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**Quality Changes  
the Future**

## Company Profile

Ziasiot is an experienced manufacture of pressure and temperature sensors, transmitters; Melt pressure transmitters, melt temperature sensors, Internet of Things, laboratory instruments and automation with variety of brands such as Ziasiot, Holeader, EMPS, Wu Hao MC, etc, which could be used in different industrial fields and process control.

The main products developed and produced by our company consist of multiple series, including wireless sensors, flow sensors, linears, pressure sensors, liquid level sensors, high temperature melt pressure sensors , melt pressure gauge, high temperature melt pressure transmitter, temperature sensor, fusion index instrument, pressure calibration system, smart digital instrument, blasting switch, smart home system, smart module, smart body scale, laboratory instrument, Internet of Things, and Automated complete control system. We strive to innovate, advocate environmental protection, adhere to the concept of high quality and integrity, and are committed to developing into a technology manufacturing group enterprise of sensor Internet of things and automated control systems.

Ziasiot is a high-tech enterprise headquartered in Shanghai, members of whom have many years of experience in automation and extrusion industry. With years of professional knowledge, we established an organizational structure oriented by customer demand, and continuously innovated technology and obtained a number of national patents, which makes zias an innovator in the fields of sensors, Internet of things and automation control. In order to emphasize Our commitment to quality and reputation, the R & D and production process of all zias brands ensure to meet and possess RoHS, ISO, CE, CMC, CPA, ex and other certifications.



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## Application Field

Chemical / Pharmaceutical / Power / Energy / Municipal /  
Environmental Protection / Food / Paper / Shipping / Metallurgy



## Product Summarize

ZTS series thermal resistance temperature sensor/transmitter is currently the most commonly used temperature detector in the low temperature area, our company uses platinum material PT100 / PT1000 as the measuring core, its main characteristics are high accuracy and stable performance, not only widely used in food and pharmaceutical / industrial temperature measurement, but also made into a standard reference instrument. Products are widely used, mainly used in chemical industry, steel, metallurgy, pharmaceutical, food, new energy and so on.

## Working Principle

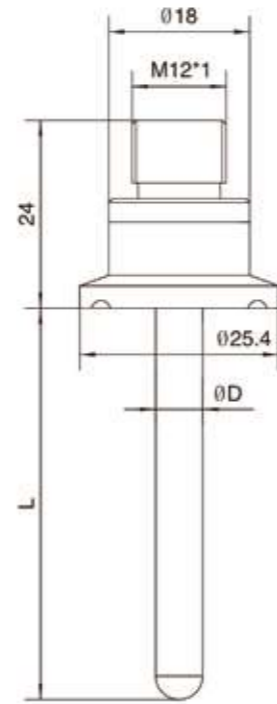
Temperature sensor is the use of temperature and measured between the resistance value of the change into a corresponding relationship. The corresponding temperature value is obtained by measuring the resistance value of the measured element. The temperature transmitter converts the measured resistance value into a 4-20mA current signal, and obtains the corresponding temperature value by measuring the output current signal.

## Technical Feature

- Adopt imported temperature sensing element, high precision, good stability
- The structure is simple, easy to install, armored structure is easy to replace
- Good seismic performance
- Large measuring range, high mechanical strength, good pressure resistance



## ZTS111 Series



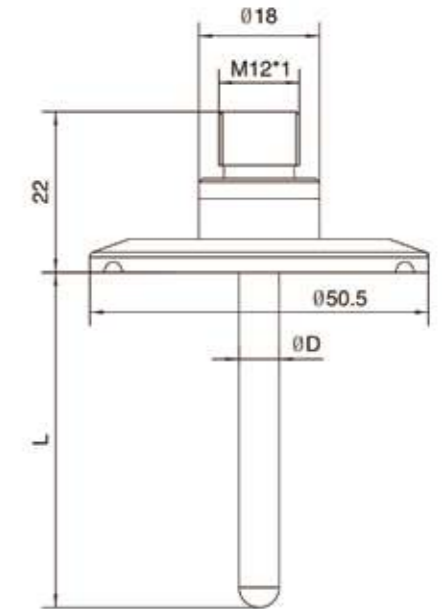
### Technical Parameter

| Series                     | ZTS1110                   | ZTS1111   | ZTS1112 |
|----------------------------|---------------------------|-----------|---------|
| Core Type                  | PT100                     |           | PT1000  |
| Core Grade                 | CLASS A                   | CLASS1/3B | /       |
| Temperature Range          | -20~150°C                 |           |         |
| Signal Output              | Three-wire Resistance     |           |         |
| Accuracy                   | ±(0.15+0.002x[t])         |           |         |
| Heat Transfer Velocity     | 1-3S                      |           |         |
| Liquid Connection Material | SUS316L                   |           |         |
| Process Connection         | 25.4mm Sanitary Chuck     |           |         |
| Rod Diameter               | 6mm                       |           |         |
| Electrical Connection      | M12*1 Aviation Connection |           |         |
| Compressive Strength       | Up to 25bar               |           |         |
| Protection Grade           | IP67                      |           |         |

| Order Number | Rod Diameter | Mounting Depth | Order Number | Rod Diameter | Mounting Depth | Order Number | Rod Diameter | Mounting Depth |
|--------------|--------------|----------------|--------------|--------------|----------------|--------------|--------------|----------------|
| ZTS1110602   | 6mm          | 25mm           | ZTS1111602   | 6mm          | 25mm           | ZTS1112602   | 6mm          | 25mm           |
| ZTS1110605   |              | 50mm           | ZTS1111605   |              | 50mm           | ZTS1112605   |              | 50mm           |
| ZTS1110610   |              | 100mm          | ZTS1111610   |              | 100mm          | ZTS1112610   |              | 100mm          |
| ZTS1110615   |              | 150mm          | ZTS1111615   |              | 150mm          | ZTS1112615   |              | 150mm          |

Note: Special specifications require confirmation of order number

## ZTS112 Series



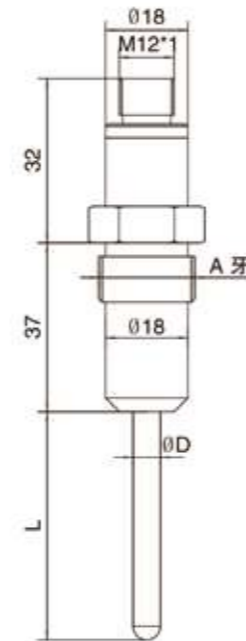
### Technical Parameter

| Series                     | ZTS1120                   | ZTS1121   | ZTS1122 |
|----------------------------|---------------------------|-----------|---------|
| Core Type                  | PT100                     |           | PT1000  |
| Core Grade                 | CLASS A                   | CLASS1/3B | /       |
| Temperature Range          | -20~150°C                 |           |         |
| Signal Output              | Three-wire Resistance     |           |         |
| Accuracy                   | ±(0.15+0.002x[t])         |           |         |
| Heat Transfer Velocity     | 1-3S                      |           |         |
| Liquid Connection Material | SUS316L                   |           |         |
| Process Connection         | 50.5mm Sanitary Chuck     |           |         |
| Rod Diameter               | 6mm/8mm                   |           |         |
| Electrical Connection      | M12*1 Aviation Connection |           |         |
| Compressive Strength       | Up to 25bar               |           |         |
| Protection Grade           | IP67                      |           |         |

| Order Number | Rod Diameter | Mounting Depth | Order Number | Rod Diameter | Mounting Depth | Order Number | Rod Diameter | Mounting Depth |
|--------------|--------------|----------------|--------------|--------------|----------------|--------------|--------------|----------------|
| ZTS1120603   | 6mm          | 30mm           | ZTS1121603   | 6mm          | 30mm           | ZTS1122603   | 6mm          | 30mm           |
| ZTS1120605   |              | 50mm           | ZTS1121605   |              | 50mm           | ZTS1122605   |              | 50mm           |
| ZTS1120610   |              | 100mm          | ZTS1121610   |              | 100mm          | ZTS1122610   |              | 100mm          |
| ZTS1120615   |              | 150mm          | ZTS1121615   |              | 150mm          | ZTS1122615   |              | 150mm          |
| ZTS1120805   | 8mm          | 50mm           | ZTS1121805   | 8mm          | 50mm           | ZTS1122805   | 8mm          | 50mm           |
| ZTS1120810   |              | 100mm          | ZTS1121810   |              | 100mm          | ZTS1122810   |              | 100mm          |
| ZTS1120815   |              | 150mm          | ZTS1121815   |              | 150mm          | ZTS1122815   |              | 150mm          |
| ZTS1120820   |              | 200mm          | ZTS1121820   |              | 200mm          | ZTS1122820   |              | 200mm          |

Note: Special specifications require confirmation of order number

## ZTS113 Series



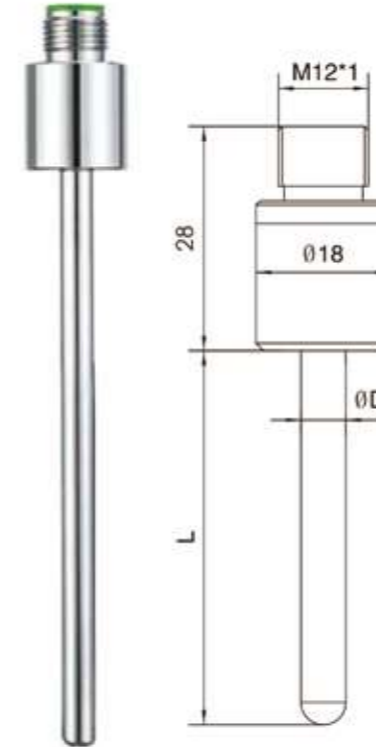
### Technical Parameter

| Series                     | ZTS1130                        | ZTS1131   | ZTS1132 |
|----------------------------|--------------------------------|-----------|---------|
| Core Type                  | PT100                          |           | PT1000  |
| Core Grade                 | CLASS A                        | CLASS1/3B | /       |
| Temperature Range          | -50~150°C                      |           |         |
| Signal Output              | Three-wire Resistance          |           |         |
| Accuracy                   | ±(0.15+0.002x[t])              |           |         |
| Heat Transfer Velocity     | 1-3S                           |           |         |
| Liquid Connection Material | SUS316L                        |           |         |
| Process Connection         | Sanitary Seal with G1/2" Taper |           |         |
| Rod Diameter               | 6mm/8mm                        |           |         |
| Electrical Connection      | M12*1 Aviation Connection      |           |         |
| Compressive Strength       | Up to 40bar                    |           |         |
| Protection Grade           | IP67                           |           |         |

| Order Number | Rod Diameter | Mounting Depth | Order Number | Rod Diameter | Mounting Depth | Order Number | Rod Diameter | Mounting Depth |
|--------------|--------------|----------------|--------------|--------------|----------------|--------------|--------------|----------------|
| ZTS113000A   | /            | Flush Mount    | ZTS113100A   | /            | Flush Mount    | ZTS113200A   | /            | Flush Mount    |
| ZTS1130603   | 6mm          | 30mm           | ZTS1131603   | 6mm          | 30mm           | ZTS1132603   | 6mm          | 30mm           |
| ZTS1130605   |              | 50mm           | ZTS1131605   |              | 50mm           | ZTS1132605   |              | 50mm           |
| ZTS1130610   |              | 100mm          | ZTS1131610   |              | 100mm          | ZTS1132610   |              | 100mm          |
| ZTS1130615   |              | 150mm          | ZTS1131615   |              | 150mm          | ZTS1132615   |              | 150mm          |
| ZTS1130805   | 8mm          | 50mm           | ZTS1131805   | 8mm          | 50mm           | ZTS1132805   | 8mm          | 50mm           |
| ZTS1130810   |              | 100mm          | ZTS1131810   |              | 100mm          | ZTS1132810   |              | 100mm          |
| ZTS1130815   |              | 150mm          | ZTS1131815   |              | 150mm          | ZTS1132815   |              | 150mm          |
| ZTS1130820   |              | 200mm          | ZTS1131820   |              | 200mm          | ZTS1132820   |              | 200mm          |

Note: Special specifications require confirmation of order number

## ZTS118 Series



### Technical Parameter

| Series                     | ZTS1180                   | ZTS1181   | ZTS1182 |
|----------------------------|---------------------------|-----------|---------|
| Core Type                  | PT100                     |           | PT1000  |
| Core Grade                 | CLASS A                   | CLASS1/3B | /       |
| Temperature Range          | -50~150°C                 |           |         |
| Signal Output              | Three-wire Resistance     |           |         |
| Accuracy                   | ±(0.15+0.002x[t])         |           |         |
| Heat Transfer Velocity     | 1-3S                      |           |         |
| Liquid Connection Material | SUS316L                   |           |         |
| Process Connection         | None (Matching Adapter)   |           |         |
| Rod Diameter               | 6mm/8mm/10mm              |           |         |
| Electrical Connection      | M12*1 Aviation Connection |           |         |
| Compressive Strength       | Up to 25bar               |           |         |
| Protection Grade           | IP67                      |           |         |

| Order Number | Rod Diameter | Mounting Depth | Order Number | Rod Diameter | Mounting Depth | Order Number | Rod Diameter | Mounting Depth |
|--------------|--------------|----------------|--------------|--------------|----------------|--------------|--------------|----------------|
| ZTS1180605   | 6mm          | 50mm           | ZTS1181605   | 6mm          | 50mm           | ZTS1182605   | 6mm          | 50mm           |
| ZTS1180610   |              | 100mm          | ZTS1181610   |              | 100mm          | ZTS1182610   |              | 100mm          |
| ZTS1180615   |              | 150mm          | ZTS1181615   |              | 150mm          | ZTS1182615   |              | 150mm          |
| ZTS1180620   |              | 200mm          | ZTS1181620   |              | 200mm          | ZTS1182620   |              | 200mm          |
| ZTS1180625   |              | 250mm          | ZTS1181625   |              | 250mm          | ZTS1182625   |              | 250mm          |
| ZTS1180630   |              | 300mm          | ZTS1181630   |              | 300mm          | ZTS1182630   |              | 300mm          |
| ZTS1180805   | 8mm          | 50mm           | ZTS1181805   | 8mm          | 50mm           | ZTS1182805   | 8mm          | 50mm           |
| ZTS1180810   |              | 100mm          | ZTS1181810   |              | 100mm          | ZTS1182810   |              | 100mm          |
| ZTS1180815   |              | 150mm          | ZTS1181815   |              | 150mm          | ZTS1182815   |              | 150mm          |
| ZTS1180820   |              | 200mm          | ZTS1181820   |              | 200mm          | ZTS1182820   |              | 200mm          |
| ZTS1180830   |              | 300mm          | ZTS1181830   |              | 300mm          | ZTS1182830   |              | 300mm          |
| ZTS1180840   |              | 400mm          | ZTS1181840   |              | 400mm          | ZTS1182840   |              | 400mm          |
| ZTS1180115   | 10mm         | 150mm          | ZTS118115    | 10mm         | 150mm          | ZTS1182115   | 10mm         | 150mm          |
| ZTS1180125   |              | 250mm          | ZTS1181125   |              | 250mm          | ZTS1182125   |              | 250mm          |
| ZTS1180135   |              | 350mm          | ZTS1181135   |              | 350mm          | ZTS1182135   |              | 350mm          |
| ZTS1180145   |              | 450mm          | ZTS1181145   |              | 450mm          | ZTS1182145   |              | 450mm          |
| ZTS1180155   |              | 550mm          | ZTS1181155   |              | 550mm          | ZTS1182155   |              | 550mm          |

