KIMO® INSTRUMENTS

CE

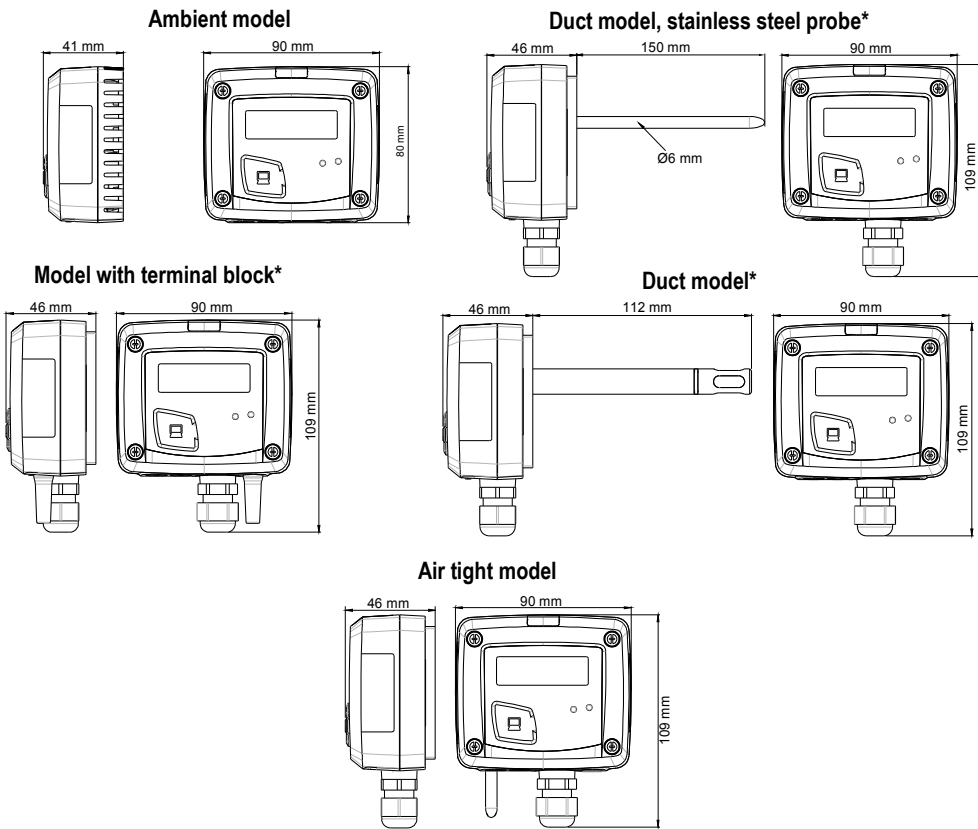# TM 110

- 0~+50 (ambient model), -20~+80 (duct and air tight models)
  -100~+400 (model with Pt100 terminal block)
- 0~10V active , 24 Vac/Vdc (3-4 wires)
  or 4-20 mA passive loop , 16~30 Vdc (2wire)
- ABS V0 , IP65(remote, air tight and duct models), IP20(ambient model)

