



CAN  
RS485

PROFI  
BUS

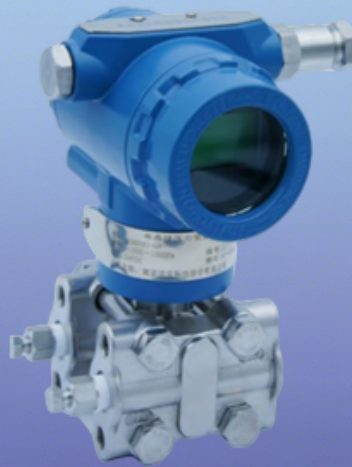
HART  
COMMUNICATION PROTOCOL

4G<sup>+</sup>

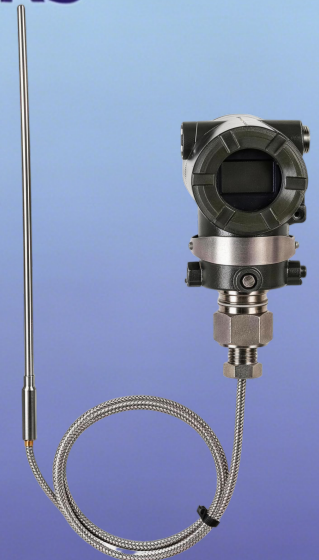
## SMART TRANSMITTERS



EPT 60



EDPT 66



ETT 68

**ELITE INSTRUMENTS CO.,LTD**  
ISO 9001 COMPANY

PRESSURE GAUGE | THERMOMETER | DIAPHRAGM SEAL | TRANSMITTER

[www.elite-instruments.com](http://www.elite-instruments.com)



2014/34/EU

II 3GD

Ex ic IIC T4...T5 Gc°C

Ex ic IIIC T135°C...T100 Dc Ta: -30°C~+80°C



# **WETTED PARTS -AVAILABLE SS 316L , HASTELLOY-C276 , INCONEL 625 , MONEL 400**

**Wetted Parts SS 316L (AS PER NACE MR 0175)**

**Sensors Available In Piezo Resistive/Ceramic/Micro Fused  
Helium Leak Tested**

**SS316 Enclosure**

**Fully Stainless Welded Design**

**Temperature Compensation: -20°C(-4°F) to 100°C(212°F)**

**Operating Temperatures: -40°C(-40°F) to 120°C(248°F)**

**IP 68 Enclosure Protection**

**Proof Pressure Up to 3 x Full Scale value up to 6000psi**

**Burst Pressure Up to 5 x Full Scale value Up to 6000psi**

**Accuracy Available Up to 0.05%**

**Zero and Span Adjustment**

**Re Calibration available Upto 50% F.S value**

**Range Units Are Re – Programmable**

**Reverse Polarity Protection**

**Life Span More Than 4 Million Cycles**

**\*PLEASE REFER TRANSMITTERS CATALOGUE FOR DETAILS**

## SPECIAL FEATURES

- Advanced MEMS monocrystalline silicon pressure sensor chip adopted
- Wide pressure range covering
- Double-wire mode, 4~20mA HART® protocol digital communication option
- Intelligent LCD gauge outfit with backlight
- With local zero and pressure range adjustment
- Complete varieties, high accuracy, good stability
- Isolation ex-proof housing structure, strong resistance to the frequency conversion interference
- No mechanical transmission parts, strong anti-vibration



