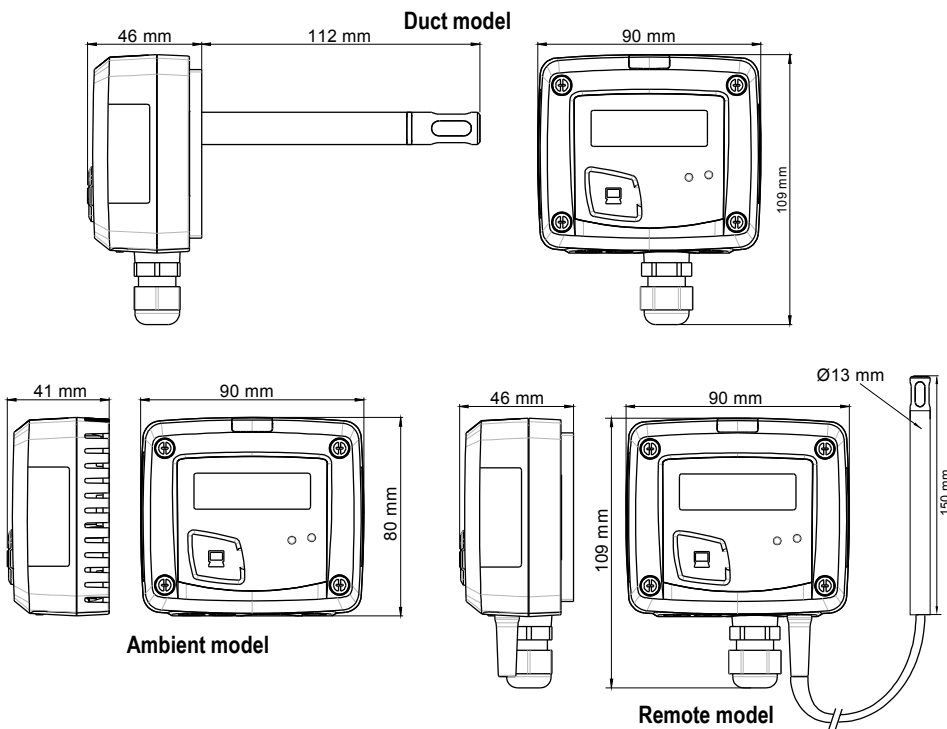# TH 110

- 5~ 95% RH / 0~ +50 (ambient model), - 20 ~ +80
  ( )
- 0~ 10V active , 24 Vac/Vdc (3- 4 wires)
  or 4- 20 mA passive loop , 16~ 30 Vdc (2wire)
- ABS V0 , IP65(duct or remote model), IP20(ambient model)

- "¼ turn" system mounting with wall-mount plate
-
-

Duct model

46 mm | 112 mm

90 mm

109 mm

ABS V0 as per UL94
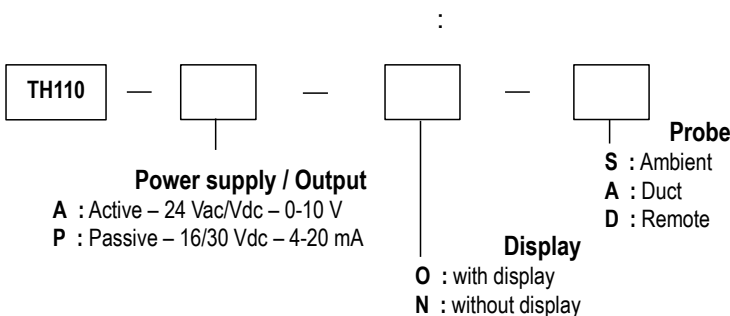
IP65 (duct and remote models)
IP20 (ambient model)

LCD 10 digits. Size : 50 x 17 mm
Alternating display of humidity and
temperature

Height of digits
Values : 10 mm
Units : 5 mm

(remote and duct models)
For cables Ø 8 mm maximum

124 g (ambient model) ; 135 g (duct and
remote models)

: length 2 m and Ø
4.8 mm in silicone

41 mm | 90 mm

80 mm

Ambient model

46 mm | 90 mm

109 mm

Ø 13 mm

150 mm

Remote model

:

TH110 — ☐ — ☐ — ☐

Probe
S : Ambient
A : Duct
D : Remote

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

Display
O : with display
N : without display

	Ambient model : from 0 to 50 °C Remote and duct models : from -20 to +80 °C	
	CMOS : ±0.4 % of reading ±0.3 °C NTC : ±0.3°C (de -40°C à 70°C) ; ±0.5°C outside	
	°C / °F	
	1/e (63%) 15 s	
	Ambient model : CMOS Remote and duct models : NTC	
	0.1 °C	
	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.

