

NTS 900 SERIES TEMPERATURE SENSOR

SENSORS & OTHERS



NTS 900 SERIES

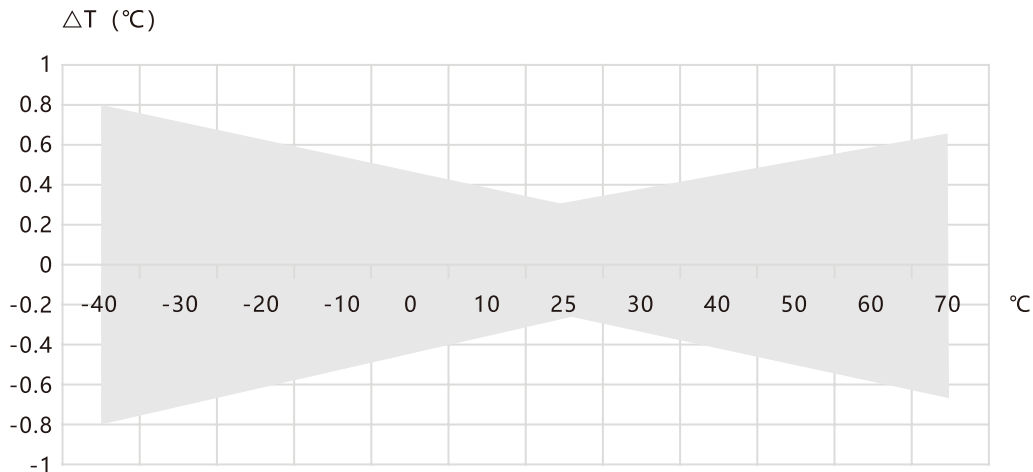
NTS 900 series sensor is designed for a variety of heating and cooling applications controlled by water valves and damper actuator.

PRODUCT FEATURE

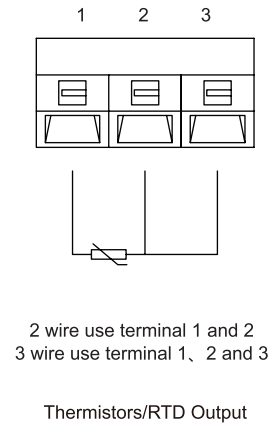
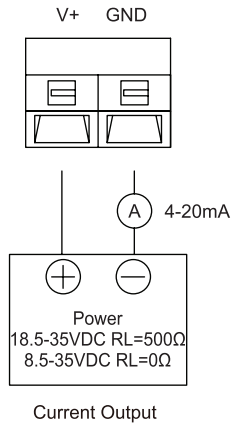
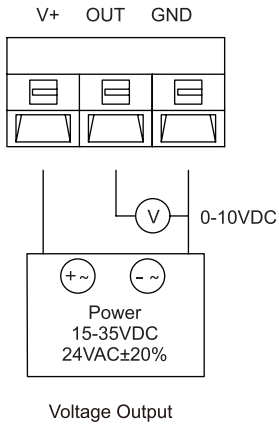
- Up to 3 mounting types and different output selections available
- New look with quick-fit design for easy installation
- Imported Heraeus Class A sensors, high accuracy, fast response low temperature drift
- Excellent anti-interference ability and protection function
- CE certification, IP65, RoHS

TECHNICAL SPECIFICATION

SENSOR	<ul style="list-style-type: none"> • High precision thermal resistance please refer to the selection instruction table (resistance output) • PT1000, level A (analog output type)
OUTPUT	<ul style="list-style-type: none"> • Resistance value, please refer to the selection table and thermal resistance indexing table • 4-20mA or 0-10VDC, 0-5VDC
THERMAL RESISTANCE	Please check the selection table and thermal resistance indexing table
ACCURACY	Typical 0.2-0.5°C@0/25°C, see selection table ± 0.3°C@25°C, see accuracy curve
POWER SUPPLY	<ul style="list-style-type: none"> • Voltage type 15-35VDC/24VAC ± 20% • Current type 18.5-35VDC (RL=500Ω) 8.5-35VDC (RL=0Ω)
OUTPUT LOAD	(analog output type): <math>< 500\Omega</math> (current type) $\geq 2K\Omega$ (0-5V), $\geq 3K\Omega$ (0-10V)
HOUSING MATERIAL	PC housing. stainless steel probe (Ø 6mm) and sleeving
WORKING ENVIRONMENT	-40 to 70°C, 0 to 95%RH (Non-condensing)
IP LEVEL	IP65



WIRING INSTRUCTIONS

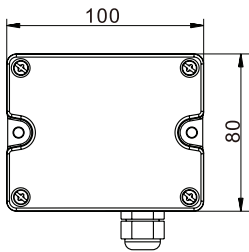


Note:

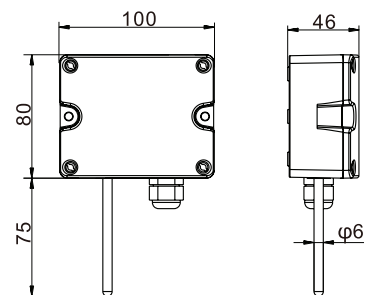
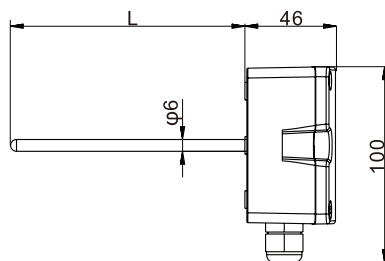
When using 24VAC power supply, it is recommended to use isolated 24VAC power supply.

