



DATA SHEET

CP 114 / CP 115



Differential pressure transmitter

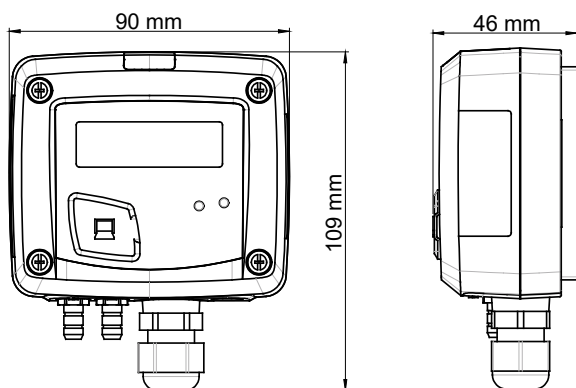


Ranges from -500/+500 mbar
to -2000/+2000 mbar
(according to model)



Configurable
intermediary ranges

- CP 114 : -500 ~ +500 Pa (configurable from -50~+50 mbar to -500~+500 mbar)
- CP 115 : -2000 ~ +2000 Pa (configurable from -200~+200 mbar to -2000~+2000 mbar)
- ABS V0 housing, IP65, with or without display
- Analogue output : 4~20mA, power supply from 16~30 Vdc (2 wires), 0~10V or 4~20mA, power supply 24 Vac/Vdc (3/4 wires)
- "1/4 turn" system mounting with wall-mount plate
- Housing with simplified mounting system



Part number

Example: CP 114 – A0

Pressure transmitter measuring range -500/+500 mbar (confirm when order), 4~20 mA or 0~10 V, 24Vac/Vdc, with display

CP 11	4	A	0
Measuring range	Power supply / Output	Display	
4: -500/+500 mbar	A: Active, 24 Vac/Vdc / 4~20 mA or 0~10 V (3-4 wires)	O: With display	N: Without display
5: -2000/+2000 mbar	P: Passive, 16~30 Vdc / 4~20mA (2 wires)		

General features

Measuring ranges	CP114 : -500/+500 mbar CP115 : -2000/+2000 mbar
Measurement units	mbar, PSI, mmH ₂ O, inWG, mmHG, daPa, kPa, hPa
Accuracy *	±1% of reading
Resolution	1 mbar; 0.1 inWG; 0.1kPa; 0.1PSI; 1 mmHG; 1 mmH ₂ O; 10 daPa; 1 hPa;
Response time	1/e (63%) 0.3 s
Autozero	Manual with push-button
Type of fluid	Air and neutral gases
Overpressure tolerated	CP114: 1400 mbar, CP115: 4100 mbar
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

Features of the housing

Material	ABS V0 as per UL94
Protection	IP65
Display	LCD 10 digits. Dimensions: 50 x 17 mm. Height of digits: Values: 10 mm; Units: 5 mm
Connections	Ribbed, Ø 4 x 6 mm
Cable gland	For cables Ø 8 mm maximum
Weight	143 g

*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 / Supply	Active sensor 0-10 V or 4-20 mA (alim. 24 Vac/Vdc $\pm 10\%$), 3-4 wires passive loop 4~20 mA (power supply 16/30Vdc), 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 ² or from 30 to 14 AWG. Carried out according to the code of good practice
Communication PC	USB-mini DIN cable
Environment	Air and neutral gases



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.

Settings and use of the transmitter

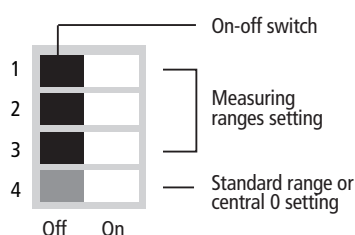
Autozero

- To perform an autozero, unplug the 2 pressure connections tubes and press the «Autozero» key.
- When an autozero has been performed, «On» green light turns off then turns on, and on transmitters equipped with a display, «autoZ» is displayed.

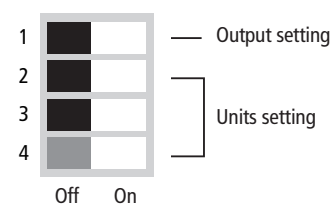
Configuration

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

Left DIP switch

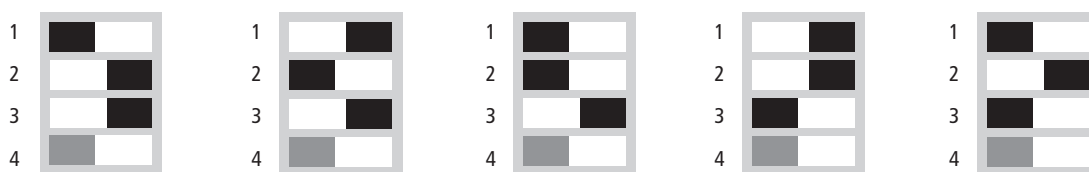


Right DIP switch



Measuring range settings - Left DIP switch

To set a measuring range, put the 1, 2 and 3 on-off switches as indicated in the table below.



