

Solar radiation transmitter

CR 110

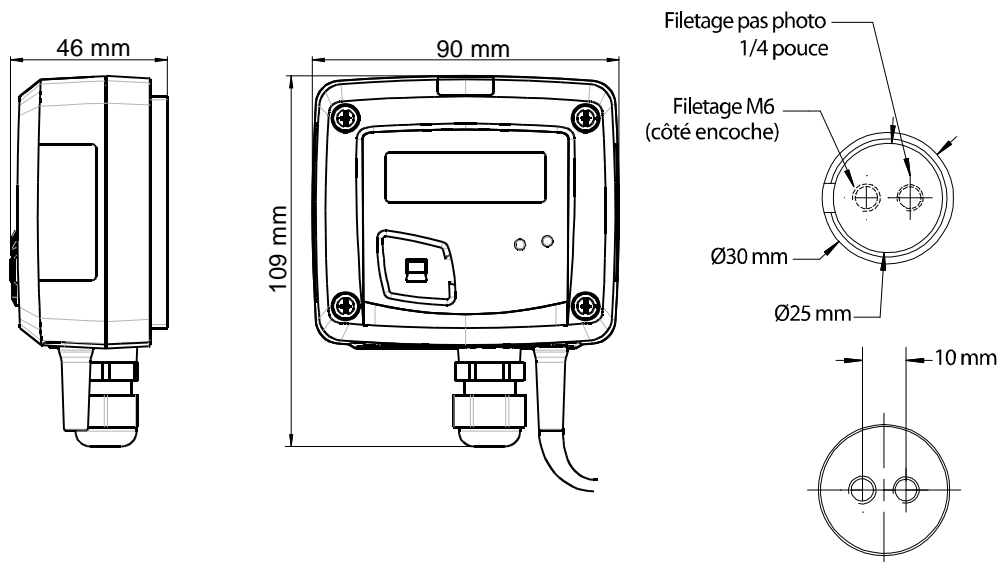


KEY POINTS

- Range from 0 to 1500 W/m²
- 0-10 V active output, 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, with or without display
- "1/4 turn" system mounting with wall-mount plate
- Housing with simplified mounting system



FEATURES OF THE HOUSING



Material : ABS V0 as per UL94

Protection : IP65

Display : LCD 10 digits. Size : 50 x 17 mm

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

Cable gland : For cables Ø 8 mm maximum

Weight : 140 g

Remote probe : cable of 5 m length in PVC

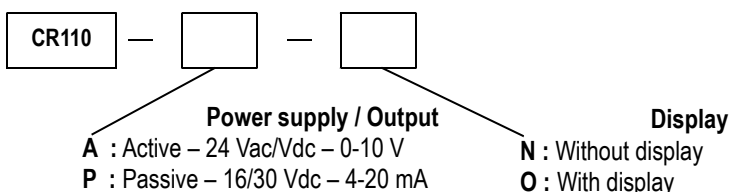
TECHNICAL FEATURES

Unit of measurement	W/m ²
Measuring range	From 0 to 1500 W/m ²
Accuracy*	5% of reading
Resolution	1 W/m ²
Type of fluid	Air and neutral gas
Conditions of use (°C/%RH/m)	From 0 to +50 °C. In non-condensing condition. From 0 to 2000 m.
Storage temperature	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.

PART NUMBER

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



Example : CR110-PO

Solar radiation transmitter with 4-20 mA passive output, with display.

