



THR23

# Indoor Temperature & Humidity Transmitter

## Temperature & Humidity-THR23

[www.eyc-tech.com](http://www.eyc-tech.com)

## | Features |

- Measuring temperature and humidity
- Analog outputs and RS-485
- Quick easy installation and maintenance due to well designed
- Cost-efficient and reliable
- Data can be logged and transferred to PC via RS-485 function link free software

## | Applications |

Monitoring indoor environments HVAC / Air conditioning / Museums / Testing environments work places / Supermarkets / Data centers / Production warehouses / Indoor public places to regulate the ventilation system to save energy

## | Specification |

### Display

Display	LCD without backlight
Display readout	Double-row (Up : Humidity ; Down : Temp.)
Digit	3 digits and 1 decimal
Digit height	17.84 mm

### Input sensor type

Temperature	MEMS
Humidity	MEMS

### Measuring range

Temperature	0 ... 50°C
Humidity	0 ... 100%RH(Non-condensing)

### Output

Analog output	0 ... 10 V / 4 ... 20 mA
Modbus	RS-485+analog
Signal connection	3-wire
Load resistance(Voltage)	Voltage output : $\geq 100 \text{ K}\Omega$ Current output : $< 250 \Omega$
Warm-up time	$< 2 \text{ min}$ ; Stable time 20 min
Temp. influence	Max.-0.15%RH/°C(0°C ... 80°C)
Response time	t63(15 ... 45°C / 33 ... 75%RH) $\leq 10 \text{ sec}$
Sampling time	About 3 sec
Data logger	Via RS-485 by using eYc free software

### Accuracy(at +25°C ; DC 24 V)

Temperature	$\pm 0.5^\circ\text{C}$
Humidity	$\pm 5\% \text{RH}$ (30 ... 80%RH)

### Environment

Medium	Air
Operating environment	0 ... +50°C 0 ... 100%RH(Non-condensing)
Storage environment	-20 ... +60°C

### Electrical

Power supply	DC 12 ... 36 V & AC 24 V $\pm 10\%$
Power consumption	DC : Max.100 mA ; AC : Max.150 mA
Electrical connection	Analog & Communication : 4P Connector

### Installation

Installation	Indoor & Wall mount
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### Protection

IP rating	IP20
Electrical protection	■ Polarity protection ■ Short-circuit

### Certification

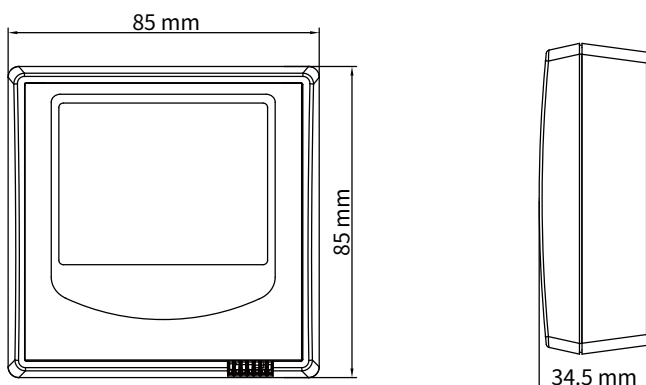
Certification	CE
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### Material

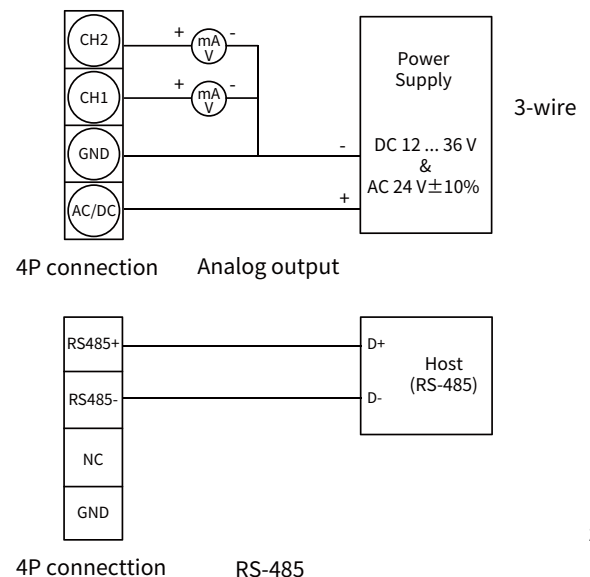
Housing	PC(PC-110)(UL94V-2)
Weight	95 g

\*Please make sure the product and the device which connect with RS-485 are on common ground, avoid damaged product.