Note: Special specifications require confirmation of order number

### ZTS121 Series



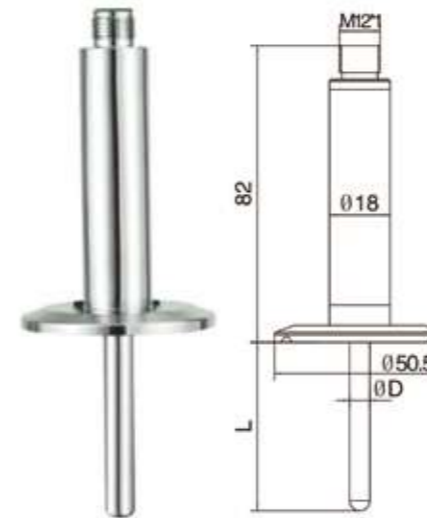
#### Technical Parameter

| Series                     | ZTS1210                   | ZTS1211        |
|----------------------------|---------------------------|----------------|
| Core Type                  | PT100                     |                |
| Core Grade                 | CLASS A                   | CLASS1/3B      |
| Temperature Range          | -50~150°C                 |                |
| Power Supply               | 24VDC                     |                |
| Signal Output              | 4-20mA two-wire           |                |
| Accuracy                   | ±0.3+(±0.1%Ms)            | ±0.2+(±0.1%Ms) |
| Heat Transfer Velocity     | 1-3S                      |                |
| Liquid Connection Material | SUS316L                   |                |
| Process Connection         | 25.4mm Sanitary Chuck     |                |
| Rod Diameter               | 6mm                       |                |
| Electrical Connection      | M12*1 Aviation Connection |                |
| Compressive Strength       | Up to 25bar               |                |
| Protection Grade           | IP67                      |                |

| Order Number | Rod Diameter | Mounting Depth | FactoryRange°C | Order Number | Rod Diameter | Mounting Depth | FactoryRange°C |
|--------------|--------------|----------------|----------------|--------------|--------------|----------------|----------------|
| ZTS1210602A  | 6mm          | 25mm           | 0-200          | ZTS1211602A  | 6mm          | 25mm           | 0-200          |
| ZTS1210605A  |              | 50mm           |                | ZTS1211605A  |              | 50mm           |                |
| ZTS1210610A  |              | 100mm          |                | ZTS1211610A  |              | 100mm          |                |
| ZTS1210615A  |              | 150mm          |                | ZTS1211615A  |              | 150mm          |                |
| ZTS1210602B  | 6mm          | 25mm           | 0-100          | ZTS1211602B  | 6mm          | 25mm           | 0-100          |
| ZTS1210605B  |              | 50mm           |                | ZTS1211605B  |              | 50mm           |                |
| ZTS1210610B  |              | 100mm          |                | ZTS1211610B  |              | 100mm          |                |
| ZTS1210615B  |              | 150mm          |                | ZTS1211615B  |              | 150mm          |                |
| ZTS1210602C  | 6mm          | 25mm           | -10-150        | ZTS1211602C  | 6mm          | 25mm           | -10-150        |
| ZTS1210605C  |              | 50mm           |                | ZTS1211605C  |              | 50mm           |                |
| ZTS1210610C  |              | 100mm          |                | ZTS1211610C  |              | 100mm          |                |
| ZTS1210615C  |              | 150mm          |                | ZTS1211615C  |              | 150mm          |                |

Note: Special specifications require confirmation of order number

### ZTS122 Series



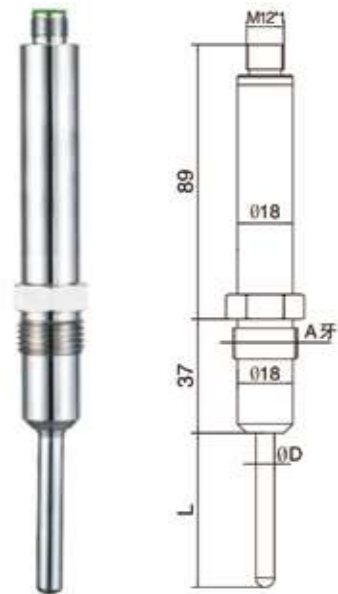
#### Technical Parameter

| Series                     | ZTS1220                   | ZTS1221        |
|----------------------------|---------------------------|----------------|
| Core Type                  | PT100                     |                |
| Core Grade                 | CLASS A                   | CLASS1/3B      |
| Temperature Range          | -50~150°C                 |                |
| Power Supply               | 24VDC                     |                |
| Signal Output              | 4-20mA two-wire           |                |
| Accuracy                   | ±0.3+(±0.1%Ms)            | ±0.2+(±0.1%Ms) |
| Heat Transfer Velocity     | 1-3S                      |                |
| Liquid Connection Material | SUS316L                   |                |
| Process Connection         | 50.5mm Sanitary Chuck     |                |
| Rod Diameter               | 6mm/8mm                   |                |
| Electrical Connection      | M12*1 Aviation Connection |                |
| Compressive Strength       | Up to 25bar               |                |
| Protection Grade           | IP67                      |                |

| Order Number | Rod Diameter | Mounting Depth | FactoryRange°C | Order Number | Rod Diameter | Mounting Depth | FactoryRange°C |
|--------------|--------------|----------------|----------------|--------------|--------------|----------------|----------------|
| ZTS1220603A  | 6mm          | 30mm           | 0-200          | ZTS1221603A  | 6mm          | 30mm           | 0-200          |
| ZTS1220605A  |              | 50mm           |                | ZTS1221605A  |              | 50mm           |                |
| ZTS1220610A  |              | 100mm          |                | ZTS1221610A  |              | 100mm          |                |
| ZTS1220615A  |              | 150mm          |                | ZTS1221615A  |              | 150mm          |                |
| ZTS1220805A  | 8mm          | 50mm           | 0-200          | ZTS1221805A  | 8mm          | 50mm           | 0-200          |
| ZTS1220810A  |              | 100mm          |                | ZTS1221810A  |              | 100mm          |                |
| ZTS1220815A  |              | 150mm          |                | ZTS1221815A  |              | 150mm          |                |
| ZTS1220820A  |              | 200mm          |                | ZTS1221820A  |              | 200mm          |                |
| ZTS1220603B  | 6mm          | 30mm           | 0-100          | ZTS1221603B  | 6mm          | 30mm           | 0-100          |
| ZTS1220605B  |              | 50mm           |                | ZTS1221605B  |              | 50mm           |                |
| ZTS1220610B  |              | 100mm          |                | ZTS1221610B  |              | 100mm          |                |
| ZTS1220615B  |              | 150mm          |                | ZTS1221615B  |              | 150mm          |                |
| ZTS1220805B  | 8mm          | 50mm           | 0-100          | ZTS1221805B  | 8mm          | 50mm           | 0-100          |
| ZTS1220810B  |              | 100mm          |                | ZTS1221810B  |              | 100mm          |                |
| ZTS1220815B  |              | 150mm          |                | ZTS1221815B  |              | 150mm          |                |
| ZTS1220820B  |              | 200mm          |                | ZTS1221820B  |              | 200mm          |                |
| ZTS1220603C  | 6mm          | 30mm           | -10-150        | ZTS1221603C  | 6mm          | 30mm           | -10-150        |
| ZTS1220605C  |              | 50mm           |                | ZTS1221605C  |              | 50mm           |                |
| ZTS1220610C  |              | 100mm          |                | ZTS1221610C  |              | 100mm          |                |
| ZTS1220615C  |              | 150mm          |                | ZTS1221615C  |              | 150mm          |                |
| ZTS1220805C  | 8mm          | 50mm           | -10-150        | ZTS1221805C  | 8mm          | 50mm           | -10-150        |
| ZTS1220810C  |              | 100mm          |                | ZTS1221810C  |              | 100mm          |                |
| ZTS1220815C  |              | 150mm          |                | ZTS1221815C  |              | 150mm          |                |
| ZTS1220820C  |              | 200mm          |                | ZTS1221820C  |              | 200mm          |                |

Note: Special specifications require confirmation of order number

## ZTS123 Series



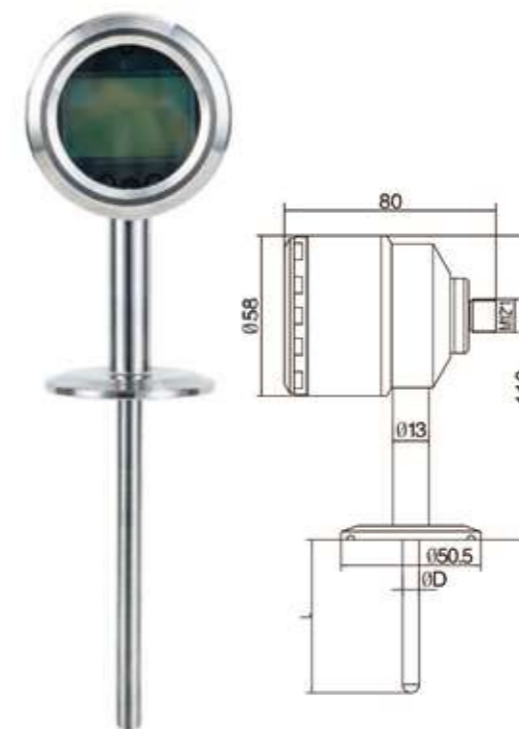
### Technical Parameter

| Series                     | ZTS1230                         | ZTS1231        |
|----------------------------|---------------------------------|----------------|
| Core Type                  | PT100                           |                |
| Core Grade                 | CLASS A                         | CLASS1/3B      |
| Temperature Range          | -50~150°C                       |                |
| Power Supply               | 24VDC                           |                |
| Signal Output              | 4-20mA two-wire                 |                |
| Accuracy                   | ±0.3+(±0.1%Ms)                  | ±0.2+(±0.1%Ms) |
| Heat Transfer Velocity     | 1-3S                            |                |
| Liquid Connection Material | SUS316L                         |                |
| Process Connection         | Sanitary Seal with G1/2 " Taper |                |
| Rod Diameter               | 6mm/8mm                         |                |
| Electrical Connection      | M12*1 Aviation Connection       |                |
| Compressive Strength       | Up to 40bar                     |                |
| Protection Grade           | IP67                            |                |

| Order Number | Rod Diameter | Mounting Depth | FactoryRange °C | Order Number | Rod Diameter | Mounting Depth | FactoryRange °C |
|--------------|--------------|----------------|-----------------|--------------|--------------|----------------|-----------------|
| ZTS123000AA  | /            | Flush Mount    | 0-200           | ZTS123100AA  | /            | Flush Mount    | 0-200           |
| ZTS1230603A  | 6mm          | 30mm           |                 | ZTS1231603A  | 6mm          | 30mm           |                 |
| ZTS1230605A  |              | 50mm           |                 | ZTS1231605A  |              | 50mm           |                 |
| ZTS1230610A  |              | 100mm          |                 | ZTS1231610A  |              | 100mm          |                 |
| ZTS1230615A  |              | 150mm          |                 | ZTS1231615A  |              | 150mm          |                 |
| ZTS1230805A  |              | 8mm            |                 | 50mm         |              | ZTS1231805A    |                 |
| ZTS1230810A  | 100mm        |                |                 | ZTS1231810A  | 100mm        |                |                 |
| ZTS1230815A  | 150mm        |                |                 | ZTS1231815A  | 150mm        |                |                 |
| ZTS1230820A  | 200mm        |                |                 | ZTS1231820A  | 200mm        |                |                 |
| ZTS123000AB  | /            |                |                 | Flush Mount  | 0-100        | ZTS123100AB    |                 |
| ZTS1230603B  | 6mm          | 30mm           | ZTS1231603B     | 6mm          |              | 30mm           |                 |
| ZTS1230605B  |              | 50mm           | ZTS1231605B     |              |              | 50mm           |                 |
| ZTS1230610B  |              | 100mm          | ZTS1231610B     |              |              | 100mm          |                 |
| ZTS1230615B  |              | 150mm          | ZTS1231615B     |              |              | 150mm          |                 |
| ZTS1230805B  |              | 8mm            | 50mm            |              |              | ZTS1231805B    | 8mm             |
| ZTS1230810B  | 100mm        |                | ZTS1231810B     | 100mm        |              |                |                 |
| ZTS1230815B  | 150mm        |                | ZTS1231815B     | 150mm        |              |                |                 |
| ZTS1230820B  | 200mm        |                | ZTS1231820B     | 200mm        |              |                |                 |
| ZTS123000AC  | /            |                | Flush Mount     | -10-150      |              | ZTS123100AC    |                 |
| ZTS1230603C  | 6mm          | 30mm           | ZTS1231603C     |              | 6mm          | 30mm           |                 |
| ZTS1230605C  |              | 50mm           | ZTS1231605C     |              |              | 50mm           |                 |
| ZTS1230610C  |              | 100mm          | ZTS1231610C     |              |              | 100mm          |                 |
| ZTS1230615C  |              | 150mm          | ZTS1231615C     |              |              | 150mm          |                 |
| ZTS1230805C  |              | 8mm            | 50mm            |              |              | ZTS1231805C    | 8mm             |
| ZTS1230810C  | 100mm        |                | ZTS1231810C     |              | 100mm        |                |                 |
| ZTS1230815C  | 150mm        |                | ZTS1231815C     |              | 150mm        |                |                 |
| ZTS1230820C  | 200mm        |                | ZTS1231820C     |              | 200mm        |                |                 |

