

# **Industrial General Pressure Transmitter**

**FST800-2100**

## **Product Manual**

**(V1.0)**



## ● Important statement

Thank you very much for choosing our products, we will serve you sincerely forever. The company pursues excellent quality and pays more attention to excellent after-sales service.

Operation errors will shorten the life of the product, reduce its performance, and may cause accidents in severe cases. Please hand over this manual to the end user and read it carefully before using the product. And please keep it in a safe place for reference when needed. The company reserves the right to modify this manual due to product technology and process updates. If there is any change, no further notice will be given, and the final interpretation of this manual is reserved.

## ● Product overview

The pressure series products produced by our company adopt all stainless steel structure, the pressure detection sensitive components have been automatically tested by computer, and the laser calibration process has carried out zero point and temperature performance compensation in a wide temperature range, which has strengthened the long-term stability of the transmitter in the industrial environment.

The pressure chamber adopts 304 stainless steel processing technology, and the whole adopts laser welding technology, which is safe and leak-free. The transmitter has a built-in digital circuit with strong resistance to radio frequency and electromagnetic interference and automatic temperature compensation. It has strong anti-interference ability, wide working range and long-term stability. Good features.

## ● Features

- ◇ Easy installation and strong versatility.
- ◇ Efficient lightning protection, strong anti-radio frequency and electromagnetic interference protection.
- ◇ Anti-surge and polarity reverse protection.
- ◇ High elasticity, wear resistance, impact resistance, vibration resistance and corrosion resistance.
- ◇ Advanced temperature digital compensation function.

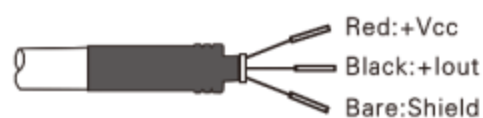
## ● Technical indicators

|                            |                                                     |
|----------------------------|-----------------------------------------------------|
| Range                      | 0.1bar~600bar (gauge pressure)                      |
| Output signal              | 4~20mA, 0.5~4.5VDC, 0~5VDC, 0~10VDC                 |
| Precision                  | ±0.25%FS、±0.5%FS                                    |
| Signal Line Specifications | 2Wire (4~20mA), 3Wire (0.5~4.5VDC, 0~5VDC, 0~10VDC) |
| Supply voltage             | 9~30VDC (4~20mA, 0~5VDC), 5VDC (0.5~4.5VDC),        |

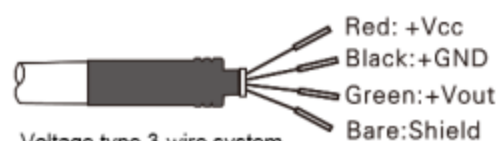
|                              |                                                                                        |
|------------------------------|----------------------------------------------------------------------------------------|
|                              | 15~30VDC (0~10VDC)                                                                     |
| Medium temperature           | -40°C~+85°C                                                                            |
| Storage temperature          | -40°C~+85°C                                                                            |
| Temperature compensation     | -20°C~+85°C                                                                            |
| long-term stability          | $\leq \pm 0.1\%FS/\text{year}$                                                         |
| Allow overload               | 150%FS                                                                                 |
| Breaking pressure            | 200%FS                                                                                 |
| Shock (11ms)                 | 100g                                                                                   |
| Zero temperature drift       | $\pm 0.02\%FS/^{\circ}C$                                                               |
| Full scale temperature drift | $\pm 0.02\%FS/^{\circ}C$                                                               |
| Pressure port                | M20*1.5, G1/4, NPT1/4 (can be customized)                                              |
| Electrical connections       | M12 connector, direct outlet, Packard connector, large/small Hirschmann (customizable) |
| Degree of protection         | IP65                                                                                   |
| Material                     | 304 stainless steel                                                                    |

Note: Specific product parameters, electrical performance, and wiring definitions are subject to the actual product.

## ● Electrical interface and connection method

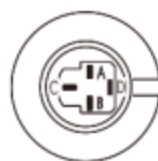


Current type 2-wire system



Voltage type 3-wire system

Direct outlet



|            |   |       |       |
|------------|---|-------|-------|
| 4~20mA     | A | +Vcc  | Red   |
| 2-Wire     | B | +Iout | Black |
| 0.5~4.5VDC | A | +Vcc  | Red   |
| 1~5VDC     | B | GND   | Black |
| 0~5VDC     |   |       |       |
| 0~10VDC    | C | +Vout | Green |
| 3-Wire     |   |       |       |

Packard connector



Hirschmann

|            |   |        |       |
|------------|---|--------|-------|
| 4-20mA     | 1 | +Vcc   | Red   |
| 2-Wire     | 2 | +Iout  | Black |
| 0.5-4.5VDC | 1 | +Vcc   | Red   |
| 1-5VDC     | 2 | +Vout  | Green |
| 0-5VDC     | 3 | GND    | Black |
| 0-10VDC    | 3 | GND    | Black |
| 3-Wire     | 4 | Shield | Bare  |



Aviation plug connector

|            |   |        |       |
|------------|---|--------|-------|
| 4-20mA     | 1 | +Vcc   | Red   |
| 2-Wire     | 3 | +Iout  | Black |
| 0.5-4.5VDC | 1 | +Vcc   | Red   |
| 1-5VDC     | 2 | +Vout  | Green |
| 0-5VDC     | 3 | GND    | Black |
| 0-10VDC    | 3 | GND    | Black |
| 3-Wire     | 5 | Shield | Bare  |



AMP connector

|            |   |       |       |
|------------|---|-------|-------|
| 4-20mA     | 2 | +Vcc  | Red   |
| 2-Wire     | 3 | +Iout | Black |
| 0.5-4.5VDC | 1 | +Vout | Green |
| 1-5VDC     | 2 | GND   | Black |
| 0-5VDC     | 2 | GND   | Black |
| 0-10VDC    | 3 | +Vcc  | Red   |
| 3-Wire     | 3 | +Vcc  | Red   |



M12 connector

|            |   |       |       |
|------------|---|-------|-------|
| 4-20mA     | 1 | +Vcc  | Brown |
| 2-Wire     | 3 | +Iout | Blue  |
| 0.5-4.5VDC | 1 | +Vcc  | Brown |
| 1-5VDC     | 2 | +Vout | White |
| 0-5VDC     | 2 | +Vout | White |
| 0-10VDC    | 3 | GND   | Blue  |
| 3-Wire     | 3 | GND   | Blue  |

## ● Precautions

1. When installing, please pay attention to the installation method, whether the installation matches, the wrench can only be installed at the hexagonal interface, and it is strictly forbidden to install it at the outer tube and tail joint of the product;
2. When using, pay attention to the reliable connection of the line and the correct connection method. Do not pull the product cable hard to avoid damage to the internal structure of the product;
3. Do not directly squeeze the transmitter diaphragm with hard objects, so as not to damage the product;
4. During the transportation, installation and use of the transmitter, do not drop it at will to avoid damage;
5. The overload pressure of the transmitter should not exceed 150%;
6. The warranty period of the product is one year, and the damage caused by non-user improper use is guaranteed to be replaced;
7. The transmitter should be stored in a warehouse with good ventilation, no acid, no alkali, no corrosive gas, the ambient temperature is -20°C~+80°C, and the relative humidity is less than 95%RH;
8. The measured medium is not allowed to freeze, otherwise the measuring diaphragm of the sensor will be damaged, resulting in damage to the sensor. If necessary, the temperature protection of the sensor is required to prevent freezing.