KIMO INSTRUMENTS

Technical Data Sheet

Pressure / Temperature / Humidity / Air Velocity / Airflow / Sound level

CE

Humidity transmitter
HM 110

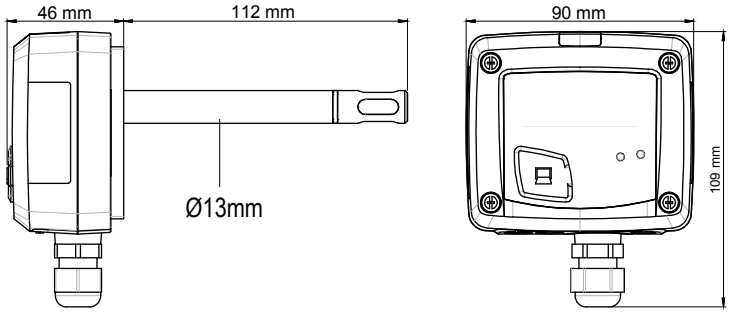


KEY POINTS

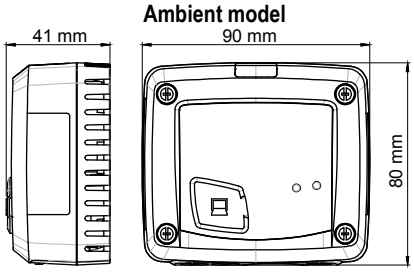
- Measuring range from 5 to 95% RH
- 0-10 V output, active, power supply 24 Vac/Vdc (3-4 wires) or 4-20 mA output, passive loop, power supply from 16 to 30 Vdc (2 wires)
- ABS V0 housing IP65 (duct or remote model) or IP20 (ambient model), without display
- "¼ turn" system mounting with wall-mount plate
- Housing with simplified mounting system

FEATURES OF HOUSING

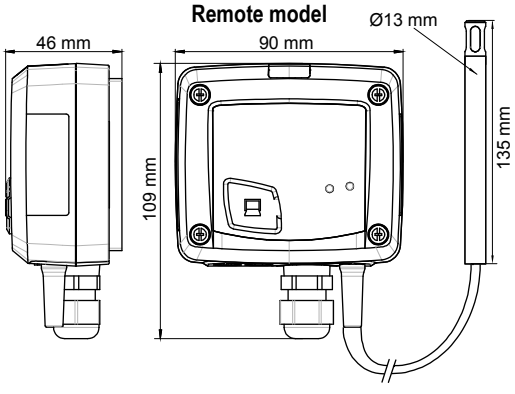
Duct model



Ambient model



Remote model



Material
ABS V0 as per UL94

Protection
IP65 (remote and duct models)
IP20 (ambient model)

Cable gland (remote and duct models)
For cables Ø8 mm maximum

Weight
145 g (ambient model); 223 g (remote and duct models)

Cable of remote probes: length 2 m and Ø4.8 mm in silicone

PART NUMBER

To order, just add the codes to complete the part number:

HM110 — [ ] — **N** — [ ]

Power supply / Output
A: Active – 24 Vac/Vdc – 0-10 V
P: Passive – 16/30 Vdc – 4-20 mA

N: Without display

Probe
S: Ambient
A: Duct
D: Remote

Example: HM110 – ANS
Ambient humidity transmitter HM110, active 0-10 V

TECHNICAL FEAUTURE IN HUMIDITY

Measuring range	from 5 to 95% RH
Analogue output	From 0 to 10% RH
Accuracy*	±1.5% RH (if 15°C ≤ T ≤ 25°C) on remote and duct models ±2% RH (if 15°C ≤ T ≤ 25°C) on ambient model
Drift linked to temperature	±0.04 x (T-20) % RH (if 15°C ≤ T ≤ 25°C)
Unit of measurement	% RH
Response time	1/e (63%) 4 s
Type of sensor	Capacitive
Resolution	0.1% RH
Factory adjustment uncertainty	±0.88% RH
Type of fluid	Air and neutral gases

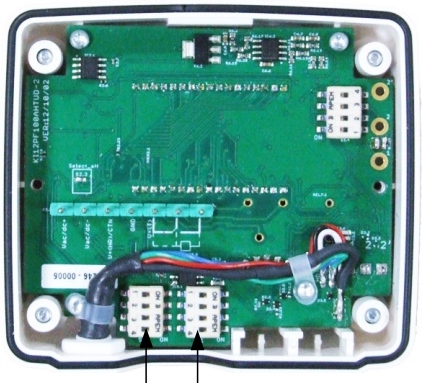
**All the accuracies indicated in this technical datasheet were stated in laboratory conditions, and can be guaranteed for measurements carried out in the same conditions, or carried out with calibration compensation.*

