



DATA SHEET

# CP 116



## Atmospheric pressure transmitter



**Measuring range from 800 to 1100 hPa**



**Indication of the pressure in mbar, mmHG or hPa**

- 0-10 V or 4-20 mA output, active, 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, IP65, with or without display
- "1/4 turn" system mounting with wall-mount plate
- Housing with simplified mounting system

### Part number

**CP 116**

**P**

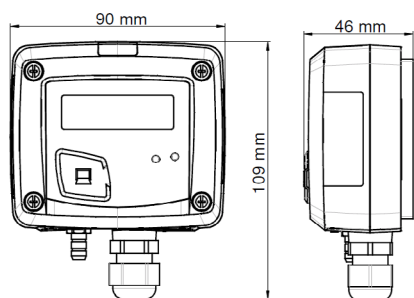
**O**

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

**Display**  
**O:** With display  
**N:** Without display

**Example: CP 116 – PO**  
 Transmitter of atmospheric pressure, passive transmitter 16/30 Vdc, with display.

### Features of the housing



Material	ABS V0 as per UL94
Protection	IP65
Display	LCD 10 digits. Size: 50 x 17 mm Height of digits: Value: 10 mm; Unit: 5 mm
Connections	Ribbed, Ø 6.2 mm
Cable gland	For cables Ø 8 mm maximum
Weight	143 g

### General features

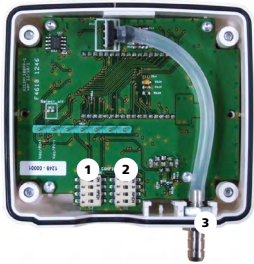
Measurement units	mbar, hPa, mmHG
Accuracy*	±3 hPa
Response time	< 10 seconds
Resolution	1 mbar; 1 hPa; 1 mmHG
Type of fluid	Air and neutral gases
Tolerated overpressure	4136 hPa
Conditions of use (°C/%RH/m)	From 0 to +50 °C. In non-condensing condition. From 0 to 2000 m.
Storage temperature	From -10 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.

# Technical specifications

Output / Power supply	Active sensor 0-10 V or 4-20 mA (alim. 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	2014/30/EU EMC; 2014/35/EU 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 <sup>2</sup> 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

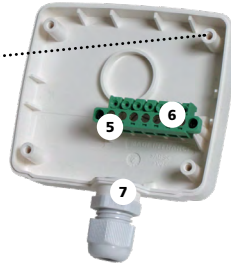
## Connections



Inside the front housing



Removable front face



Fixed back housing

- 1. Inactive switch
- 2. Active switch
- 3. Pressure connection
- 4. LCC-S connection
- 5. Output terminal block
- 6. Power supply terminal block
- 7. Cable gland

## Electrical connections as per NFC15-100 standard

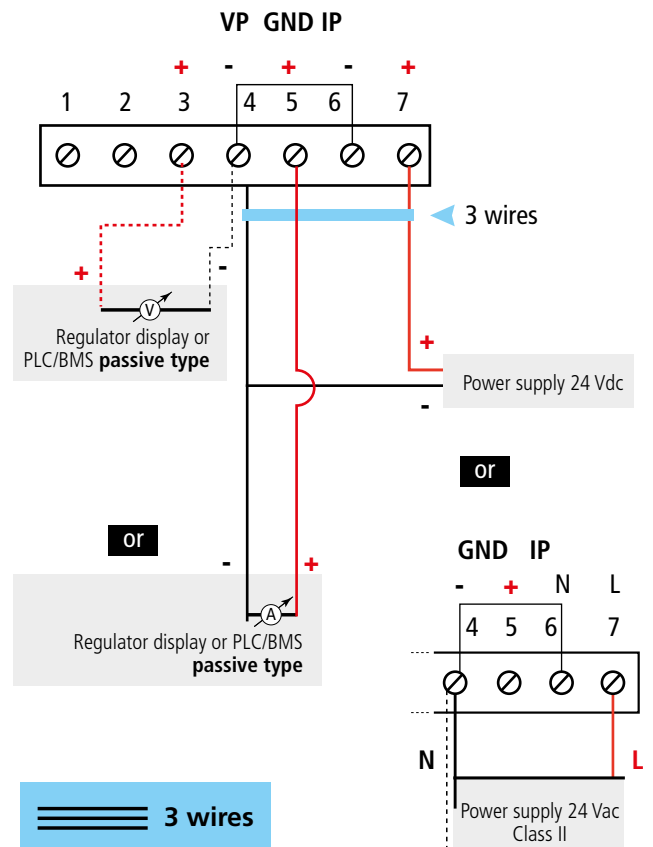
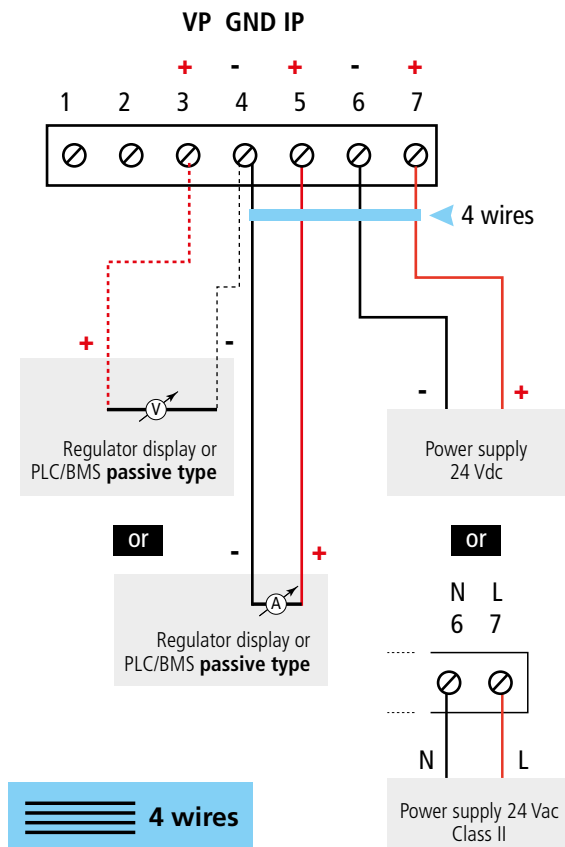


