# WPCH01

# General Type Ceramic Pressure Transmitter

## Manual Version4.0

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.**

**8th, Oct 2016**

# WPCH01 General Type Ceramic Pressure Transmitter

## 1.Profile

WPCH01 general type ceramic pressure transmitter has small size and light weight, it is convenient and easy to install. It adopts pressure sensor made by Winsen and it convert pressure into standard voltage signal output through a high reliable amplifying circuit and accurate temperature compensation circuit. The whole stainless delicate structure and plastic elements with high-strength enhance its anti-corrosion character, which make the product meet demands in different application occasions.

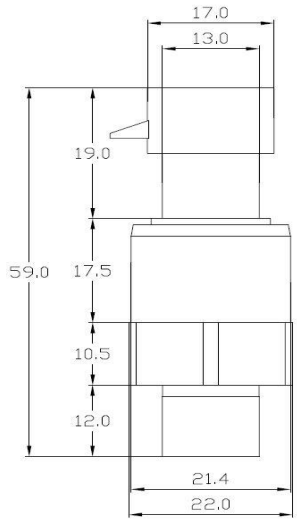


It has various output way and connector, and it also could be customized. It is widely used in water pump, smart water supplying, air compressor, cars, air conditioners, water dealing device, controlling gas and liquid pressure.

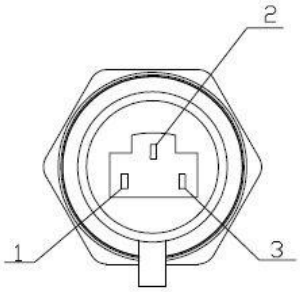
## 2.Parameters

| | | |
|---|---|---|
| Detection range | 0.2 MPa 、0.5MPa、1 MPa、2 MPa 、5MPa | selectable |
| Comprehensive accuracy | 0.1%FS、0.2%FS、0.5%FS、1.0%FS、2.0%FS（默认）、5.0%FS | |
| Output signal | 4-20mA、0/1-5/10V、0.5-4.5V | customizable |
| Power supplying | +5VDC、+12VDC、+24VDC | customizable |
| Structural connection | G1/4、G1/2、G1/8、1/4NPT、1/2NPT、M20*1.5、M14*1.5 | customizable |
| Electrical connection | Three-pin plug, direct leading wire, Hersman's joint, aviation plug | customizable |
| Compensation | 0-45°C 、0-65°C（defult）、-10-85°C、-20-85°C | customizable |
| Working temperature | -20-125°C | |
| Safe overload | 150% | |
| Ultimate overload | 200% | |
| Long-term stability | 0.2%FS/year | |
| Response time | Less than 1ms | |
| Shell material | 304 stainless steel | customizable |
| Protection grade | IP65 | |

## 3. Structure sizes




## 4. Electric connection and definition of wires




| Pin | Cable | Definition (three-wire) | Definition (two-wire) |
|---|---|---|---|
| **1** | red | Power: V+ | Power: V+ |
| **2** | yellow | Output: OUT+ | |
| **3** | blue or green | Common port: GND | Output: OUT |

## 5.Guide to select model

**Example： W—P—C—H—M1—V1—S2—L1—D1—P3**

| | | | | | | |
|---|---|---|---|---|---|---|
| **W** | | Winsen company | | | | |
| **P** | | Pressure sensors products | | | | |
| **C** | | Pressure transmitter products | | | | |
| **H** | Sensor type | **H:** ceramic type | **K：** diffused-silicon type | **Q：** others | | |
| **M1** | Detection range | M1 stands for 1MPa； M0.2 stands for 0.2MPa； … M60 stands for 60MPa | | | | |
| **V1** | Supply voltage | **V1:**5VDC | **V2:** 12VDC | **V3:** 24VDC | **V4:** others | |
| **S2** | Output signal | **S1:**4-20 | **S2:** 0.5-4.5V | **S3:** 0-5V | **S4:** 1-5V | **S5:** others |
| **L1** | Screw Connection | **L1:** G1/2 | **L2:** G1/4 | **L3:** M20*1.5 | **L4:** M14*1.5 | **L5:** others |
| **D1** | Electric connection | **D1:**Three-pin plug, **D2：**Hersman’s joint, **D3：**direct leading wire, **D4：**aviation plug **D5:** others | | | | |
| **P3** | Overall accuracy | **P1：**0.2% | **P2：** 0.5% | **P3：** 1% | **P4：** 2.0% | **P5:** 5.0% |

## 6. Cautions

1, Before selecting suitable model, please note the compatibility between the medium and the contacting part.

2, If selecting others, please indicate the specific requirements.

3, if have special requirements on parameters or functions, welcome to communicate with us further.

4, Please be sure to pay attention to the definition of cable wiring, the production will fail with wrong connection ways, this should be assumed by users.