Model No.	CP114	CP115	CP114	CP115	CP114	CP115	CP114	CP115	CP114	CP115
mbar	100	500	200	750	300	1000	400	1500	500	2000
inWG	40.0	200.0	800.0	300.0	120.0	400.0	160.0	600.0	200.0	800.0
kPa	10.0	50.0	20.0	75.0	30.0	100.0	40.0	150.0	50.0	200.0
PSI	2.0	10.0	4.0	15.0	6.0	20.0	8.0	30.0	10.0	40.0
mmHG	800	400	160	600	240	800	320	1200	400	1600
mmH ₂ O	1000	5000	2000	7500	3000	10,000	4000	15,000	5000	16,000
daPa	1.0	5.0	2.0	7.5	3.0	10.0	4.0	15.0	5.0	20.0
hPa	100	500	200	750	300	1000	400	1500	500	2000

Standard range / central zero setting - Left DIP switch

To set the type of measuring range, put the on-off switch 4 as indicated below:

Example: 0 ~ 500 mbar, Full scale / 0 (0 / 500 mbar)
Central zero (-250 mbar / 0 / +250 mbar)

Configurations	Full Scale	Central zero
Combinations		

Output setting - Right DIP switch

(for CP114/115AO and CP114/115 AN models)

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

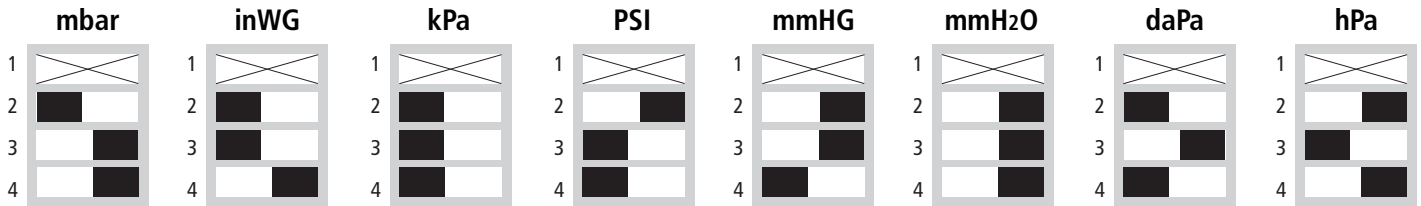
Configurations	4~20 mA	0~10 V
Combinations		



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 - Right DIP switch

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



Configuration via LCC-S Software (option)

An easy and friendly configuration with the software !

You can configure your own intermediary ranges.



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

For example, it is possible to set the instrument from -20 to 0 Pa, from 0 to +20 Pa, or from -10 to +10 Pa ...

• To access the configuration via software :

- Set the DIP switches as shown below. pls note: thhe on-off switch 1 of the 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 thhe user manual of the LCC100 to make the configuration.

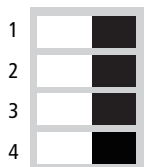


the configuration of the parameters can be done either with the DIP switch or via software (you can not combine both solutions).

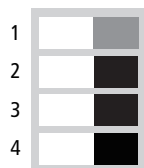
Configuration via PC

Connections

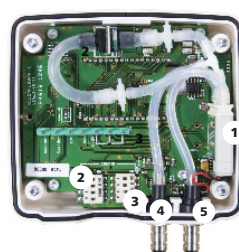
CP114 / CP115



Left DIP switch



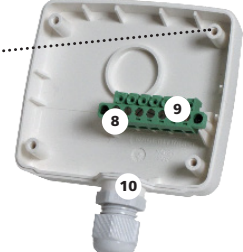
Right DIP switch



Inside the front housing



Removable front face



Fixed back housing

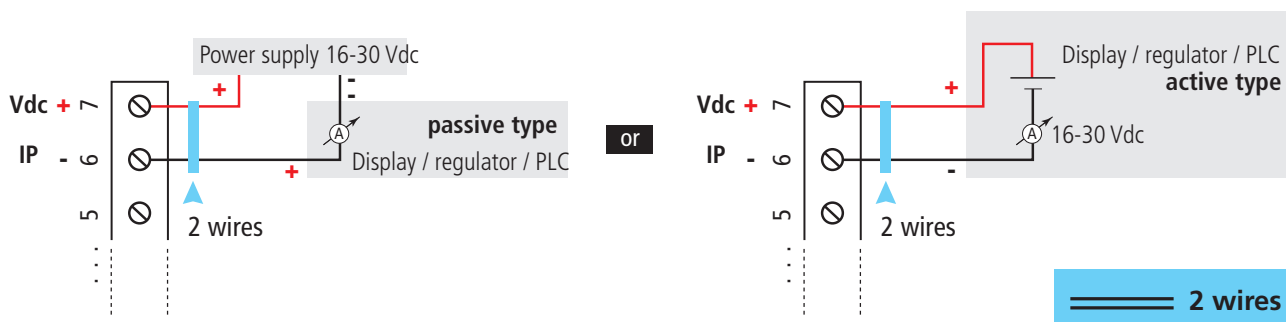
- | | | |
|--------------------------------|------------------------------|--------------------------------|
| 1. Solenoid valve (only CP111) | 5. Pressure connections | 9. Power supply terminal block |
| 2. Left DIP switch | 6. Autozero | 10. Cable gland |
| 3. Right DIP switch | 7. LCC-S software connection | |
| 4. Pressure connections | 8. Output terminal block | |