Note: Special specifications require confirmation of order number

## ZTS125 Series



### Technical Parameter

| Series                     | ZTS1250   | ZTS1251        |
|----------------------------|---|----------------|
| Core Type                  | PT100   |                |
| Core Grade                 | CLASS A   | CLASS1/3B      |
| Temperature Range          | -20~250°C                                       |                |
| Power Supply               | 24VDC   |                |
| Signal Output              | 4-20mA two-wire LCD Display (optional 485/HART) |                |
| Accuracy                   | ±0.3+(±0.1%Ms)                                  | ±0.2+(±0.1%Ms) |
| Heat Transfer Velocity     | 1-3S  |                |
| Liquid Connection Material | SUS316L   |                |
| Process Connection         | 50.5mm Sanitary Chuck/Seal with G1/2 " Taper    |                |
| Rod Diameter               | 6mm/8mm   |                |
| Electrical Connection      | M12*1 Aviation Connection                       |                |
| Compressive Strength       | Up to 40bar                                     |                |
| Protection Grade           | IP67  |                |

| Order Number | Rod Diameter | Mounting Depth | Mounting Depth | Order Number | Rod Diameter | Mounting Depth  | Mounting Depth |
|--------------|--------------|----------------|----------------|--------------|--------------|-----------------|----------------|
| ZTS1250A605  | 6mm          | 50.5mm Clamp   | 50mm           | ZTS1250B605  | 6mm          | G1/2" Seal Cone | 50mm           |
| ZTS1250A610  |              |                | 100mm          | ZTS1250B610  |              |                 | 100mm          |
| ZTS1250A615  |              |                | 150mm          | ZTS1250B615  |              |                 | 150mm          |
| ZTS1250A805  | 8mm          | 50.5mm Clamp   | 50mm           | ZTS1250B805  | 8mm          | G1/2" Seal Cone | 50mm           |
| ZTS1250A810  |              |                | 100mm          | ZTS1250B810  |              |                 | 100mm          |
| ZTS1250A815  |              |                | 150mm          | ZTS1250B815  |              |                 | 150mm          |
| ZTS1250A820  |              |                | 200mm          | ZTS1250B820  |              |                 | 200mm          |
| ZTS1250A825  |              |                | 250mm          | ZTS1250B825  |              |                 | 250mm          |
| ZTS1250A830  | 6mm          | 50.5mm Clamp   | 300mm          | ZTS1250B830  | 6mm          | G1/2" Seal Cone | 300mm          |
| ZTS1251A605  |              |                | 50mm           | ZTS1251B605  |              |                 | 50mm           |
| ZTS1251A610  |              |                | 100mm          | ZTS1251B610  |              |                 | 100mm          |
| ZTS1251A615  | 8mm          | 50.5mm Clamp   | 150mm          | ZTS1251B615  | 8mm          | G1/2" Seal Cone | 150mm          |
| ZTS1251A805  |              |                | 50mm           | ZTS1251B805  |              |                 | 50mm           |
| ZTS1251A810  |              |                | 100mm          | ZTS1251B810  |              |                 | 100mm          |
| ZTS1251A815  |              |                | 150mm          | ZTS1251B815  |              |                 | 150mm          |
| ZTS1251A820  |              |                | 200mm          | ZTS1251B820  |              |                 | 200mm          |
| ZTS1251A825  | 8mm          | 50.5mm Clamp   | 250mm          | ZTS1251B825  | 8mm          | G1/2" Seal Cone | 250mm          |
| ZTS1251A830  |              |                | 300mm          | ZTS1251B830  |              |                 | 300mm          |

Note: Special specifications require confirmation of order number

## ZTS126 Series



### Technical Parameter

| Series                     | ZTS1250                                     | ZTS1251                             |
|----------------------------|---|-------------------------------------|
| Core Type                  | PT100                                       |                                     |
| Core Grade                 | CLASS A                                     | CLASS1/3B                           |
| Temperature Range          | -50~300°C                                   |                                     |
| Power Supply               | /   | 24VDC                               |
| Signal Output              | Three-wire Resistance                       | 4-20mA two-wire (optional 485/HART) |
| Accuracy                   | ±0.3+(±0.1%Ms)                              | ±0.2+(±0.1%Ms)                      |
| Heat Transfer Velocity     | 1-3S  |                                     |
| Liquid Connection Material | SUS316L                                     |                                     |
| Process Connection         | 50.5mm Sanitary Chuck/Seal with G1/2" Taper |                                     |
| Rod Diameter               | 6mm/8mm                                     |                                     |
| Electrical Connection      | M12*1 Aviation Connection                   |                                     |
| Compressive Strength       | Up to 40bar                                 |                                     |
| Protection Grade           | IP67  |                                     |

| Order Number  | Rod Diameter | Process Connection | Insertion Depth | Order Number  | Rod Diameter | Process Connection | Insertion Depth |
|---------------|--------------|--------------------|-----------------|---------------|--------------|--------------------|-----------------|
| ZTS1260A605-□ | 6mm          | 50.5mmKP           | 50mm            | ZTS1260B605-□ | 6mm          | G1/2" Sealing Cone | 50mm            |
| ZTS1260A610-□ |              |                    | 100mm           | ZTS1260B610-□ |              |                    | 100mm           |
| ZTS1260A615-□ |              |                    | 150mm           | ZTS1260B615-□ |              |                    | 150mm           |
| ZTS1260A805-□ | 8mm          |                    | 50mm            | ZTS1260B805-□ | 8mm          |                    | 50mm            |
| ZTS1260A810-□ |              |                    | 100mm           | ZTS1260B810-□ |              |                    | 100mm           |
| ZTS1260A815-□ |              |                    | 150mm           | ZTS1260B815-□ |              |                    | 150mm           |
| ZTS1260A820-□ |              |                    | 200mm           | ZTS1260B820-□ |              |                    | 200mm           |
| ZTS1260A825-□ |              |                    | 250mm           | ZTS1260B825-□ |              |                    | 250mm           |
| ZTS1260A830-□ |              |                    | 300mm           | ZTS1260B830-□ |              |                    | 300mm           |
| ZTS1261A605-□ | 6mm          |                    | 50mm            | ZTS1261B605-□ | 6mm          |                    | 50mm            |
| ZTS1261A610-□ |              |                    | 100mm           | ZTS1261B610-□ |              |                    | 100mm           |
| ZTS1261A615-□ |              |                    | 150mm           | ZTS1261B615-□ |              |                    | 150mm           |
| ZTS1261A805-□ | 8mm          |                    | 50mm            | ZTS1261B805-□ | 8mm          |                    | 50mm            |
| ZTS1261A810-□ |              |                    | 100mm           | ZTS1261B810-□ |              |                    | 100mm           |
| ZTS1261A815-□ |              |                    | 150mm           | ZTS1261B815-□ |              |                    | 150mm           |
| ZTS1261A820-□ |              |                    | 200mm           | ZTS1261B820-□ |              |                    | 200mm           |
| ZTS1261A825-□ |              |                    | 250mm           | ZTS1261B825-□ |              |                    | 250mm           |
| ZTS1261A830-□ |              |                    | 300mm           | ZTS1261B830-□ |              |                    | 300mm           |

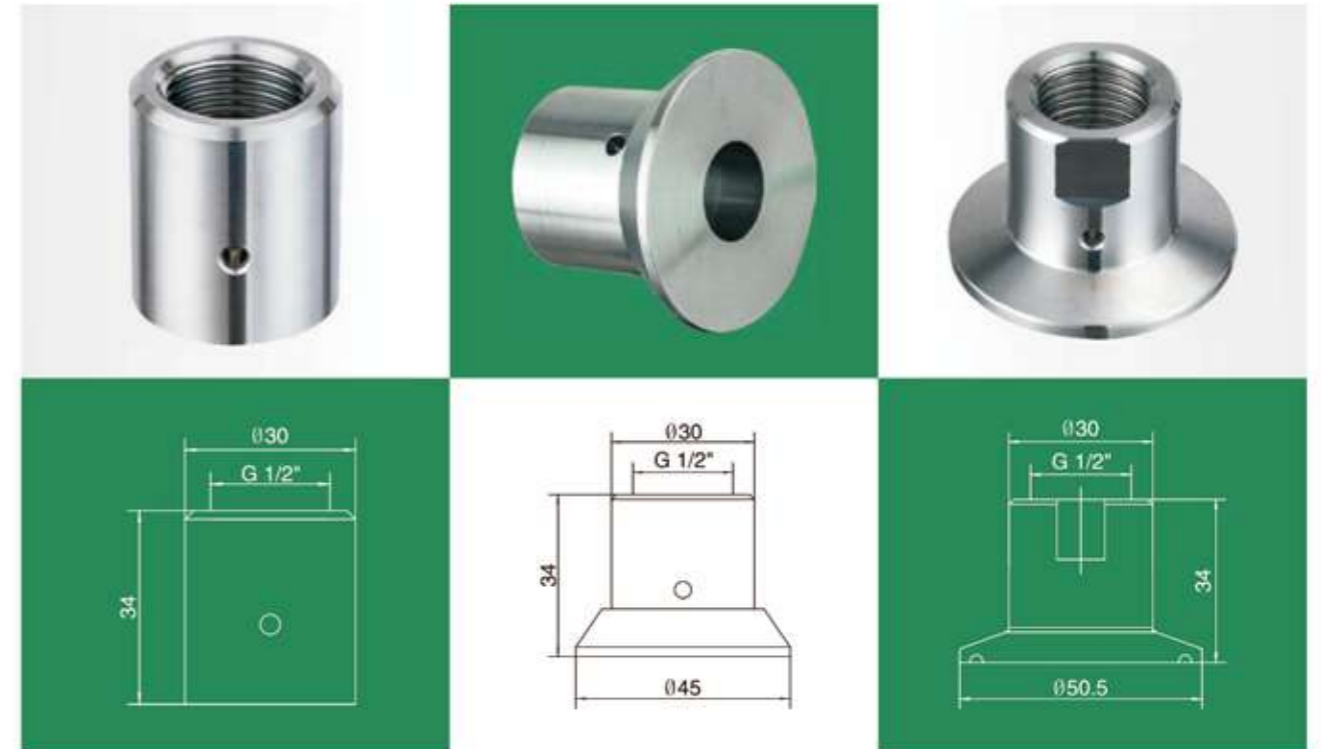
Note \* Code for signal output:

- Blank: three-wire resistance signal
- A: 4-20mA two-wire
- B: 4-20mA two-wire HART

Example: ZTS1260A605 (Temperature sensor 126 series, CLASS A core, 50.5mm outside diameter sanitary chuck, 6mm rod diameter, insert 50mm, standard three-wire resistance signal output) ZTS1260A605-A(Temperature transmitter 126 series, CLASS A core, 50.5mm OD sanitary chuck, 6mm rod diameter, insert 50mm, 4-20mA two-wire current signal output, power supply 24VDC)

Note: Special specifications require confirmation of order number

### Installation Accessories



ADAPTS G1/2"(ZF) taper sanitary seal temperature products

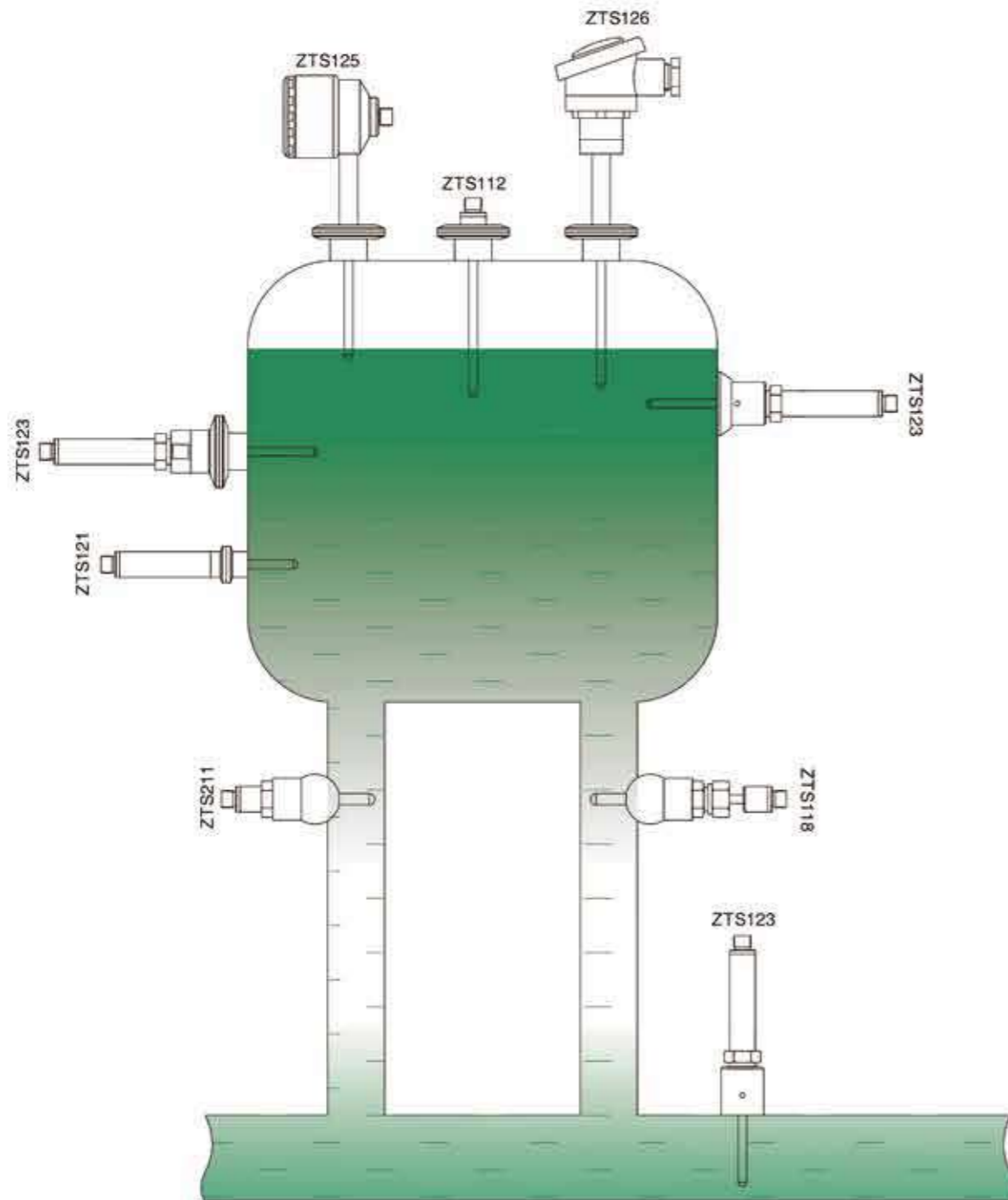


It is suitable for sanitary sealing welding base of common threaded connection temperature products