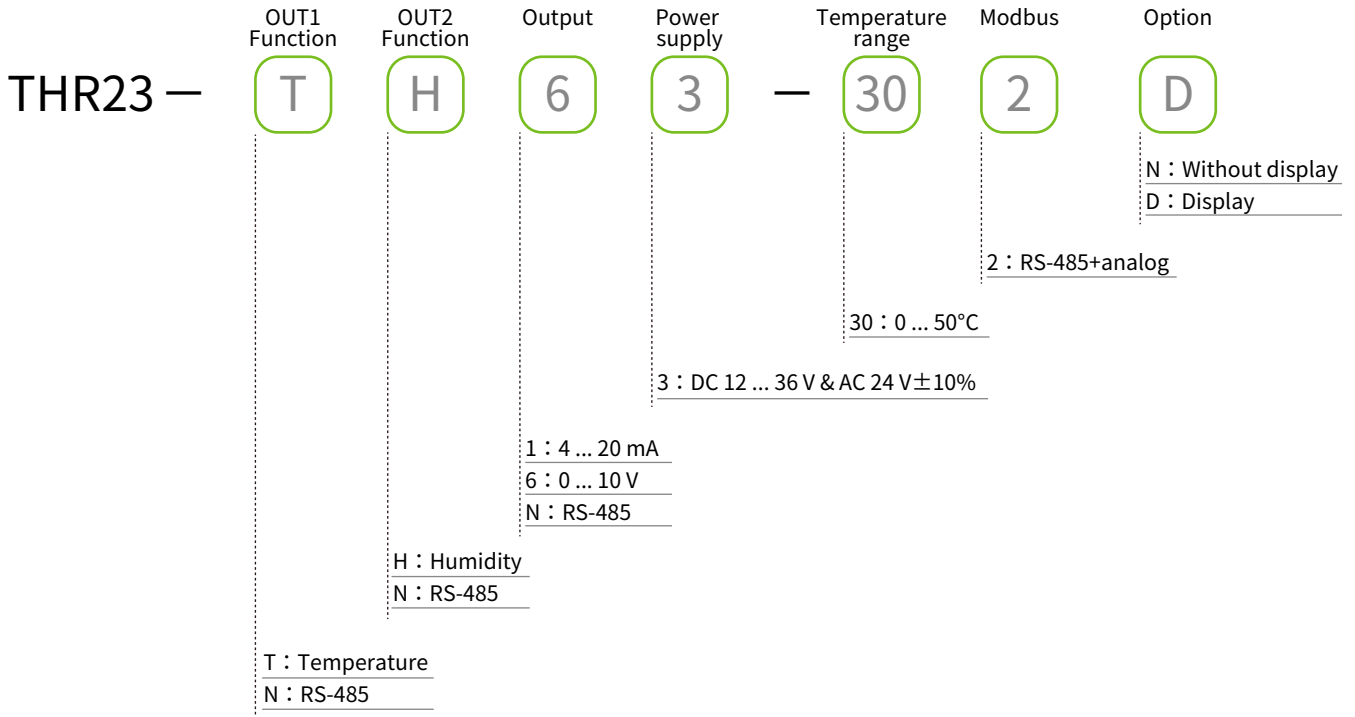
## | Dimension |



## | Diagram |



## | Ordering Guide |



## | Additional Option Test Report | For more detailed information please contact us.

### ■ ILAC / TAF

YUDEN-TECH CO.,LTD. Calibration Laboratory - ( ILAC / TAF ) Test report.  
 (TAF accreditation :3032, complying with ISO / IEC 17025 ) TAF has mutual recognition arrangement with ILAC MRA

Project	Measurand level or range
Hygrometer	Temperature : 0°C ... 69.5°C
	Humidity : 10% ... 95%

### ■ ISO 9001

Project	Measurand level or range
Temperature and Humidity	Temperature : 0°C ... 200°C
	Humidity : 0.1% ... 99.8%