TECHNICAL SPECIFICATIONS

Output / Power supply	- active sensor 0-10 V (power supply 24 Vac/Vdc ±10%), 3-4 wires - passive loop sensor 4-20 mA (power supply 16/30 Vdc), 2 wires - common mode voltage <30 VAC - maximum load: 500 Ohms (4-20 mA) / minimum load: 1 K Ohms (0-10 V)
Consumption	2 VA (0-10 V) or 0.6 VA (4-20 mA)
European directives	2014/30/EU EMC; 2014/35/EU Low Voltage; 2011/65/EU RoHS II; 2012/19/EU WEEE
Electrical connection	Screw terminal block for cables from 0.05 to 2.5 mm^2 or from 30 to 14 AWG Carried out according to the code of good practice
PC communication	USB-mini DIN cable
Environment	Air and neutral gases
Conditions of use (°C/%RH/m)	From 0 to +50°C. In non-condensing condition. From 0 to 2000 m.
Operating temperature of the probe	From -20 to +80°C
Storage temperature	From -10 to +70°C

CONNECTIONS

Inside the front housing

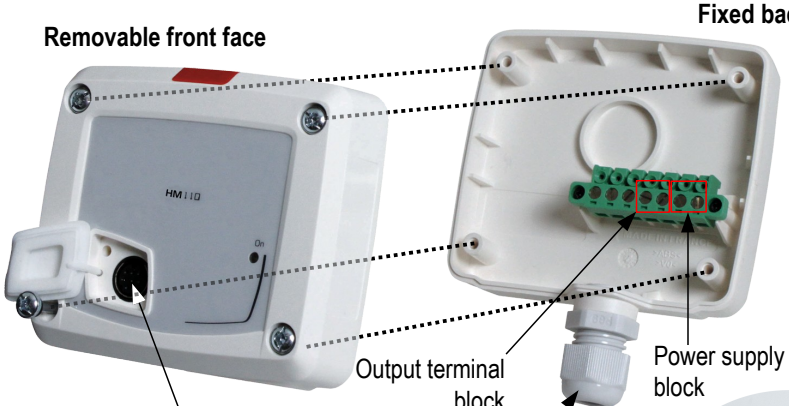


Inactive switch

Active switch (S1)

Removable front face

Fixed back housing

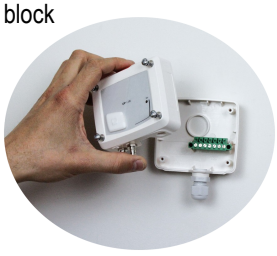


LCC-S connection

Output terminal block

Power supply terminal block

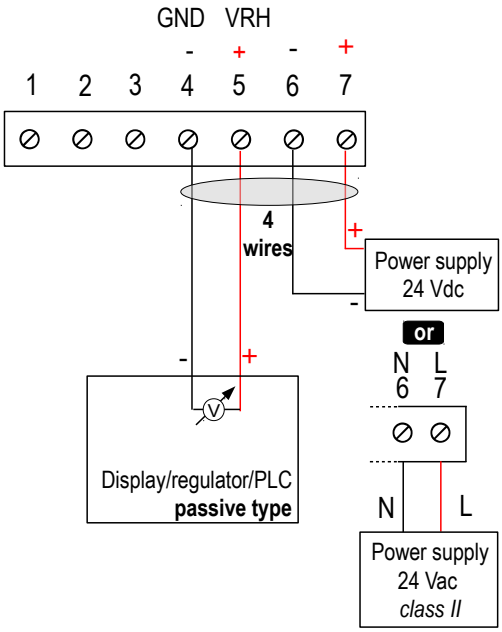
Cable gland



ELECTRICAL CONNECTIONS – as per *NFC15-100 standard*

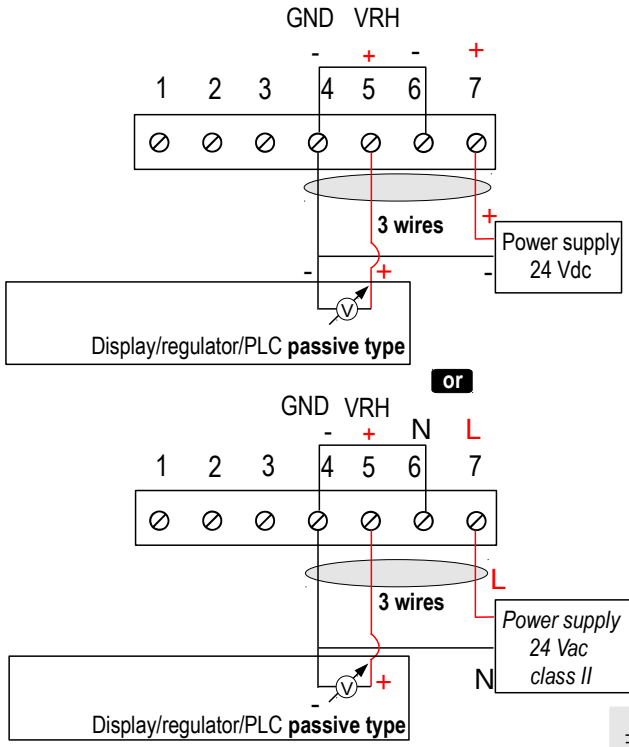
This connection must be made by a qualified and trained technician. To make the connection, the transmitter must not be energized.

