



Pressure sensors  
Pressure switches  
Accessories



**SKV-tec**  
High quality at fair prices



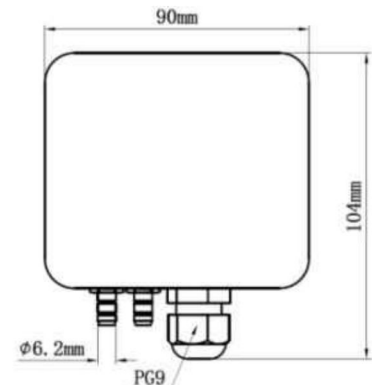
## PT3

This sensor was developed to measure low differential pressures at low costs and also offer an integrated display. Compared to most other sensors the low pressure range is the dominant feature. This allows for example to monitor filters with fine steps, which disappear into the uncertainty of other sensors. The configuration of the display is also very simple. This is done by dip switches on the board following the manual.

### Technical data

Output signal	Standard: 4 -20 mA + 0 -10 VDC 4 – 20 mA (Two-wire), 0 – 10 VDC (Three-wire) or 0 – 5 VDC on request
Maximum measurement ranges	1 mbar, 10 mbar, 100 mbar
Permissible overpressure	-45 to 45 mbar, -150 to 150 mbar, -1500 to 1500 mbar
Supply voltage	16 – 30 VDC
Accuracy	1,0% of full scale
Zero point calibration	Automatic or by button
Available units	Pa, mmH <sub>2</sub> O, mbar, InWG, mmHG, daPa, hPa
Permissible temperature ranges	Operating temperature: -10°C to 60°C Storage: -10°C to 70°C
Medium	Air and other non-dangerous non-corrosive media
Pressure connection	6,2 mm tube
Electrical power consumption	< 1,5W
Electrical connection	Connection on the PCB, PG9 cable gland
Class of protection	IP 65
Size	104 x 90 x 44,5 mm (Housing), 50 x 22,5 mm LCD

<b>PT3</b>	-	X	X	X
Model				
Measurement range (0 = 10 mbar; 2 = 100 mbar; 6 = 1 mbar)				
Display (0 = without, 1 = with)				
Output signal (1 = 4 – 20 mA & 0 – 10V; 2 = 4 – 20 mA; 3 = 0 – 10 V)				



Stand: 09/2021; Änderung vorbehalten, Right of modification reserved, So

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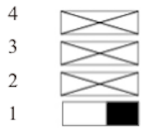
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		Unit	Pa	mmH <sub>2</sub> O	mbar	inWG	mmHG	daPa	KPa	hPa
4 3 2 1 	PT3-611		10.0	1.00	0.100	/	/	1.00	/	0.100
	PT3-011		100	10.0	1.00	0.40	0.75	10.0	0.100	1.00
	PT3-211		1,000	100.0	10.00	4.00	7.50	100	1.000	10.00
4 3 2 1 	PT3-611		25.0	2.50	0.250	/	/	2.50	/	0.250
	PT3-011		250	25.0	2.50	1.00	1.87	25.0	0.250	2.50
	PT3-211		2,500	250.0	25.00	10.00	18.75	250.0	2.500	25.00
4 3 2 1 	PT3-611		50.0	5.00	0.500	/	/	5.00	/	0.500
	PT3-011		500	50.0	5.00	2.00	3.750	50.0	0.500	5.00
	PT3-211		5,000	500.0	50.00	20.00	37.50	500.0	5.000	50.00
4 3 2 1 	PT3-611		75.0	7.50	0.750	/	/	7.50	/	0.750
	PT3-011		750	75.0	7.50	3.00	5.62	75.0	0.750	7.50
	PT3-211		7,500	750.0	75.00	30.00	56.20	750.0	7.500	75.00
4 3 2 1 	PT3-611		100.0	10.00	1.000	/	/	10.00	/	1.000
	PT3-011		1,000	100.0	10.0	4.00	7.50	100.0	1.000	10.00
	PT3-211		10,000	1,000.0	100.00	40.00	75.00	1,000.0	10.000	100.00

**Full range/Central zero (take 0~1,000Pa as an example)**

To set the type of measuring range by adjusting the pressure range switch as indicated below



Full range: 0~1,000Pa



Central zero: -500Pa~500Pa

Please follow carefully the combinations above the Dial-up switch. If the combination is wrongly done, the following message will appear on the display as "Err". In that case, you have to unplug the transmitter, place the Dial-up switches correctly and then power the transmitter up

**②Unit setting**

Set the pressure unit by adjusting the dial up switches referring to following combination

	Pa	mmH <sub>2</sub> O	mbar	inWG
Combination				
Combination				

**③Auto zero function setting**

Dial the switch 1 to activate or deactivate the auto zero function when powering up(the transmitter will be auto zeroed when activate this switch and vise versa)



Deactivate auto zero switch



Activate auto zero switch

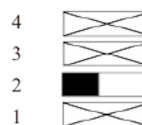
**④Response time setting**

Set the response time by adjusting the time response dial up switches referring to following combination

	0.5s	1s	2s	4s
Combination				

**⑤RS-485 model setting**

We included the RS-485 communication function in time response dial up switches. By dial up the switch 1 and 2 in following combination to change the baud rate either in 19200 or 9600(Only workable for RS485 differential transmitter)



