

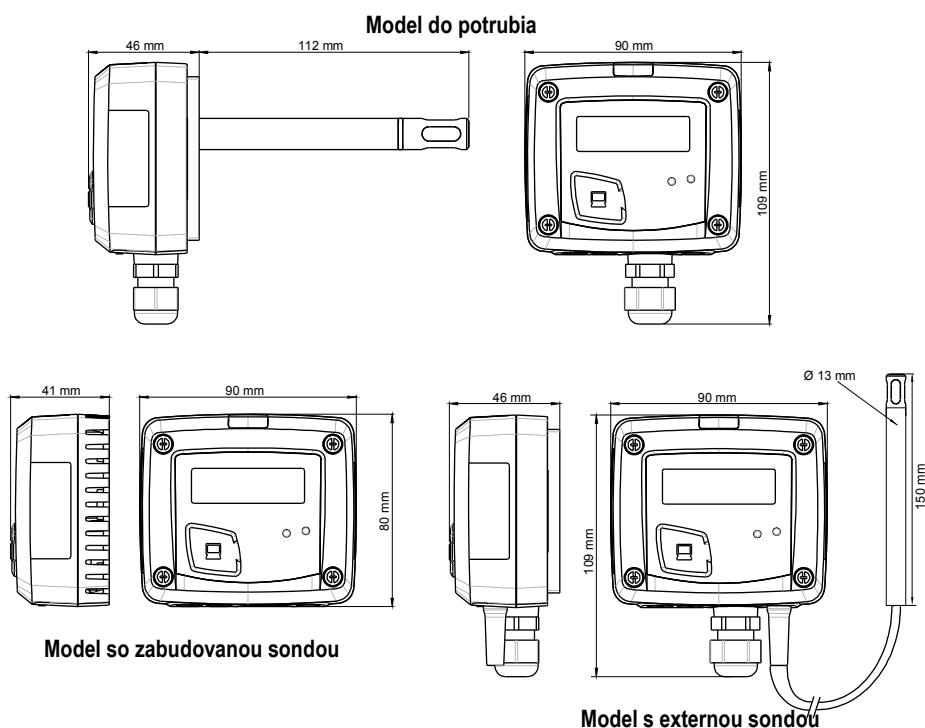
Prevodník teploty a vlhkosti TH 110



HLAVNÉ VLASTNOSTI

- Merací rozsah od 5 do 95%RH a od 0 do 50 °C (model so zabudovanou sondou) alebo -20 až +80 °C (model so sondou do potrubia alebo externou sondou)
- Výstupy 0-10 V aktívny alebo 4-20 mA, pasívna slučka, napájanie 24 Vac/Vdc (3-4 žily) alebo 16 až 30 Vdc (2 žily)
- ABS V0 skrinka, IP65 (model so sondou do potrubia), IP20 (model so zabudovanou sondou) s displejom alebo bez
- montáž na stenu pomocou platničky s bajonetom

PARAMETRE SKRINKY



Material

ABS V0 podľa UL94

Ochrana skrinky

IP65 (modely pre potrubie a s externou sondou)
IP20 (zabudovaná sonda)

Displej

LCD 10 číslic. Rozmer : 50 x 17 mm
Striedavé zobrazovanie teploty a vlhkosti

Výška znakov

Hodnoty : 10 mm
Jednotky : 5 mm

Kábová prechodka

Max. pre káble Ø 8 mm

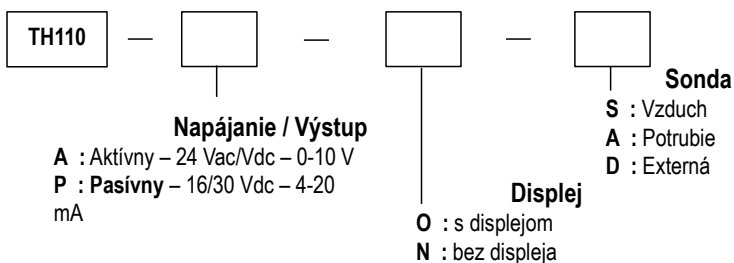
Hmotnosť

124 g (model so zabud. sondou) ; 135 g (model so sondou do potrubia a ext. sondou)

Kábel externej sondy : 2 m s priemerom Ø 4.8 mm

OBJEDNÁVACÍ KÓD

Pre objednanie prevodníka vyplňte objednávaci kód :



Príklad : TH110 – ANS

Prevodník teploty a vlhkosti TH110, 0-10 V aktívny, bez displeja, model so zabudovanou sondou

TECHNICKÉ PARAMETRE - TEPLOTA

Merací rozsah	Model so zabud. sondou : 0až 50 °C Model do potrubia a s ext. sondou : -20 to +80 °C
Presnosť**	CMOS : $\pm 0.4\%$ z hodnoty $\pm 0.3\text{ °C}$ NTC : $\pm 0.3\text{ °C}$ (de -40°C à 70°C) ; $\pm 0.5\text{ °C}$ mimo
Jednotky merania	°C / °F
Doba odozvy	1/e (63%) 15 s
Snímací prvok	So zabudovanou sondou : CMOS Model s ext. sondou a sondou do potrubia : NTC
Rozlíšenie	0.1 °C
Druh média	Vzduch a neutrálne plyny