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

Ambient model
41 mm | 90 mm | 80 mm

Duct model, stainless steel probe*
46 mm | 150 mm | 90 mm | 109 mm | Ø6 mm

Model with terminal block*
46 mm | 90 mm | 109 mm

Duct model*
46 mm | 112 mm | 90 mm | 109 mm

Air tight model
46 mm | 90 mm | 109 mm

*different probes are available as option

: ABS V0 as per UL94

:
- duct and air tight models and model with terminal block : IP65
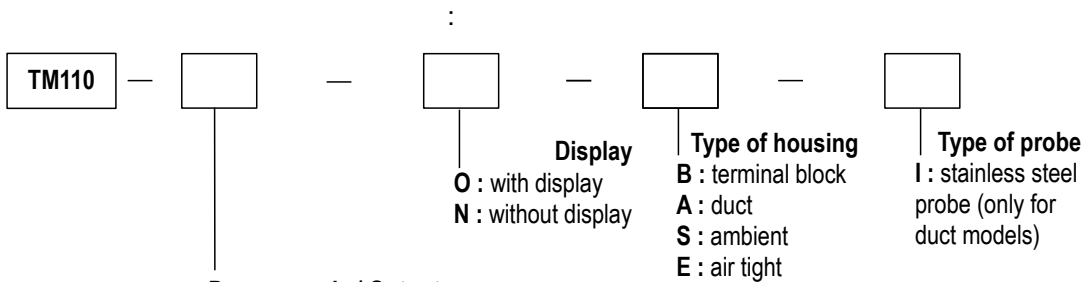- ambient model : IP20

:
LCD 10 digits. Size : 50 x 17 mm

Height of digits : Values : 10 mm ; Units : 5 mm

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

: 162 g

: length 2 m and Ø 4.8 mm in PVC

:

| TM110 | — | | — | | — | | — | |

Display
O : with display
N : without display

Type of housing
B : terminal block
A : duct
S : ambient
E : air tight

Type of probe
I : stainless steel probe (only for duct models)

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

Example : TM110-POB
TH110
4-20mA passive .
, terminal block

	°C, °F
	From 0 to 50 °C (ambient model), form -20 to +80 °C (duct and air tight models) and from -100 to +400 °C (model with terminal block)
	Pt100 : ±0.5 % of reading ±0.5 °C NTC : ±0.3°C (from -40°C to 70°C) ; ±0.5°C (outside the -40 to +70°C temperature range)
	Pt100 (model with terminal block and stainless steel duct and air tight models) NTC (ambient model and duct model)
	1/e (63%) 5 sec. (ambient) 1/e (63%) 20 sec. (airtight)
	0.1 °C
	Air and neutral gases
	From 0 to +50 °C
	From -10 to +70 °C

*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.

/	- 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 mm²
PC	Kimo USB-mini Din cable
	Air and neutral gases

DIP

PT100
(only for model with terminal block)

LCC-S

PT100   :
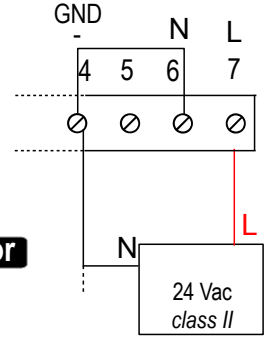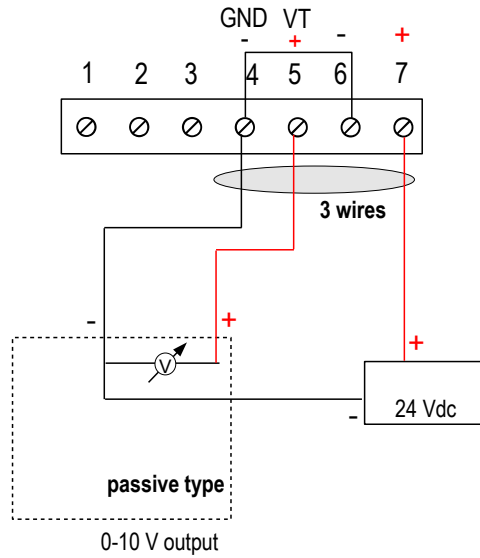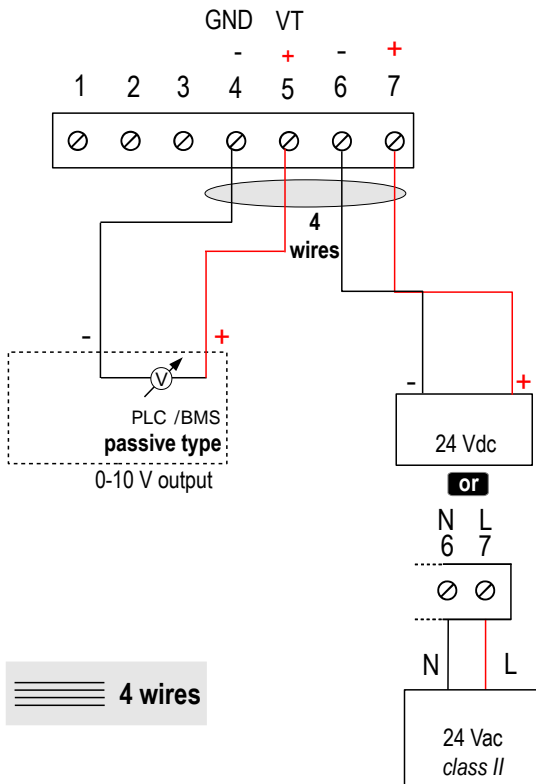

