

# MELT PRESSURE TRANSMITTER

New Liquid Alloy Filling ; Mercury-Free

MODEL: PT124B-113 / PT124B-113T



## SINCE 1999

Manufacturer with 26 years of experience

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## 1.Description

PT124B-113 / PT124B-113T High temperature melt pressure transmitter uses a new liquid alloy filling, which can completely replace the traditional mercury-filled melt pressure transmitter to achieve environmental sustainability. It is non-toxic and safer. The diaphragm is processed by multiple special processes, with small temperature drift and high measurement accuracy. It is mainly used for pressure measurement and control of high-temperature fluid media in chemical fiber spinning, polyester and other equipment. The product can completely replace similar products.

## 2.Features

- ◆ Environmental sustainability
- ◆ Internal 80% calibration signal
- ◆ Can completely replace similar products
- ◆ Good stability and repeatability
- ◆ The diaphragm has been processed through multiple special processes and is wear-resistant
- ◆ Anti-interference circuit, stable signal output

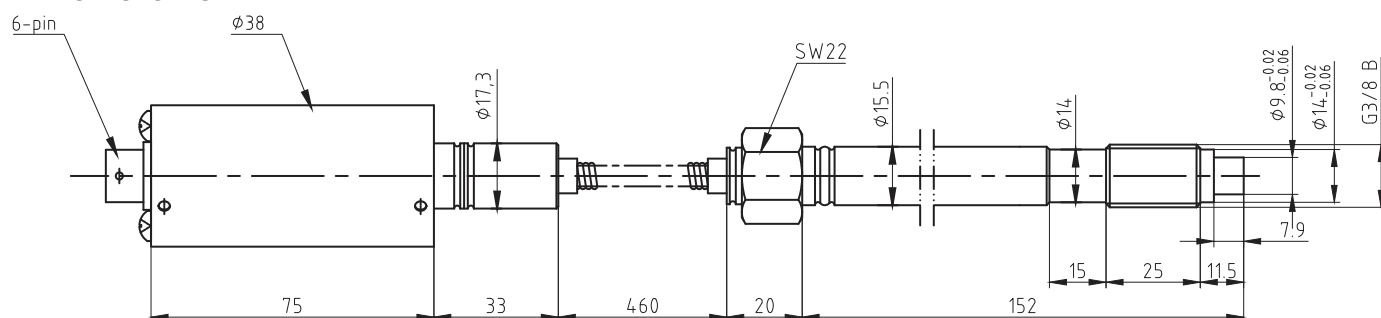
## 3.Application

- ◆ Chemical fiber drawing equipment
- ◆ Plastic and rubber manufacturing equipment
- ◆ Medicine, food processing, packaging equipment
- ◆ Pressure measurement and control of other high-temperature fluids

