

PTT05 Integrated Temperature Transmitter



1 Overview

The integrated field intelligent temperature transmitter produced by our company is a kind of ultra small, excellent performance and high precision measuring meter. With digital display, small volume, light weight, easy to use and install, the control object of temperature into electrical signals. It can be directly installed in the junction box to form an integrated structure with the field sensing elements. In this way, not only the compensation wires and cables are saved, but also the signal transmission distortion and interference are reduced, thus the high-precision measurement results are obtained.

It is usually used together with display instrument, recording instrument and electronic computer, with current output of 4-20mA

2 Characteristics

- 1) Two wire passive working mode.
- 2) When the ultra-low working voltage is 20mA, it is less than 3.0vdc. Less than 2.5vdc at 4mA, ultra low power consumption.
- 3) Full intelligent working mode. It supports user self calibration and nonlinear correction of display value.
- 4) High light 0.36 inch LED display.
- 5) Standard Hesmian shape.
- 6) The index is far higher than that of similar products. The anti-jamming performance is excellent.
- 7) Very low temperature drift, suitable for - 40 ~ 85 °C industrial environment.
- 8) Output 4-20mA, high precision, maintenance free.
- 9) With three keys, the operation is more convenient, the data is processed by single chip microcomputer, and the stability is high.
- 10) It has the functions of anti reverse connection, anti surge, anti shock, anti moisture, anti heat and anti harmful gas.

3 Application fields

It has a wide range of applications, such as:

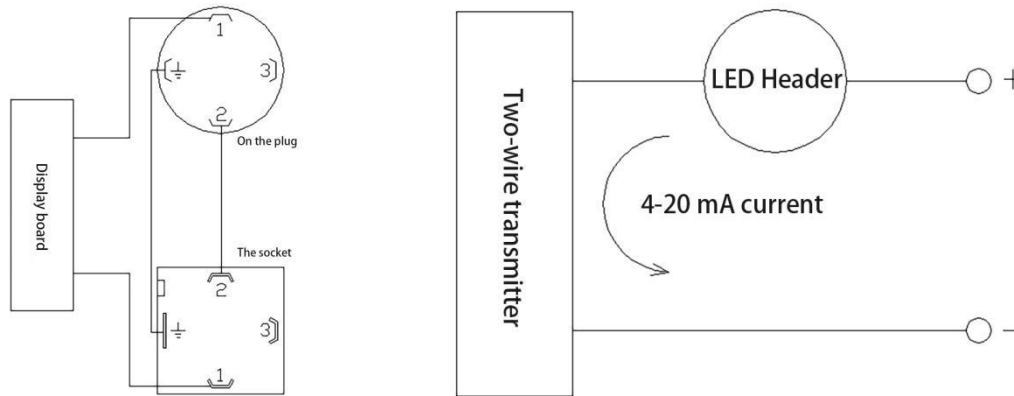
- 1) Chemical industry
- 2) Metallurgy
- 3) Oil
- 4) Electricity

- 5) Environmental protection
- 6) Water treatment
- 7) Pharmaceutical
- 8) Food

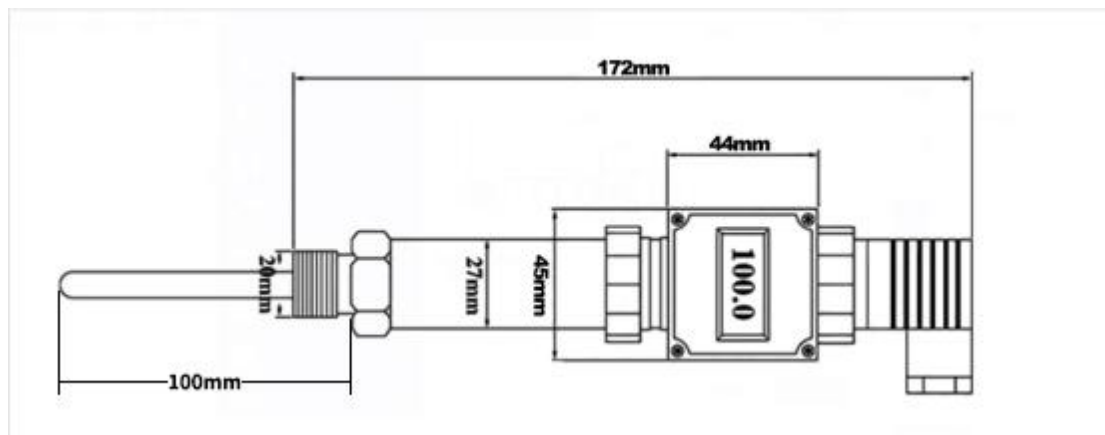
4 Technical index

Maximum range	-200-800℃
Sensors	PT100
Power supply voltage	24VDC±10%
Display mode	0.36Inch LED (red)
Sampling rate	The fastest is 10 times / s, the slowest is 1.8 times / s, and the rate is adjustable
Installation interface	G1/2 (Customizable)
Insertion depth	50mm、100mm、150mm、200mm (Customizable)
Output	4-20mA
The temperature range can be measured by the probe	-70-200℃
Start time	2Within seconds
Environmental temperature	0To 60℃
Environmental humidity	5% - 95%, no condensation
Vibration	Up to 10g, $f \leq 55\text{Hz}$, amplitude $\leq 0.5\text{mm}$
Grounding	In the area with large electromagnetic interference, the transmitter and cable shield should be well grounded
Accuracy	$\pm 0.2^\circ\text{C}$, $\pm 0.5\%$
Linear	$\pm 0.2^\circ\text{C}$, $\pm 0.5\%$
Electrical interface	M20×1.5
Display screen dimensions	65×forty-five×45mm high×wide×(thick)
Weight	245g