## APPLICATIONS

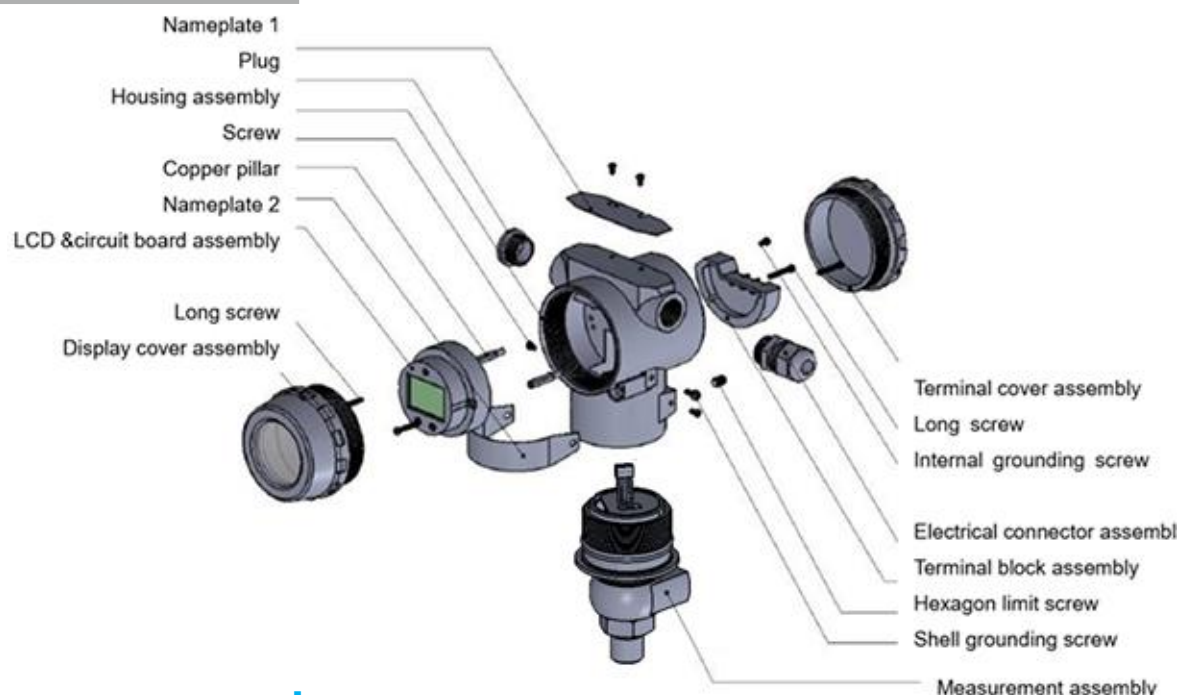
- Process control fields for the industries such as petroleum, chemical industry, metallurgy, electricity, food, papermaking, medicine, machine manufacturing, scientific experiment and military aviation etc.

## DESCRIPTION

EPT60 chip adopts advanced MEMS monocrystalline silicon pressure sensor chip. The sensor signal is converted into a standard signal output by a dedicated signal processing module. After long-term aging and stability screening, the product performance is stable and reliable. It is applied to the outdoor scene where the environment is harsh. At the same time, it can display on-site pressure, zero point and full range migration. The installation port form of EPT60 monocrystalline silicon pressure transmitter can be processed according to the requirements of users, and can also be compatible with other brands of transmitters. This series of products are widely used in industrial process control, petroleum, chemical, metallurgical and other industries.



## Appearance structure



## Performance parameters

|                      |                                                                                                                                |
|----------------------|--------------------------------------------------------------------------------------------------------------------------------|
| Pressure range       | ±6kPa G, ±40kPa G, ±100kPa G, -100~250kPa G, 0~100kPa A, 0~250kPa A, -0.1~1MPa G, -0.1~3MPa G, 0~10MPa S, 0~20MPa S, 0~40MPa S |
| Pressure reference   | Gauge pressure   Absolute pressure   Sealed gauge pressure                                                                     |
| Supply               | 12V~32V, recommended 24V                                                                                                       |
| Output               | 4~20mA+HART protocol                                                                                                           |
| Accuracy             | ±6kPa: ±0.1%FS;<br>Other pressure ranges: ±0.075%FS(Standard pressure range, 25±5℃)                                            |
| Temperature drift    | ±6kPa: ±0.3%FS;<br>Other pressure ranges: ±0.25%FS(Standard pressure range, -20~70℃)                                           |
| Ambient temperature  | -30℃~80℃;<br>with LCD gauge outfit: -30℃~70℃                                                                                   |
| Medium temperature   | -40℃~120℃                                                                                                                      |
| Vibration resistance | 20g (20~5000Hz)                                                                                                                |
| Shock resistance     | 100g (11ms)                                                                                                                    |
| Overpressure         | Please see pressure range selection                                                                                            |
| Long-term stability  | ±0.1%FS/year                                                                                                                   |
| Protection grade     | IP67                                                                                                                           |
| Ex-proof grade       | Ex d IIC T6 Gb                                                                                                                 |
| Material             | Housing cast aluminum alloy; isolation diaphragm 316L                                                                          |
| Medium compatibility | All kinds of media compatible with SS316L                                                                                      |
| Response time        | HART collects data from sensor: 0.1s;<br>HART outputs data: 0.5s                                                               |

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How to order information please contact: [sales@elite-instruments.com](mailto:sales@elite-instruments.com)



## SPECIAL FEATURES

- Adopting advanced monocrystalline silicon differential pressure sensors
- Wide range coverage  $\pm 3\text{MPa}$
- Two-wire, 4~20mA analog output, Hart® Protocol digital communication
- Intelligent LCD meter head with backlight
- It has both remote transmission and local zero and range adjustment
- Complete variety, high precision, and good stability
- Explosion-proof shell structure with strong resistance to frequency conversion interference
- High static pressure and high overload protection
- Patented dual overload protection diaphragm design
- Lightning protection circuit design



## APPLICATIONS

- Process control fields in industries, such as petroleum, chemical, metallurgy, electricity, food, papermaking, pharmaceuticals, machinery manufacturing, scientific experiments, and aviation & military applications.

