

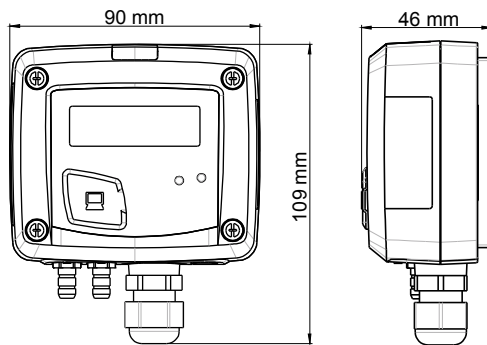
Differential pressure transmitter CP 114 – CP 115



KEY POINTS

- Ranges from -500/+500 mbar to -2000/+2000 mbar (according to models)
- Configurable intermediary ranges
- 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

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 : safety Ø 6.2 mm

Cable gland : for cables Ø 8 mm maximum

Weight : 143 g

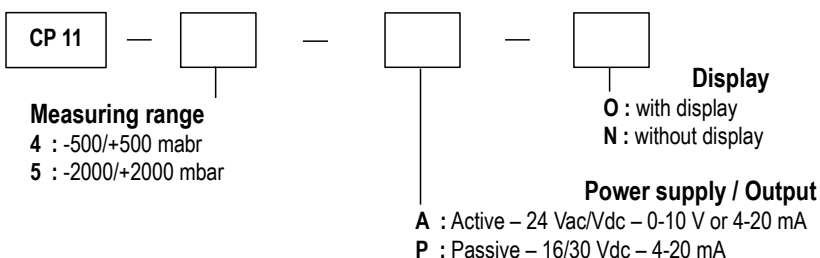
TECHNICAL FEATURES

Measurement units	mbar, inWG, mmHG, PSI, mmH ₂ O, daPa, hPa, kPa
Accuracy*	±1.5% of reading ±3 mbar
Response time	1/e (63%) 0.3 s
Resolution	1 mbar ; 0.1 inWG ; 1 mmHG ; 1 mmH ₂ O ; 1 hPa ; 10 daPa ; 0.1 kPa ; 0.1 PSI
Autozero	Manual with push-button
Type of fluid	Air and neutral gases
Overpressure tolerated	CP114 : 1400 mbar ; CP115 : 4100 mbar
Operating temperature	From 0 to +50 °C
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 :