It is suitable for ZTS118 series products with optional thread specifications



### Sanitary installation diagram

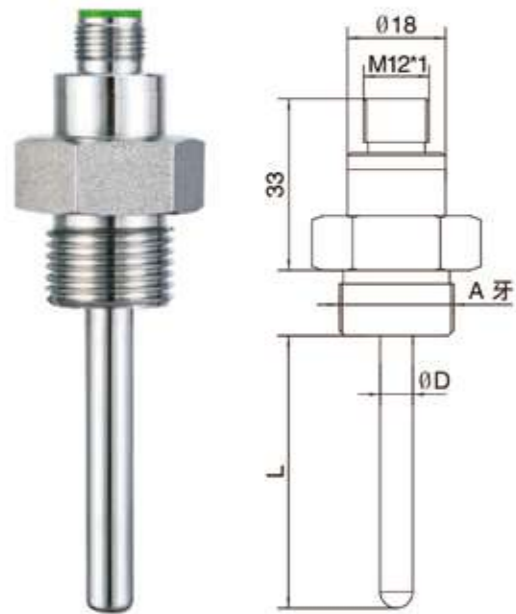


## Temperature Sensor/Transmitter

「For Industrial Application」



## ZTS211 Series



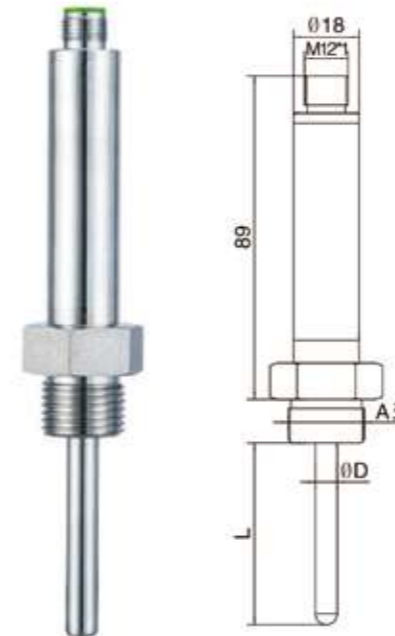
### Technical Parameter

| Series                     | ZTS2110                   | ZTS2111   | ZTS2112 |
|----------------------------|---------------------------|-----------|---------|
| Core Type                  | PT100                     |           | PT1000  |
| Core Grade                 | CLASS A                   | CLASS1/3B | /       |
| Temperature Range          | -50~150°C                 |           |         |
| Signal Output              | Three-wire Resistance     |           |         |
| Accuracy                   | ±(0.15+0.002x[t])         |           |         |
| Heat Transfer Velocity     | 1-3S                      |           |         |
| Liquid Connection Material | SUS316L                   |           |         |
| Process Connection         | G1/8"、G1/4"、G1/2"、G3/4"等  |           |         |
| Rod Diameter               | 6mm/8mm                   |           |         |
| Electrical Connection      | M12*1 Aviation Connection |           |         |
| Compressive Strength       | Up to 40bar               |           |         |
| Protection Grade           | IP67                      |           |         |

| Order Number | Rod Diameter | Process Connection | Measuring Length | Order Number | Rod Diameter | Process Connection | Insertion Depth | Order Number | Rod Diameter | Process Connection | Insertion Depth |
|--------------|--------------|--------------------|------------------|--------------|--------------|--------------------|-----------------|--------------|--------------|--------------------|-----------------|
| ZTS2110A605  | 6mm          | G1/8"              | 50mm             | ZTS2111A605  | 6mm          | G1/8"              | 50mm            | ZTS2112A605  | 6mm          | G1/8"              | 50mm            |
| ZTS2110A610  |              |                    | 100mm            | ZTS2111A610  |              |                    | 100mm           | ZTS2112A610  |              |                    | 100mm           |
| ZTS2110A615  |              |                    | 150mm            | ZTS2111A615  |              |                    | 150mm           | ZTS2112A615  |              |                    | 150mm           |
| ZTS2110B605  | 6mm          | G1/4"              | 50mm             | ZTS2111B605  | 6mm          | G1/4"              | 50mm            | ZTS2112B605  | 6mm          | G1/4"              | 50mm            |
| ZTS2110B610  |              |                    | 100mm            | ZTS2111B610  |              |                    | 100mm           | ZTS2112B610  |              |                    | 100mm           |
| ZTS2110B615  |              |                    | 150mm            | ZTS2111B615  |              |                    | 150mm           | ZTS2112B615  |              |                    | 150mm           |
| ZTS2110B805  | 8mm          | G1/4"              | 50mm             | ZTS2111B805  | 8mm          | G1/4"              | 50mm            | ZTS2112B805  | 8mm          | G1/4"              | 50mm            |
| ZTS2110B810  |              |                    | 100mm            | ZTS2111B810  |              |                    | 100mm           | ZTS2112B810  |              |                    | 100mm           |
| ZTS2110B815  |              |                    | 150mm            | ZTS2111B815  |              |                    | 150mm           | ZTS2112B815  |              |                    | 150mm           |
| ZTS2110C605  | 6mm          | G1/2"              | 50mm             | ZTS2111C605  | 6mm          | G1/2"              | 50mm            | ZTS2112C605  | 6mm          | G1/2"              | 50mm            |
| ZTS2110C610  |              |                    | 100mm            | ZTS2111C610  |              |                    | 100mm           | ZTS2112C610  |              |                    | 100mm           |
| ZTS2110C615  |              |                    | 150mm            | ZTS2111C615  |              |                    | 150mm           | ZTS2112C615  |              |                    | 150mm           |
| ZTS2110C805  | 8mm          | G1/2"              | 50mm             | ZTS2111C805  | 8mm          | G1/2"              | 50mm            | ZTS2112C805  | 8mm          | G1/2"              | 50mm            |
| ZTS2110C810  |              |                    | 100mm            | ZTS2111C810  |              |                    | 100mm           | ZTS2112C810  |              |                    | 100mm           |
| ZTS2110C815  |              |                    | 150mm            | ZTS2111C815  |              |                    | 150mm           | ZTS2112C815  |              |                    | 150mm           |
| ZTS2110C820  | 8mm          | G3/4"              | 200mm            | ZTS2111C820  | 8mm          | G3/4"              | 200mm           | ZTS2112C820  | 8mm          | G3/4"              | 200mm           |
| ZTS2110B825  |              |                    | 250mm            | ZTS2111B825  |              |                    | 250mm           | ZTS2112B825  |              |                    | 250mm           |
| ZTS2110D805  |              |                    | 50mm             | ZTS2111D805  |              |                    | 50mm            | ZTS2112D805  |              |                    | 50mm            |
| ZTS2110D810  | 8mm          | G3/4"              | 100mm            | ZTS2111D810  | 8mm          | G3/4"              | 100mm           | ZTS2112D810  | 8mm          | G3/4"              | 100mm           |
| ZTS2110D815  |              |                    | 150mm            | ZTS2111D815  |              |                    | 150mm           | ZTS2112D815  |              |                    | 150mm           |
| ZTS2110D820  |              |                    | 200mm            | ZTS2111D820  |              |                    | 200mm           | ZTS2112D820  |              |                    | 200mm           |
| ZTS2110D825  | 8mm          | G3/4"              | 250mm            | ZTS2111D825  | 8mm          | G3/4"              | 250mm           | ZTS2112D825  | 8mm          | G3/4"              | 250mm           |
| ZTS2110D830  |              |                    | 300mm            | ZTS2111D830  |              |                    | 300mm           | ZTS2112D830  |              |                    | 300mm           |

Note: Special specifications require confirmation of order number

## ZTS221 Series



### Technical Parameter

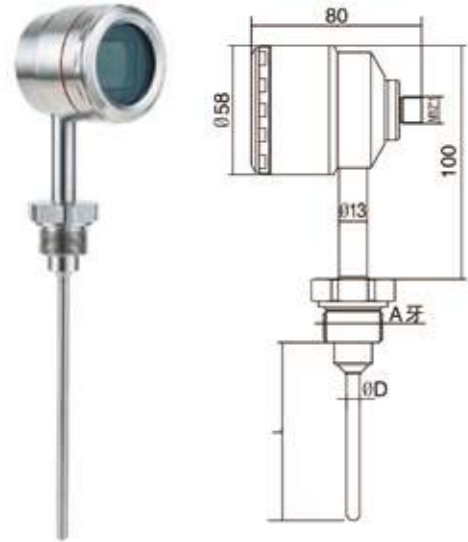
| Series                     | ZTS2210                   | ZTS2211        |
|----------------------------|---------------------------|----------------|
| Core Type                  | PT100                     |                |
| Core Grade                 | CLASS A                   | CLASS1/3B      |
| Temperature Range          | -50~150°C                 |                |
| Power Supply               | 24VDC                     |                |
| Signal Output              | 4-20mA two-wire           |                |
| Accuracy                   | ±0.3+(±0.1%Ms)            | ±0.2+(±0.1%Ms) |
| Heat Transfer Velocity     | 1-3S                      |                |
| Liquid Connection Material | SUS316L                   |                |
| Process Connection         | G1/8"、G1/4"、G1/2"、G3/4"等  |                |
| Rod Diameter               | 6mm/8mm                   |                |
| Electrical Connection      | M12*1 Aviation Connection |                |
| Compressive Strength       | Up to 40bar               |                |
| Protection Grade           | IP67                      |                |

| Order Number | Rod Diameter | Process Connection | Measuring Length | Order Number | Rod Diameter | Process Connection | Insertion Depth | Order Number | Rod Diameter | Process Connection | Insertion Depth |
|--------------|--------------|--------------------|------------------|--------------|--------------|--------------------|-----------------|--------------|--------------|--------------------|-----------------|
| ZTS2210A605  | 6mm          | G1/8"              | 50mm             | ZTS2211A605  | 6mm          | G1/8"              | 50mm            | ZTS2212A605  | 6mm          | G1/8"              | 50mm            |
| ZTS2210A610  |              |                    | 100mm            | ZTS2211A610  |              |                    | 100mm           | ZTS2212A610  |              |                    | 100mm           |
| ZTS2210A615  |              |                    | 150mm            | ZTS2211A615  |              |                    | 150mm           | ZTS2212A615  |              |                    | 150mm           |
| ZTS2210B605  | 6mm          | G1/4"              | 50mm             | ZTS2211B605  | 6mm          | G1/4"              | 50mm            | ZTS2212B605  | 6mm          | G1/4"              | 50mm            |
| ZTS2210B610  |              |                    | 100mm            | ZTS2211B610  |              |                    | 100mm           | ZTS2212B610  |              |                    | 100mm           |
| ZTS2210B615  |              |                    | 150mm            | ZTS2211B615  |              |                    | 150mm           | ZTS2212B615  |              |                    | 150mm           |
| ZTS2210B805  | 8mm          | G1/4"              | 50mm             | ZTS2211B805  | 8mm          | G1/4"              | 50mm            | ZTS2212B805  | 8mm          | G1/4"              | 50mm            |
| ZTS2210B810  |              |                    | 100mm            | ZTS2211B810  |              |                    | 100mm           | ZTS2212B810  |              |                    | 100mm           |
| ZTS2210B815  |              |                    | 150mm            | ZTS2211B815  |              |                    | 150mm           | ZTS2212B815  |              |                    | 150mm           |
| ZTS2210C605  | 6mm          | G1/2"              | 50mm             | ZTS2211C605  | 6mm          | G1/2"              | 50mm            | ZTS2212C605  | 6mm          | G1/2"              | 50mm            |
| ZTS2210C610  |              |                    | 100mm            | ZTS2211C610  |              |                    | 100mm           | ZTS2212C610  |              |                    | 100mm           |
| ZTS2210C615  |              |                    | 150mm            | ZTS2211C615  |              |                    | 150mm           | ZTS2212C615  |              |                    | 150mm           |
| ZTS2210C805  | 8mm          | G1/2"              | 50mm             | ZTS2211C805  | 8mm          | G1/2"              | 50mm            | ZTS2212C805  | 8mm          | G1/2"              | 50mm            |
| ZTS2210C810  |              |                    | 100mm            | ZTS2211C810  |              |                    | 100mm           | ZTS2212C810  |              |                    | 100mm           |
| ZTS2210C815  |              |                    | 150mm            | ZTS2211C815  |              |                    | 150mm           | ZTS2212C815  |              |                    | 150mm           |
| ZTS2210C820  | 8mm          | G3/4"              | 200mm            | ZTS2211C820  | 8mm          | G3/4"              | 200mm           | ZTS2212C820  | 8mm          | G3/4"              | 200mm           |
| ZTS2210B825  |              |                    | 250mm            | ZTS2211B825  |              |                    | 250mm           | ZTS2212B825  |              |                    | 250mm           |
| ZTS2210D805  |              |                    | 50mm             | ZTS2211D805  |              |                    | 50mm            | ZTS2212D805  |              |                    | 50mm            |
| ZTS2210D810  | 8mm          | G3/4"              | 100mm            | ZTS2211D810  | 8mm          | G3/4"              | 100mm           | ZTS2212D810  | 8mm          | G3/4"              | 100mm           |
| ZTS2210D815  |              |                    | 150mm            | ZTS2211D815  |              |                    | 150mm           | ZTS2212D815  |              |                    | 150mm           |
| ZTS2210D820  |              |                    | 200mm            | ZTS2211D820  |              |                    | 200mm           | ZTS2212D820  |              |                    | 200mm           |
| ZTS2210D825  | 8mm          | G3/4"              | 250mm            | ZTS2211D825  | 8mm          | G3/4"              | 250mm           | ZTS2212D825  | 8mm          | G3/4"              | 250mm           |
| ZTS2210D830  |              |                    | 300mm            | ZTS2211D830  |              |                    | 300mm           | ZTS2212D830  |              |                    | 300mm           |

