

## Main specifications

## ▼ Process connection

Mount type: Fixed/Movable  
Material: SS304/SS316  
Thread: M20x1.5(M),  
G1/2" (M), 1/2" NPT, flange  
DN50PN10-PN40, flange  
DN25PN10

## ▼ Electrical connection

Aluminum-alloy terminal,  
2 cable entry, M20\*1.5(F),  
red body, white cover

## ▼ Cable entry protection

Please refer to electrical  
connection select instruction

## ▼ Temperature range

Min.: -50°C  
Max.: 400°C

Please refer to temperature  
range selection instruction

## ▼ Applicable media

Liquid and gas that compatible  
with connection's material

## ▼ Stem insertion length

50 to 3000mm

The smallest insertion length  
should 8 times outer diameter  
of thermal protection tube, the  
end of probe should reach the  
pivot of the tube

## ▼ Outer diameter

6 / 7 / 8 / 9 / 10 mm

## ▼ Extension tube (option)

Material: SS304

Length: 50/100/150/200mm

## ▼ Operating temperature

-40 to 85°C

-20 to 70°C (with LCD display)

## ▼ Storage temperature

-40 to 100°C,

-40 to 85°C (with LCD display)

## ▼ Humidity

0-95%

## ▼ Protection level

IP67

## Other Specifications

## ▼ Housing

Aluminum alloy  
Waterproof design

## ▼ Output Signal

4~20mA (two-wire)

## ▼ Power supply

Standard: 10-30VDC

## ▼ Power consumption

≤500mW@24VDC, 20.8mA

## ▼ Insulation resistance

> 20MΩ (@100VDC)

## ▼ Measuring elements

Pt100 RTD

## ▼ Accuracy

±0.5% URL (@20±5°C)

(Including linearity, hysteresis  
and repeatability)

## ▼ Stability

<±0.05% F.S./year or

<0.1°C/year

## ▼ Temperature effect

≤±0.005% URL/°C (@22°C)

## ▼ Vibration effect

4g/2...100Hz

## Integrated Temperature Transmitter

## Model: AT200-WRT

## Introduction

AT200-WRT integrated temperature transmitter adopts ASIC&SMT signal transmitting module, optional built-in back light and button operation LCD display module. The integrated transient voltage terminal satisfy 4 grade standard (differential-mode voltage 2000V, common-mode voltage 4000V), suitable for harsh surge voltage occasions. It provides a flexible and reliable solution for any temperature measurement applications.



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

- OEM service
- Thermal-resistance temperature sensor
- Fixed/Movable mount type
- Fast response time: ≤ 200ms
- Easy installation
- Stem length from 50mm to 5000mm
- Outer diameter from 6mm to 10mm
- Install a LCD display module (option)

## Temperature range select instruction

<b>Temperature range</b>	-50 to 400°C, minimum measurement range 100°C
<b>Temperature unit</b>	The temperature unit can be replaced by °F or K.
<b>Adjust requirements</b>	Lower range value (LRV) and upper range value (URV) can be adjusted within the scope of the upper and lower range limit, smallest calibration span $\leq  URV-LRV  \leq$ upper range limit.

## Pressure connection select instruction

Item	Code	Description
<b>Mounting type</b>	G	Fixed process connection mounting
	H	Movable process connection mounting
<b>Material type</b>	4	SS304
	6	SS316
<b>Process connection specifications</b>	M01	M20x1.5 (M)
	G01	G1/2" (M)
	R01	1/2" NPT
	H01	Flange DN50 PN10-PN40
	H02	Flange DN25 PN10

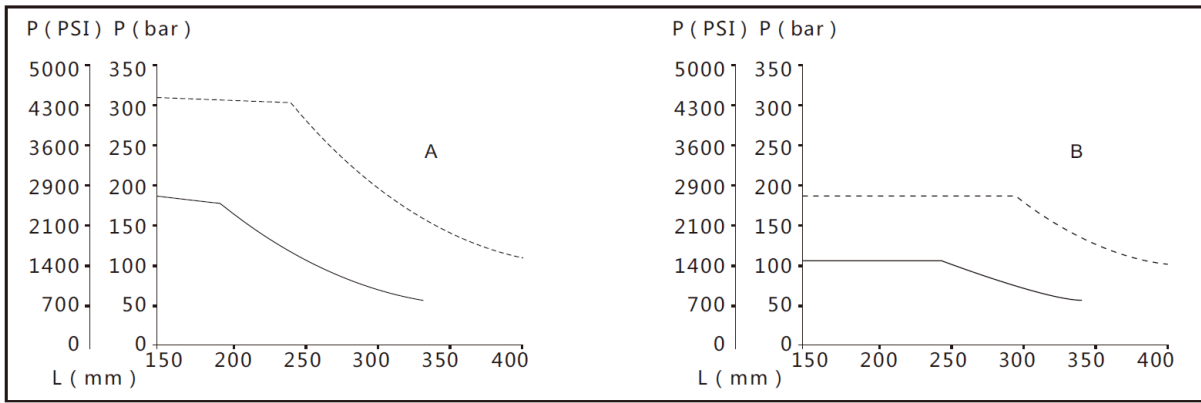
## Electrical connection select instruction