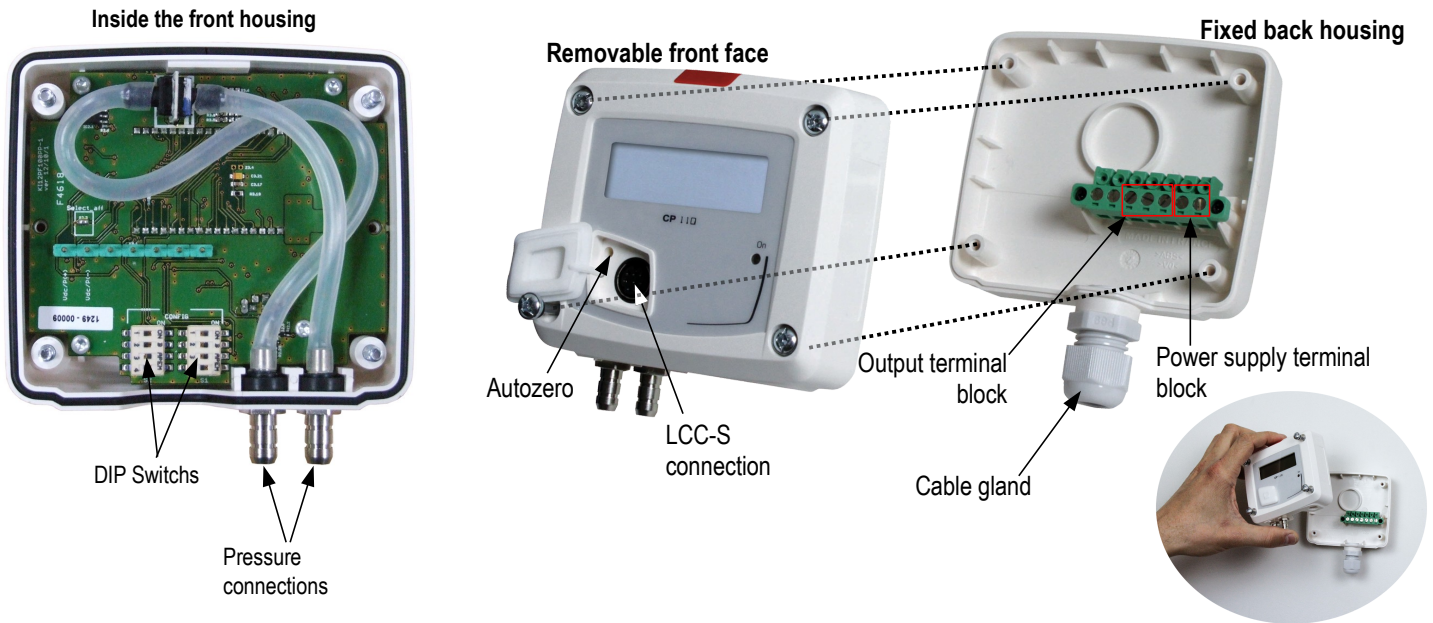
Example : CP 114 – AO

Pressure transmitter measuring range -500/+500 mbar, 0-10 V or 4-20 mA active, with display

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 16/30 Vdc), 2 wires - maximum load : 500 Ohms (4-20 mA) - minimum load : 1 K Ohms (0-10 V)
Consumption	2 VA (0-10 V) or max. 22 mA (4-20 mA)
Electromagnetical compatibility	EN61326
Electrical connection	Screw terminal block for cables from 0.05 to 2.5 mm ² or from 30 to 14 AWG
Communication to PC	USB-mini DIN cable
Environment	Air and neutral gases

CONNECTIONS

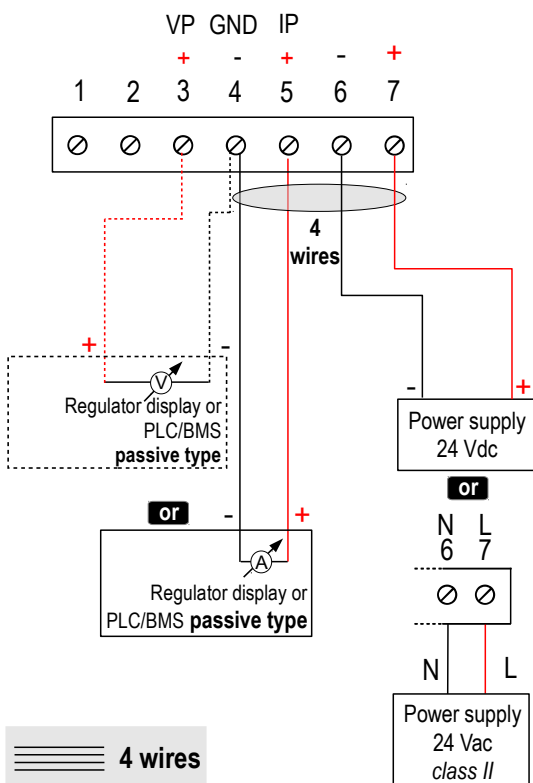


ELECTRICAL CONNECTIONS – as per *NFC15-100* standard

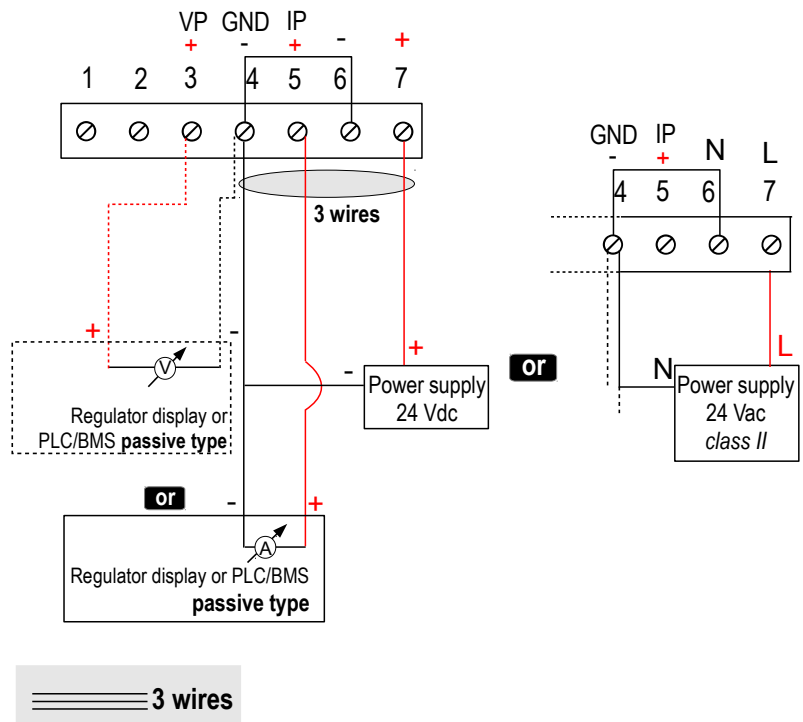


This connection must be made by a qualified technician. **To make the connection, the transmitter must not be energized.**

