

Main Specifications

▼Mounting type

Fixed thread / active thread
connection mounting

▼Connection

Material: SS304 / SS316
M20*1.5 male thread /
G1/2" male thread
1/2" NPT male thread
Other specification is available
made-to-order

▼Electrical connector

Aluminum alloy junction box
Outlet female thread: M20*1.5
Applicable wire diameter:
Φ6-8mm

▼Temperature range

-50 to 400°C
Min. measurement range:
100°C

▼Stem

Outer diameter:
Φ6 / 8 / 10 / 12 / 16mm
Material: Same as material of
connection
Length:
Customized, 50...3000mm
Install a thermowell (Option)

▼Applicable media

Liquid and gas that compatible
with material of connection

▼Ambient temperature

Standard: -40 to 85°C
With LCD display: -20 to 70°C

▼Storage temperature

Standard: -40 to 100°C
With LCD display: -40 to 85°C

▼Ambient humidity

0...95% R.H.

▼Protection level

IP67

Other Specifications

▼Analog signal output

4-20mA

▼Digital signal output

(Option)

RS485

▼Screen display (Option)

5-digit LCD display with
backlight
Size: 39 x 23 mm

▼Wiring protection

M20*1.5 waterproof connector

▼Extension tube (Option)

Outer diameter: Φ12m
Material: SS316
Length:

50 / 100 / 150 / 200mm

▼Measuring elements

Pt100

▼Power supply

10~30VDC

▼Stability

±0.05% F.S. / year

▼Accuracy

±0.5% F.S. (Standard)

▼Temp. response time

≤10s@ water flow 0.4m/s

▼Insulation resistance

≥20MΩ, 100VDC

▼Power consumption

≤500Mw@24VDC, 20.8Ma

▼Weight

About 1.29kg

▼Other requests (Option)

Third party notarized

documents

Inspection report

Tag

RS485 output

Connection material: SS316

Install a thermowell

Active thread

Flameproof, 1/2" NPT (F) one
side, stainless steel blind plug
another side

Flameproof, M20x1.5 (F) one
side, stainless steel blind plug
another side

Degreasing treatment

Wetted part electrolytic

polishing

Integrated Digital Temperature Transmitter (Thread Connected Type) Model: ITT-L200 (T)

Introduction

ITT-L200 (T) series digital temperature transmitter adopts PT100 temperature sensor, LCD display is optional. It adopts an integrated transient voltage terminal module and can be used in severe surge voltage situations. It is suitable for various industrial temperature measurement and transmission requirements.



Due to the variety of customization, the picture is only for reference, please confirm the actual item with our sales. (If there is any change on specification, please take the latest version as standard.)

Features

- Thread connection type, active thread is optional
- Customized stem length and outer diameter, and install a thermowell is available
- Wide temp. measurement range: -50 to 400°C
- Output signal: 4-20mA
- Temperature measuring element adopts Pt100, accuracy 0.5%F.S.
- User friendly interface, parameters are easy to set and its value could show immediately when it with LCD display
- Protection level: IP67
- Digital RS485 output is available

Damping time

| Item | Function description |
|-----------------------------|--|
| Total damping time constant | Equal to the sum of damping time of amplifier and sensor capsule |
| Reaction time | ≤10s@water flow 0.4m/s, outer diameter φ6mm |

Reaction time—Thermal protection tube

| Outer diameter | Reaction time | Reducing pipe (5.3mm) | Cone-shaped tube (6.6mm or 9mm) | Straight tube |
|------------------------------|---------------|-----------------------|---------------------------------|---------------|
| 10mm (wall thickness 1mm) | t50 t90 | 7.5s 21s | 11s 37s | 18s 55s |
| 12mm (wall thickness 1mm) | t50 t90 | 7.5s 21s | - - | 18s 55s |
| 16mm (wall thickness 1mm) | t50 t90 | - - | 11s 37s | 38s 125s |