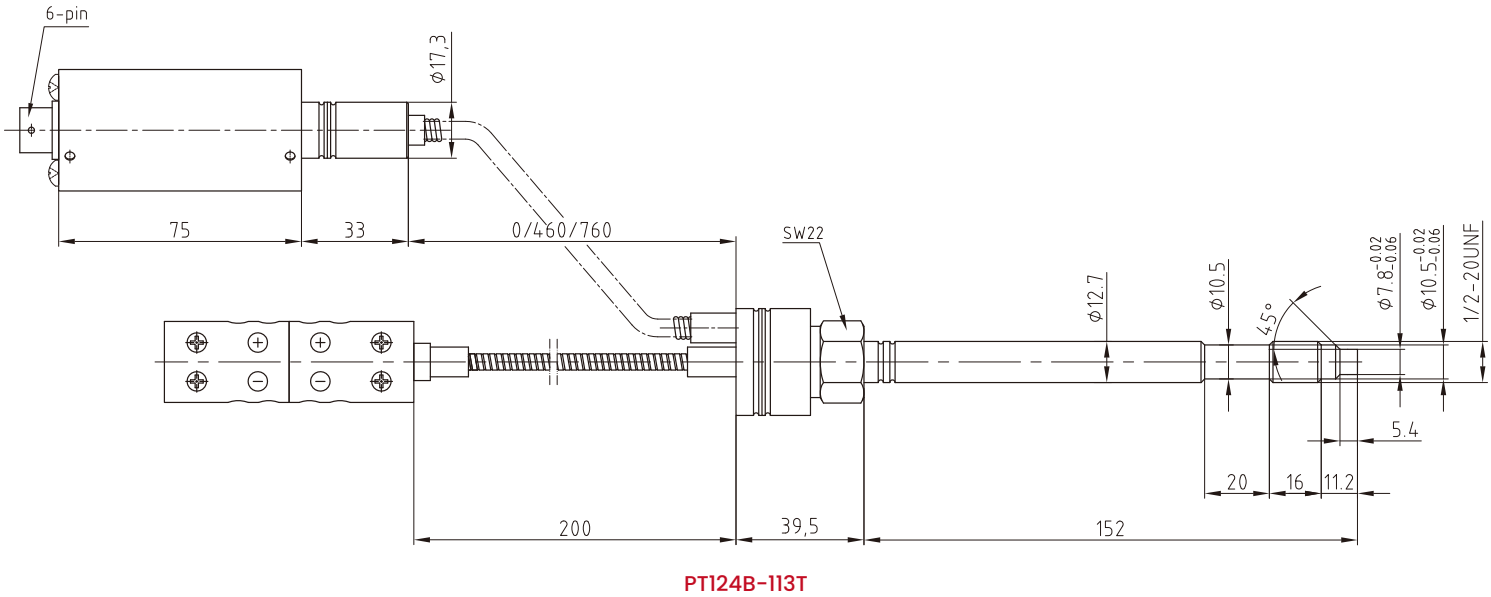
## 4.Parameter

|                                  |                                                                   |
|----------------------------------|-------------------------------------------------------------------|
| Measurement range                | 0~5MPa~200MPa                                                     |
| Overload                         | 150%*FS                                                           |
| Comprehensive accuracy           | ±1%FS;±1.5%FS (including linearity, repeatability and hysteresis) |
| Singal output                    | 0~5V; 0~10V; 4~20mA                                               |
| Power supply                     | 24 (12~36)V DC                                                    |
| Internal calibration             | 80%FS±1%                                                          |
| Insulation resistance            | 200MΩ @ 100VDC                                                    |
| Diaphragm temperature resistance | Max 200℃                                                          |
| Installation torque              | Max 100N.m                                                        |
| Diaphragm material               | 17-4PH Stainless steel with coating                               |
| Temperature measuring element    | J, K, E, PT100 (PT124B-113T)                                      |
| Electric connector               | 6PIN plug-in                                                      |
| Process connector                | 1/2"-20UNF, M14*1.5, M18*1.5, M22*1.5, G3/4 (Customization)       |

## 5.Dimensions



PT124B-113



6.Ordering Guide

PT124B-113T-35MPa-S5 J4 R5 L1 UG30 D7 J

| Code  | Wetted material |
|-------|-----------------|
| Blank | Single-function |
| T     | Dual-function   |

| Code | Measuring range |
|------|-----------------|
| X-Y  | 0-5MPa~200MPa   |

| Code | Singal output |
|------|---------------|
| S1   | 4~20mA        |
| S3   | 0~5V          |
| S5   | 0~10V         |
| O    | Other         |

| Code | Accuracy |
|------|----------|
| J3   | 0.25%FS  |
| J4   | 0.5%FS   |
| J5   | 1.0%FS   |

| Code | Rigid length |
|------|--------------|
| R5   | 152mm        |
| R6   | 200mm        |
| R7   | 250mm        |
| R8   | 305mm        |
| R10  | 400mm        |

| Code | Temperature sensing element |
|------|-----------------------------|
| J    | J type                      |
| K    | K type                      |
| E    | E type                      |
| P    | PT100                       |
| O    | Other                       |

| Code | Electric connector |
|------|--------------------|
| D7   | 6PIN plug-in       |
| O    | Other              |

| Code | Process connector  |
|------|--------------------|
| MG2  | M14*1.5            |
| UG30 | 1/2-20UNF          |
| MG1  | M12*1.5            |
| MG4  | M18*1.5 (45° Seal) |
| MG6  | M22*1.5            |
| GG20 | G3/4               |
| GG15 | G3/8               |
| O    | Other              |

| Code | Capillary length |
|------|------------------|
| L1   | 460mm            |
| L2   | 760mm            |

## 7. Installation Notes ⚠

### 7.1. Product installation

The diaphragm of the product is the most vulnerable part. Please do not remove its protective cap at will before installation. At the same time, pay attention to protecting the diaphragm of the product during installation. The processing of the mounting hole should be processed according to the technical requirements of the mounting hole size diagram and size table to avoid diaphragm scratches caused by non-standard mounting holes affecting the normal operation of the product.