Item	Code	Description
<b>Electrical connection</b>	T1	Aluminum-alloy terminal, 2 cable entry, M20x1.5, red body, white cover
<b>Cable entry protection</b>	R1	Waterproof connector M20 x 1.5 one side, blind plug (another side), PVC material, 6-8mm diameter cable only, IP67
	R2	Flameproof, 1/2" NPT (F), one side, blind plug (another side), stainless steel material, 6-8mm diameter cable only, IP67
	R3	Flameproof, M20x1.5 (F), one side, blind plug (another side), stainless steel material, 6-8mm diameter cable only, IP67

## Stem select instruction

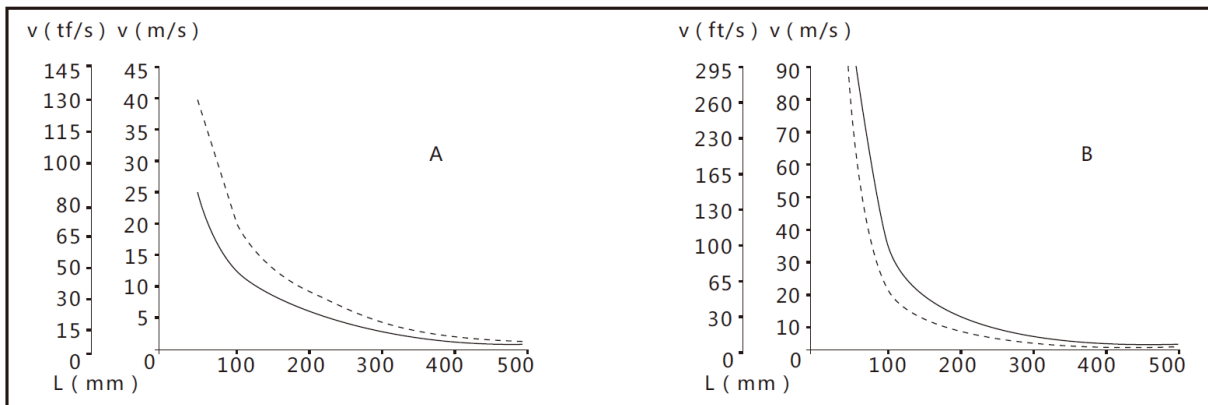
Item	Code	Description
<b>Outer diameter</b>	D1	Diameter: 6mm, probe material is the same as process connection' s material (SS304 or SS316)
	D2	Diameter: 7mm, probe material is the same as process connection' s material (SS304 or SS316)
	D3	Diameter: 8mm, probe material is the same as process connection' s material (SS304 or SS316)
	D4	Diameter: 9mm, probe material is the same as process connection' s material (SS304 or SS316)
	D5	Diameter: 10mm, probe material is the same as process connection' s material (SS304 or SS316)
<b>Stem insertion length</b>	LXXXX	Custom stem length: 50 to 3000mm Order sample: 80mm = L0080, 150mm = L0150