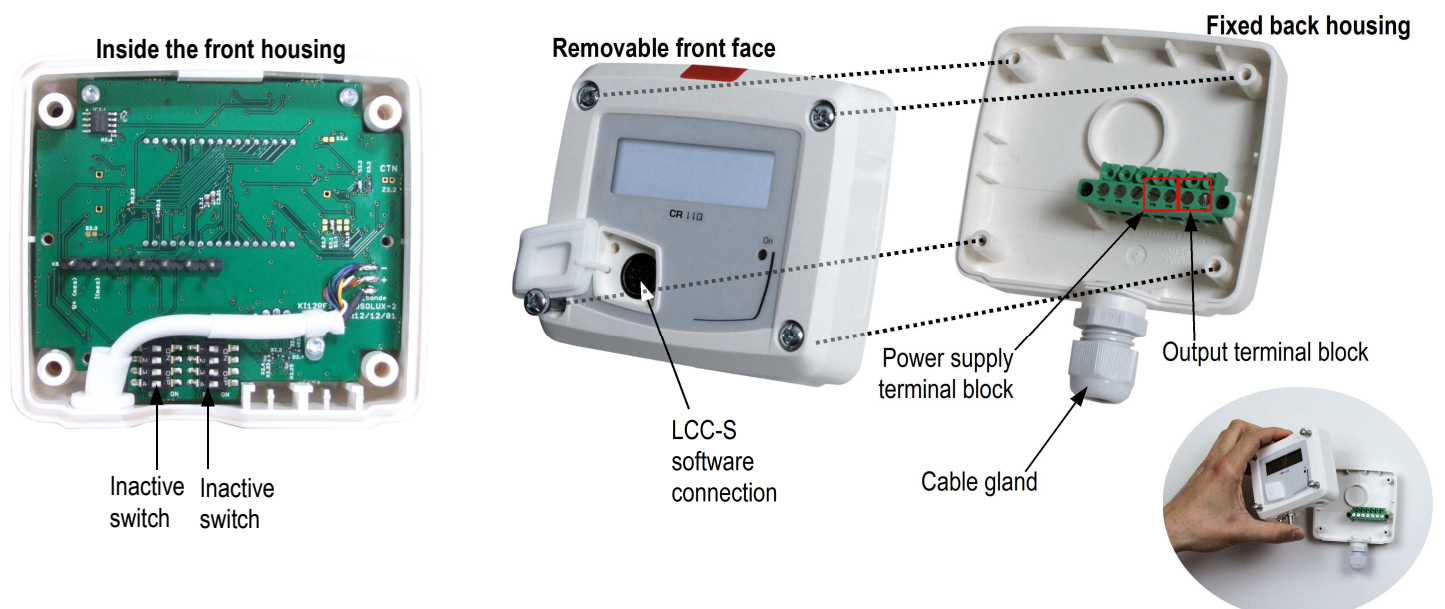
FEATURES OF THE SOLAR CELL

Measuring range	From 0 to 1500 W/m ²
Spectral response	400-1100 nm
Nominal sensitivity	100 mv for 1000 W/m ² STC (Standard Test Conditions 25°C – Solar spectrum AM 1.5)
Response in cosine	Corrected until 80 °
Coefficient in temperature	+0.1 %/°C
Effective area	1 cm ²
Operating temperature	From -30 to +60 °C
Relative humidity dependence	100%RH
UV performance	Excellent (PPMA filter)
Mode	Photovoltaic
Material	Polycrystallin silicon
Front face	Translucent PPMA
Tightness	Polyutethane resin and housing in PPMA and polyacetol
Weight	60 g
Size	30 x 32 mm
Protection	IP65

TECHNICAL SPECIFICATIONS

Output / Power supply	<ul style="list-style-type: none"> - active 0-10 V (power supply 24 Vac/Vdc ± 10%), 3-4 wires - passive loop 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	2004/108/EC EMC 2006/95/EC 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