Note: Special specifications require confirmation of order number

Note: Special specifications require confirmation of order number

## ZTS225 Series



### Technical Parameter

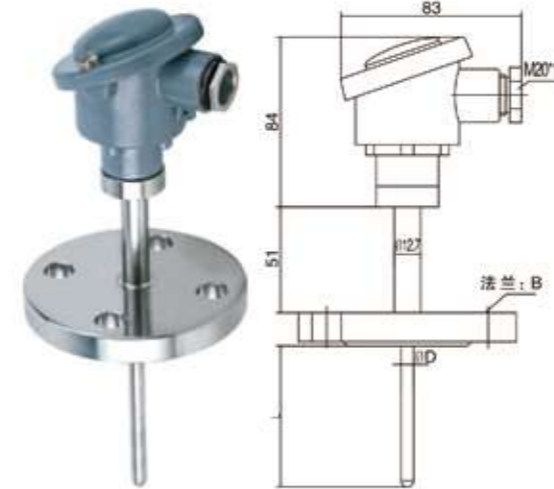
| Series                     | ZTS2250   | ZTS2251        |
|----------------------------|---|----------------|
| Core Type                  | PT100   |                |
| Core Grade                 | CLASS A   | CLASS1/3B      |
| Temperature Range          | -50~250°C                                       |                |
| Power Supply               | 24VDC   |                |
| Signal Output              | 4-20mA two-wire LCD Display (optional 485/HART) |                |
| Accuracy                   | ±0.3+(±0.1%Ms)                                  | ±0.2+(±0.1%Ms) |
| Heat Transfer Velocity     | 1-3S  |                |
| Liquid Connection Material | SUS304/SUS316L                                  |                |
| Process Connection         | G1/2"、G3/4"、G1"                                 |                |
| Rod Diameter               | 6mm/8mm   |                |
| Electrical Connection      | M12*1 Aviation Connection                       |                |
| Compressive Strength       | Up to 40bar                                     |                |
| Protection Grade           | IP67  |                |

### 225 Series Selection Table

| ZTS225                                   |  | □   | □  | □  | □ | □ | □ | □ | □ | □ | □ |
|--|--|---|--|----|---|---|---|---|---|---|---|
| <b>Product Category</b>                  |  | CLASS A Core  | 0  |    |   |   |   |   |   |   |   |
|  |  | CLASS 1/3B Core   | 1  |    |   |   |   |   |   |   |   |
| <b>Power Supply and Output</b>           |  | 4-20mA two-wire LCD   | A  |    |   |   |   |   |   |   |   |
|  |  | 4-20mA two-wire LCD HART  | B  |    |   |   |   |   |   |   |   |
|  |  | Special Custom  | S  |    |   |   |   |   |   |   |   |
| <b>Liquid Connection Material</b>        |  | SUS304  | 0  |    |   |   |   |   |   |   |   |
|  |  | SUS316L   | 6  |    |   |   |   |   |   |   |   |
|  |  | Special Custom  | S  |    |   |   |   |   |   |   |   |
| <b>Process Connection</b>                |  | <b>Dimension</b>  | <b>Specification (as per standard combination)</b> |    |   |   |   |   |   |   |   |
|  |  | M20*1.5   |  | 20 |   |   |   |   |   |   |   |
|  |  | M27*2   |  | 27 |   |   |   |   |   |   |   |
|  |  | G1/2"   |  | G1 |   |   |   |   |   |   |   |
|  |  | G3/4"   |  | G2 |   |   |   |   |   |   |   |
|  |  | G1"   |  | G3 |   |   |   |   |   |   |   |
|  |  | 1/2"PT  |  | P1 |   |   |   |   |   |   |   |
|  |  | 3/4"PT  |  | P2 |   |   |   |   |   |   |   |
|  |  | 1"PT  |  | P3 |   |   |   |   |   |   |   |
|  |  | 1/2"NPT   |  | N1 |   |   |   |   |   |   |   |
|  |  | 3/4"NPT   |  | N2 |   |   |   |   |   |   |   |
|  |  | 1"NPT   |  | N3 |   |   |   |   |   |   |   |
|  |  | 3/4"(20A)   | Flange GB-PN10                                     | 2  | B |   |   |   |   |   |   |
|  |  | 1"(25A)   | GB-PN16 Flange GB-PN16                             | 3  | C |   |   |   |   |   |   |
|  |  | 1-1/2"(40A)   | GB-PN25 Flange GB-PN25                             | 4  | D |   |   |   |   |   |   |
|  |  | 2"(50A)   | GB-PN40 Flange GB-PN40                             | 5  | E |   |   |   |   |   |   |
|  |  | Special Custom  | Special Custom                                     | S  | S |   |   |   |   |   |   |
| <b>Measuring Rod Diameter</b>            |  | 6mm   |  | 6  |   |   |   |   |   |   |   |
|  |  | 8mm   |  | 8  |   |   |   |   |   |   |   |
|  |  | 10mm  |  | 0  |   |   |   |   |   |   |   |
|  |  | 12.7mm  |  | 1  |   |   |   |   |   |   |   |
|  |  | 16mm  |  | 2  |   |   |   |   |   |   |   |
|  |  | Special Custom  |  | S  |   |   |   |   |   |   |   |
| <b>Measuring Stick Length (UNIT: mm)</b> |  | 100mm (Please refer to the technical parameter table for measuring range) |  | 0  | 1 | 0 | 0 |   |   |   |   |

Note: "-" in the selection is not included in the code  
 Example: ZTS2250A0G180100(CLASS A core; -20mA two-wire tape LCD liquid crystal display; SUS304; G1/2; Rod diameter 8mm; Insert length 100mm)

## ZTS226 Series



### Technical Parameter

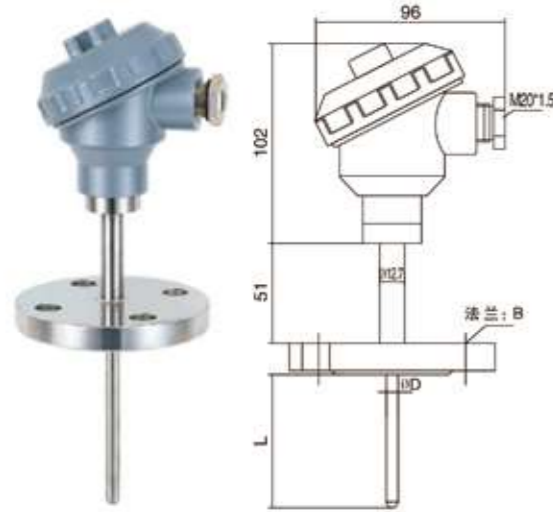
| Series                     | ZTS2260                                       | ZTS2261                             |
|----------------------------|---|-------------------------------------|
| Core Type                  | PT100   |                                     |
| Core Grade                 | CLASS A                                       | CLASS1/3B                           |
| Temperature Range          | -50~300°C                                     |                                     |
| Power Supply               | /   | 24VDC                               |
| Signal Output              | Three-wire Resistance                         | 4-20mA two-wire (optional 485/HART) |
| Accuracy                   | ±0.3+(±0.1%Ms)                                | ±0.2+(±0.1%Ms)                      |
| Heat Transfer Velocity     | 1-3S  |                                     |
| Liquid Connection Material | SUS304/SUS316L                                |                                     |
| Process Connection         | Thread: G1/2"~G2", etc Flange: DN15~DN50, etc |                                     |
| Rod Diameter               | 6mm/8mm, etc                                  |                                     |
| Electrical Connection      | M20*1.5                                       |                                     |
| Compressive Strength       | Up to 40bar                                   |                                     |
| Protection Grade           | IP65  |                                     |

### 226 Series Selection Table

| ZTS226                                   |  | □   | □  | □  | □ | □ | □ | □ | □ | □ | □ |
|--|--|---|--|----|---|---|---|---|---|---|---|
| <b>Product Category</b>                  |  | CLASS A Core  |  |    |   |   |   |   |   |   |   |
|  |  | CLASS 1/3B Core   | 0  |    |   |   |   |   |   |   |   |
| <b>Power Supply and Output</b>           |  | Three-wire Resistance Signal  | 1  |    |   |   |   |   |   |   |   |
|  |  | 4-20mA two-wire   | A  |    |   |   |   |   |   |   |   |
|  |  | 4-20mA two-wire HART  | B  |    |   |   |   |   |   |   |   |
|  |  | Special Custom  | S  |    |   |   |   |   |   |   |   |
| <b>Liquid Connection Material</b>        |  | SUS304  | 0  |    |   |   |   |   |   |   |   |
|  |  | SUS316L   | 6  |    |   |   |   |   |   |   |   |
|  |  | Special Custom  | S  |    |   |   |   |   |   |   |   |
| <b>Process Connection</b>                |  | <b>Dimension</b>  | <b>Specification (as per standard combination)</b> |    |   |   |   |   |   |   |   |
|  |  | M20*1.5   |  | 20 |   |   |   |   |   |   |   |
|  |  | M27*2   |  | 27 |   |   |   |   |   |   |   |
|  |  | G1/2"   |  | G1 |   |   |   |   |   |   |   |
|  |  | G3/4"   |  | G2 |   |   |   |   |   |   |   |
|  |  | G1"   |  | G3 |   |   |   |   |   |   |   |
|  |  | 1/2"PT  |  | P1 |   |   |   |   |   |   |   |
|  |  | 3/4"PT  |  | P2 |   |   |   |   |   |   |   |
|  |  | 1"PT  |  | P3 |   |   |   |   |   |   |   |
|  |  | 1/2"NPT   |  | N1 |   |   |   |   |   |   |   |
|  |  | 3/4"NPT   |  | N2 |   |   |   |   |   |   |   |
|  |  | 1"NPT   |  | N3 |   |   |   |   |   |   |   |
|  |  | 3/4"(20A)   | Flange GB-PN10                                     | 2  | B |   |   |   |   |   |   |
|  |  | 1"(25A)   | GB-PN16 Flange GB-PN16                             | 3  | C |   |   |   |   |   |   |
|  |  | 1-1/2"(40A)   | GB-PN25 Flange GB-PN25                             | 4  | D |   |   |   |   |   |   |
|  |  | 2"(50A)   | GB-PN40 Flange GB-PN40                             | 5  | E |   |   |   |   |   |   |
|  |  | Special Custom  | Special Custom                                     | S  | S |   |   |   |   |   |   |
| <b>Measuring Rod Diameter</b>            |  | 6mm   |  | 6  |   |   |   |   |   |   |   |
|  |  | 8mm   |  | 8  |   |   |   |   |   |   |   |
|  |  | 10mm  |  | 0  |   |   |   |   |   |   |   |
|  |  | 12.7mm  |  | 1  |   |   |   |   |   |   |   |
|  |  | 16mm  |  | 2  |   |   |   |   |   |   |   |
|  |  | Special Custom  |  | S  |   |   |   |   |   |   |   |
| <b>Measuring Stick Length (UNIT: mm)</b> |  | 100mm (Please refer to the technical parameter table for measuring range) |  | 0  | 1 | 0 | 0 |   |   |   |   |

Note: "-" in the selection is not included in the code  
 Example: ZTS2260A0G180100(CLASS A core; 4-20mA two-wire; SUS304; G1/2; Rod diameter 8mm; Insert length 100mm)

## ZTS228 Series



### Technical Parameter

| Series                     | ZTS2280                                      |                                     |
|----------------------------|--|-------------------------------------|
| Core Type                  | PT100  |                                     |
| Core Grade                 | CLASS A                                      |                                     |
| Temperature Range          | -50~300°C                                    |                                     |
| Power Supply               | /  | 24VDC                               |
| Signal Output              | Three-wire Resistance                        | 4-20mA two-wire (optional 485/HART) |
| Accuracy                   | ±0.3+(±0.1%Ms)                               | ±0.2+(±0.1%Ms)                      |
| Heat Transfer Velocity     | 1-3S   |                                     |
| Liquid Connection Material | SUS304/SUS316L                               |                                     |
| Process Connection         | Thread: G1/2"-G2",etc Flange: DN15~DN50 ,etc |                                     |
| Rod Diameter               | 6mm/8mm,etc                                  |                                     |
| Electrical Connection      | M20*1.5                                      |                                     |
| Compressive Strength       | Up to 40bar                                  |                                     |
| Protection Grade           | IP65   |                                     |