**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.

TECHNICKÉ PARAMETRE - VLHKOSŤ

Merací rozsah	5 až 95% RH
Presnosť**	$\pm 1.5\%$ RH (if $15\text{ °C} \leq T \leq 25\text{ °C}$) pre modely s ext. sondou a sondou do potrubia $\pm 1.8\%$ RH (if $15\text{ °C} \leq T \leq 25\text{ °C}$) so zabudovanou sondou
Teplotný drift	$\pm 0.04 \times (T-20) \%RH$ (if $15\text{ °C} \leq T \leq 25\text{ °C}$)
Jednotka merania	% RH
Doba odozvy	1/e (63%) 4 s
Typ snímača	kapacitný snímač
Rozlíšenie	0.1% RH
Neistota továrenského nastavenia	$\pm 0.88\%$ HR
Druh média	Vzduch a neutrálne plyny

**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 $\pm 2.58\%RH$ between 18 and 28°C on the measuring range from 3 to 98%RH. Sensor drift is less than 1%RH/year.

PRIPOJENIA

Technické špecifikácie

Výstup / napájanie

- aktívny snímač 0-10 V (napájanie 24 Vac/Vdc $\pm 10\%$), 3-4 žily
- pasívna slučka 4-20 mA (napájanie 16/30 Vdc), 2 žily
- max .záťaž : 500 Ohms (4-20 mA)
- minim. záťaž : 1 K Ohms (0-10 V)

Spotreba

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

Elektromagnetická kompatibilita

EN61326

Elektrické pripojenia

terminál blok pre káble $\varnothing 0.05$ až 2.5 mm^2

PC pripojenie

Kímo USB-mini Din kábel

Prostredie

Vzduch a neutrálne plyny

Prevádzková teplota - prístroj

0 až 50 °C

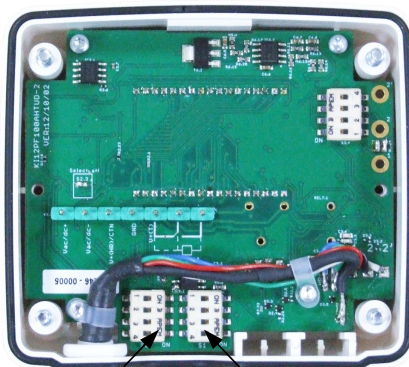
Prevádzková teplota - sonda

-20až +80 °C

Teplota skladovania

-10 až +70 °C

vnútro predného panelu



Neaktívny prepínač

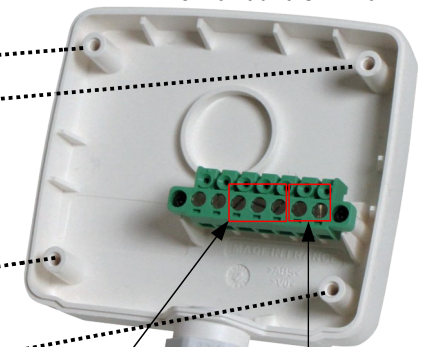
Aktívny prepínač

Odnímateľný predný panel



LCC-S pripojenie

Pevná zadná skrinka



terminál blok - výstup

Terminál blok - napájanie

Káblová prechodka



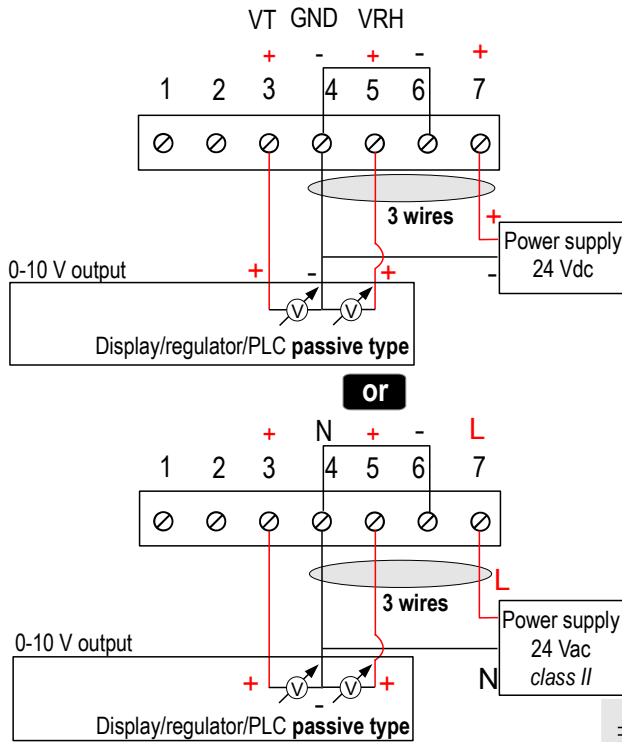
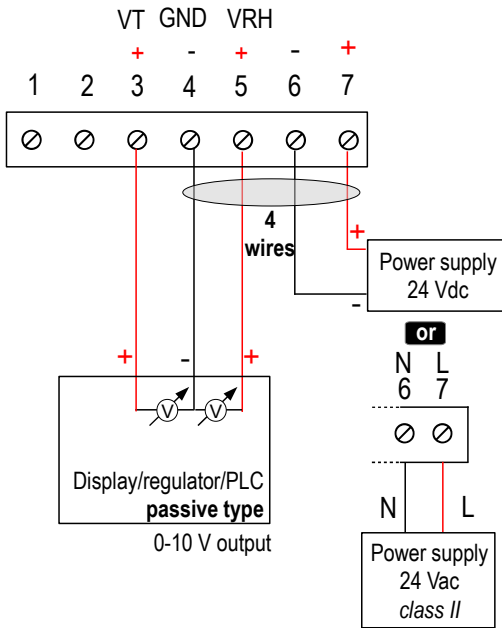
ELEKTRICKÉ PRIPOJENIA – podľa normy NFC15-100

