

Sensor

SERIES TH10, TH20, TH60

TH10 Series

(Wall mount type temperature/humidity sensor)

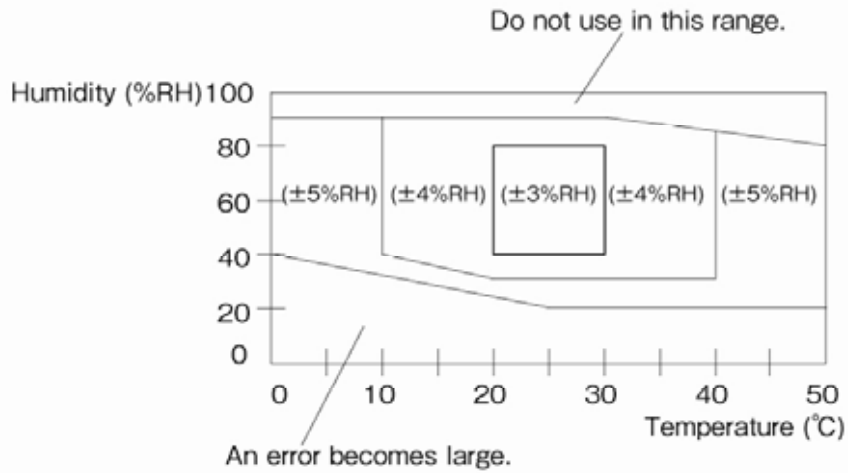
- * Easy Installation (compact & light weight)
- * High Accuracy Temperature and Humidity Measurement Possible
- * Linearized Humidity Signal (0-5V DC or 4-20mA DC)
- * Temperature Output Signal : Pt100Ω 3-wire system resistance output



Specification

- * Supply Voltage : 12~24V DC (+/-5%)
24V DC power supply to be used for 4-20mA DC humidity output signal
- * Operation Ambient Temperature Range : 0-50 °C
- * Operation Ambient Humidity Range : 90% RH max. (No dew condensation)
- * Stock Temperature Range : -10-60 °C
- * Stock Humidity Range : 90% RH max. (No dew condensation)
- * Power Consumption : Max. 12mA at humidity voltage output
Max. 22mA at humidity current output
- * Insulation Resistance : 500V DC 100M ohms min. between terminals and case
- * Dielectric Strength : 1 min. at 1.5kV AC between terminals and case
- * External Dimensions : W82 x H82 x D27 mm
- * Mounting Method : Wall mount
- * Weight : Approx. 60g
- * Humidity Sensing Range : 20-90%RH (at 25 °C)
- * Humidity Sensing Accuracy : +/-3%RH (at 25 °C, 40-80%RH)
- * Humidity Sensing Element : Macromolecule humidity sensor
- * Humidity Output Signal
Voltage output type : 0-5V DC (0-100% RH), Output resistance: 5kΩ max.
Current output type : 4-20mA DC (0-100% RH), Load resistance: 600Ω max. at 24V DC supply voltage
Max. load resistance (Ω) = [supply voltage (V) - 12(V)]/0.02A
- * Sensing Repeatability Characteristics : Within 5 min.
Wind velocity 1.2cm/s air current, at 25°C, 90% repeatability
- * Temperature Sensing Range : 0-50 °C
- * Humidity Output Signal : R.T.D., 3-wire system resistance output
- * Temperature Sensing Element : Pt100, Class B, Amperage: 2mA max.
- * Accessory : Lock screw x 4 pcs. (M3 x 20)
- * Installation Site : Environmental Conditions
Must be used indoors.
Max. elevation: 2000m
Ambient Temperature: -10-50 °C
Ambient Humidity: Max. 90%RH
(No dew condensation)
Do not use the sensor in the following conditions
Doing so could lead to equipment failure or damage
 - * Places exposed to flammable or corrosive gases, oil mist, or excessive dust that could cause insulation to deteriorate.
 - * Places subject to vibration or impact
 - * Places near strong electric circuit or places subject to inductive influence
 - * Placed exposed to water dripping or direct sunlight