Electrical connections - as per NFC15-100 standard



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

For CP114/115-PO / CP114/115-PN models, with 4~20 mA output - **passive, 2 wires**:

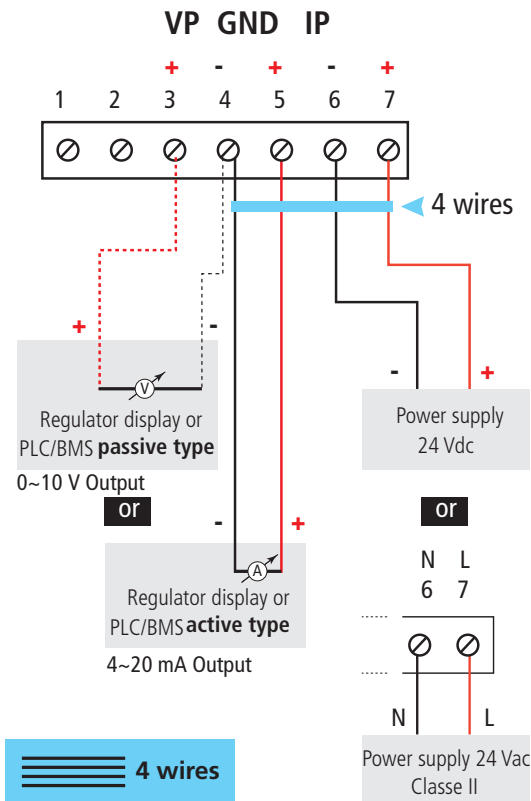


Electrical connections - as per NFC15-100 standard

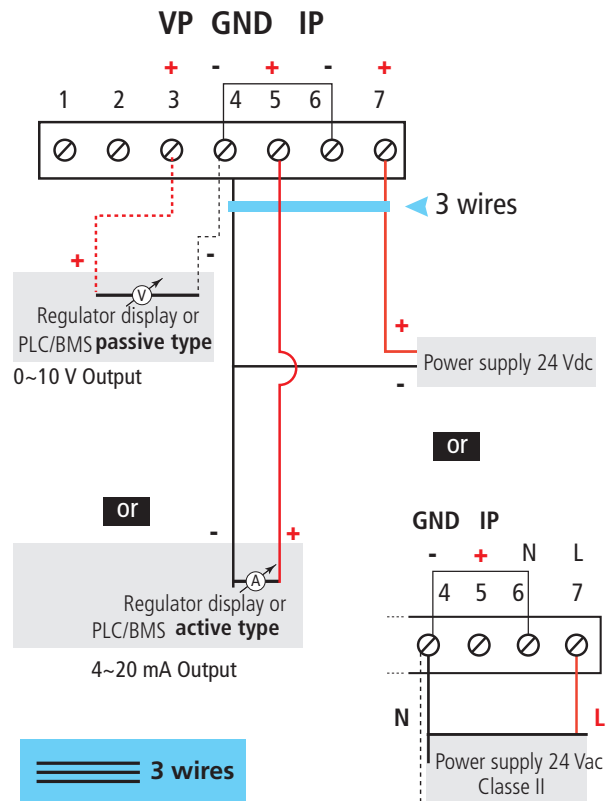


This connection must be made by a qualified technician.
To make the connection, the transmitter must not be energized.

For **CP114/115-AO / CP114/115-AN** models,
with 0~10 V or 4~20 mA output - **active, 4 wires**:



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



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.



Once the transmitter is installed and powered up, please make an autozero to guarantee the correct working of the transmitter in any position.

Maintenance:

- Avoid any aggressive solvent.
- Protect the transmitter and its probes from any cleaning product containing formalin, that may be used for cleaning rooms or ducts.

Accessories

Ref.

Description

LCC-S

Configuration software with USB cable

Connection tube

Connection fittings

Precautions for use:

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.

Warranty

Instruments have 1-year guarantee for any manufacturing defect.



Only the accessories supplied with the device must be used.

