



THR23 Temperature & Humidity Transmitter / Indoor type



Application

〈 Feature 〉

- Measuring temperature and humidity
- 2 analog outputs or Modbus RS-485
- Optional analogue output + 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

〈 Application 〉

- 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 module without backlight
display readout	double line character (up : humidity ; down : temp.)
digit	3 digits & 1 decimal
digit height	17.84 mm

Input

temperature & humidity	MEMS sensor
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Measuring Range

temperature	0 ... 50 °C
humidity	0 ... 100 %RH (non-condensing)

Output

analogue output	0 ... 5 V / 0 ... 10 V / 4 ... 20 mA
Modbus	RS-485
signal connection	3-wire
load resistance (voltage)	voltage output : $\geq 10K\Omega$; current output : $< 250\Omega$
warm-up time	< 2 min. \rightarrow stable time 20 mins.
temperature influence	max. - 0.15 % RH / °C (0 °C to 80 °C)
response time	t_{63} (15 °C to 45 °C / 33 to 75 % RH) ≤ 10 sec.
sampling time	about 3 secs.
data logger	via RS-485 by using eyc free software

Accuracy (at +25 °C ; V = 24 VDC)

temperature	± 0.4 °C
humidity	± 3 % RH (20 ... 80 % RH)

Environment

media measured	air
working temperature	-20 ... +60 °C
working humidity	0 ... 95 % (non-cond.)
storage temperature	-20 ... +60 °C

Electrical

power supply	DC 12 ... 36 V & AC 24 V ± 10 %
current consumption	DC : 20 mA
	AC : 30 mA ;
starting current	DC 24V : 80 mA ; DC 12 V : 100 mA ;
	AC 24V : 100 mA
electrical connection	analogue & communication : 4P connector

Installation

installation	wall
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Protection

protection degree	IP 20
electric protection	⊙ polarity protection ⊙ short circuit

Certification

certification	CE
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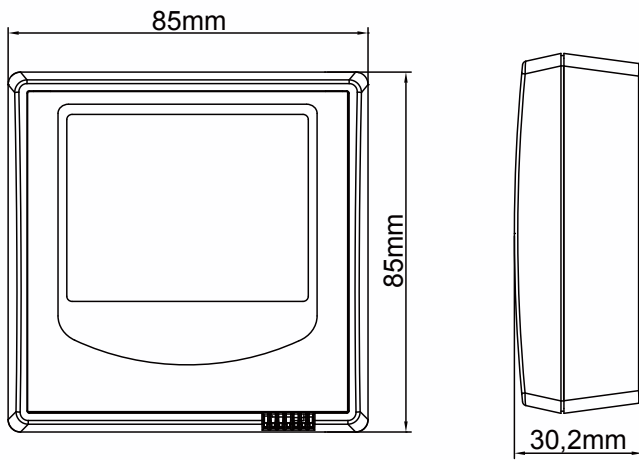
Material

case	PC (PC - 110) (UL94V-2)
weight	95 g

Ordering Guide

type	THR23	—	T	H	6	1	—	30	—	0	D
CH1 function	temperature humidity RS-485	—	T H N								
CH2 function	temperature humidity RS-485			T H N							
output	4 ... 20 mA 0 ... 10 V 0 ... 5 V RS-485				1 6 7 N						
power supply	12 ... 36 VDC 24 \pm 10 % VAC & 12 ... 36 VDC (optional)					1 3					
temperature range	0 ... 50°C RS-485						— —	30 00			
Modbus	analogue RS-485 RS-485 + analogue								— — —	0 1 2	
option	without display display										N D

Dimension



Diagram