### 228 Series Selection Table

| ZTS228                            |   |   | □ - □ - □ - □ - □ - □ - □ |   |   |   |  |
|-----------------------------------|---|---|---------------------------|---|---|---|--|
| Product Category                  | CLASS A Core  |   | 0                         |   |   |   |  |
| Power Supply and Output           | Three-wire Resistance Signal  |   | T                         |   |   |   |  |
|                                   | 4-20mA two-wire   |   | A                         |   |   |   |  |
|                                   | 4-20mA two-wire HART  |   | B                         |   |   |   |  |
|                                   | Special Custom  |   | S                         |   |   |   |  |
| Liquid Connection Material        | SUS304  |   | 0                         |   |   |   |  |
|                                   | SUS316L   |   | 6                         |   |   |   |  |
|                                   | Special Custom  |   | S                         |   |   |   |  |
| Process Connection                | Dimension   | Specification (as per standard combination) |                           |   |   |   |  |
|                                   | M20*1.5   |   | 20                        |   |   |   |  |
|                                   | M27*2   |   | 27                        |   |   |   |  |
|                                   | G1/2"   |   | G1                        |   |   |   |  |
|                                   | G3/4"   |   | G2                        |   |   |   |  |
|                                   | G1"   |   | G3                        |   |   |   |  |
|                                   | 1/2"PT  |   | P1                        |   |   |   |  |
|                                   | 3/4"PT  |   | P2                        |   |   |   |  |
|                                   | 1"PT  |   | P3                        |   |   |   |  |
|                                   | 1/2"NPT   |   | N1                        |   |   |   |  |
|                                   | 3/4"NPT   |   | N2                        |   |   |   |  |
|                                   | 1"NPT   |   | N3                        |   |   |   |  |
|                                   | 3/4"(20A)   | Flange GB-PN10                              | 2                         | B |   |   |  |
|                                   | 1"(25A)   | GB-PN16 Flange GB-PN16                      | 3                         | C |   |   |  |
|                                   | 1-1/2"(40A)   | GB-PN25 Flange GB-PN25                      | 4                         | D |   |   |  |
|                                   | 2"(50A)   | GB-PN40 Flange GB-PN40                      | 5                         | E |   |   |  |
|                                   | Special Custom  | Special Custom                              | S                         | S |   |   |  |
| Measuring Rod Diameter            | 6mm   |   | 6                         |   |   |   |  |
|                                   | 8mm   |   | 8                         |   |   |   |  |
|                                   | 10mm  |   | 0                         |   |   |   |  |
|                                   | 12.7mm  |   | 1                         |   |   |   |  |
|                                   | 16mm  |   | 2                         |   |   |   |  |
|                                   | Special Custom  |   | S                         |   |   |   |  |
| Measuring Stick Length (UNIT: mm) | 100mm (Please refer to the technical parameter table for measuring range) |   | 0                         | 1 | 0 | 0 |  |

Note: "-" in the selection is not included in the code  
 Example: ZTS2280A0G180100(CLASS A core; 4-20mA two-wire; SUS304; G1/2; Rod diameter 8mm; Insert length 100mm)

## ZTS229 Series



### Technical Parameter

| Series                     | ZTS2290   |  |
|----------------------------|---|--|
| Core Type                  | PT100   |  |
| Core Grade                 | CLASS A   |  |
| Temperature Range          | -50~250°C                                       |  |
| Power Supply               | 24VDC   |  |
| Signal Output              | 4-20mA two-wire LCD Display (optional 485/HART) |  |
| Accuracy                   | ±0.3+(±0.1%Ms)                                  |  |
| Heat Transfer Velocity     | 1-3S  |  |
| Liquid Connection Material | SUS304/SUS316L                                  |  |
| Process Connection         | Thread: G1/2"-G2",etc Flange: DN15~DN50 ,etc    |  |
| Rod Diameter               | 6mm/8mm,etc                                     |  |
| Electrical Connection      | M20*1.5   |  |
| Compressive Strength       | Up to 40bar                                     |  |
| Protection Grade           | IP65  |  |

### 229 Series Selection Table

| ZTS229                            |   |   | □ - □ - □ - □ - □ - □ - □ |   |   |   |  |
|-----------------------------------|---|---|---------------------------|---|---|---|--|
| Product Category                  | CLASS A Core  |   | 0                         |   |   |   |  |
| Power Supply and Output           | 4-20mA two-wire   |   | A                         |   |   |   |  |
|                                   | 4-20mA two-wire HART  |   | B                         |   |   |   |  |
|                                   | Special Custom  |   | S                         |   |   |   |  |
| Liquid Connection Material        | SUS304  |   | 0                         |   |   |   |  |
|                                   | SUS316L   |   | 6                         |   |   |   |  |
|                                   | Special Custom  |   | S                         |   |   |   |  |
| Process Connection                | Dimension   | Specification (as per standard combination) |                           |   |   |   |  |
|                                   | M20*1.5   |   | 20                        |   |   |   |  |
|                                   | M27*2   |   | 27                        |   |   |   |  |
|                                   | G1/2"   |   | G1                        |   |   |   |  |
|                                   | G3/4"   |   | G2                        |   |   |   |  |
|                                   | G1"   |   | G3                        |   |   |   |  |
|                                   | 1/2"PT  |   | P1                        |   |   |   |  |
|                                   | 3/4"PT  |   | P2                        |   |   |   |  |
|                                   | 1"PT  |   | P3                        |   |   |   |  |
|                                   | 1/2"NPT   |   | N1                        |   |   |   |  |
|                                   | 3/4"NPT   |   | N2                        |   |   |   |  |
|                                   | 1"NPT   |   | N3                        |   |   |   |  |
|                                   | 3/4"(20A)   | Flange GB-PN10                              | 2                         | B |   |   |  |
|                                   | 1"(25A)   | GB-PN16 Flange GB-PN16                      | 3                         | C |   |   |  |
|                                   | 1-1/2"(40A)   | GB-PN25 Flange GB-PN25                      | 4                         | D |   |   |  |
|                                   | 2"(50A)   | GB-PN40 Flange GB-PN40                      | 5                         | E |   |   |  |
|                                   | Special Custom  | Special Custom                              | S                         | S |   |   |  |
| Measuring Rod Diameter            | 6mm   |   | 6                         |   |   |   |  |
|                                   | 8mm   |   | 8                         |   |   |   |  |
|                                   | 10mm  |   | 0                         |   |   |   |  |
|                                   | 12.7mm  |   | 1                         |   |   |   |  |
|                                   | 16mm  |   | 2                         |   |   |   |  |
|                                   | Special Custom  |   | S                         |   |   |   |  |
| Measuring Stick Length (UNIT: mm) | 100mm (Please refer to the technical parameter table for measuring range) |   | 0                         | 1 | 0 | 0 |  |

Note: "-" in the selection is not included in the code  
 Example: ZTS2290A0G180100(CLASS A core; 4-20mA two-wire; SUS304; G1/2; Rod diameter 8mm; Insert length 100mm)

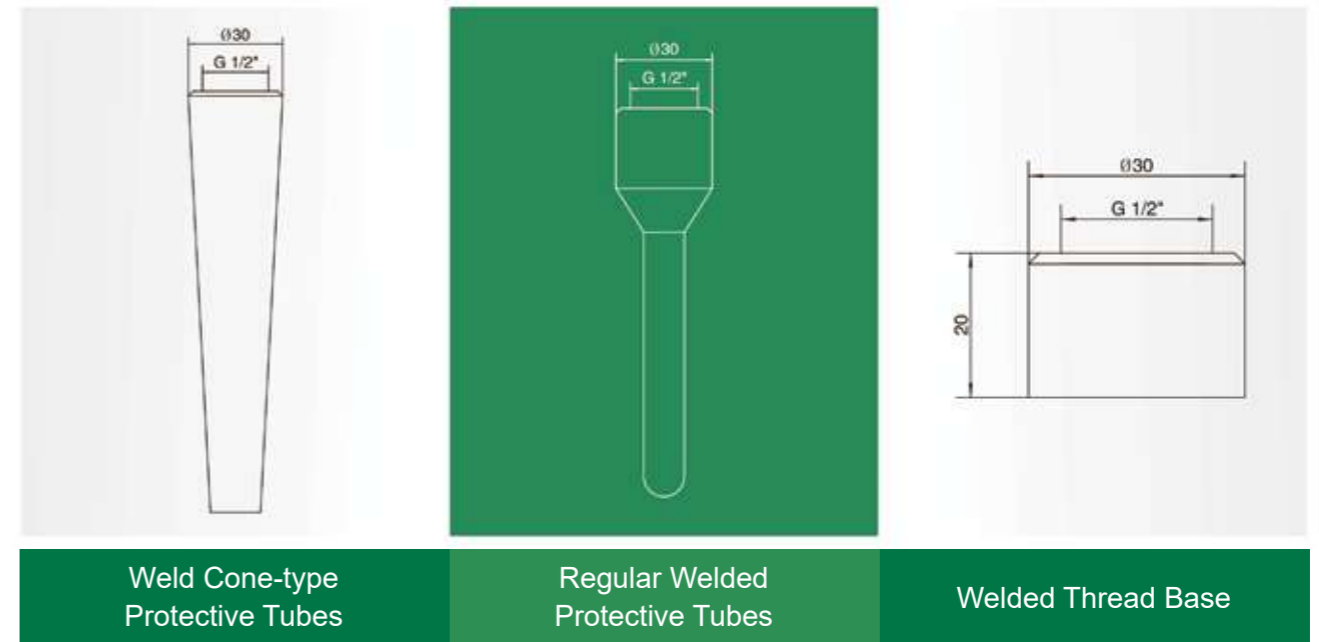
## ZTS720 Series



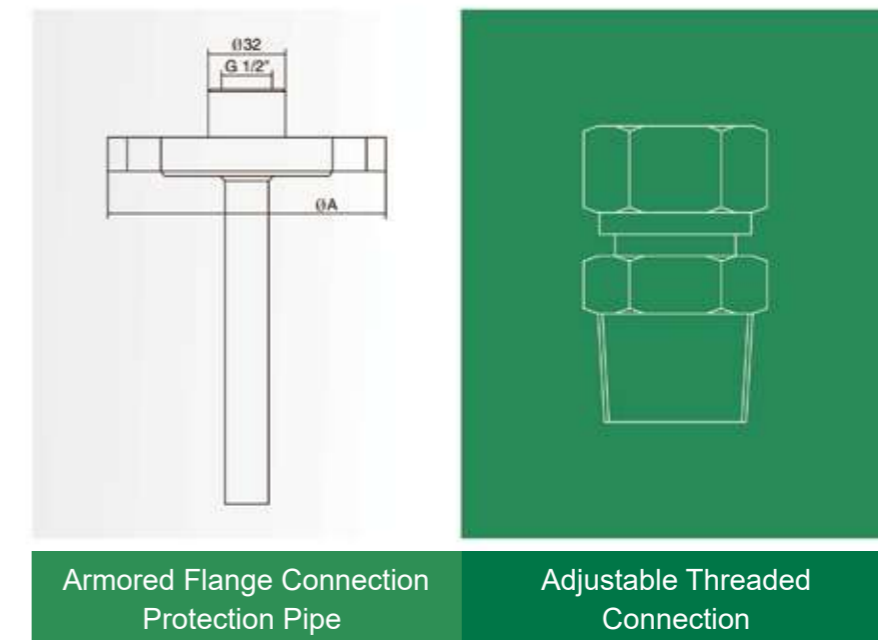
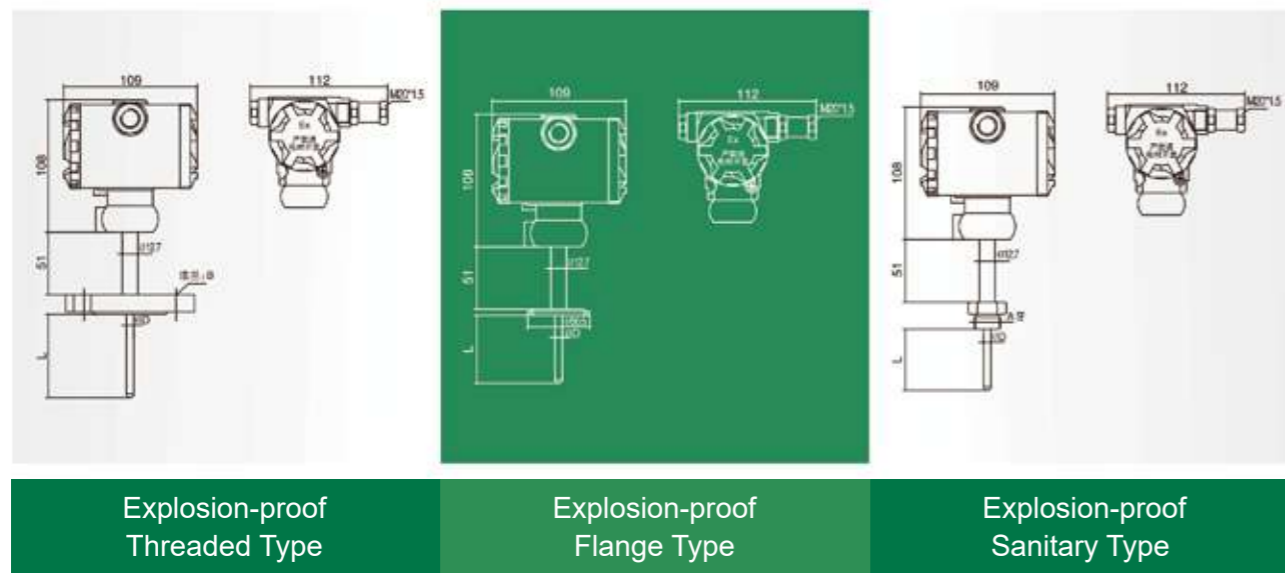
### Technical Parameter

|                            |   |
|----------------------------|---|
| Series                     | ZTS720  |
| Core Type                  | PT100   |
| Core Grade                 | CLASS A   |
| Temperature Range          | -50~300°C   |
| Power Supply               | 24VDC   |
| Signal Output              | 4-20mA two-wire<br>(optional 485/HART)  |
| Accuracy                   | ±0.3+( ±0.1%Ms)   |
| Heat Transfer Velocity     | 1-3S  |
| Liquid Connection Material | SUS304/SUS316L  |
| Process Connection         | Thread: G1/2"-G2",etc Flange: DN15~DN50 ,etc<br>It can be matched with sanitary interface |
| Rod Diameter               | 6mm/8mm,etc   |
| Electrical Connection      | M20*1.5   |
| Compressive Strength       | Up to 40bar   |
| Protection Grade           | IP65  |
| Explosion-proof Grade      | Ex d IIC T6 Gb  |