## DESCRIPTION

The EDPT66-DP intelligent differential pressure transmitter is an internationally leading high-performance pressure transmitter carefully developed using the world's advanced monocrystalline silicon pressure sensor technology and patented packaging process. This product adopts a patented dual overload protection diaphragm and an internal circuit with surge protection, which can accurately measure the gauge pressure, absolute pressure, flow rate, vacuum degree, liquid level, and density.

## Performance parameters

|                       |                                                                                                                                                                           |
|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Pressure range        | ±1kPa; ±6kPa; ±40kPa; ±100kPa; ±250kPa; ±1MPa; ±3MPa                                                                                                                      |
| Pressure reference    | Differential pressure                                                                                                                                                     |
| Power supply          | 12VDC~32VDC, recommend 24VDC                                                                                                                                              |
| Output signal         | 4~20mA + Hart® protocol                                                                                                                                                   |
| Accuracy              | ±1kPa: ±0.2%FS; ±6kPa: ±0.1%FS; other ranges: ±0.075%FS<br>(Standard range, 25±5℃)                                                                                        |
| Temperature drift     | ±0.5%FS (±1kPa); ±0.3%FS (±6kPa); ±0.25%FS (other ranges)<br>(Standard range, -20℃~70℃)                                                                                   |
| Ambient temp.         | -30℃~80℃; With LCD meter head -30℃~70℃                                                                                                                                    |
| Medium temp.          | -40℃~125℃                                                                                                                                                                 |
| Protection            | IP67                                                                                                                                                                      |
| Explosion proof level | Exd IIC T6 Gb                                                                                                                                                             |
| Static pressure range | ±1kPa; ±6kPa; ±40kPa Static pressure resistance 16MPa;<br>±100kPa; -100~250kPa Static pressure resistance 25MPa;<br>-0.1~1MPa; -0.1~3MPa Static pressure resistance 40MPa |
| Over pressure limit   | 16MPa                                                                                                                                                                     |
| Long-term stability   | ±0.1%FS/year (Standard range)                                                                                                                                             |

## Structural performance parameters

|                      |                                                                                                                                                                                                |
|----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Diaphragm material   | 316L, Hastelloy C                                                                                                                                                                              |
| Relief valve         | 304                                                                                                                                                                                            |
| O-ring               | Silicone rubber (Contact with the measured medium)                                                                                                                                             |
| Sealing liquid       | Silicone oil                                                                                                                                                                                   |
| Splint               | 304                                                                                                                                                                                            |
| Housing material     | Shell die cast aluminum alloy, painted with epoxy resin coating                                                                                                                                |
| Electrical connector | M20×1.5, NPT1/2                                                                                                                                                                                |
| Process connection   | M20×1.5 with welded pipe, NPT1/4(F), NPT1/2, NPT1/2(F), G1/2 with welded pipe, G1/4, three-valve manifold M20×1.5 with welded pipe (304/316), three-valve manifold NPT1/4F (304/316 optional). |
| Weight               | 3.5kg (except accessories)                                                                                                                                                                     |

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## SPECIAL FEATURES

- Accurate temperature measurement
- Integrated structure
- Fast response
- Long-term stable work
- Convenient on-site connection
- Simple operation

## APPLICATIONS

- Equipment supporting
- Process control fields in industries, such as petroleum, chemical, metallurgy, electricity, food, papermaking, pharmaceuticals, machinery manufacturing, scientific experiments, and aviation & military applications
- Temperature measurement for water or oil in the fields of petroleum, chemical industry, electric power, light textile, environmental protection, etc.

## DESCRIPTION

ETT68 Explosion-proof Temperature Transmitter measures the temperature of the measured medium by using the feature that the platinum resistance value varies with temperature and shows a certain functional relationship. This product adopts the high-precision thermoelectric couple and thermal resistance as the detecting elements, uses the high stability circuit for the signal processing, realizes the continuous measurement for the temperature, outputs the industrial control standard signal, and can realize the functions such as display, remote transmission etc. simultaneously.

