



Excellence Since 1953



WT2/WR2

Ventilation Temperature Sensors With
Transmitter Output

INSTRUCTION AND MAINTENANCE MANUAL (IOM)

WT2/WR2 Ventilation Temperature Sensors With Transmitter Output

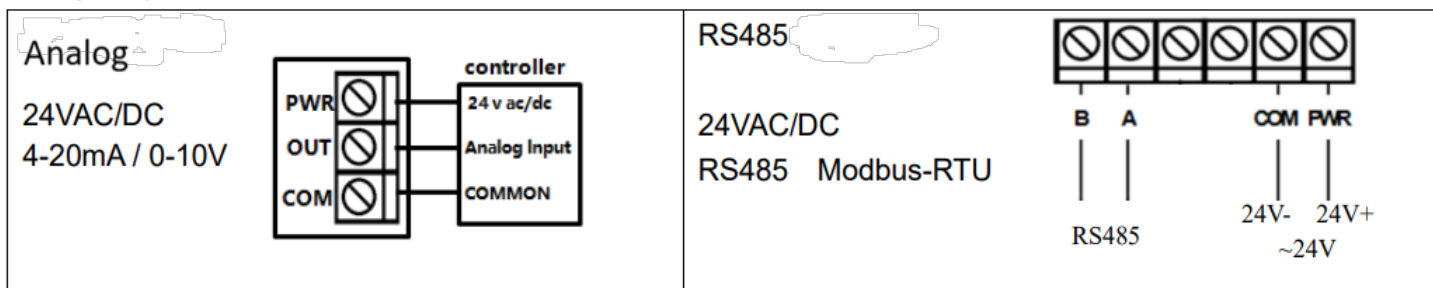


Product Information:

- The pipe-type temperature sensor and transmitter is made of 304 stainless steel probe, built-in Class A standard platinum resistance as a temperature sensing element, and produced by epoxy potting process, which is suitable for most harsh environments such as high and low temperatures and humidity.
- This temperature sensor quickly and accurately detects the temperature of air or water in ducts, and is available in a variety of probe lengths, making it ideal for single-point temperature measurement in HVAC duct work.

Technical Parameters	
Operating Voltage	24VAC±10% / 24VDC±15%
Temperature Range	0/50°C (32/122°F), 0/100°C (32/212°F), -20/80°C (-4/176°F)
Temperature Accuracy	±0.3°C @ 25°C / 77°F
Probe Length	100mm(3.9"), 150mm (5.9"), 200mm (7.9"), 300mm (11.8")
Output Signal	4-20mA load resistance ≤ 750Ω, 0-10V (0-5V) load resistance ≥ 5KΩ, resistance output
Response Time	< 30 s
Waterproof Connectors	IP65 dust and water tight
Working Environment	-20/60°C (-4/140°F) & 0-95% RH, non-condensing (LCD: 10/60°C, 50/140°F)
Storage Environment	-40/70°C (-40 /158°F) & 30-90% RH, non-condensing
Display Type	LCD display (optional)
Enclosure Protection	ABS + PC, V-0 (ref. UL94), IP65 (Refer to IEC529-598/GB 700-86/GB 4208)
Electromagnetic	EMC Reference GB/T 13926, EN61000-6-2, EN61000-6-3

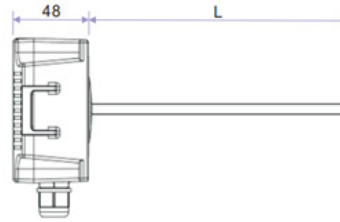
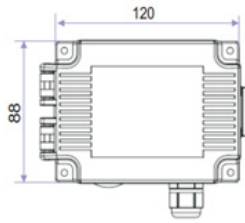
Wiring Diagram



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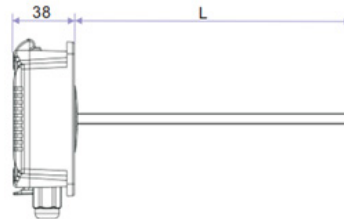
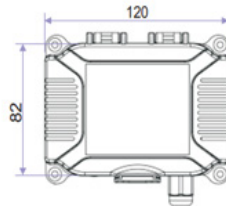
Dimensions (mm)