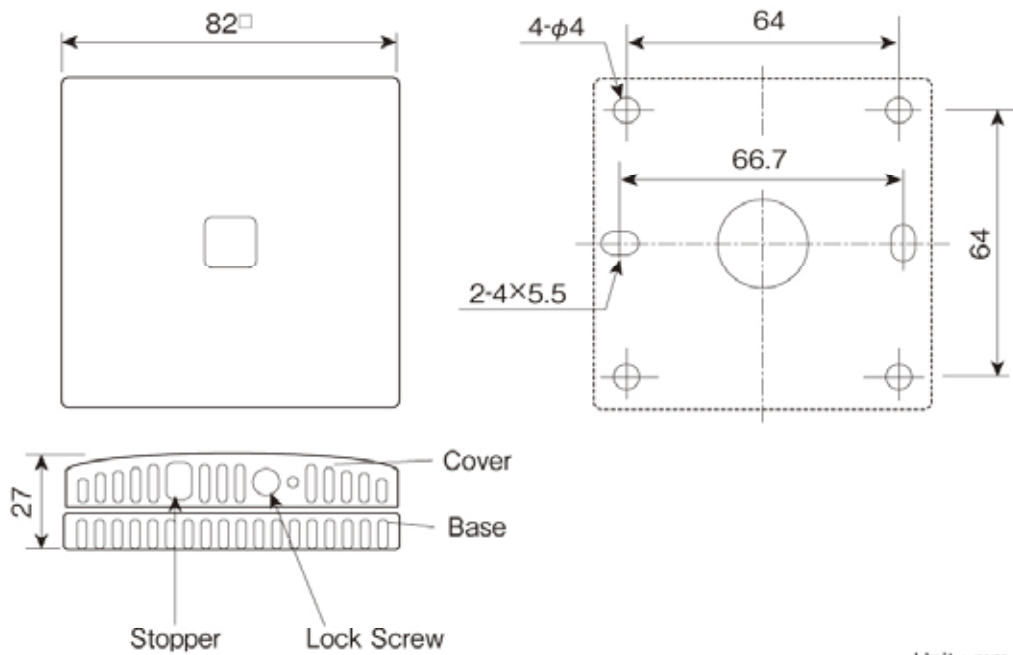
Humidity Sensing Range and Accuracy



Ordering Information

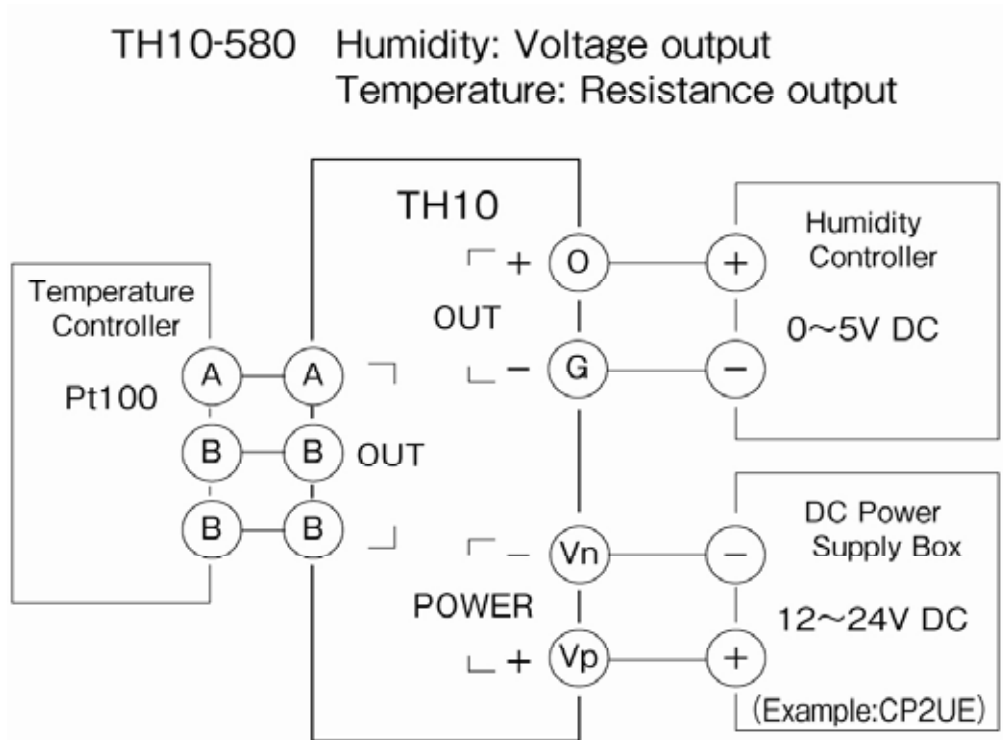
Item	Code	Specifications
Series	TH10-	Indoor Type Temperature/Humidity Sensor (Sensing element self-contained type)
Humidity Output	0	None
	5	0~5V DC/0~100% RH Output Resistance: 5k max.
	6	4~20mA DC/0~100% RH Load Resistance: 600 max.(at 24V DC supply)
Temperature Output	0	None
	8	Pt100 3 wire system, Output Resistance: Class B, 2mA
Remarks	0	Without
	9	With (Please consult before ordering.)

External Dimensions & Mounting

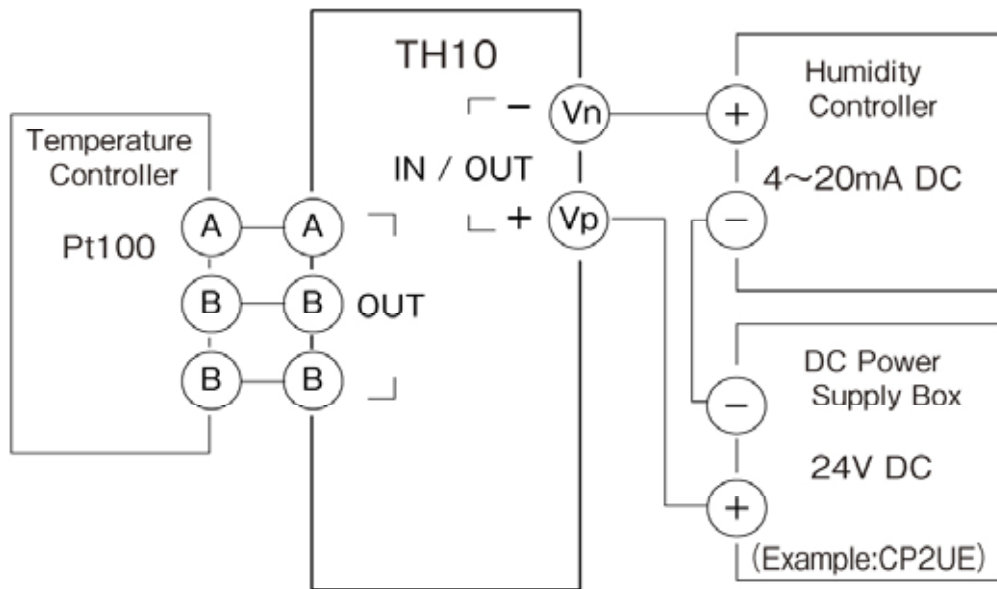


Unit : mm

Terminal Arrangement & Wiring Example



TH10-680 Humidity: Current output
Temperature: Resistance output



Temperature and Humidity Control Specialists

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