

The CP 111, CP112, CP113 Series  
Compact Pressure (CP)  
Transmitter Display,  
Differential Pressure  
0-5 V, 0-10 V, RS485 or  
Loop Powered 4-20 mA



## DESCRIPTION

Advanced Sensors Compact Pressure (CP) Series Transmitter Display is a differential pressure transmitter that incorporates a user configurable display and wide TFT screen. The devices internal auto calibration valve ensures the highest stability at low pressure values. With an ABS V0 housing, barbed hosing connections and cable gland connector the rugged device can meet the most demanding IP65 environments.

## APPLICATIONS

- Clean room
- Pharmaceutical Laboratory
- Surgical Room
- Ambulatory Instrumentation

## FEATURES

- Ranges from 25 Pa to 300psi ( Contact Factory for custom ranges)
- Configurable intermediary ranges
- 0-5 V, 0-10 V, RS485 or active 4-20 mA output, power supply from 15 to 35 Vdc
- WIFI configurable with local server for remote monitoring.
- ABS V0 housing, IP65, with or without display
- "¼ turn" system mounting with wall-mount plate
- High Accuracy
- Low Overall Errors, 1%TEB
- All Welded Design
- Custom Outputs and Ranges Available
- Housing with simplified mounting system
- Solenoid valve for auto-calibration
- Relay output, alarm pressure level configurable
- Flexible Electrical Outputs

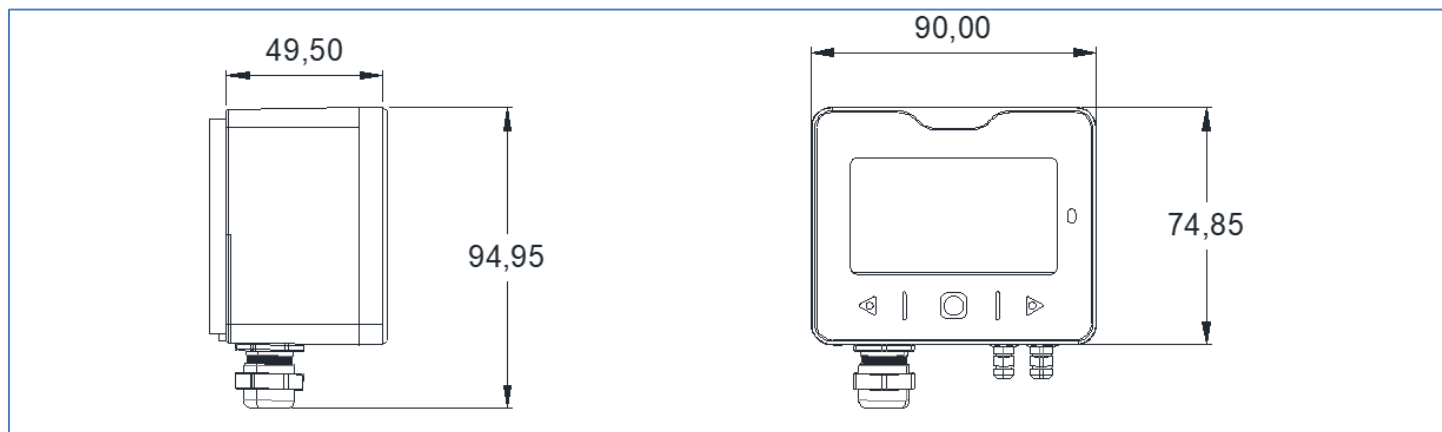
SPECIFICATIONS	CP 111	CP 112	CP 113	Units	Note
<b>Performance Specifications</b>					
Measurement Units	inH2O, Kpa, Psi, Bar, Pascal, mmH2O				
Accuracy	±0.5% of reading ±2Pa	±0.5% of reading ±3Pa	±0.5% of reading ±2mmH2O		
Response Time	0.3 s			S	
Resolution	0.1	1.0	1.0	Pa	
Auto Zero	Integrated Solenoid Valve on Ranges < 50Kpa				
Type of Fluid, Media	Air or Neutral, Non-Ionic Gases				
Overpressure	5	10	100	kPa	
Operating Temperature	0		50	°C	
Storage Temperature	-20		75	°C	
Weight	350			gf	

SPECIFICATIONS	Symbol	Min	Typical	Max	Unit	Note
<b>Absolute Maximum Conditions</b>						
Supply Voltage		-16		35	V	
Storage Temperature		-50		150	°C	

**Reference Conditions:** Vsupply: Table Below, Ta=25° C.

1. All specification at reference conditions unless otherwise noted.
2. Exceeding Absolute Maximum Specification may damage the device. Extended exposure beyond the operating conditions may affect device reliability.