### Installation Accessories

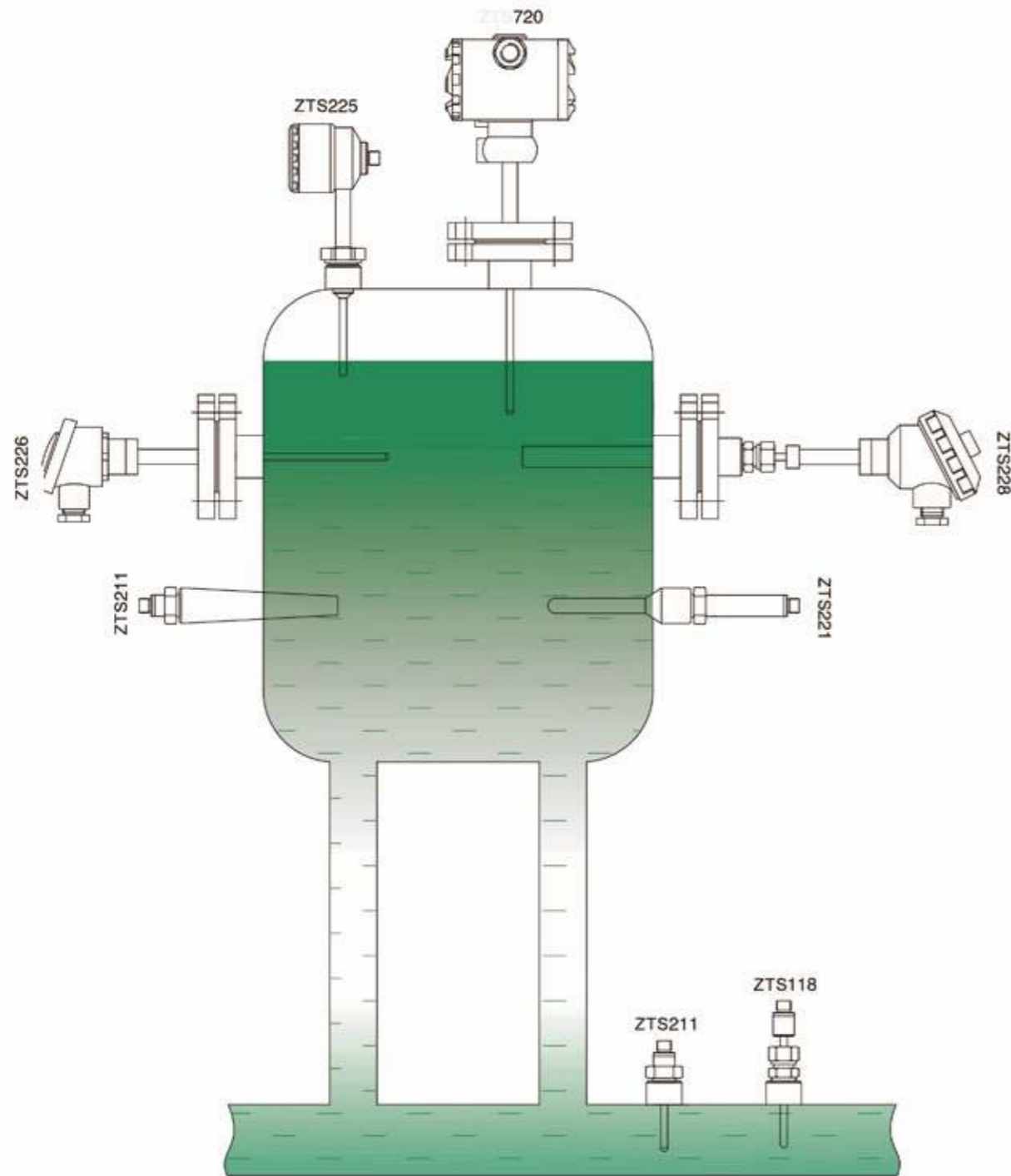


### Temperature Welded Fittings



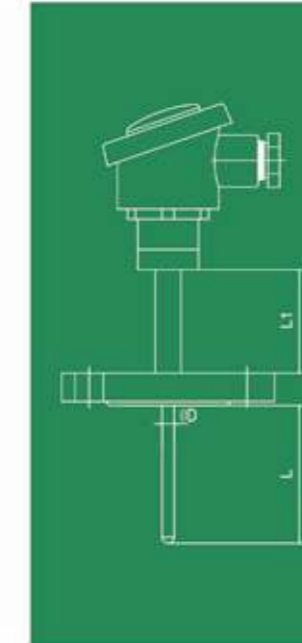
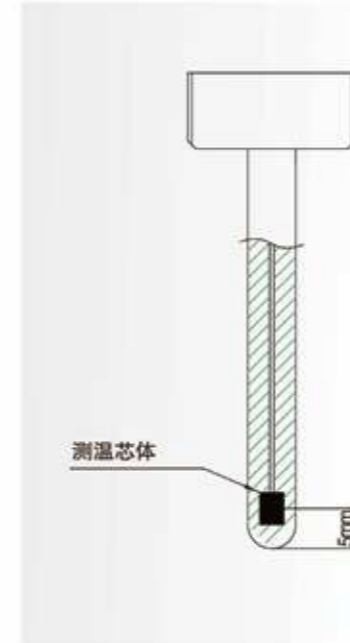
### Temperature Connection Fittings

## Industrial Type Installation Diagram



## Other Notes for Industrial Type

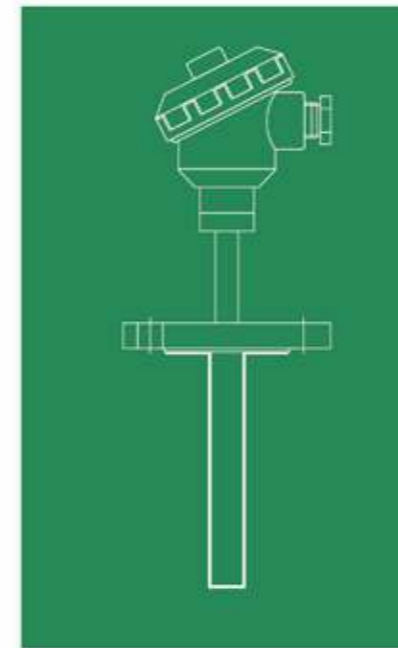
1. Measure the core position and section view
2. Measuring the structural relationship between the temperature and the extension tube (only for the style with junction box)



| Number | Temperature range | L1 (Extended Tube Length (mm)) |
|--------|-------------------|--------------------------------|
| 1      | -20~150°C         | 50mm                           |
| 2      | -20~200°C         | 100mm                          |
| 3      | -20~400°C         | 150mm                          |

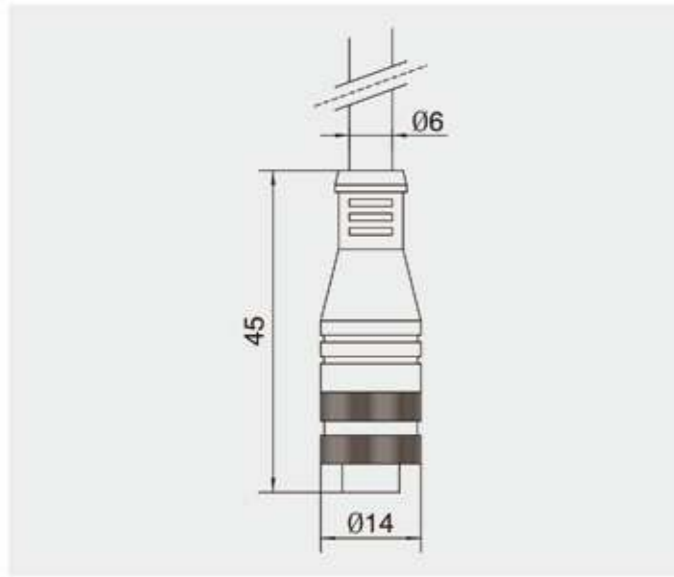
Note: Add -W after no extension tube model at room temperature  
 The non-standard extension tube length can be added to the model number after -XXX  
 Example: ZTS2260T02080100-W,  
 "-W" means extension tube without heat dissipation;  
 ZTS2260T02080100-120,  
 "-120" indicates that the length of the heat dissipation extension tube is 120mm.

### 3. Requirements for PTFE Covered Type

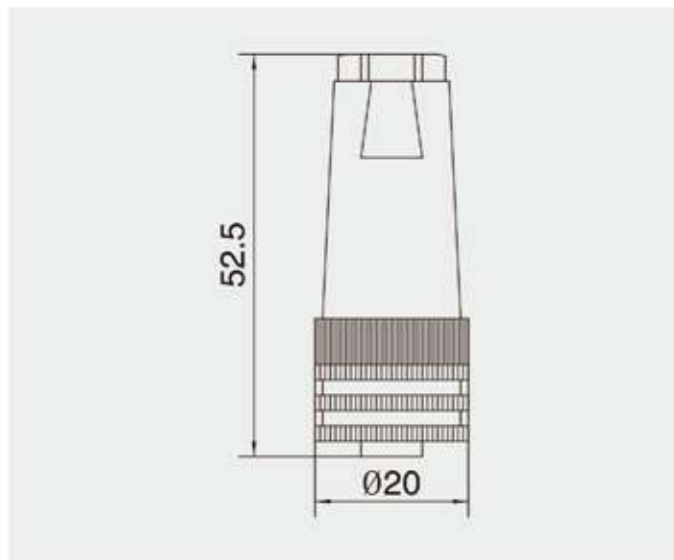


- Flange installation is required for stainless steel PTFE covered type
- The temperature of stainless steel PTFE covered type is required to be less than 200°C
- The pressure requirement for the stainless steel PTFE covered type is less than 10bar

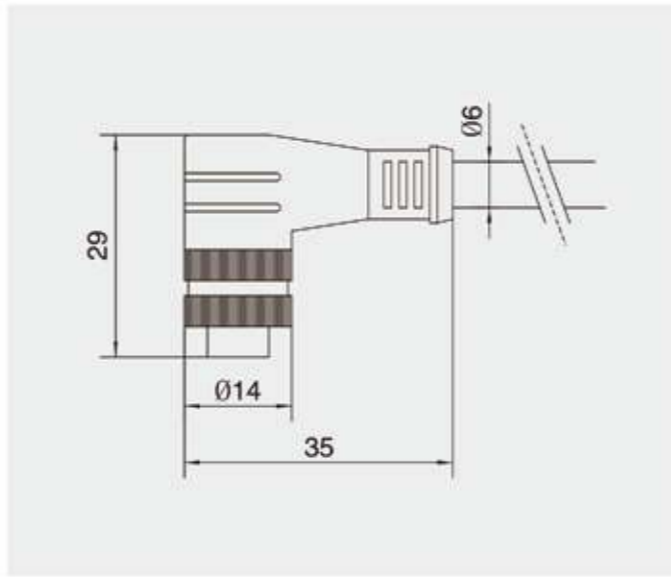
### M12\*1 Aviation Connection Fittings



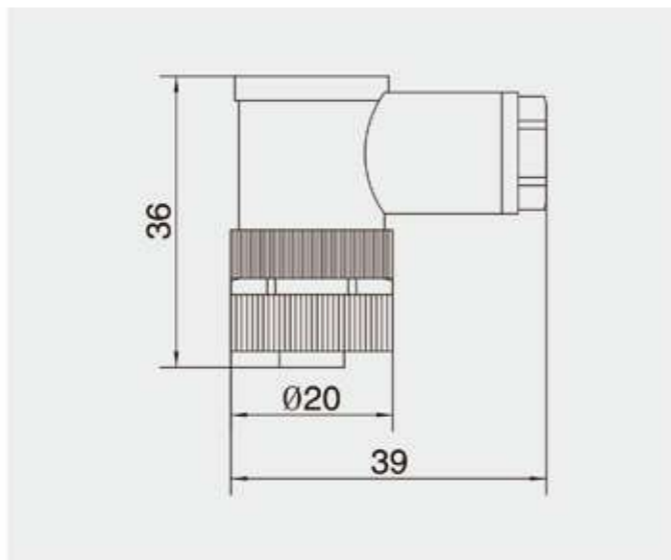
Straight head wiring  
(line length 1m/2m/4m/5m)



Straight head can be self-wired



90° elbow wiring  
(line length 1m/2m/4m/5m)