1   2   2'
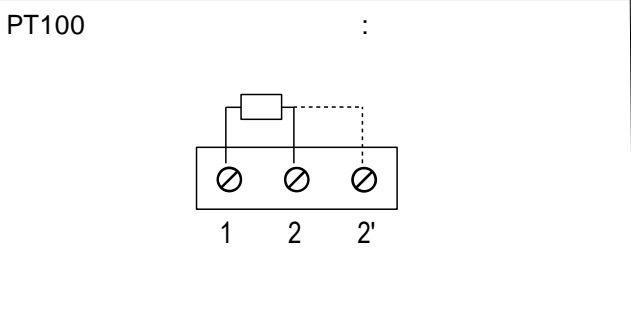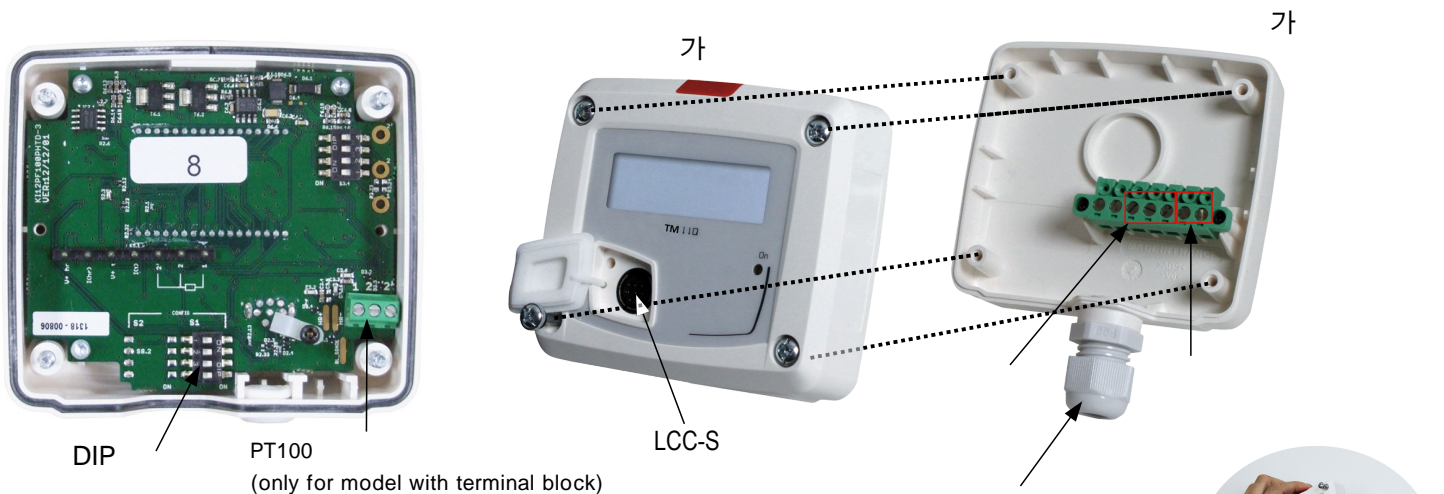
⚠ This connection must be made by a qualified technician. **To make the connection, the transmitter must not be energized.**