This connection must be made by a qualified and trained technician. To make the connection, the transmitter must not be energized.

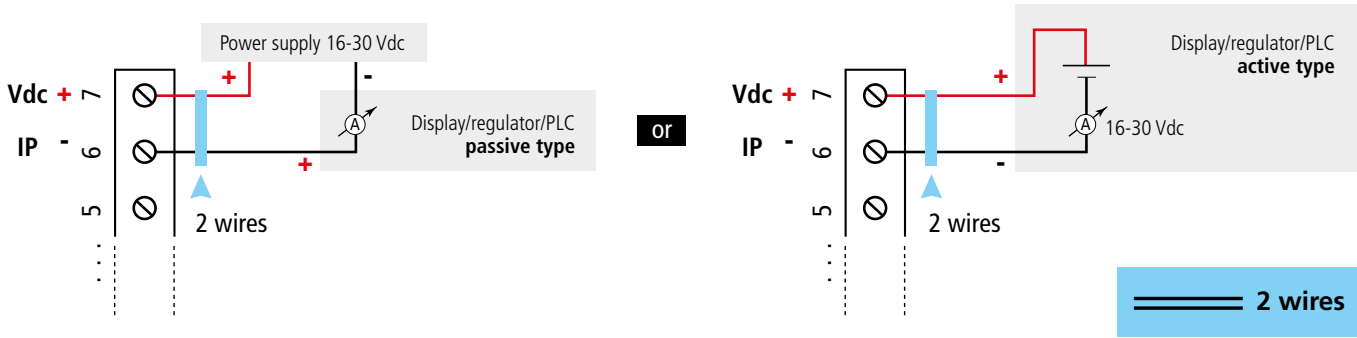
For CP116-AO and CP116-AN models with 0-10 V or 4-20 mA output – active, 4 wires:



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



For CP116-PO and CP116-PN models with 4-20 mA output – passive:



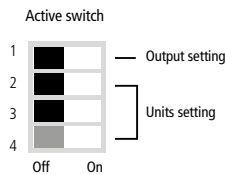
## Settings and use of the transmitter

### Configuration



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.

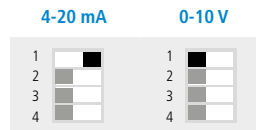
To configure the transmitter, unscrew the 4 screws from the housing then open it. DIP switches allowing the different settings are then accessible.



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.

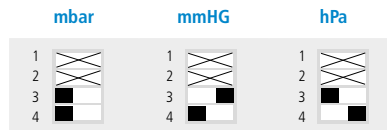
### Output setting – active switch

To set the type of analogue output, please put the on-off switch of the output as shown beside.



### Units setting – active switch

To set a measurement unit, put the on-off switches 2, 3 and 4 of the units as shown in the table below.

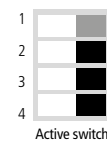


## Configuration via LCC-S software (option)

An easy and friendly configuration with the software!

To access the configuration via software:

- Set the DIP switches as shown beside. Nota: the on-off switch 1 of the active DIP switch can be in any position (selection of the analogue output 0-10 V or 4-20 mA).
- Connect the cable of the LCC-S to the connection of the transmitter.



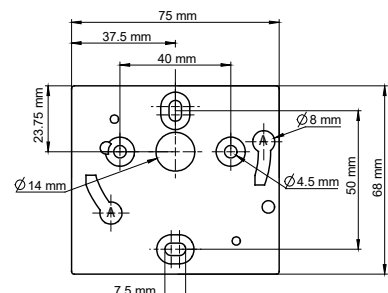
Please refer to the user manual of the LCC 100 to make the configuration.

**Caution: 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: Ø 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 formalin, that may be used for cleaning rooms or ducts.

**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.

## Accessories

Ref.

Description

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

Connection tube/Connection fittings/Through connections/Straight connections/Spherical coupling nut



Only the accessories supplied with the device must be used.