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



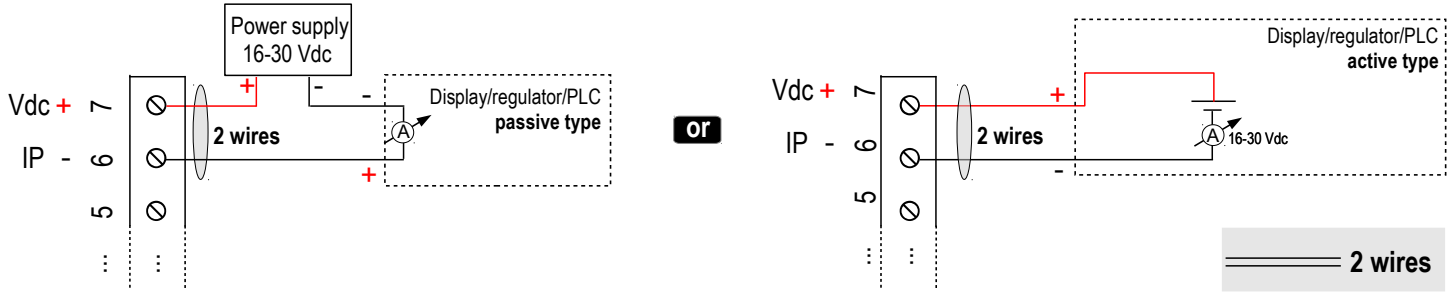
To make a 3-wire connection, before powering up the transmitter, please connect the output ground to the input ground. See drawing below.



≡≡≡≡ 4 wires

≡≡≡≡ 3 wires

For CP114/115 – PO models and CP114/115 – PN models with 4-20 mA output – **passive** :



SETTINGS AND USE OF THE TRANSMITTER

> Autozero

To perform an autozero, unplug the 2 pressure connections tubes and press the “**Autozero**” key.

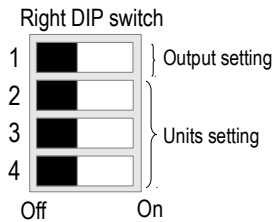
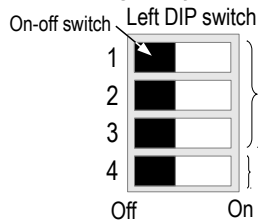
When an autozero has been performed, “**On**” green light turns off then turns on, and on transmitters equipped with a display, “**autoZ**” is displayed.

> Configuration



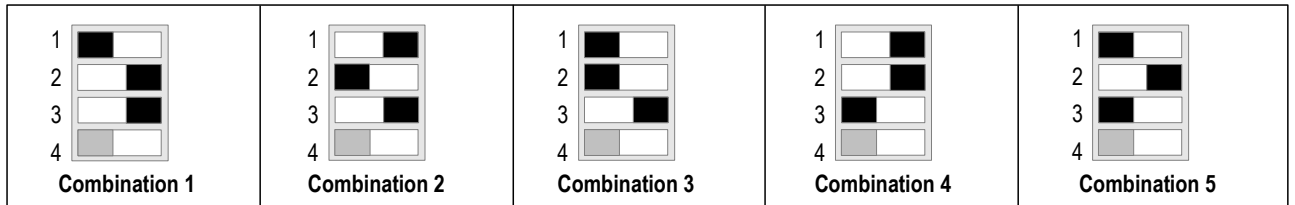
To configure the transmitter, it must not be energized. Then, you can make the settings required, with the DIP switches (as shown on the drawing below). When the transmitter is configured, you can power it up.

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



> 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.



Type of transmitter	Combination 1		Combination 2		Combination 3		Combination 4		Combination 5	
	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	80.0	300.0	120.0	400.0	160.0	600.0	200.00	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	80	400	160	600	240	800	320	1200	400	1600
mmH ₂ O	1000	5000	2000	7500	3000	10 000	4000	15 000	5000	20000
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

- Measuring ranges of the CP114 transmitter on the **±500 mbar range** according to the measurement unit.
- Measuring ranges of the CP115 transmitter on the **±2000 mbar range** according to the measurement unit.

Example :

- From 0 to 750 mmH₂O, measuring range is 750 mmH₂O.
- From -500 mbar to +500 mbar, measuring range is 1000 mbar.

> Standard range / central zero setting – left DIP switch

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

Example 0-100 mbar : Full scale / 0 (0 / 100 mbar)
 Central zero (-50 mbar / 0 / +50 mbar)

Configurations	Full scale	Central zero
Combinations		