For **TM110 – AO** and **TM110 – AN** models with 0-10 V output – **active, 4 wires** :
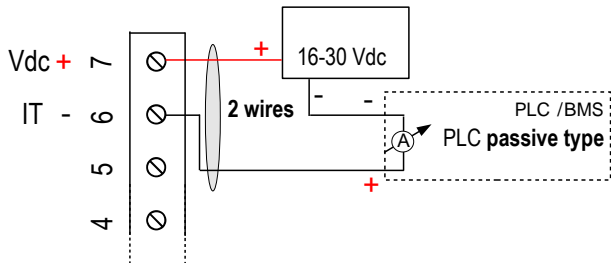
⚠ **To make a 3-wire connection, before powering up the transmitter, please connect the output ground to the input ground. See drawing below.**
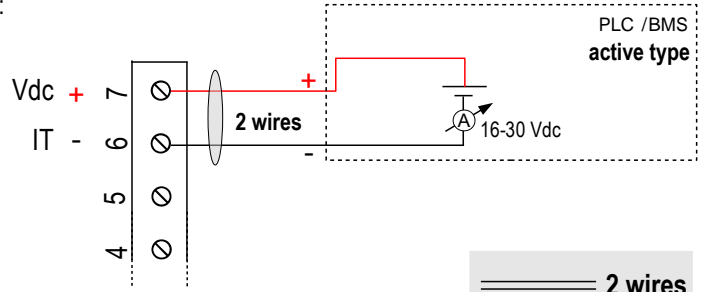
GND VT
- + - +
1 2 3 4 5 6 7

4 wires

- +
V
PLC /BMS
passive type
0-10 V output

- +
24 Vdc
or

N L
6 7

N L

24 Vac
class II

▬▬ **4 wires**

GND VT
- + - +
1 2 3 4 5 6 7

3 wires

- +
V

passive type
0-10 V output

+
- 24 Vdc
or

GND
- N L
4 5 6 7

N L

24 Vac
class II

▬▬ **3 wires**

For **TM110 – PO** and **TM110 – PN** models with 4-20 mA output – **passive** :

Vdc + 7
IT - 6
5
4

2 wires

+
16-30 Vdc
- -

+
A PLC /BMS
PLC **passive type**

or

Vdc + 7
IT - 6
5
4

2 wires

+
-

PLC /BMS
active type
A 16-30 Vdc

▬▬ **2 wires**

➢

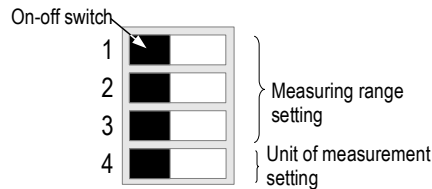⚠ **To configure the transmitter, it must not be energized. Then, you can make the settings required, with the DIP switches (as shown on the drawing below). When the transmitter is configured, you can power it up.**

On-off switch
1
2 } Measuring range setting
3
4 } Unit of measurement setting

➢

To set a measuring range, put the on-switches 1, 2 and 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	From 0 to 200 °C	From 0 to 400 °C
	1 ■□ 2 □■ 3 □■ 4 □■	1 □■ 2 ■□ 3 □■ 4 □■	1 ■□ 2 ■□ 3 □■ 4 □■	1 □■ 2 □■ 3 ■□ 4 □■	1 ■□ 2 □■ 3 ■□ 4 □■	1 □■ 2 ■□ 3 ■□ 4 □■

		°C		°F	
	1			1	
	2			2	
	3			3	
	4			4	

➤　　　　- active
　　　　　(4)

CONFIGURATION VIA LCC-S SOFTWARE (option)

**An easy and friendly configuration with the software !**
It is possible to configure intermediate ranges.

⚠ *Caution : the minimum difference between the high range and the low range is 20.*

Example : for a 0-100°C transmitter, the minimum delta of the range is 20°C. It is then possible to configure the transmitter from 0 to +100°C, or from 0 to +20°C...
• 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.

