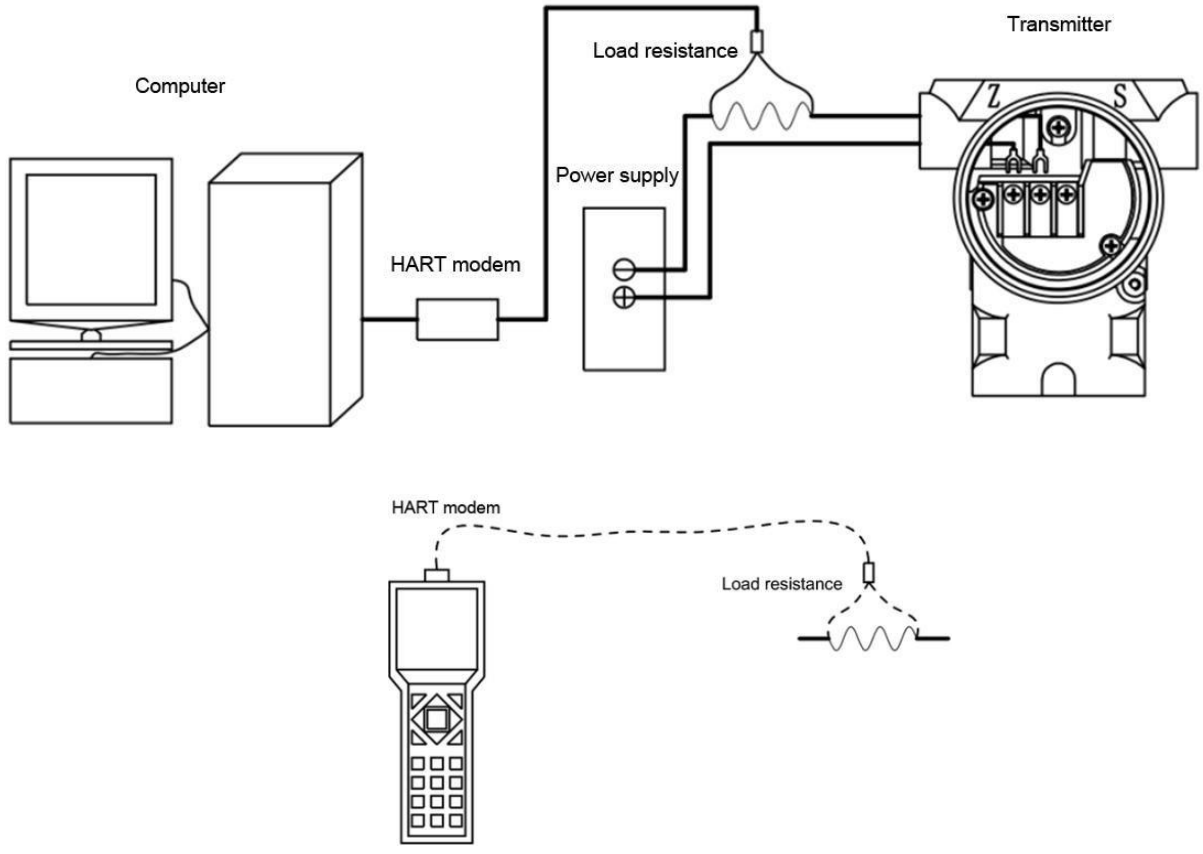
| Performance parameters | |
|---|---|
| Pressure range | -100kPa…0~0.2kPa…3MPa |
| Pressure reference | Gauge pressure, Differential pressure |
| Supply & output | 4～20mA, 4～20mA+HART® protocol (10.5V～36V, usually 24V) |
| Accuracy | ±0.075%FS; ±0.1%FS (typ.) |
| Zero temp. coefficient | ±0.25%FS/55℃ |
| Full span temperature effect | ±0.5%FS/55℃ |
| Ambient temperature | -30℃～80℃; with LCD gauge outfit -30℃～70℃ |
| Medium temp. | -40℃～104℃ |
| Storage temp. | -40℃～85℃ |
| Insulation resistance | ≥100MΩ/500VDC (200MΩ/250VDC) |
| Protection grade | IP65 |
| Ex-proof grade | Exd II BT6 Gb |
| Static pressure range | 16MPa, 25MPa, 40MPa |
| Overpressure limitation | 16MPa |
| Long-term stability | ±0.2%FS/year |

| Structural performance | |
|---|---|
| Diaphragm material | 316L (316L sprayed with PTFE, Hastelloy C, tantalum, only suitable for the flush series of products with flange) |
| Exhaust/Drain valve | SS316 |
| O-ring | Chemigum (contact with the measurement medium) |
| Filling liquid | Silicon oil |
| Flange and clamp block | SS304 |
| Housing material | Die-casting aluminum epoxy resin coating |
| Electrical connection | M20×1.5 (Female), NPT1/2 (Female) |
| Pressure connection | M20×1.5 (Male) with welded pipe, 304 tri-valve set M20×1.5 (Male) with welded pipe |
| | NPT1/4 (Female), 304 tri-valve set NPT1/4 (Female), NPT1/2 (Male), NPT1/2 (Female) |
| | G1/2 (Male) with welded pipe, G1/4 (Male) |
| Weight | 3.5kg (not including the optional accessory) |