### 7.2. Product removal

During installation, ensure that there are no metal foreign objects or plastics left in the mounting hole. All products should be removed from the machine before cleaning the extruder. The product can only be removed when the polymer is in a hot molten state. After removal, wipe the product probe diaphragm with a soft cloth immediately. At the same time, our company can provide special cleaning tools for the mounting hole to clean the material remaining in the hole for the convenience of next installation.

### 7.3. About startup

Before starting the equipment, ensure sufficient heating and melting time to ensure that all materials in the diaphragm part of the product are in a molten state before the extruder works.

### 7.4. Installation position

The probe part of the product can withstand high temperatures, but the shell temperature resistance must be below 80℃, so during installation and use, be sure to fix the installed product shell part in a room temperature environment. The isolation of the housing from the high temperature area is conducive to improving the measurement accuracy and service life of the product.

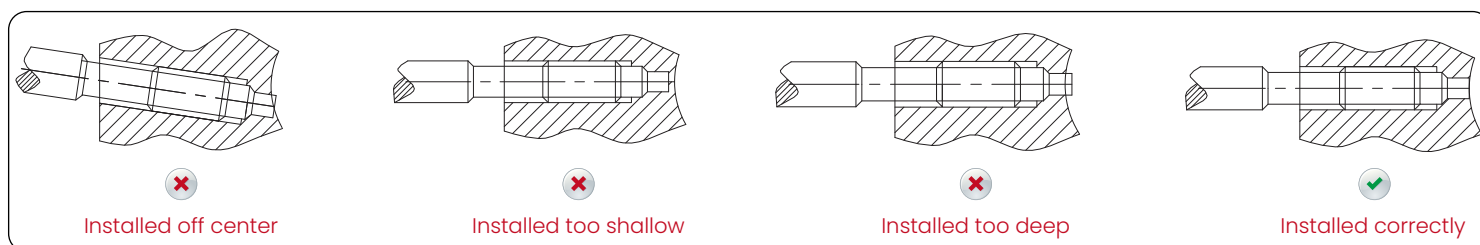
### 7.5. Impact of overload

In the actual pressure control process, it is best to be within the rated pressure. Although the product has a certain overload capacity, long-term overload will affect the measurement accuracy and service life of the product.

### 7.6. Electrical connection of the product

During the electrical connection process, the signal output connection cable of the transmitter must be connected separately through the wiring trough to avoid interference on site.

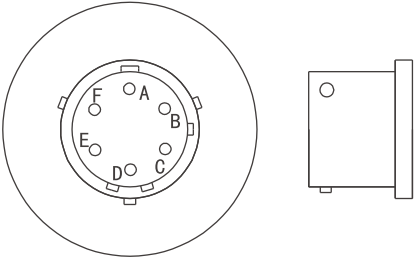
### 7.7. Schematic diagram of correct/incorrect dimensions of mounting holes



8.Wiring Instructions

| Singal output | Functions              | Color  | PIN |
|---------------|------------------------|--------|-----|
| 0-5V<br>0-10V | Singal(S)+             | Blue   | A   |
|               | Singal(S)-             | Green  | B   |
|               | Power(E)+              | Red    | C   |
|               | Power(E)-              | Yellow | D   |
|               | Calibration(C)         | Black  | E   |
|               | Calibration(C)         | Brown  | F   |
| Singal output | Functions              | Color  | PIN |
| 4-20mA        | Power(E)+ / Singal(S)+ | Red    | A   |
|               | Power(E)- / Singal(S)- | Blue   | B   |
|               | Calibration(C)         | Yellow | E   |
|               | Calibration(C)         | Black  | F   |

6PIN aviation plug-in



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