# **OUTSIDE AIR TEMPERATURE & HUMIDITY TRANSMITTER**



## **STHO**

STHO2215, STHO2216, STHO2217, STHO2218 STHO2225, STHO2226, STHO2227, STHO2228

#### **Application**

"STHO" Outside Temperature Humidity Transmitter is intended for ventilation and air-handling units to detect outside temperature and relative humidity. Especially, this unit is very suitable for using in pulp/textile/food warehouse, greenhouse, computer room, R&D room, indoor swimming pool, hospital, etc.

This unit can be used with all system equipment that can receive output signals 4-20mADC of the detector.

#### **Technical Data**

MODEL	OUTPUT SIGNAL	MEASURING RANGE	ACCURACY(at 23°C)
STHO2215	Pt100Ω / 4~20mA	-35~+80°C / 0~+100%RH	±0.15°C(at 0°C) / ±1.8%RH(at 0~80% RH)
STHO2225	Pt1000Ω / 4~20mA	-35~+80°C / 0~+100%RH	±0.3°C(at 0°C) / ±1.8%RH(at 0~80% RH)
STHO2216	Pt100Ω / 0 - 10VDC	-35~+80°C / 0~+100%RH	±0.15°C(at 0°C) / ±1.8%RH(at 0~80% RH)
STHO2226	Pt1000Ω / 0 - 10VDC	-35~+80°C / 0~+100%RH	±0.3°C(at 0°C) / ±1.8%RH(at 0~80% RH)
STH02217	Pt100Ω / 0 - 5VDC	-35~+80°C / 0~+100%RH	±0.15°C(at 0°C) / ±1.8%RH(at 0~80% RH)
STH02227	Pt1000Ω / 0 - 5VDC	-35~+80°C / 0~+100%RH	±0.3°C(at 0°C) / ±1.8%RH(at 0~80% RH)
STHO2218	Pt100Ω / 0 - 1VDC	-35~+80°C / 0~+100%RH	±0.15°C(at 0°C) / ±1.8%RH(at 0~80% RH)
STHO2228	Pt1000Ω / 0 - 1VDC	-35~+80°C / 0~+100%RH	±0.3°C(at 0°C) / ±1.8%RH(at 0~80% RH)

• SUPPLY VOLTAGE : 15~30VDC or 24VAC±20% / (2-wire) 15~30VDC

POWER CONSUMPTION
 SENSING RANGE
 DC/8mA, AC/20mA typical
 -35~+80°C / 0~100%RH

• ACCURACY : 23°C at 0~80%RH within  $\pm 1.8$ %RH • OUTPUT SIGNAL : Pt1000 $\Omega$ (Pt100 $\Omega$ ) / 4~20mA DC

SENSING TIME
 Temp/3min.Humidity:10sec (at 0.15m/sec velocity)
 AMBIENT TEMPERATURE
 1) On Operation: -25~+80°C (Probe: -35~+80°C)
 2) On Transportation & Storage: -10~+65°C

• AMBIENT HUMIDITY : On Operation : below 95%RH

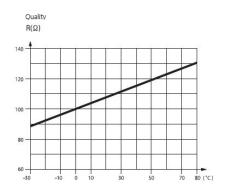
• WIRING : 5 and 6 wires, 1.0m²
• PROTECTION CLASS : IP 65 to EN60529

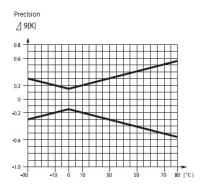
HOUSING MATERIAL : PC
CABLE FITTING : PF 1/2"
WEIGHT : 155g



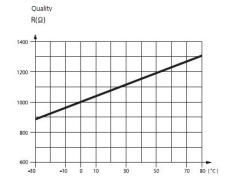
#### Accuracy

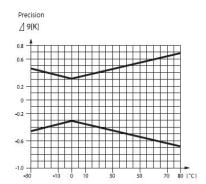
► Pt100 Ω (Class A)



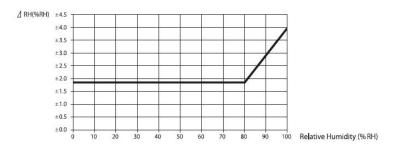


► Pt1000Ω (Class B)





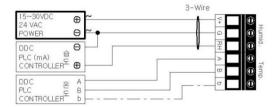
► Relative Humidity Accuracy (±1.8%RH)

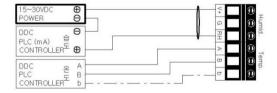


#### **Mounting Guide**

- ► Select a location approx 1.5 meter above the floor.
- ► The sensor location should also be reasonably clean and free damp and condensation
- ► The element must not to be touched and should be protected from dust, water, spray and condensation.
- ► The sensor element must not to be exposed to organic solvents, sylphid bearing materials.
- ► To avoid the conductive current the wires should be separated from power lines.
- ▶ Use the shield line when wiring.

## Wiring Diagram





### **Shape Dimension**