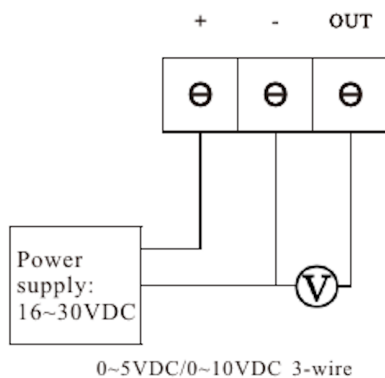
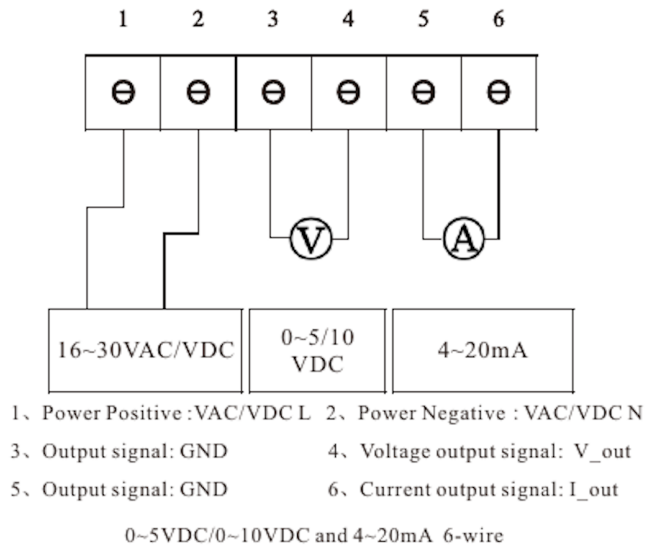
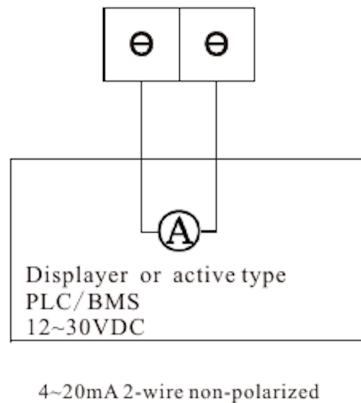
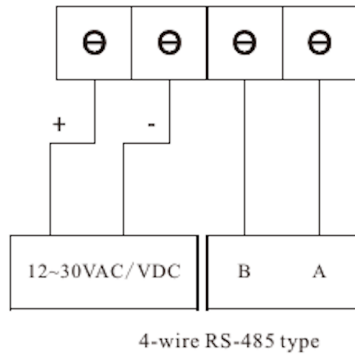
Baud rate: 19200



Baud rate: 9600

In the Figure 4 there are a set of resistor jump which could be connected for reducing signal interference when the communication distance above 300 meters.

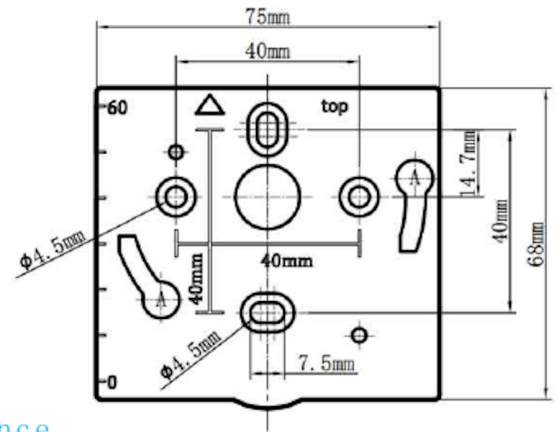
## Electrical connection



**Remark:** Unscrew the 4 screws from the back cover, then take out the rubber cap, then connect the terminal and cable through the cable gland, then tighten the cable gland and cover the back cover

## Mounting

To mount the transmitter, mount the ABS plate on the wall (drilling:  $\varnothing 6\text{mm}$ , depth 30mm, screws and pins are supplied) Insert the transmitter on the fixing plate (see A on the drawing) 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 and protect the transmitter and its probes from any cleaning product containing formalin, that may be used for cleaning rooms and ducts.

## Chargeable Accessories

- Power adapter
- Connection tube

## Common problem and solutions

- The display range or units do not tally with the Settings.
    - dial the code switch is not in place, the electricity to restart the redial later.
  - Pressure pressure showed no change or the output value (display of 0 or FULL), or change is not allowed.
    - whether the load pressure over blasting pressure directly blunt bad core body;
    - whether there is corrosive or use media. And the purchased product applicable medium exist discrepancy (existing micro differential pressure transmitter are for no corrosive gas);
    - check whether there is any foreign bodies blocked on inlet hose (particulate matter or water) or leakage;
    - using the environment temperature is beyond compensation temperature range (micro differential pressure transmitter temperature compensation range - 10 ~ 60 °C);
    - with and without the pressure to zero wrong operation, such as there is no input in determining the state of stress under the reset again;
    - have corrosive Settings button of wrong operation (Settings button to prevent wrong operation mechanism, namely the set point pressure value must be increasing from small to big to finally set up successful, needs to be in high precision pressure source under the calibration set, don't recommend customer to calibration, such as the deviation caused by the calibration operation, must be returned to the factory heavy school).
  - Pressure normal value, no output analog or analog output is not allowed.
    - check the output line connection is normal;
    - three wire system output is to detect transducer with control instrument is normal (i.e., ground wire must be connected to);
    - check the load resistance to choose proper.
  - The zero pressure value drift slightly.
    - clear operation after drift stability.
- If the above method cannot eliminate the fault, contact the manufacturer!