



Diffused Silicon Pressure Transmitter

(Model No. WPCK05)

Manual Version: 1.0

Date: Dec-13-2022

Zhengzhou Winsen Electronics Technology CO., LTD

Statement

This manual's copyright belongs to Zhengzhou Winsen Electronics Technology Co., LTD. Without the written permission, any part of this manual shall not be copied, translated, stored in database or retrieval system, also can't spread through electronic, copying, record ways.

Thanks for purchasing our products. In order to have customers use it better and reduce the faults caused by misuse, please read the manual carefully and operate it correctly in accordance with the instructions. If users disobey the terms or remove, disassemble, change the components inside of the sensor, we shall not be responsible for the loss.

The specific such as color, appearance, sizes &etc., please in kind prevail.

We are devoting ourselves to products development and technical innovation, so we reserve the right to improve the products without notice. Please confirm it is the valid version before using this manual. At the same time, users' comments on optimized using way are welcome.

Please keep the manual properly, in case you need help during the usage in the future.

Zhengzhou Winsen Electronics Technology CO., LTD.

WPCK05 Diffused Silicon Pressure Transmitter

Product Description

WPCK05 series diffused silicon pressure transmitter is integrated with high-precision diffused silicon pressure core, the internal special integrated circuit converts the sensor millivolt signal into a standard current signal, which can be directly connected with the computer interface card, control instrument, intelligent instrument or PLC, and the current output mode can be used for remote transmission. WPCK07 is a small size, light weight, all stainless steel sealed structure transmitter, which can be used in corrosive environment. The product has extremely high vibration and impact resistance and easily to install. It's widely used in process control, automobile, medical equipment, HVAC and other fields



Main features :

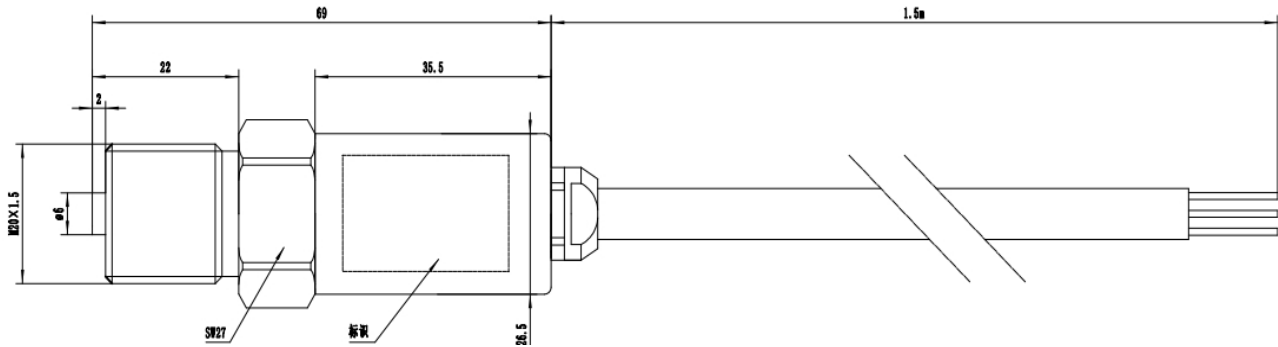
- Stainless steel structure, multi threads optional
- Wide temperature compensation-10~+70°C
- Multi output methods
- Excellent anti-interference ability
- High reliability
- Hi Accuracy
- Low consumption

Application:

- Process control system
- Pressure calibration instrument
- Biomedical instruments
- Refrigeration equipment and HAVC system
- Ships and navigation
- Pipeline pressure monitoring

Basic Parameter Index		
Pressure range	-100kPa~0~10kPa...100MPa	
Pressure Reference	Gauge Pressure/Absolute Pressure/Sealed Gauge Pressure	
Power supply	12-30V	
Output	0.5-4.5V,0-5V,1-5V,0-10V,1-10V	
Accuracy	±0.5%FS	
Hysteresis	0.1%FS	
Repeatability	0.1%FS	
Low Consumption	Standby current < 100nA	
Temperature Drift	35kPa: ±2%FS(0℃~60℃) Others: ±1.5%FS(-20℃~85)	
Response Time	≤1ms	Up to 90%FS
Overload pressure	Refer to the pressure range chart	
Working life	≥1×10 ⁶ Pressure cycle	
Environment Temperature	≥1×10 ⁶ Pressure cycle	
Environment Temperature	-30℃~105℃	
Storage Temperature	-40℃~125℃	
EMC	Immunity:IEC 61000-6-2 Radiation:IEC 61000-6-3	
Vibration Resistance	Impact: 200g/1ms; IEC 60068-2-27 Free fall: 1m; IEC 60068-2-32	
Protection level	IP65	
Static electricity	IEC 61000-4-5 Level 3	
Voltage Withstand	Current Output: 500V/AC 1min Voltage Output: 250V/AC 1min	
Media Compatible	Media compatible with SS 316L	
Size of Hexagon	SW27	
Ex-proof level	Exia II CT6	
Thread	M20*1.5 (Default)	Optional
Lead-out Method	Cable/Cable+Terminal PH2.0-5P	Optional

Dimension



Detection Ranges

Pressure Range Code	Pressure Reference	Pressure Range	Over Pressure	Burst Pressure
10k	G	0~10kPa	200%FS	600%FS
20k	G	0~20kPa	200%FS	600%FS
35k	G	0~35kPa	200%FS	600%FS
70k	G	0~70kPa	200%FS	600%FS
100k	G、A	0~100kPa	200%FS	500%FS
250k	G、A	0~250kPa	200%FS	500%FS
500k	G、A	0~500kPa	200%FS	500%FS
1M	G、A、S	0~1MPa	200%FS	500%FS
1.6M	G、A、S	0~1.6MPa	200%FS	500%FS
2.5M	G、A、S	0~2.5MPa	200%FS	500%FS
4M	S	0~4MPa	200%FS	400%FS
6M	S	0~6MPa	200%FS	400%FS
10M	S	0~10MPa	200%FS	400%FS
16M	S	0~16MPa	200%FS	400%FS
25M	S	0~25MPa	150%FS	400%FS
40M	S	0~40MPa	150%FS	300%FS
60M	S	0~60MPa	150%FS	300%FS
100M	S	0~100MPa	150%FS	300%FS

Electrical connection

Output:

Voltage: Power Supply+(Red Wire)

Common Ground (Green Wire)

Voltage Output (Yellow Wire)

Cautions

- Do not touch the diaphragm with any hard objects, it may break the diaphragm.
- Please carefully read the manual before installation, to avoid damage to the product caused by wrong installation.
- Misuse may cause danger and personal injury.
- When pulling out the core from the shell, do not pull the wire and pin.
- For customized product cycle, please consult sales department.