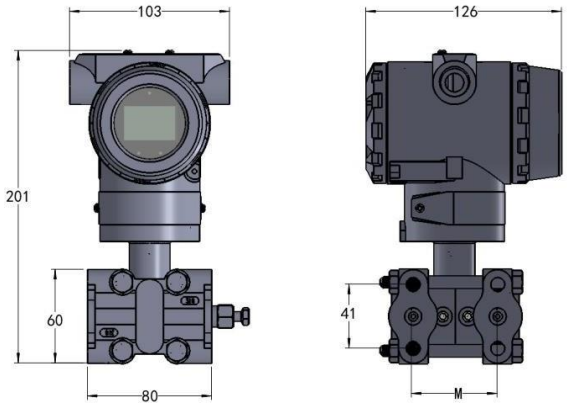
## Component diagram




## HART communication connection diagram



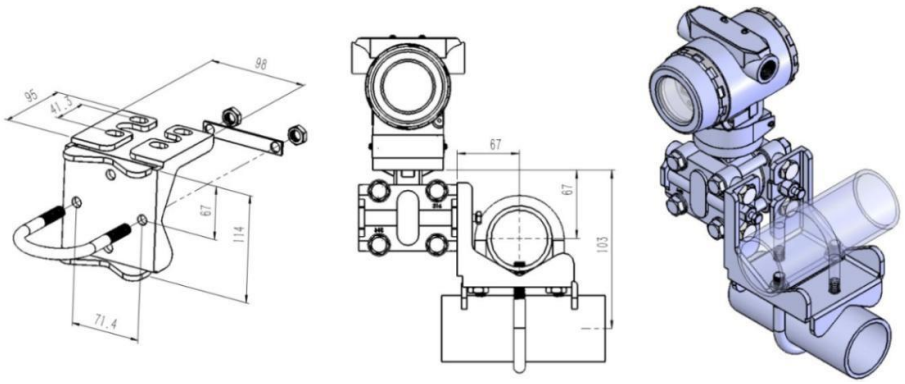
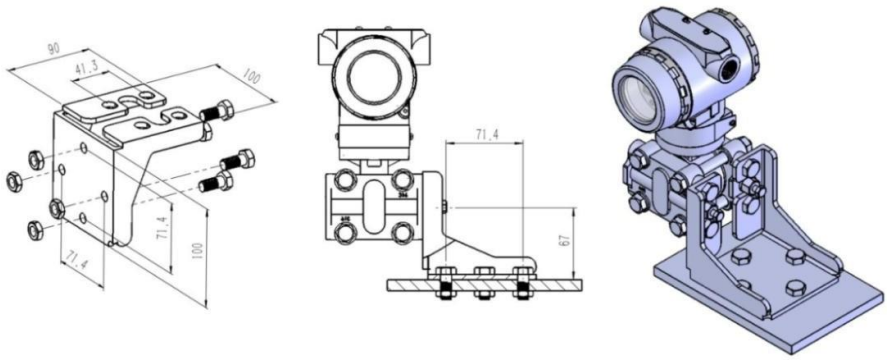
## Outline dimension

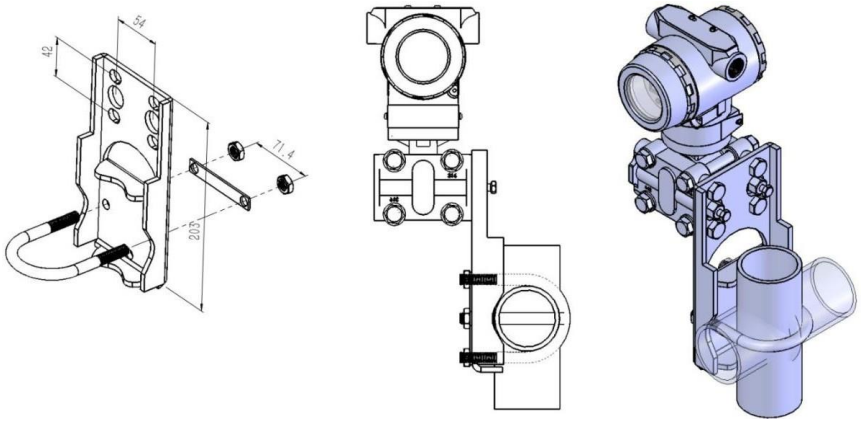
| Product model | Dimension drawing | In mm |
|---|---|---|
| T2906-DP |   | |

| Measurement range (code) | 3E, 4E, 5E | 6E | 7E, 8E |
|---|---|---|---|
| M | 54 | 54.5 | 55 |

