



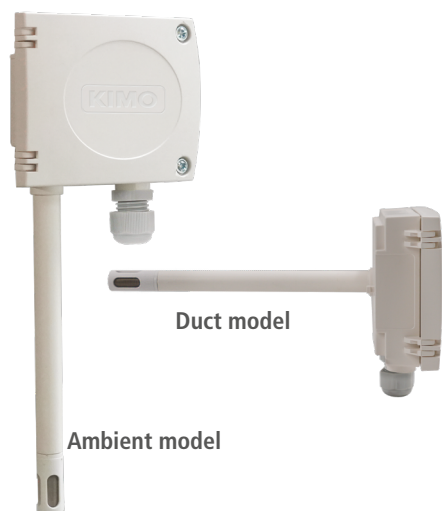
ELECTRO-MATION

Messtechnik seit über 40 Jahren

DATA SHEET

TH20

Relative humidity and temperature transmitter



Duct model

Ambient model



Range from 0 to 100 %RH and from -20 to 60°C



Active 0-10 V or passive 4-20 mA models

Technical specifications

	Relative humidity	Temperature
Measuring ranges	0 to 100 %RH	Duct model: -20 to 60 °C Ambient model: -20 to 50 °C
Measurement units	%RH	°C, °F
Accuracy*	0 °C to 30 °C: ± 2 %RH from 10 to 80 %RH**; -20 °C to 60°C***: $\pm 0.04 \times (T-20)$ %RH	-20 à 60 °C: ± 0.3 °C

General features

Output / Supply

Active sensor 0-10 V (power supply 24 Vac/Vdc $\pm 10\%$), 3-4 wires
Passive sensor 4-20 mA (power supply 16/30 Vdc), 2 wires
Maximum load: 500 Ω (4-20 mA) - Minimum load: 1 k Ω (0-10 V)
24 Vac 50Hz / 24Vdc $\pm 10\%$

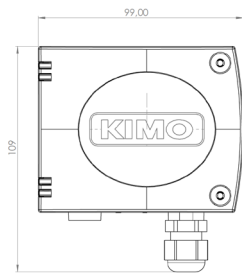
Consumption	1.5 VA
European directives	2014/30/EU EMC; 2015/863/EU RoHS 3; 2012/19/EU WEEE
Security	Protection class 3 - Pollution degree 2
Electrical connection	Screw terminal block for cables from 0.15 to 1.5 mm ² or from 21 to 16 AWG. Carried out according to the code of good practice
Environment	Air and neutral gases
Response time	15 seconds
Conditions of use (°C/%RH/m)	-20 to 60 °C (duct model) / -20 to 50 °C (ambient model). In non-condensing condition. From 0 to 2000 m (0 to 6561').
Storage temperature	From -25 to +70 °C (-13 to 158 °F)

*All the accuracies indicated in this technical datasheet were stated in laboratory conditions, and can be guaranteed for measurements carried out in the same conditions, or carried out with calibration compensation.

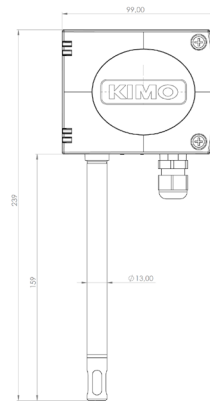
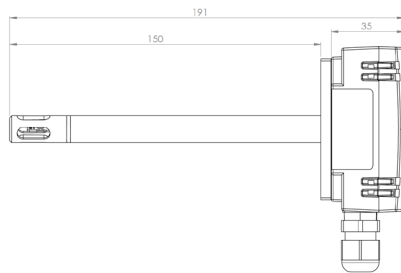
**For continuous use at values above 80%RH, please consult us.

*** Accuracies for T<0 °C or T>30 °C

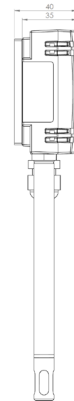
Dimensions (mm)



TH20-XNA



TH20-XNS



Features of the housing

Material	ABS V0 as per UL94
Protection	IP54
Cable gland	For cables Ø 8 mm maximum
Weight	126 g

Part number

TH20

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A

Power supply / Output

A: Active 0-10 V, 3-4 wires

P: Passive 4-20 mA, 2 wires

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N

Display

N: Without display

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A

Type of probe

A: Duct

S: Ambient

Example: TH20 – ANA
Relative humidity and temperature transmitter with duct probe, 0-10 V active, without display

See below the references for our transmitters:

Designation	Sales reference	Description
TH20-ANA	28181	Humidity and temperature transmitter TH20-ANA with rear probe (duct mounting), measuring range from 0 to 100 %RH, and -20 to 60 °C, 0-10 V output (active model, 3 wires), without display. Power supply 24 Vac/24 Vdc.
TH20-PNA	28180	Humidity and temperature transmitter TH20-PNA with rear probe (duct mounting), measuring range from 0 to 100 %RH, and -20 to 60 °C, 4-20 mA output (passive model, 2 wires), without display. Power supply 16-30 Vdc.
TH20-ANS	28183	Humidity and temperature transmitter TH20-ANS with ambient (wall mounting), measuring range from 0 to 100 %RH and -20 to 50 °C, 0-10 V output (active model, 3 wires), without display. Power supply 24 Vac/24 Vdc.
TH20-PNS	28182	Humidity and temperature transmitter TH20-PNS with ambient (wall mounting), measuring range from 0 to 100 %RH and -20 to 50 °C, 4-20 mA output (passive model, 2 wires), without display. Power supply 16-30 Vdc.

Accessories



A wide range of accessories is available. Please refer to the technical data sheet for transmitter accessories.