5 Electrical principle

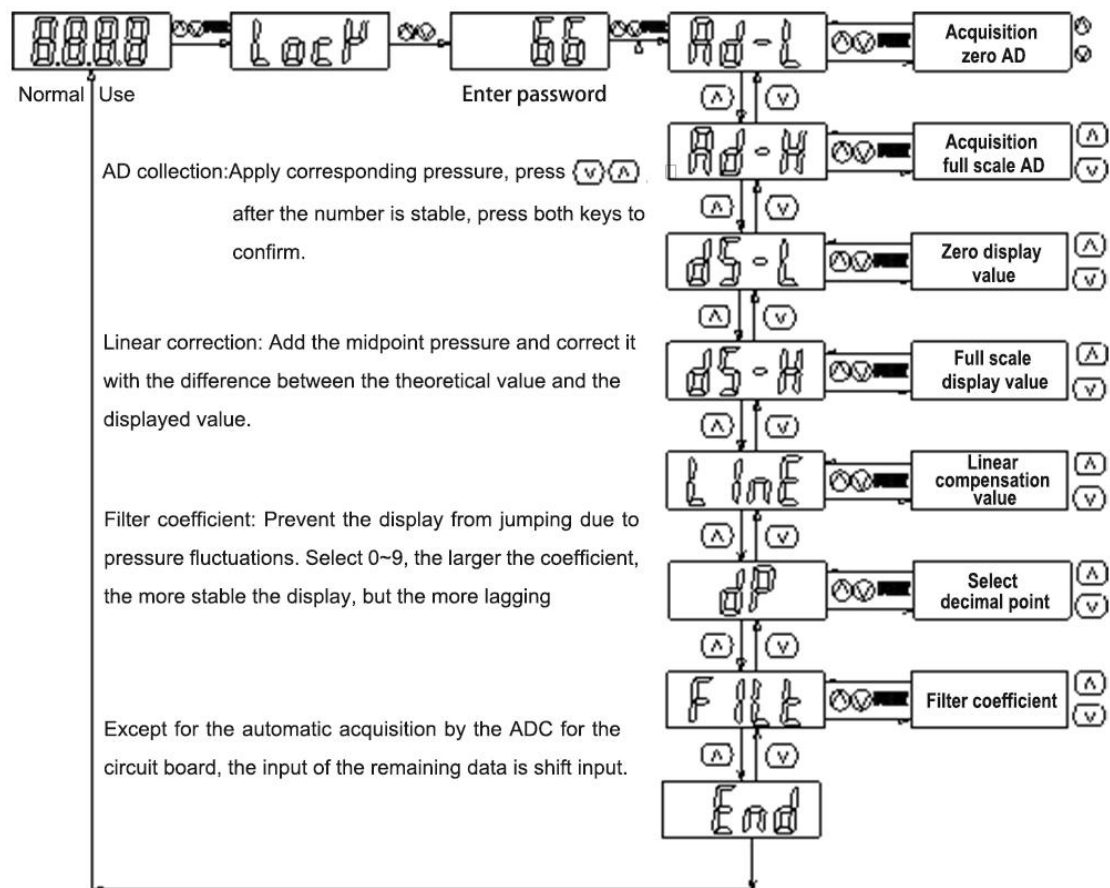


6 Outline dimension drawing



7 Setup menu

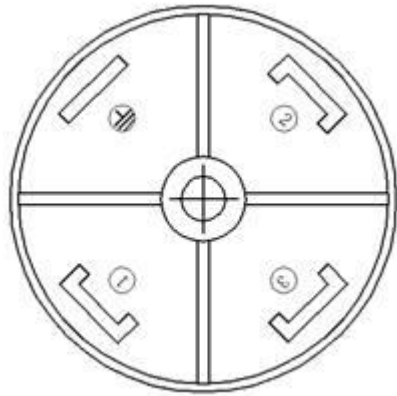
The instrument supports the user's self calibration, and needs to enter the menu to collect the zero position and full degree respectively to calibrate accurately.



- 1) The calibration password of the instrument is "66". General users are not allowed to enter the factory password. Only advanced users can enter the calibration state.
- 2) Key status: i) Press two keys at the same time (use set instead of description later); ii) Press the up button separately; iii) Press the key individually. There are three states. Data input adopts shift mode.
- 3) The state of the key is to press and then pop up. The key does not support continuous pressing. When you press the key to set the data, you need to pay attention to it.
- 4) "Ad-L" is the collected value when the data meaning is zero. This value is the automatic acquisition value of the instrument, and the zero current needs to be input to the instrument when collecting this value.
- 5) "AD-H", full scale acquisition value, refer to the interpretation of zero position.
- 6) "DS-L", zero display setting value. It's the zero value you want to display.
- 7) "DS-H", full scale display setting value. It's the full scale value you want to display.
- 8) "Line", the input value of linear correction, which is the inverse value of the error value of the current midpoint, is input by the customer. The reference standard is the display value of the instrument.
- 9) "DP", the decimal point is controlled to, and the decimal point can be set arbitrarily.
- 10) "Filter", filter coefficient, the larger the value, the more stable the display.

8 Connection mode

The actual wiring shall prevail



Current output: 1:24 V+ 2:24 V-