The temperature measurement part of the product adopts all stainless steel integration processing technology, and the connecting box adopts explosion-proof housing; the product has the features of strong shock resistance, quick thermal response etc.; the wire adopts the special shielded cable, with wide usage temperature range; this product is easy to install, and applicable to be used in all kinds of automatic control systems for temperature measurement.

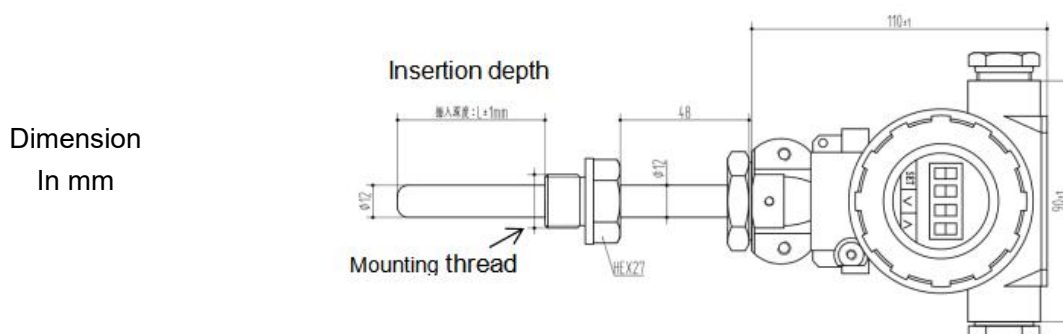


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## Appearance structure



## Performance parameters

|                         |                                                    |      |          |      |
|-------------------------|----------------------------------------------------|------|----------|------|
| Pressure range          | -50℃～250℃                                          |      |          |      |
| Supply & output         | 4～20mA (16～36VDC), 4～20mA@HART protocol (16～36VDC) |      |          |      |
| Accuracy                | ±0.5%FS                                            |      |          |      |
| Sensitive element       | Pt100 Grade A                                      |      |          |      |
| Insulation strength     | 100MΩ/250VDC                                       |      |          |      |
| Response time           | Water 0.2m/s                                       |      | Air 1m/s |      |
| Placement diameter:     | t0.5                                               | t0.9 | t0.5     | t0.9 |
| Φ12mm                   | 10S                                                | 35S  | 95S      | 310S |
| Long-term stability     | ≤0.2%FS/year                                       |      |          |      |
| Placement diameter      | Φ12mm                                              |      |          |      |
| Ambient temperature     | -20℃～85℃                                           |      |          |      |
| Electrical connection   | Aluminum housing                                   |      |          |      |
| Protection grade        | IP65                                               |      |          |      |
| Maximum mounting torque | 25Nm                                               |      |          |      |
| Ex-proof grade          | Exd IIC T6 Gb                                      |      |          |      |
| Probe material          | 304                                                |      |          |      |

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## ABOUT US:

Elite instruments company having 20,500 square meter manufacturing area with 350 employees.

Elite instruments have daily production capacity of 20,000 instruments Per day.

Elite instruments total invested over 12 million into our equipment and buildings.

Elite Instruments is an ISO 9000:2015 certified manufacturing company for Measuring instruments and its accessories.

We manufacture

- Pressure gauges,
- Ultra-high-pressure gauges,
- Temperature gauges
- Diaphragm seals
- Accessories
- Thermowells
- Valves and Manifolds.
- Pressure, temperature and level transmitters

Headquartered at China, Elite Instruments also have manufacturing locations at

- China
- Saudi Arabia
- Mexico
- India to better serve our customers.

We also have Distributors at

- TURKEY
- NETHERLANDS
- United States of America,
- CANADA
- MEXICO
- BRAZIL.

Elite instruments Established in 2010, we deliver over 8 million quality products per year 75 countries every year.

Currently Worldwide, estimated 6 million ELITE measuring instruments are in use. Elite serves a wide variety of industries worldwide, including:

- Oil and Gas
- Chemical and Petrochemical
- Food and Pharmaceutical
- Water and Wastewater
- Engineering and Process

Elite Instruments' customer service is fast and flexible. We always put our CUSTOMER FIRST.

Let us prove that we are the best choice for your manufacturer of measuring instruments.

Elite also specializes in developing custom-built OEM products as per customer exact requirements.

Our proficient team of engineers will work to bring your custom design products to life, or work with you to create new products designed to meet your exact needs.

Our customers have testified that the Quality, workmanship, appearance and packaging of Elite products are second to none.

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