	Current	Regulated	
<b>Electrical Output Type</b>	4-20mA	0-5V	0-10V
Supply Voltage (Vdc)	24	15	15
Operating Voltage	15-35	15-35	15-35
Current Consumption	22mA	<2W	<2W
Span (FSS)	16.0	5.0	9.0
Output Load	500Ω Max	1.0kΩ Min	1.0kΩ Min
Reverse/Overvoltage Protection	Yes	Yes	Yes

**MECHANICAL DIMENSIONS in [mm]**

<b>Material:</b>	ABS V0 as per UL94
<b>Protection:</b>	IP65
<b>Display:</b>	42*75mm TFT LCD
<b>Height of Digits:</b>	
<b>Pressure:</b>	10mm
<b>Temperature and Humidity</b>	3mm
<b>Unit</b>	3mm
<b>Pressure Connections:</b>	Ribbed, diameter 6.2mm
<b>Cable Gland:</b>	Diameter Maximum 8mm.

## Auto Calibration

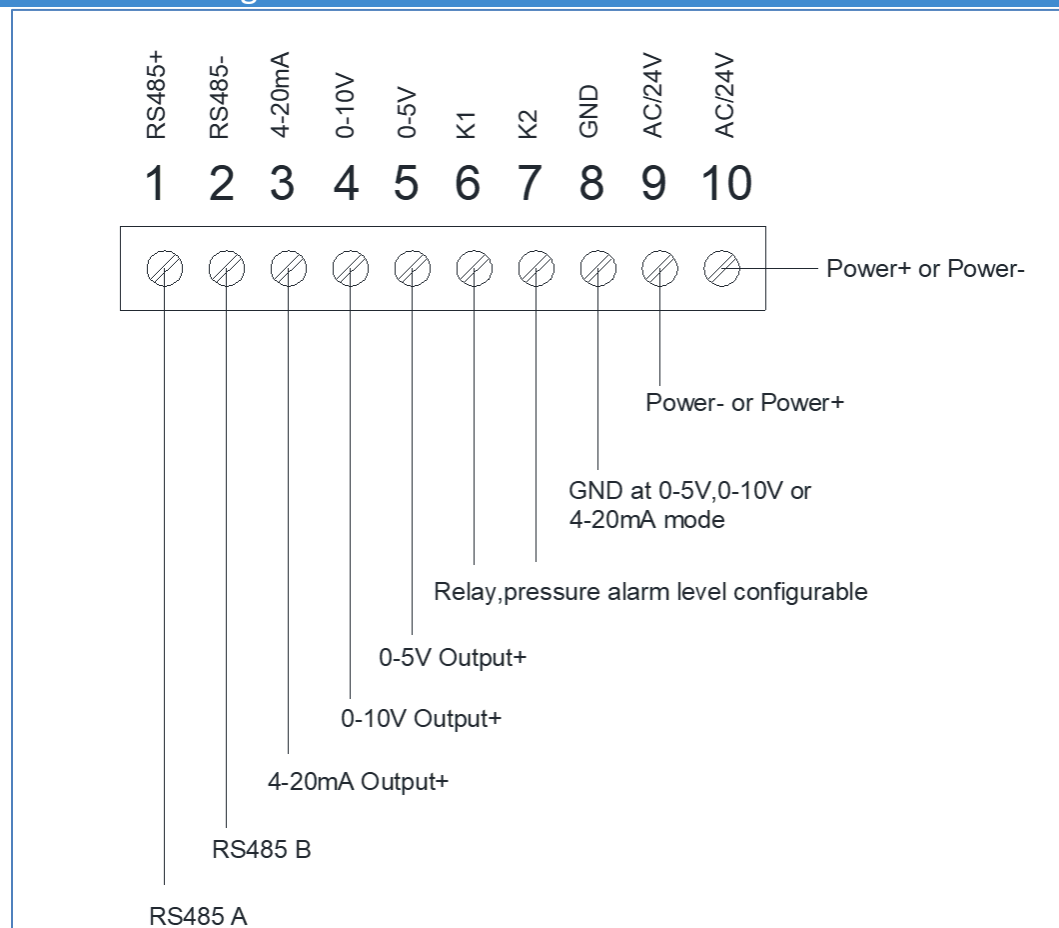
Pressure transmitter has a temperature compensation from 0 to 50°C and an auto calibration process that guarantees excellent stability and perfect reliability of the measurement on low and high ranges over time. Auto calibration principle: the microprocessor of the transmitter drives a solenoid valve that compensates the possible drifts on the sensitive element over time. The compensation is performed by the permanent adjustment of the zero, so the measurement of the differential pressure is then independent from the environmental conditions of the transmitter. Advantage: No drift Frequency of auto-calibration: Resettable from 1min to 60min

## Range Configuration

The range of the pressure transmitter can be configured according to user's application. The configurable percentage can be set is 10%,20%,40%,60%,80% within menu. For example, the original range is +/-1000Pa, if select 10%, the range will change to +/-100Pa, the corresponding 0-5V,0-10V and 4-20mA output will change automatically.