	From 5 to 95% RH	
	From 0 to 100%RH	
	±1.5% RH (if 15°C ≤ T ≤ 25°C) on remote and duct models ±1.8% 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)	
	% RH	
	1/e (63%) 4 s	
	Ambient model : CMOS Remote and duct models : NTC	
	0.1% RH	
	±0.88% HR	
	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.
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 ±2.58%RH between 18 and 28°C on the measuring range from 3 to 98%RH. Sensor drift is less than 1%RH/year.

/
- 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
- maximum load : 500 Ohms (4-20 mA)
- minimum load : 1 K Ohms (0-10 V)

2 VA (0-10 V) or max. 22 mA (4-20 mA)
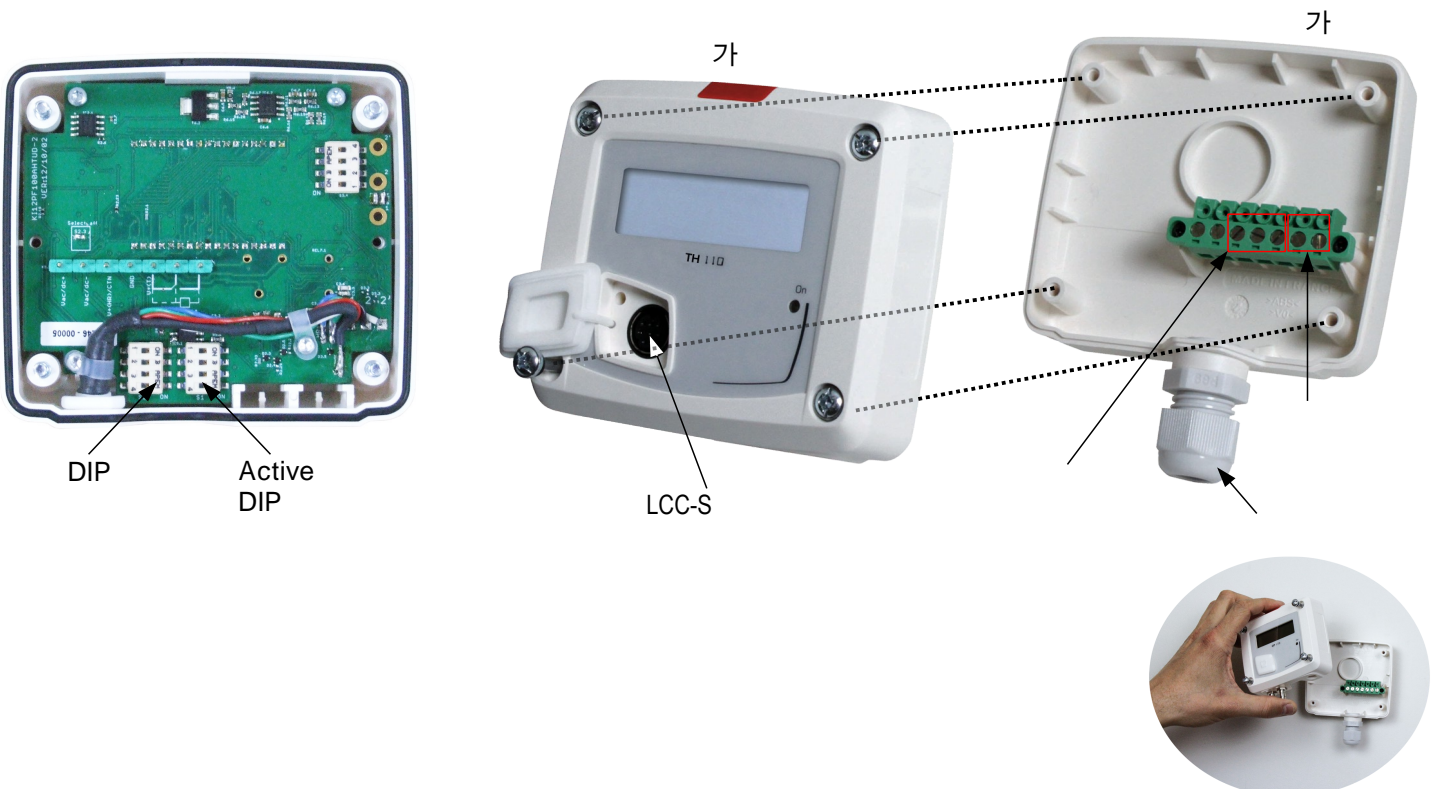
EN61326

Screw terminal block for cables Ø0.05 to 2.5 mm^2

 PC
Kimo USB-mini Din cable

Air and neutral gases

From 0 to 50 °C

From -20 to +80 °C

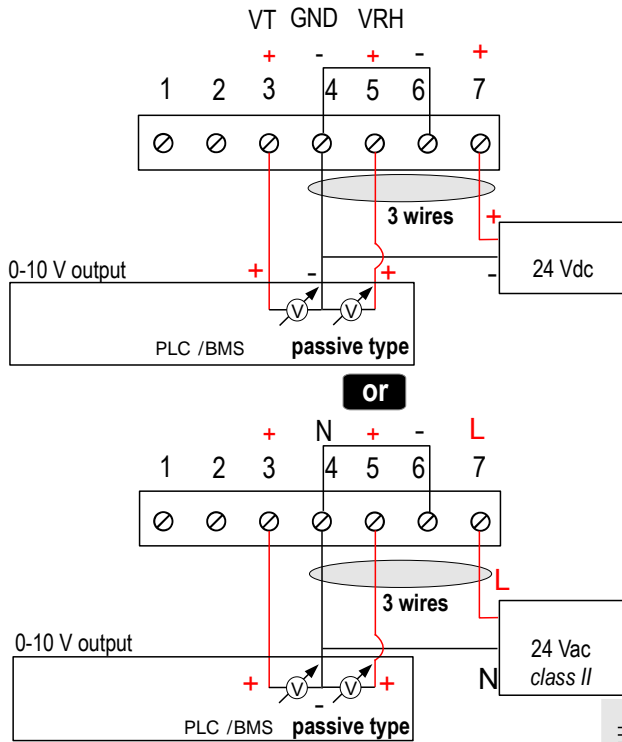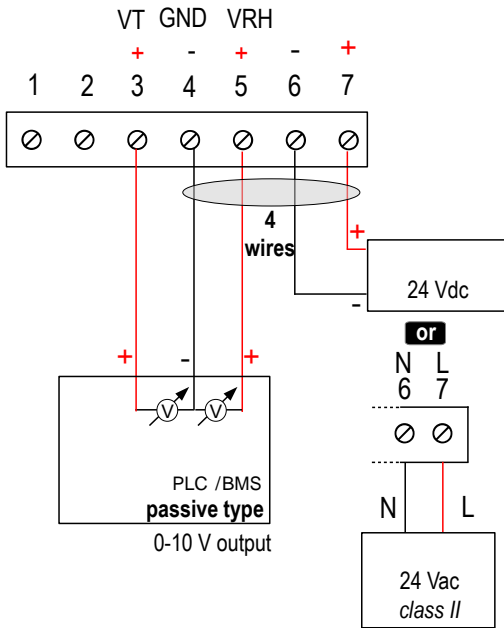From -10 to +70 °C