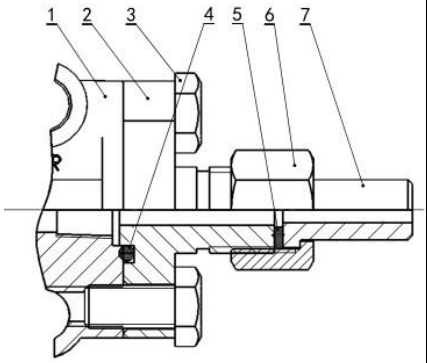
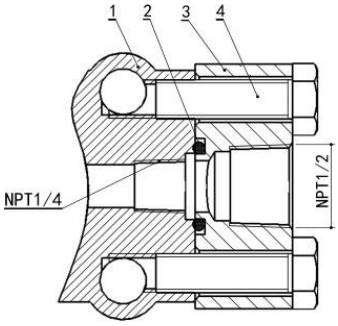
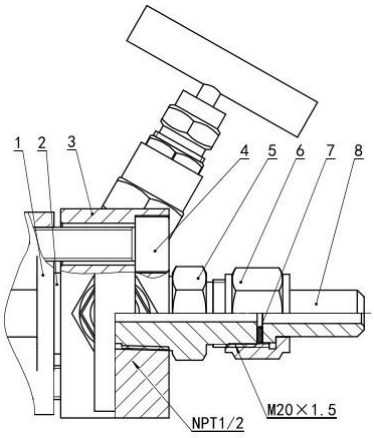
## Accessory

Mounting bracket — In mm

| | |
|---|---|
| **Pipe installation bending bracket: B1 (100040700006)** |   |
| **Plane installation bending bracket: B2 (100040700007)** |   |

| | |
|---|---|
| **Pipe installation flat bracket: B3 (100040700008)** |  |

**Pressure connection**

| | | | | | |
|---|---|---|---|---|---|
| **C1: M20×1.5 with welded pipe** |  | No. | Name | Material No. | Qty. |
| | | 1 | 3051 clamp block | - | - |
| | | 2 | T shape connector | 100040700002 | 2 |
| | | 3 | M10×20 bolt | 100040700000 | 4 |
| | | 4 | O-ring | - | - |
| | | 5 | PTFE gasket | - | - |
| | | 6 | M20 nut | - | - |
| | | 7 | Φ14×4 welded pipe | - | - |
| **C7F: NPT1/2(F)** |  | No. | Name | Material No. | Qty. |
| | | 1 | 3051 clamp block | - | 2 |
| | | 2 | O-ring | - | 2 |
| | | 3 | NPT1/2 pressure connection | 100040700010 | 2 |
| | | 4 | M10×35 bolt | 100040700009 | 4 |
| | | - | - | - | - |
| **SFZC1: Tri-valve set-M20 with welded pipe** |  | No. | Name | Material No. | Qty. |
| | | 1 | 3051 clamp block | - | 2 |
| | | 2 | PTFE gasket | - | 2 |
| | | 3 | 304SS tri-valve set | 100040700015 | 1 |
| | | 4 | M10×35 bolt | - | 4 |
| | | 5 | M20 connector | - | 2 |
| | | 6 | M20 nut | - | 2 |
| | | 7 | PTFE gasket | - | 2 |
| | | 8 | Φ14×4 welded pipe | - | 2 |

Note: Please refer to the structural property for the other pressure connections, and the Material No. “-” means provided as the supporting material for free.

## How to order

T2906 - ()

Product model:
T2906

Pressure range selection: 3E=0～200Pa...6kPa
4E=0～1kPa...40kPa
5E=0～1.5kPa...100kPa
6E=0～2.5kPa...250kPa
7E=0～10kPa...1MPa
8E=0～30kPa...3MPa

Pressure range adjustment:
0～The maximum pressure range
Fill in the bracket with the pressure range and unit symbol

Electrical connection:
J8 = 3051 housing (M20×1.5 female)
J8X= 3051 housing with display (M20×1.5 female)
J12 = 3051 isolation ex-proof housing (M20×1.5 female)
J12X = 3051 isolation ex-proof housing with display (M20×1.5 female)
J22 = 3051 isolation ex-proof housing (NPT1/2 female)
J22X = 3051 isolation ex-proof housing with display (NPT1/2 female)

Output:
B1H=4～20mA+HART® protocol

## How to order for accessories

C1

Pressure connection:
C1=M20×1.5 (Male) with welded pipe
C2=G1/2 (Male) with welded pipe
C3=G1/4 (Male)
C5F=NPT1/4 (Female)
C7=NPT1/2 (Male)
C7F=NPT1/2 (Female)
SFZC1=304 tri-valve set M20×1.5 (Male) with welded pipe
SFZC5F=304 tri-valve set NPT1/4 (Female)

B3

Mounting bracket:
B1=Pipe installation bending bracket
B2=Plane installation bending bracket
B3=Pipe installation flat bracket

Example: T2906

Refer to product model: T2906 -DP, pressure range selection: 0～1kPa…40kPa, pressure range adjustment: 0～20kPa, output: 4～20mA+HART® protocol, electrical connection: 3051 housing with display (M20×1.5 female), pressure connection: M20×1.5 (Male) with welded pipe, mounting bracket: Pipe installation flat bracket

## Ordering tips

The accessory should be purchased separately.