



Humidity transmitter HM 50



- Humidity transmitter type HM 50
- Range 0-100 %RH
- 0-10 V output, active sensor, power supply 24 Vac/Vdc (3-4 wires) or 4-20 mA output, passive loop, power supply 18 to 30 Vdc (2 wires)
- ABS IP 30 housing, without display
- Quick and easy mounting with the "¼ turn" system with wall-mount plate

Part number

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

Transmitter/ Power supply / Output

V	Active • 24 Vac/Vdc • 0-10V
A	Passive • 18/30 Vdc • 4-20 mA

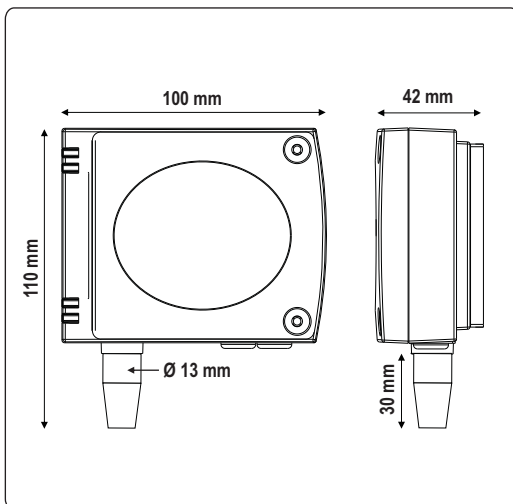
HM 50 -

Example : HM 50-A

Model : humidity transmitter HM 50, passive loop 4-20 mA.

Dimensions

(with wall-mount plate)



Features of the transmitter

Humidity

Working principle : the measurement of humidity is made by only one digital component CMOS (complementary metal-oxide semiconductor), including a capacitive element and a thermistor. This technology guarantees an excellent stability in the long term, along with a great accuracy of the measurement.

Measuring range.....0 to 100 %RH

Accuracy*Accuracy (Repetability, linearity, hysteresis)**: ±2%RH (from 15 to 25°C)
Factory calibration uncertainty : ±0.88%RH

Temperature dependence :
±0.04 x (T-20)%RH (if T<15°C or T>25°C)

Unit of measurement.....% RH

Response time.....1/e (63%) 4 s

Type of fluidair and neutral gases

*All 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.

**As per NFX 15-113 and the Charter 2000/2001 HYGROMETERS, GAL (Guaranteed Accuracy Limit) which has been calculated with a coverage factor value of 2 is ±2.98%RH between 18 and 28°C on the measuring range from 3 to 98%RH. Sensor drift is less than 1%RH/year.

Features of the housing

HousingABS

Fire-proof classificationHB as per UL94

Dimensionssee drawing beside

ProtectionIP 30

Cable gripfor cables Ø 7 mm max.

Weight.....110 g

Technical Specifications

Output/ Power supplyactive sensor 0-10 V (power supply 24 Vac/Vdc ±10%), 3-4 wires
passive loop 4-20 mA (power supply 18/30 Vdc), 2 wires
maximum load : 500 Ohms (4-20 mA)
minimum load : 1 K Ohms (0-10 V)

Consumption.....2 VA (0-10V) or max. 22 mA (4-20 mA)

Electro-magnetical compatibilityEN 61326

Electrical connectionscrew terminal block for cable Ø 1.5 mm² max.

Communication to PCKimo RS 232 cable

Working temperature+10 to +40°C

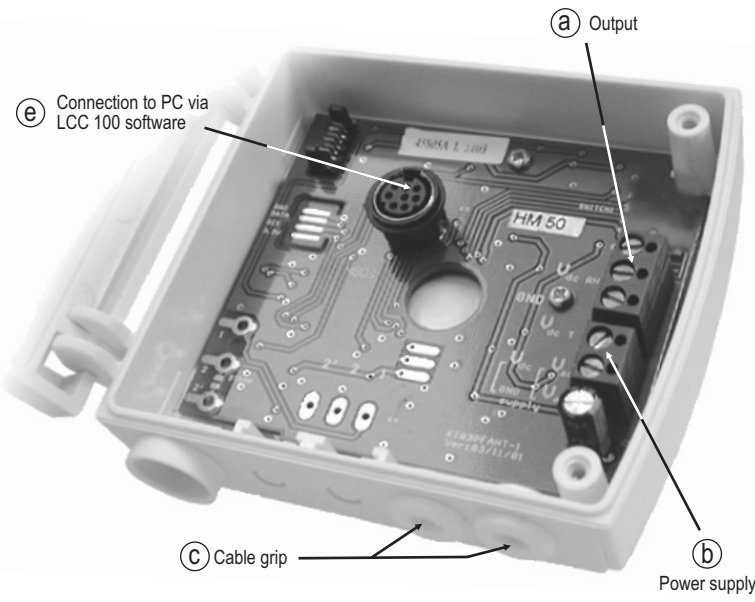
Storage temperature-10 to +70°C

Environmentair and neutral gases

Connection

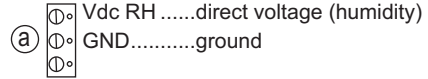


For the model
HM 50-V • 0-10 V output - active sensor

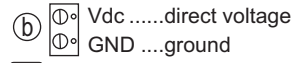


(c) Cable grip : to insert the cable, it is required to slightly cut the rubber.