DIP

Active DIP

LCC-S

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

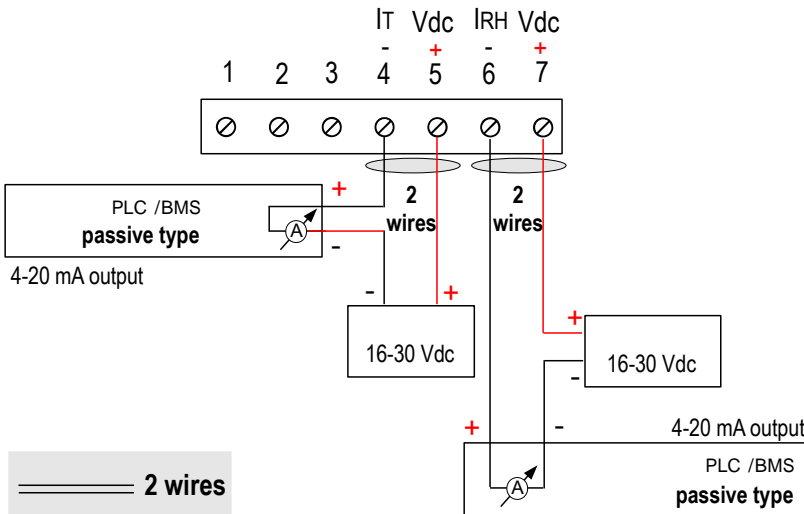For **TH110-AOS, TH110-ANS, TH110-AOD, TH110-AND, TH110-AOA, TH110-ANA** models with **0-10 V** output – **active :**

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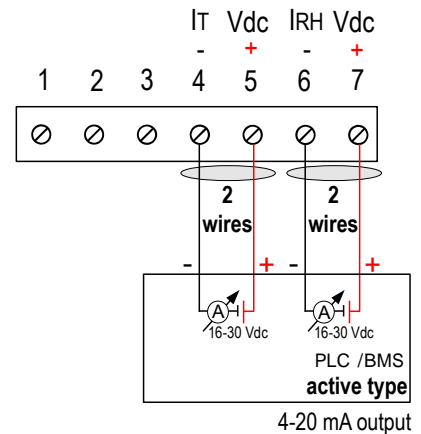
VT GND VRH

1 2 3 4 5 6 7

4 wires

24 Vdc

or

N L
6 7

N   L

24 Vac
class II

PLC /BMS
passive type
0-10 V output

═══ **4 wires**

VT GND VRH

1 2 3 4 5 6 7

3 wires

0-10 V output

24 Vdc

PLC /BMS **passive type**

or

N

1 2 3 4 5 6 7

L

3 wires

0-10 V output

24 Vac
class II

N

PLC /BMS **passive type**

═══ **3 wires**

For **TH110-POS, TH110-PNS, TH110-POD, TH110-PND, TH110-POA, TH110-PNA** models with **4-20 mA** output – **passive :**

IT Vdc IRH Vdc

1 2 3 4 5 6 7

PLC /BMS
passive type
4-20 mA output

2 wires

2 wires

16-30 Vdc

16-30 Vdc

4-20 mA output

PLC /BMS
passive type

or

IT Vdc IRH Vdc

1 2 3 4 5 6 7

2 wires

2 wires

16-30 Vdc

16-30 Vdc

PLC /BMS
active type
4-20 mA output

═══ **2 wires**

➤

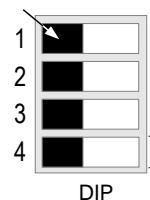LCC   , DIP   ,   ,

⚠️ **To configure the transmitter, it must not be energized. Then, you can make the settings required, with the DIP switches (as shown on the drawing below). When the transmitter is configured, you can power it up.**

On-off

➤

4   .
DIP

1
2
3
4

DIP

⚠️ DIP   !   ,

"CONFERROR",   ,

.

➤   - active

(4)

	°C	°F
1	▣	▣
2	▣	▣
3	▣	▣
4	◼	◼

➤   - active

To set an output, put the on-off switches 1, 2 et 3 of the measuring ranges as shown below.

|	From 0 to +50°C	From -20 to +80°C	From -50 to +50°C	From 0 to 100°C
1	◼ left	◼ right	◼ left	◼ right
2	◼ right	◼ left	◼ left	◼ right
3	◼ right	◼ right	◼ right	◼ left
4	▣	▣	▣	▣

CONFIGURATION VIA LCC-S SOFTWARE (option)