The maximum power of thermal resistance output type is $P=100\text{mW}@25^\circ\text{C}$. If it exceeds the rated power, the thermal resistance will burn.

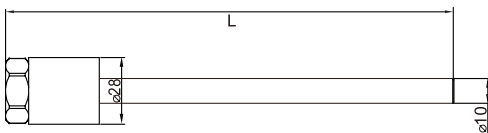
SIZE (mm)



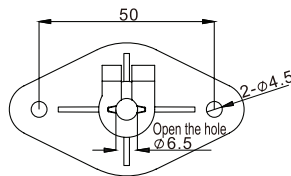
Duct type & Pipe type



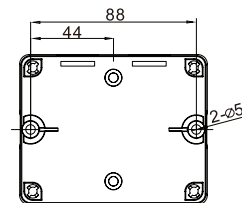
Wall-mounted type



Thermowell-NTW 950 for Pipe type



Duct type

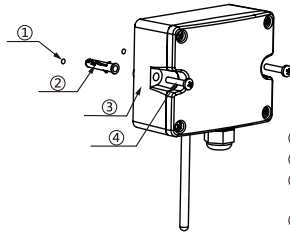


Wall-mounted type

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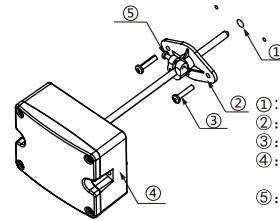
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PRODUCT INSTALLATION



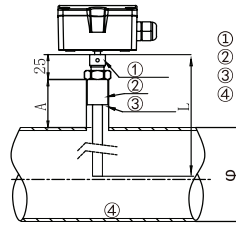
- ①: trompil
- ②: Installing expansion pipe
- ③: Installing the temperature transmitter
- ④: Locking set screws

Wall-mounted type



- ①: trompil
- ②: Install fixing flange
- ③: Locking set screw
- ④: Insert the temperature transmitter and fine tune the position
- ⑤: Locking flange fixing screw

Duct type



- ①: Installation sleeve
- ②: Thread G1/2
- ③: Connecting pipe fittings
- ④: pipeline

for instance: A=L-25-1/2φ

Pipe type

MODEL SELECTION TABLE

Series No.		Temp. Output	Hyphenated	Housing	Temp. Range	Probe Length
NTS	90	1	-	W	1	2
		1= 0~10VDC (3-wired)		W= Wall-mounted	0= Null	0= 65mm
		2= 0~5VDC (3-wired)		D= Duct	1= 0~50°C	1= 100mm
		3= 4~20mA (2-wired)		P= Pipe	2= -20~60°C	2= 150mm
		4= PT1000, ±0.2°C@0°C				3= 200mm
		5= PT100, ±0.2°C@0°C				
		6= NTC20K, ±0.4°C@25°C				
		7= NTC10K, ±0.4°C@25°C				

1. Only when the temperature output are 1, 2, 3, the temperature range can be selected accordingly from 1 or 2; otherwise, the range selection would be 0,
 2. When Pipe type is selected, Thermowell-NTW 950 is included by factory default.

PRECAUTIONS

1. When select wall-mounted, the probe should be vertically downward. When applied to outdoors, a proper position is needed. Please make sure the transmitter is away from the factors which may affect the measurement, such as cold, heat source, etc. And it's also necessary to install sun visor or protective cover to protect the transmitter from direct sunlight or rain. Drill two holes in the mounting place according to the hole size of the mounting box(refer to above picture), and tighten the mounting box with two screws.
2. Duct type is recommended to use flange accessories for installation. The insertion depth is adjustable. Fix the flange on the pipe with two screws. The screws can tighten the probe and duct type. Drilling hole size is \varnothing 7mm and it must be finally sealed after drilling.
3. Pipe type should be installed with installation joint. The connection joint size should be G1/2,and welded to the pipe. Tighten the connection joint to ensure pipe pressure was sealed well. Put in the probe to the pipe bottom, and fasten it with the screws.
4. When wiring, please open the cover and install the waterproof connector first. And then connect the power supply and signal wire at the box base through the waterproof connector. Finish the wiring according to the wiring diagram. In order to make the protection level up to IP65. Please make sure the waterproof connector and the box base matched well without leakage (There is a sealing ring). So do the cover and the bottom box (There is also a sealing ring).