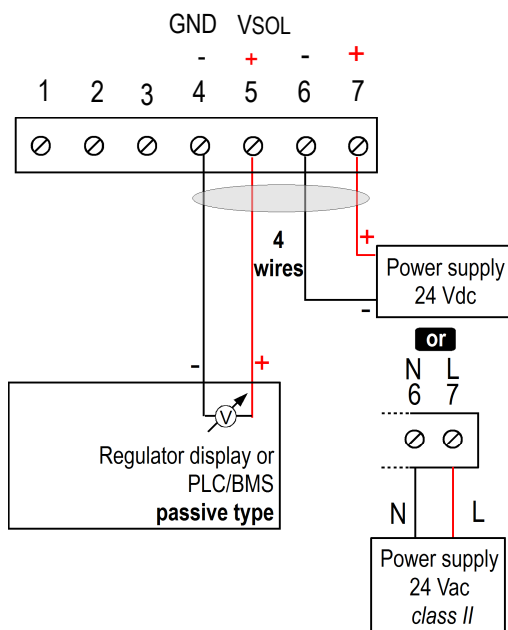
CONNECTIONS



ELECTRICAL CONNECTIONS – as per *NFC15-100 standard*

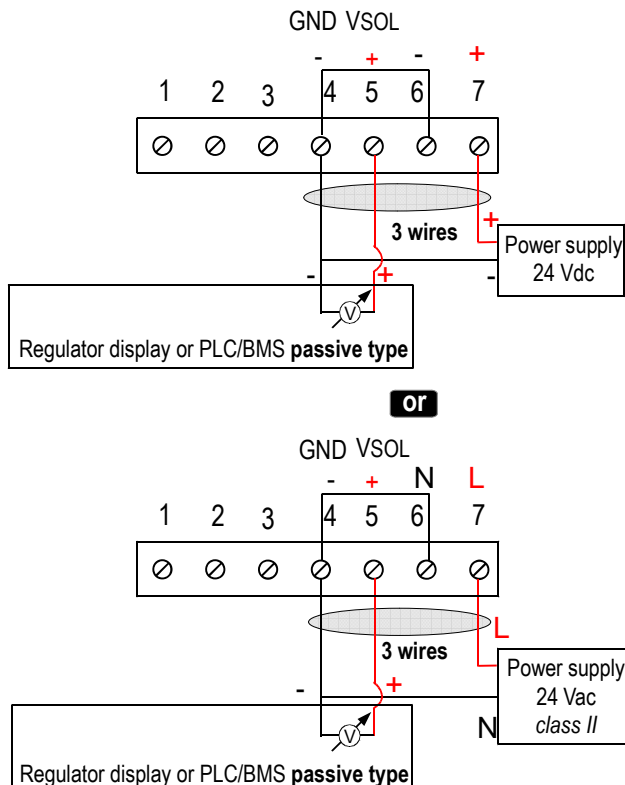
! This connection must be made by a qualified and trained technician. To make the connection, the transmitter must not be energized.

For **CR110-A** models with **0-10 V** output – **active** :



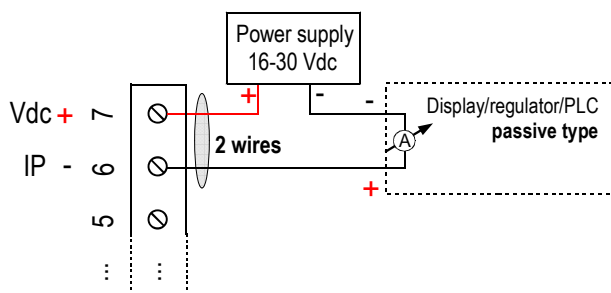
4 wires

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

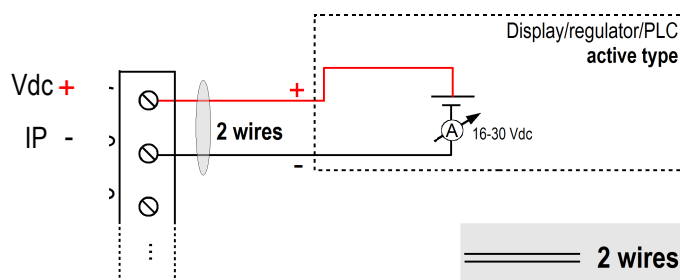


3 wires

For **CR110-P** models with **4-20 mA** output – **passive** :



or

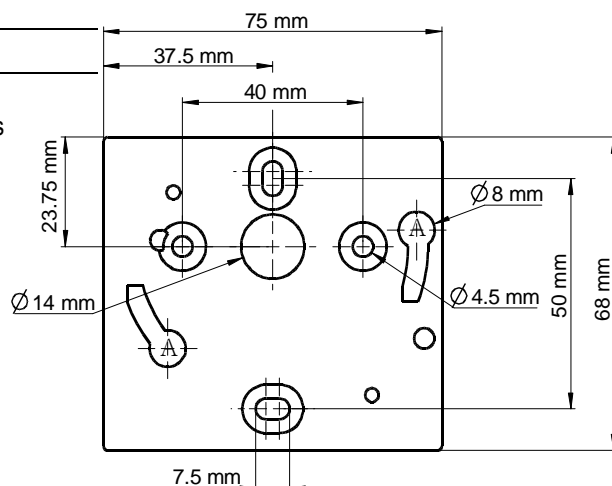


2 wires

MOUNTING

To mount the transmitter, mount the ABS plate on the wall (drilling : $\varnothing 6$ 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.



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 AND ACCESSORIES

- **KIAL-100A** : Power supply class 2, 230 Vac input, 24 Vac output
- **KIAL-100C** : Power supply class 2, 230 Vac input, 24 Vdc output
- **LCC-S** : configuration software with USB cable
- Angle mounting
- Fixing kit for solar panels



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.



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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