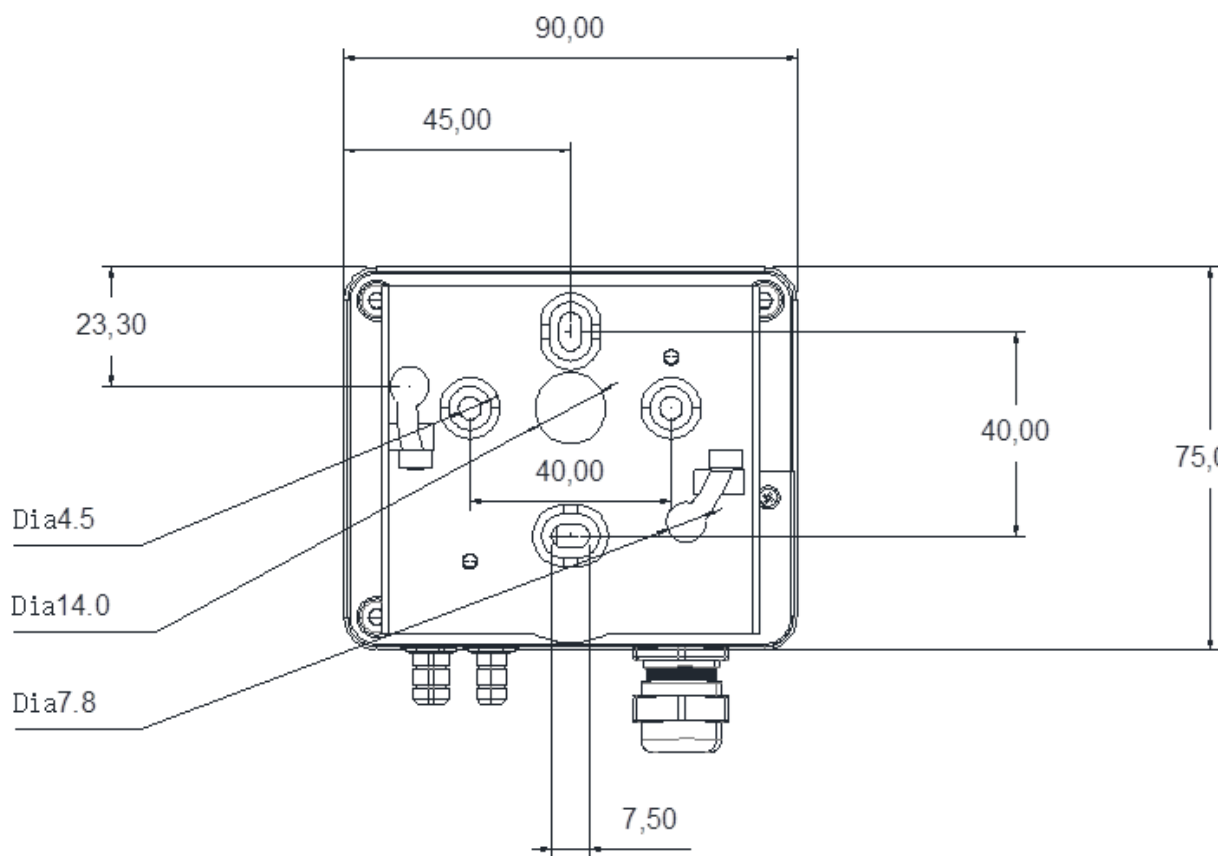
For detailed instruction for the range configuration, consult factory.

## Connection Diagram



**Mounting Diagram**

To mount the transmitter, mount the ABS plate on the wall by drilling 6mm diameter holes and use the included screw and pins supplied with the product. Insert the transmitter on the fixing plate (See below drawing for reference). Rotate the housing in clockwise direction until you hear a click which confirms that the transmitter is correctly installed.



## PART NUMBERING FOR ORDERS

Series	Range Selection	Display Options
CP 11	1 = 100 Pa to -100 Pa 2 = 1000 Pa to -1000 Pa 3 = 10,000 Pa to -10,000 Pa	-D = Display - N = No Display

**Part Number Example: CP 112 -N**

**CP 112 Series, Range from 1000 Pa to – 1000 with No Display**

## WARRANTY

Pressure sensors have a limited one-year warranty to the original purchaser. AVSensors will repair or replace, at its option, without charge those items it finds defective. This is the buyer's sole remedy and is in lieu of all other warranties, expressed or implied, including those of merchantability and fitness for a particular purpose. In no event shall AVSensors be liable for consequential, special, or indirect damages. This warranty does not apply to units that have been modified, misused, neglected or installed where the application exceeds published ratings. Specifications may change without notice. The information supplied is believed to be accurate and reliable as of this printing, however, we assume no responsibility for its use.