1		
2		
3		
4		
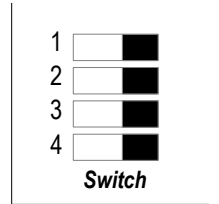
Switch

⚠ *The configuration of the parameters can be done either with the DIP switch or via software (you can not combine both solutions).*

ABS

6mm　　　　　.

"A"　　　　　　　　　　　　　30

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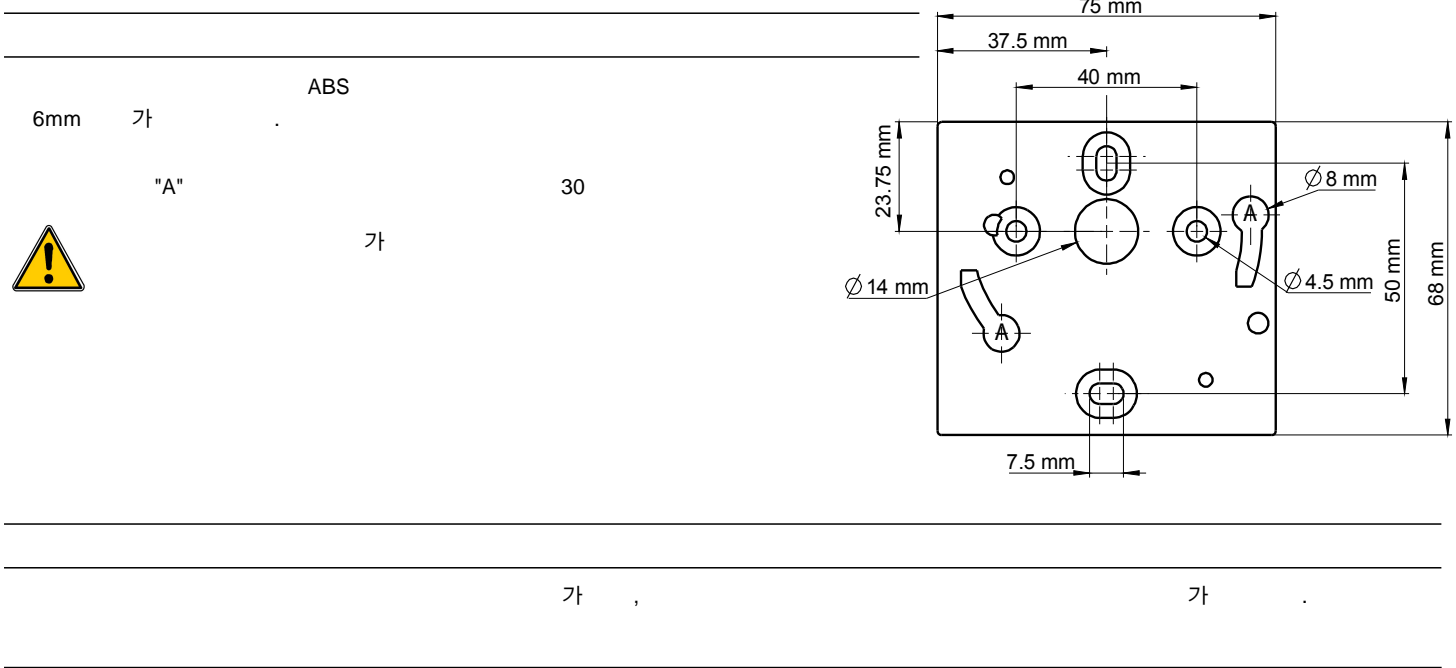
KIAL-100A : Class2　　　　　, 230Vac input,
　　　　　24Vac output

LCC-S :　　　　　　　　　　　USB

-　　　　　　　PT100 2, 3 wire　　NTC