### Process pressure changes along with media temperature chart



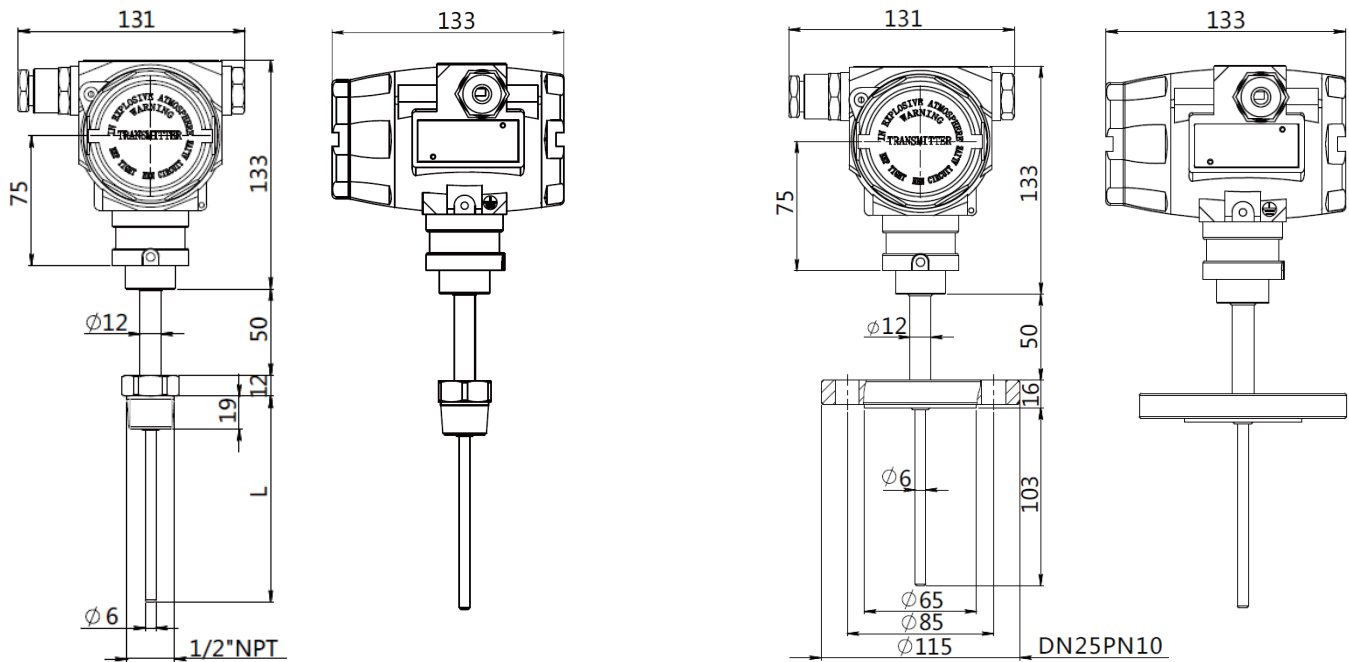
—————	Tube diameter 10mm	tube wall thickness 1mm	A: water, T=50°C	L: immersion depth
- - - - -	Tube diameter 12mm	tube wall thickness 2mm	B: superheated steam, T=400°C	P: process pressure

### Maximum media flow rate



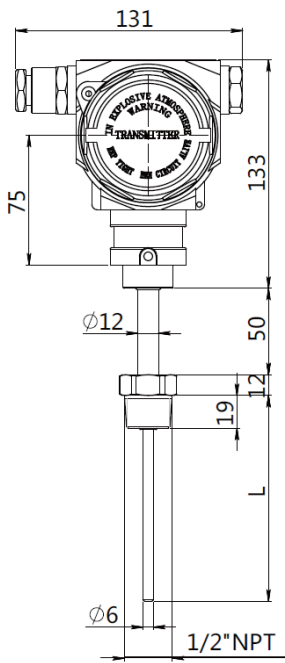
—————	Tube diameter 10mm	tube wall thickness 1mm	A: water, T=50°C	L: immersion depth
- - - - -	Tube diameter 12mm	tube wall thickness 2mm	B: superheated steam, T=400°C	V: flow rate