For **HM110-A models** with **0-10 V** output – **active:**



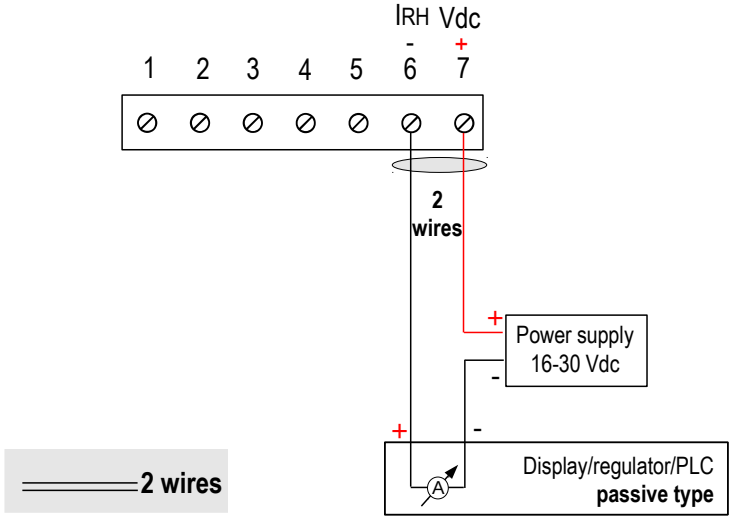
4 wires

To make a 3-wire connection, before powering up the transmitter, please connect the output ground to the input ground. See drawing below.



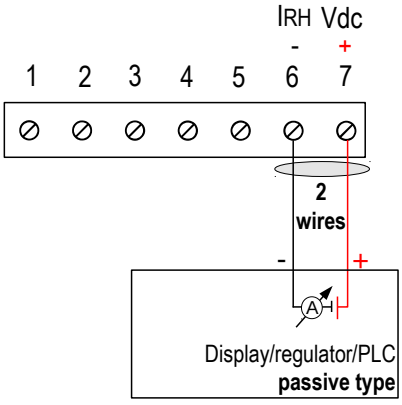
3 wires

For **HM110-P** models with **4-20 mA** output – **passive:**



2 wires

or



CONFIGURATION VIA LCC-S SOFTWARE (option)

An easy and friendly configuration with the software!
It is possible to configure an offset, ...

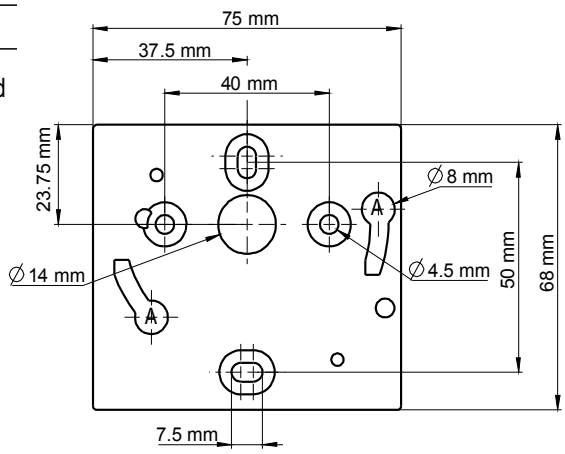
Example: the instrument could be configured from 30 to 50% RH.
In order to compensate a possible drift of the transmitter, it is possible to add an offset to the displayed value by the HM110 instrument: it shows 48% RH, a standard instrument shows 45% RH. It is then possible, via the software, to integrate an offset of -3 to the displayed value by the HM110 instrument.

- To access the configuration via software:
  - Connect the cable of the LCC-S to the connection of the transmitter.
- Please refer to the user manual of the LCC 100 to make the configuration.

MOUNTING

To mount the transmitter, mount the ABS plate on the wall (drilling: Ø6 mm, screws and pins are supplied).
Insert the transmitter on the fixing plate (see A on the drawing beside). Rotate the housing in clockwise direction until you hear a “click” which confirms that the transmitter is correctly installed.

Ambient model does not have any mounting plate.
4 fixing holes are present inside the back housing.
Use them to install the transmitter on the required location.



MAINTENANCE

Please avoid any aggressive solvent. Please protect the transmitter and its probes from any cleaning product containing formalin, that may be used for cleaning rooms or ducts.

OPTIONS AND ACCESSORIES

- **KIAL-100A:** Power supply class 2, 230 Vac input, 24 Vac output
- **KIAL-100:** Power supply class 2, 230 Vac input, 24 Vdc output
- **LCC-S:** configuration software with USB cable
- Stainless steel sliding fittings
- PC cable gland
- ABS connection with connection gland
- Stainless steel connections
- Wall-mount plate for humidity remote probe

Only the accessories supplied with the device must be used.

PRECAUTIONS FOR USE

Please always use the device in accordance with its intended use and within parameters described in the technical features in order not to compromise the protection ensured by the device.

FTang – HM110 – 09/06/2017 – RCS (24) Périgueux 349 282 095 Non-contractual document – We reserve the right to modify the characteristics of our products without prior notice.

Once returned to KIMO, required waste collection will be assured in the respect of the environment in accordance with European guidelines relating to WEEE.

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