Mounting requirements

| Item | Function description |
|--|---|
| Mounting direction | None |
| Mounting position | Pipe, tube or others |
| Insertion length* | The smallest insertion length should 8 times outer diameter of thermal protection tube, and the end of the probe should reach or surpass the pivot of the tube. |
| *Please consider technique data and process connection parameters (such as medium flow rate, process pressure and so on) before confirm the insertion length of the transmitter. | |

EMC environment

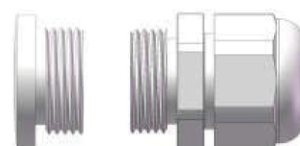
| No. | Test items | Basic standards | Test conditions | Performance level |
|-----|--|--------------------------|--|-------------------|
| 1 | Radiated interference (Case) | GB/T9254/CISPR22 | 30MHz-1000MHz | OK |
| 2 | Conducted interference (DC power port) | GB/T9254/CISPR22 | 0.15MHz-30MHz | OK |
| 3 | Electrostatic discharge immunity test (ESD) | GB/T17626.2/IEC61000-4-2 | 4kV (Contact), 8kV (Air) | B (*2) |
| 4 | Immunity to radio frequency EM-fields | GB/T17626.3/IEC61000-4-3 | 10V/m (80MHz-1GHz) | A (*1) |
| 5 | Power frequency magnetic field immunity test | GB/T17626.8/IEC61000-4-8 | 30A/m | A (*1) |
| 6 | Electrical fast transient / Burst immunity test | GB/T17626.4/IEC61000-4-4 | 2kV (5/50ns, 100kHz) | B (*2) |
| 7 | Surge immunity requirements | GB/T17626.5/IEC61000-4-5 | 1kV (Line to line) 2kV (Line to ground) (1.2us/50us) | B (*2) |
| 8 | Immunity to conducted disturbances induced by radio frequency fields | GB/T17626.6/IEC61000-4-6 | 3V (150kHz-80MHz) | A (*1) |

(*1): Performance level A: The performance within limits of normal technical specifications.

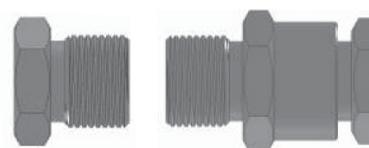
(*2): Performance level B: Temporary reduction or loss of functionality or performance, it can be restore itself. The actual operating conditions, storage and data will not be changed.

Wiring protection

| Thread specifications | Material | Applicable wire diameter | Protection level |
|------------------------------|-----------------|--------------------------|------------------|
| M20*1.5 waterproof connector | PVC | 6-8mm | IP67 |
| 1/2" NPT flameproof | Stainless steel | | |
| M20*1.5 flameproof | steel | | |



Waterproof connector



Flameproof

How to order

| ITT-L200 (T) | | Integrated Digital Temperature Transmitter (Thread Connected Type) | | | | | |
|--------------|----|--|-------|-----|---|---|---|
| Code | | Connection | | | | | |
| M20 | | M20 x 1.5 male thread | | | | | |
| 4G | | G1/2" male thread | | | | | |
| 4N | | 1/2" NPT male thread | | | | | |
| O | | Others | | | | | |
| Code | | Temperature range | | | | | |
| Custom | | -50 to 400°C | | | | | |
| Code | | Stem length | | | | | |
| Custom | | 50~3000mm | | | | | |
| Code | | Stem outer diameter | | | | | |
| 6mm | | 6mm | | | | | |
| 8mm | | 8mm | | | | | |
| 10mm | | 10mm | | | | | |
| 12mm | | 12mm | | | | | |
| 16mm | | 16mm | | | | | |
| Code | | Extension tube length | | | | | |
| N | | No | | | | | |
| 50mm | | 50mm | | | | | |
| 100mm | | 100mm | | | | | |
| 150mm | | 150mm | | | | | |
| 200mm | | 200mm | | | | | |
| Code | | Screen display | | | | | |
| N | | No | | | | | |
| Y | | Yes | | | | | |
| ITT-L200 (T) | 4N | 0~100°C | 100mm | 6mm | N | Y | Order example: ITT-L200 (T)-4N-0~100°C-100mm-6mm-N-Y |