D-Type



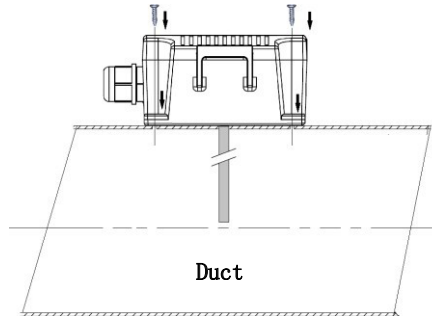
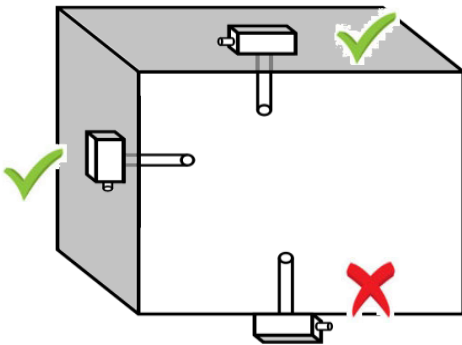
48mm = 1.9"
88mm = 3.5"
120mm = 4.7"

E-Type

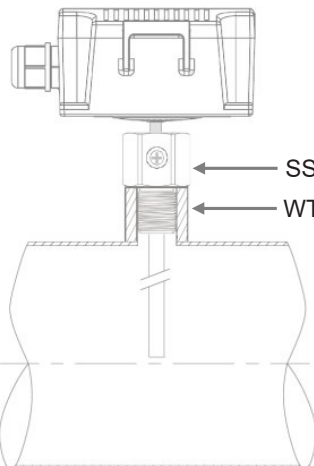
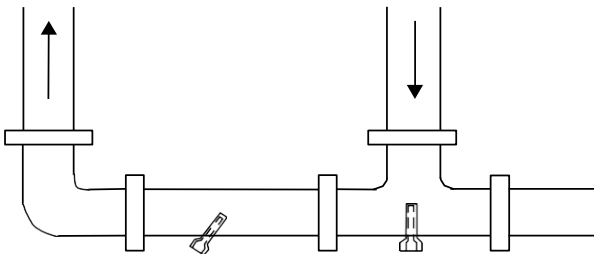


48mm = 1.5"
88mm = 3.2"
120mm = 4.7"

Duct Temperature Installation



Water Pipe Temperature Sensor Installation



SS thermowell connects
WT2/WR2 to pipe

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Note: Different models of products will have different internal wiring and terminal schemes.

Refer to the IoM of each specific product for specific technical information.

Precautions: Before installing and using the product, please read this Installation and Maintenance Manual carefully and pay attention to the following:

- This product has a variety of output signals and temperature measurement ranges. These settings should be selected and wired before power is applied to the product. Note: current mA output, 0-50°C / 32-122°F
- In order to ensure the waterproof integrity of the product, the conduit entry points and the sensor must be installed in a vertical/ downward position. Also, care must be taken not to damage the waterproof rubber gasket around housing
- The installation of ventilation / air duct sensors and transmitters should be in the straight section of the chamber such that they can effectively measure the temperature and humidity and ensure proper debugging and maintenance. Note, avoid installing these devices in areas susceptible to strong vibration
- When installing outdoor products, care should be taken to avoid direct sunlight. As well, provide a protective cover if there is a possibility of strong and continuous exposure to wind and rain
- All products should be installed and used in anti-static environments. Remove the power supply and do not operate the device if necessary to avoid sensor damage
- The installation of the product should be carried out after the completion of the ventilation system
- When the product is installed, it should be kept away from any variable frequency drives, inverters, large motors, capacitors and other equipment that is prone to high-frequency interference, otherwise it may adversely affect the operation of the product and lead to inaccurate readings and outputs
- Always consult your local electrical standards and codes for installation and operational practices

Product Warranty:

- Winters Instruments' products are warranted for a period of five (5) years against manufacturing and material defects
- Contact your nearest Winters sales office or distribution partner for a warranty claim