### Dimension

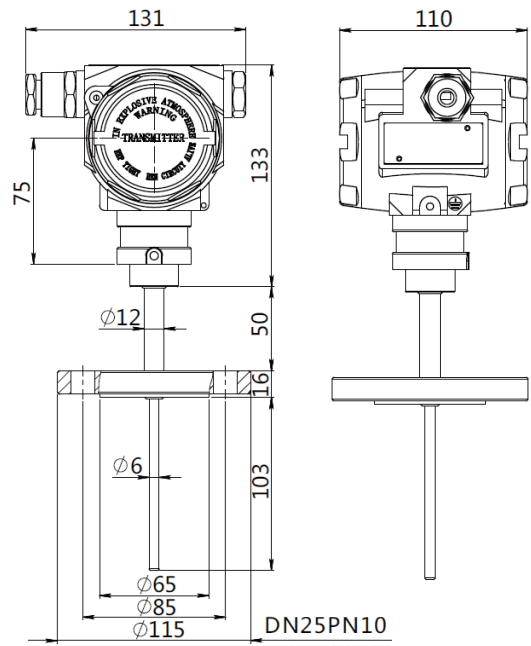


Thread type with display

Flange type with display

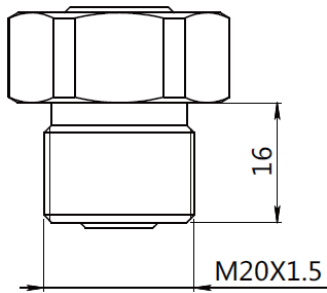


Thread type without display

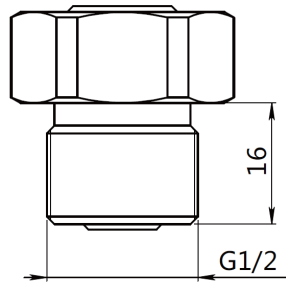


Flange type without display

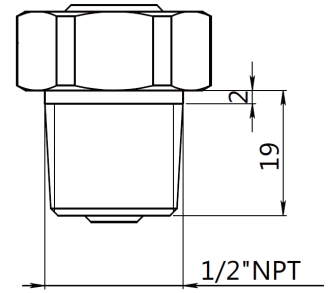
Process connection dimension



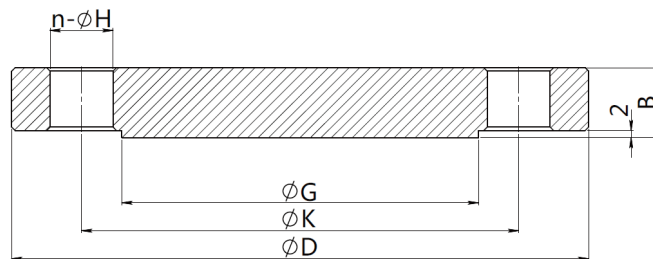
M01



G01



R01



H01 & H02

Standard	Specification	Outer dia. ( $\phi D$ )	Thickness (B)	Hole circle ( $\phi K$ )	Raised-face dia. ( $\phi G$ )	Hole dia. ( $\phi H$ )	Number (n)
HG/T20592-2009	DN50PN10-PN40	165	20	125	102	18	4
HG/T20592-2009	DN25PN10-PN40	115	16	85	68	14	4

Unit: mm

## How to Order

Item	Parameters	Code	
	Model	AT200-WRT	Integrated Temperature Transmitter
Sensor	Separator	Code	Detailed specifications as following
	Measuring element	Pt	Pt100RTD
Electrical connection	Separator	Code	Detailed specifications as following
	Electrical connection	T1	Aluminum-alloy terminal, 2 cable entry, M20x1.5, red body, white cover
	Cable entry protection	R1	Waterproof connector M20 x 1.5 one side, blind plug (another side), PVC material, 6-8mm diameter cable only, IP67
		R2	Flameproof, 1/2" NPT (F), one side, blind plug (another side), stainless steel material, 6-8mm diameter cable only, IP67
		R3	Flameproof, M20x1.5 (F), one side, blind plug (another side), stainless steel material, 6-8mm diameter cable only, IP67
Output	Separator	Code	Detailed specifications as following
	Output signal	F	4~20mA two wire, power supply: 10-30VDC
	Display	C	LCD display
		A	Without LCD display
Extension pipe	Separator	Code	Detailed specifications as following
	Extension pipe length	Q1	None (suitable temperature: -40 to 85°C)
		Q2	Material: SS304, length: 50mm, outer diameter: Ø12
		Q3	Material: SS304, length: 100mm, outer diameter: Ø12
		Q4	Material: SS304, length: 150mm, outer diameter: Ø12
		Q5	Material: SS304, length: 200mm, outer diameter: Ø12
Process connection	Separator	Code	Detailed specifications as following
	Mounting type	G	Fixed process connection mounting
		H	Movable process connection mounting
	Material	4	SS 304
		6	SS 316
	Specification	M01	M20x1.5 (M)
		G01	G1/2" (M)
		R01	1/2" NPT
		H01	Flange DN50 PN10-PN40
		H02	Flange DN25 PN10
Stem	Separator	Code	Detailed specifications as following
	Outer diameter	D1	Diameter: 6mm, probe material is the same as process connection's material (SS304 or SS316)
		D2	Diameter: 7mm, probe material is the same as process connection's material (SS304 or SS316)
		D3	Diameter: 8mm, probe material is the same as process connection's material (SS304 or SS316)
		D4	Diameter: 9mm, probe material is the same as process connection's material (SS304 or SS316)
		D5	Diameter: 10mm, probe material is the same as process connection's material (SS304 or SS316)
	Insertion length	LXXXX	Custom stem length: 50 to 3000mm Order sample: 80mm = L0080, 150mm = L0150
Additional option	Separator	Code	Detailed specifications as following
	Calibration report	Q1	Calibration report

Ordering Example: AT200-WRT - Pt - T1 - R1 - F - A - Q1 - G - 4 - R01 - D1 - L - L0050