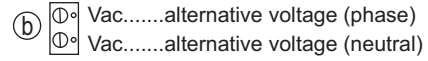
Output



Power supply

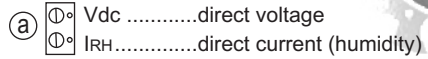
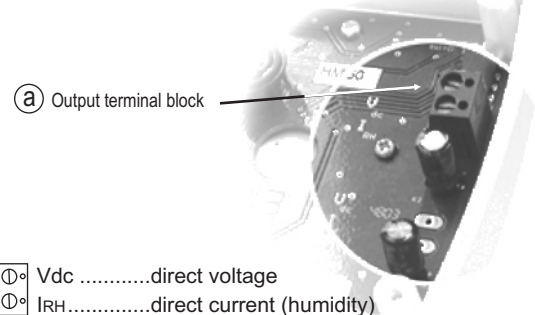


OR



For the model

HM 50-A • 4-20 mA output - passive loop

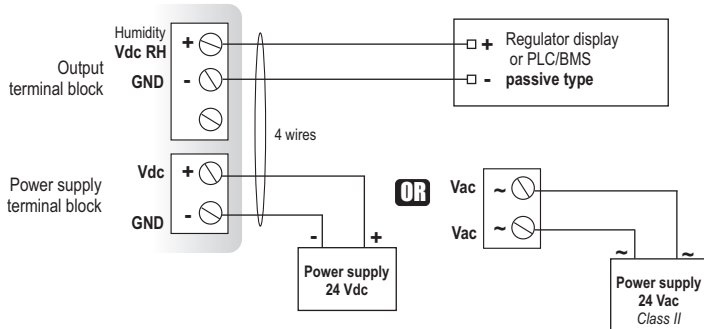


Electrical connection - as per norm NFC15-100

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

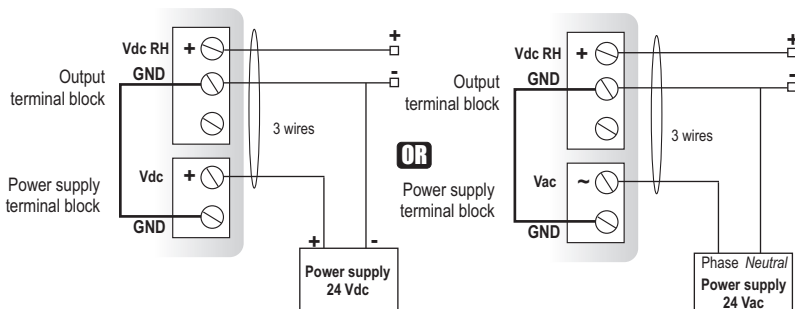
For the model
HM 50-V • 0-10 V output - active sensor

4 wires



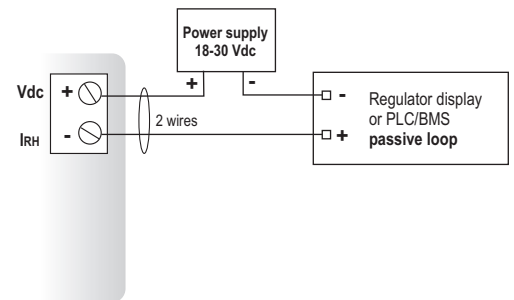
3 wires

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

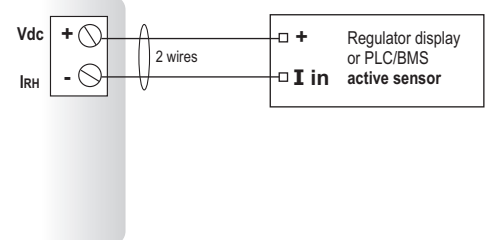


For the model
HM 50-A • 4-20 mA output - passive loop

2 wires



OR



■ Configuration

You can configure the offset of the transmitter via **software** (connection ⑤ on “connection” drawing).

In order to balance an eventual drift of the transmitter, you can add an offset to the value measured by the HM 50

Example :

=> the HM50 indicates 48%RH, the standard reference indicates 45%RH

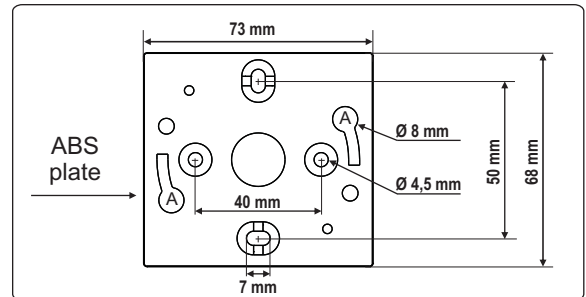
=> via the software LCC 100, you can add an offset of “-3” to the value.

- Please refer to the user manual of the LCC 100 to configure the offset.



■ Mounting

Installation : mount the ABS plate on the wall (this plate is supplied with the transmitter). Drilling : \varnothing 6 mm (with the screws and pins supplied with the transmitter). Insert the transmitter into the plate (see points A of the drawing shown beside), by tilting it at 30°. Rotate the housing in clockwise direction until you hear a “click” which confirms that the transmitter is correctly installed.



■ Maintenance

Please avoid any aggressive solvent.

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

■ Options

- Power supply class 2, input 230 Vac, output 24 Vac, ref.KIAL-100A
- Configuration software LCC 100 with RS 232 cable.



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