90° elbows can be self-wired

### PT100 Thermal Resistance Table Corresponding to Temperature Resistance Values

|             | 0                | 1     | 2     | 3                | 4     | 5     | 6                | 7     | 8     | 9     |
|-------------|------------------|-------|-------|------------------|-------|-------|------------------|-------|-------|-------|
| Temperature | Resistance ( Ω ) |       |       | Resistance ( Ω ) |       |       | Resistance ( Ω ) |       |       |       |
| -200        | 18.52            |       |       |                  |       |       |                  |       |       |       |
| -190        | 22.83            | 22.4  | 21.97 | 21.54            | 21.11 | 20.68 | 20.25            | 19.82 | 19.38 | 18.95 |
| -180        | 27.1             | 26.67 | 26.24 | 25.82            | 25.39 | 24.97 | 24.54            | 24.11 | 23.68 | 23.25 |
| -170        | 31.34            | 30.91 | 30.49 | 30.07            | 29.64 | 29.22 | 28.8             | 28.37 | 27.95 | 27.52 |
| -160        | 35.54            | 35.12 | 34.7  | 34.28            | 33.86 | 33.44 | 33.02            | 32.6  | 32.18 | 31.76 |
| -150        | 39.72            | 39.31 | 38.89 | 38.47            | 38.05 | 37.64 | 37.22            | 36.8  | 36.38 | 35.96 |
| -140        | 43.88            | 43.46 | 43.05 | 42.63            | 42.22 | 41.8  | 41.39            | 40.97 | 40.56 | 40.14 |
| -130        | 48.00            | 47.59 | 47.18 | 46.77            | 46.36 | 45.94 | 45.53            | 45.12 | 44.7  | 44.29 |
| -120        | 52.11            | 51.7  | 51.29 | 50.88            | 50.47 | 50.06 | 49.65            | 49.24 | 48.83 | 48.42 |
| -110        | 56.19            | 55.79 | 55.38 | 54.97            | 54.56 | 54.15 | 53.75            | 53.34 | 52.93 | 52.52 |
| -100        | 60.26            | 59.85 | 59.44 | 59.04            | 58.63 | 58.23 | 57.82            | 57.41 | 57.01 | 56.6  |
| -90         | 64.3             | 63.9  | 63.49 | 63.09            | 62.68 | 62.28 | 61.88            | 61.47 | 61.07 | 60.66 |
| -80         | 68.33            | 67.92 | 67.52 | 67.12            | 66.72 | 66.31 | 65.91            | 65.51 | 65.11 | 64.7  |
| -70         | 72.33            | 71.93 | 71.53 | 71.13            | 70.73 | 70.33 | 69.93            | 69.53 | 69.13 | 68.73 |
| -60         | 76.33            | 75.93 | 75.53 | 75.13            | 74.73 | 74.33 | 73.93            | 73.53 | 73.13 | 72.73 |
| -50         | 80.31            | 79.91 | 79.51 | 79.11            | 78.72 | 78.32 | 77.92            | 77.52 | 77.12 | 76.73 |
| -40         | 84.27            | 83.87 | 83.48 | 83.08            | 82.69 | 82.29 | 81.89            | 81.5  | 81.1  | 80.7  |
| -30         | 88.22            | 87.83 | 87.43 | 87.04            | 86.64 | 86.25 | 85.85            | 85.46 | 85.06 | 84.67 |
| -20         | 92.16            | 91.77 | 91.37 | 90.98            | 90.59 | 90.19 | 89.8             | 89.4  | 89.01 | 88.62 |
| -10         | 96.09            | 95.69 | 95.3  | 94.91            | 94.52 | 94.12 | 93.73            | 93.34 | 92.95 | 92.55 |
| 0           | 100              | 99.61 | 99.22 | 98.83            | 98.44 | 98.04 | 97.65            | 97.26 | 96.87 | 96.48 |

**PT100 Thermal Resistance Table  
Corresponding to Temperature Resistance Values**

| Temperature | Resistance ( Ω ) |        |        | Resistance ( Ω ) |        |        | Resistance ( Ω ) |        |        | 9      |
|-------------|------------------|--------|--------|------------------|--------|--------|------------------|--------|--------|--------|
|             | 0                | 1      | 2      | 3                | 4      | 5      | 6                | 7      | 8      |        |
| 0           | 0                | 100.39 | 100.78 | 101.17           | 101.56 | 101.95 | 102.34           | 102.73 | 103.12 | 103.51 |
| 10          | 103.9            | 104.29 | 104.68 | 105.07           | 105.46 | 105.85 | 106.24           | 106.63 | 107.02 | 107.4  |
| 20          | 107.79           | 108.18 | 108.57 | 108.96           | 109.35 | 109.73 | 110.12           | 110.51 | 110.9  | 111.29 |
| 30          | 111.67           | 112.06 | 112.45 | 112.83           | 113.22 | 113.61 | 114              | 114.38 | 114.77 | 115.15 |
| 40          | 115.54           | 115.93 | 116.31 | 116.7            | 117.08 | 117.47 | 117.86           | 118.24 | 118.63 | 119.01 |
| 50          | 119.4            | 119.78 | 120.17 | 120.55           | 120.94 | 121.32 | 121.71           | 122.09 | 122.47 | 122.86 |
| 60          | 123.24           | 123.63 | 124.01 | 124.39           | 124.78 | 125.16 | 125.54           | 125.93 | 126.31 | 126.69 |
| 70          | 127.08           | 127.46 | 127.84 | 128.22           | 128.61 | 128.99 | 129.37           | 129.75 | 130.13 | 130.52 |
| 80          | 130.9            | 131.28 | 131.66 | 132.04           | 132.42 | 132.8  | 133.18           | 133.57 | 133.95 | 134.33 |
| 90          | 134.71           | 135.09 | 135.47 | 135.85           | 136.23 | 136.61 | 136.99           | 137.37 | 137.75 | 138.13 |
| 100         | 138.51           | 138.88 | 139.26 | 139.64           | 140.02 | 140.4  | 140.78           | 141.16 | 141.54 | 141.91 |
| 110         | 142.29           | 142.67 | 143.05 | 143.43           | 143.8  | 144.18 | 144.56           | 144.94 | 145.31 | 145.69 |
| 120         | 146.07           | 146.44 | 146.82 | 147.2            | 147.57 | 147.95 | 148.33           | 148.7  | 149.08 | 149.46 |
| 130         | 149.83           | 150.21 | 150.58 | 150.96           | 151.33 | 151.71 | 152.08           | 152.46 | 152.83 | 153.21 |
| 140         | 153.58           | 153.96 | 154.33 | 154.71           | 155.08 | 155.46 | 155.83           | 156.2  | 156.58 | 156.95 |
| 150         | 157.33           | 157.7  | 158.07 | 158.45           | 158.82 | 159.19 | 159.56           | 159.94 | 160.31 | 160.68 |
| 160         | 161.05           | 161.43 | 161.8  | 162.17           | 162.54 | 162.91 | 163.29           | 163.66 | 164.03 | 164.4  |
| 170         | 164.77           | 165.14 | 165.51 | 165.89           | 166.26 | 166.63 | 167              | 167.37 | 167.74 | 168.11 |
| 180         | 168.48           | 168.85 | 169.22 | 169.59           | 169.96 | 170.33 | 170.7            | 171.07 | 171.43 | 171.8  |
| 190         | 172.17           | 172.54 | 172.91 | 173.28           | 173.65 | 174.02 | 174.38           | 174.75 | 175.12 | 175.49 |
| 200         | 175.86           | 176.22 | 176.59 | 176.96           | 177.33 | 177.69 | 178.06           | 178.43 | 178.79 | 179.06 |
| 210         | 179.53           | 179.89 | 180.26 | 180.63           | 180.99 | 181.36 | 181.72           | 182.09 | 182.46 | 182.82 |
| 220         | 183.19           | 183.55 | 183.92 | 184.28           | 184.65 | 185.01 | 185.38           | 185.74 | 186.11 | 186.47 |
| 230         | 186.84           | 187.2  | 187.56 | 187.93           | 188.29 | 188.66 | 189.02           | 189.38 | 189.75 | 190.1  |
| 240         | 190.47           | 190.84 | 191.2  | 191.56           | 191.92 | 192.29 | 192.65           | 193.01 | 193.37 | 193.74 |
| 250         | 194.1            | 194.46 | 194.82 | 195.18           | 195.55 | 195.91 | 196.27           | 196.63 | 196.99 | 197.35 |
| 260         | 197.71           | 198.07 | 198.43 | 198.79           | 199.15 | 199.51 | 199.87           | 200.23 | 200.59 | 200.95 |
| 270         | 201.31           | 201.67 | 202.03 | 202.39           | 202.75 | 203.11 | 203.47           | 203.83 | 204.19 | 204.55 |
| 280         | 204.9            | 205.26 | 205.62 | 205.98           | 206.34 | 206.7  | 207.05           | 207.41 | 207.77 | 208.13 |
| 290         | 208.48           | 208.84 | 209.2  | 209.56           | 209.91 | 210.27 | 210.63           | 210.98 | 211.34 | 211.7  |
| 300         | 212.05           | 212.41 | 212.76 | 213.12           | 213.48 | 213.83 | 214.19           | 214.54 | 214.9  | 215.25 |
| 310         | 215.61           | 215.96 | 216.32 | 216.67           | 217.03 | 217.38 | 217.74           | 218.09 | 218.44 | 218.8  |
| 320         | 219.15           | 219.51 | 219.86 | 220.21           | 220.57 | 220.92 | 221.27           | 221.63 | 221.98 | 222.33 |

**PT100 Thermal Resistance Table  
Corresponding to Temperature Resistance Values**

| Temperature | Resistance ( Ω ) |        |        | Resistance ( Ω ) |        |        | Resistance ( Ω ) |        |        | 9      |
|-------------|------------------|--------|--------|------------------|--------|--------|------------------|--------|--------|--------|
|             | 0                | 1      | 2      | 3                | 4      | 5      | 6                | 7      | 8      |        |
| 330         | 222.68           | 223.04 | 223.39 | 223.74           | 224.09 | 224.45 | 224.8            | 225.15 | 225.5  | 225.85 |
| 340         | 226.21           | 226.56 | 226.91 | 227.26           | 227.61 | 227.96 | 228.31           | 228.66 | 229.02 | 229.37 |
| 350         | 229.72           | 230.07 | 230.42 | 230.77           | 231.12 | 231.47 | 231.82           | 232.17 | 232.52 | 232.87 |
| 360         | 233.21           | 233.56 | 233.91 | 234.26           | 234.61 | 234.96 | 235.31           | 235.66 | 236    | 236.35 |
| 370         | 236.7            | 237.05 | 237.4  | 237.74           | 238.09 | 238.44 | 238.79           | 239.13 | 239.48 | 239.83 |
| 380         | 240.18           | 240.52 | 240.87 | 241.22           | 241.56 | 241.91 | 242.26           | 242.6  | 242.95 | 243.29 |
| 390         | 243.64           | 243.99 | 244.33 | 244.68           | 245.02 | 245.37 | 245.71           | 246.06 | 246.4  | 246.75 |
| 400         | 247.09           | 247.44 | 247.78 | 248.13           | 248.47 | 248.81 | 249.16           | 249.5  | 249.85 | 250.19 |
| 410         | 250.53           | 250.88 | 251.22 | 251.56           | 251.91 | 252.25 | 252.59           | 252.93 | 253.28 | 253.62 |
| 420         | 253.96           | 254.3  | 254.65 | 254.99           | 255.33 | 255.67 | 256.01           | 256.35 | 256.7  | 257.04 |
| 430         | 257.38           | 257.72 | 258.06 | 258.4            | 258.74 | 259.08 | 259.42           | 259.76 | 260.1  | 260.44 |
| 440         | 260.78           | 261.12 | 261.46 | 261.8            | 262.14 | 262.48 | 262.82           | 263.16 | 263.5  | 263.84 |
| 450         | 264.18           | 264.52 | 264.86 | 265.2            | 265.53 | 265.87 | 266.21           | 266.55 | 266.89 | 267.22 |
| 460         | 267.56           | 267.9  | 268.24 | 268.57           | 268.91 | 269.25 | 269.59           | 269.92 | 270.26 | 270.6  |
| 470         | 270.93           | 271.27 | 271.61 | 271.94           | 272.28 | 272.61 | 272.95           | 273.29 | 273.62 | 273.96 |
| 480         | 274.29           | 274.63 | 274.96 | 275.3            | 275.63 | 275.97 | 276.3            | 276.64 | 276.97 | 277.31 |
| 490         | 277.64           | 277.98 | 278.31 | 278.64           | 278.98 | 279.31 | 279.64           | 279.98 | 280.31 | 280.64 |
| 500         | 280.98           | 281.31 | 281.64 | 281.98           | 282.31 | 282.64 | 282.97           | 283.31 | 283.64 | 283.97 |
| 510         | 284.3            | 284.63 | 284.97 | 285.3            | 285.63 | 285.96 | 286.29           | 286.62 | 286.95 | 287.29 |
| 520         | 287.62           | 287.95 | 288.28 | 288.61           | 288.94 | 289.27 | 289.6            | 289.93 | 290.26 | 290.59 |
| 530         | 290.92           | 291.25 | 291.58 | 291.91           | 292.24 | 292.56 | 292.89           | 293.22 | 293.55 | 293.88 |
| 540         | 294.21           | 294.54 | 294.86 | 295.19           | 295.52 | 295.85 | 296.18           | 296.5  | 296.83 | 297.16 |
| 550         | 297.49           | 297.81 | 298.14 | 298.47           | 298.8  | 299.12 | 299.45           | 299.78 | 300.1  | 300.43 |
| 560         | 300.75           | 301.08 | 301.41 | 301.73           | 302.06 | 302.38 | 302.71           | 303.03 | 303.36 | 303.69 |
| 570         | 304.01           | 304.34 | 304.66 | 304.98           | 305.31 | 305.63 | 305.96           | 306.28 | 306.61 | 306.93 |
| 580         | 307.25           | 307.58 | 307.9  | 308.23           | 308.55 | 308.87 | 309.2            | 309.52 | 309.84 | 310.16 |
| 590         | 310.49           | 310.81 | 311.13 | 311.45           | 311.78 | 312.1  | 312.42           | 312.74 | 313.06 | 313.39 |
| 600         | 313.71           | 314.03 | 314.35 | 314.67           | 314.99 | 315.31 | 315.64           | 315.96 | 316.28 | 316.6  |
| 610         | 316.92           | 317.24 | 317.56 | 317.88           | 318.2  | 318.52 | 318.84           | 319.16 | 319.48 | 319.8  |
| 620         | 320.12           | 320.43 | 320.75 | 321.07           | 321.39 | 321.71 | 322.03           | 322.35 | 322.67 | 322.98 |
| 630         | 323.3            | 323.62 | 323.94 | 324.26           | 324.57 | 324.89 | 325.21           | 325.53 | 325.84 | 326.16 |
| 640         | 326.48           | 326.79 | 327.11 | 327.43           | 327.74 | 328.06 | 328.38           | 328.69 | 329.01 | 329.32 |
| 650         | 329.64           | 329.96 | 330.27 | 330.59           | 330.9  | 331.22 | 331.53           | 331.85 | 332.16 | 332.48 |
| 660         | 332.79           |        |        |                  |        |        |                  |        |        |        |