An easy and friendly configuration with the software !
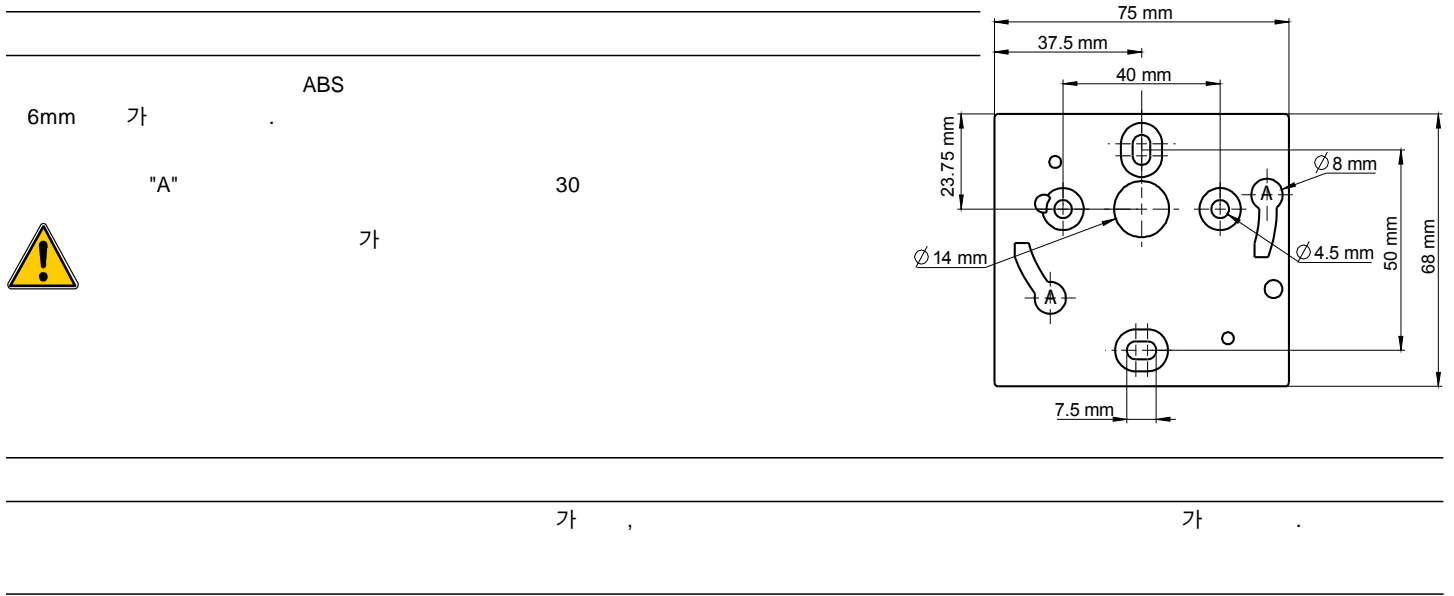It is possible to configure intermediate ranges, an offset
Example : for a 0-100 °C transmitter, minimum delta minimum is 20 °C. The instrument can be configured from 0 to +20 °C or from -10 to +10 °C.
In order to compensate a possible drift of the sensor, it is possible to add an offset to the displayed value by the TH110 transmitter : 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 TH110 instrument.
• To access the configuration via software :
     - Set the DIP switches as shown beside.
     - 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.
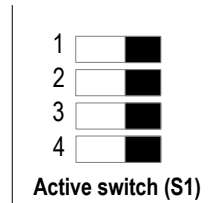
The configuration of the parameters can be done either with the DIP switch or via software (you can not combine both solutions).

1	◼
2	◼
3	◼
4	◼

Active switch (S1)

ABS

6mm   .

"A"   30

⚠️

75 mm
37.5 mm
40 mm
23.75 mm
∅ 8 mm
∅ 14 mm
∅ 4.5 mm
50 mm
68 mm
A
A
7.5 mm

KIAL-100A : Class2   , 230Vac input,
     24Vac output

LCC-S :   USB

• Stainless steel sliding fittings
• PC cable gland
• ABS connection with connection gland

• Stainless steel connections
• Wall-mount plate for humidity remote probe

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