! 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 :



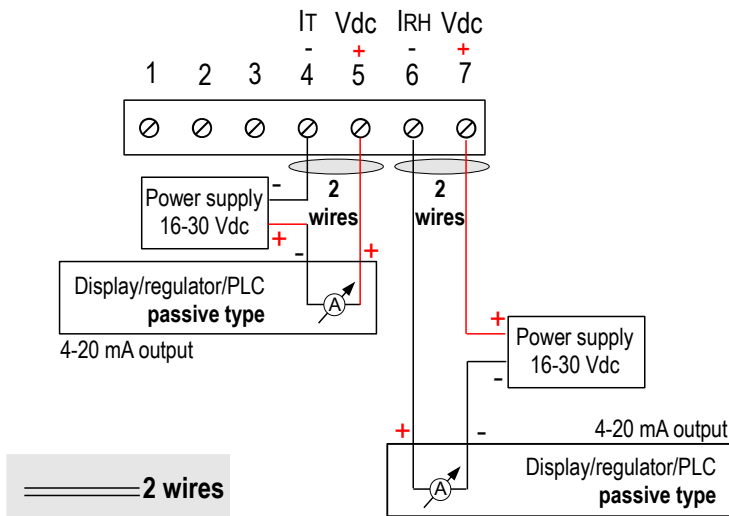
To make a 3-wire connection, before powering up the transmitter, please connect the output ground to the input ground. See drawing below.



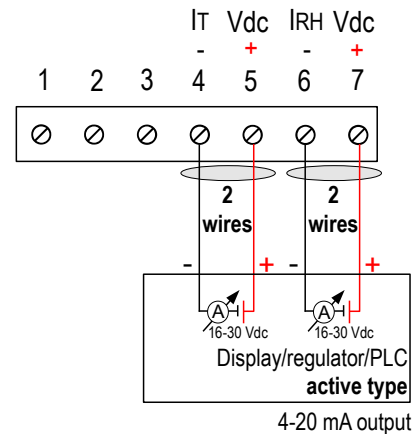
==== 4 wires

==== 3 wires

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



OR



==== 2 wires

SETTINGS AND USE OF THE TRANSMITTER

> Configuration

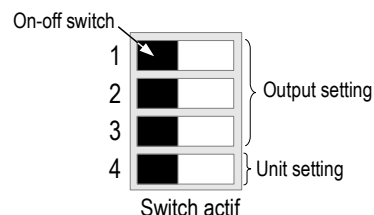
It is possible to set the measuring ranges and the unit of the instrument either by switch and/or via software.



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.

> Configuration by switch

To configure the transmitter, unscrew the 4 screws from the housing then open it. DIP switches allowing the different settings are then accessible



Please follow carefully the combinations beside with the DIP switch. If the combination is wrongly done, the following message will appear on the display of the transmitter "CONF ERROR". In that case, you will have to unplug the transmitter, place the DIP switches correctly, and then power the transmitter up.

> Units setting – active switch

To set a unit of measurement, put the on-off switch 4 of the units as shown below.

Configurations	°C	°F
Combinations	1	1
	2	2
	3	3
	4	4

> Outputs setting – active switch

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

Configurations	From 0 to +50°C	From -20 to +80°C	From -50 to +50°C	From 0 to 100°C
Combinations	1	1	1	1
	2	2	2	2
	3	3	3	3
	4	4	4	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).

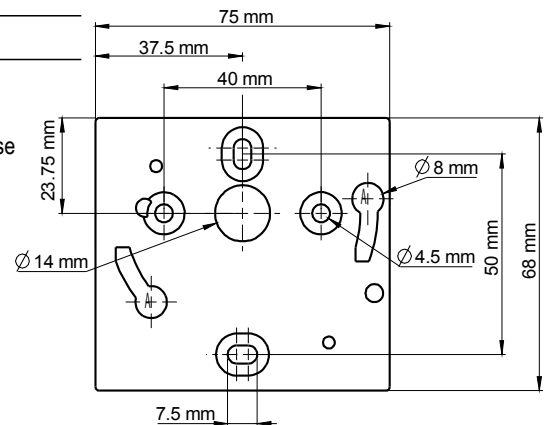
MOUNTING

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
- **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

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