



# PRODUCT OVERVIEW

# PRESSURE MEASUREMENT

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## P403 Series Sanitary Flush Diaphragm Pressure Transmitters



P403

### Characters:

- ☆ Accuracy:  $\leq \pm 0.5\% \text{F.S.}$
- ☆ Wide working temperature scope
- ☆ Advanced digital temperature compensation.
- ☆ Excellent resistance against impact, overload, Shock and erosion.
- ☆ Highly-efficient lighting absorption and strong RFI & EMI resistance
- ☆ Impact resistance and disturbance
- ☆ 1.5 times range standard overload.
- ☆ 3 times range burst pressure
- ☆ CE approving

### Applications:

- ★ Industrial course testing and control
- ★ Automatic testing system
- ★ well level measurement and control
- ★ Sea water level measurement and control
- ★ Tank pressure and level measurement
- ★ Laboratory equipment
- ★ Oil and Fuel Tank level measuring
- ★ Automatic detection system
- ★ Saving water to irrigate
- ★ Sanitary field of food and drink
- ★ and so on

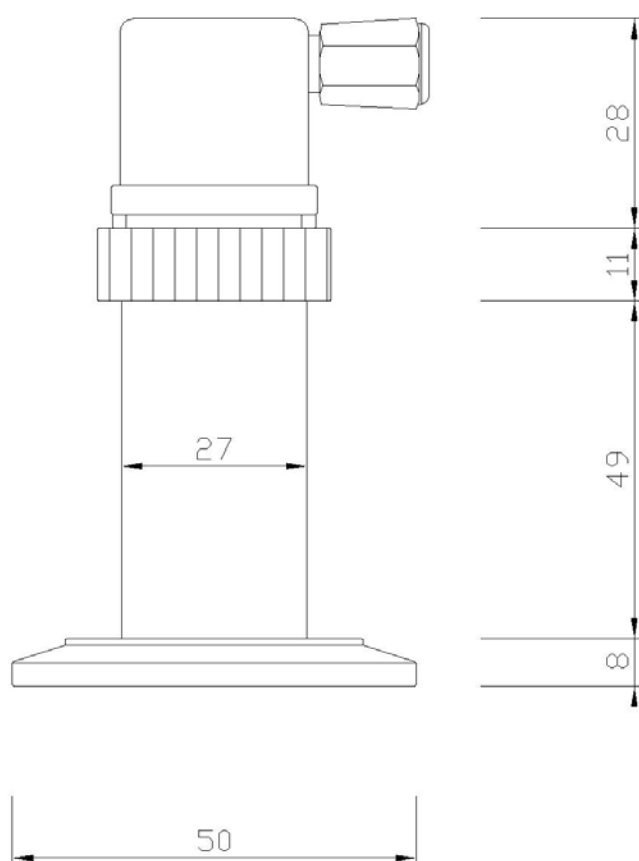
### I . Profiles:

P403 is sanitary flush diaphragm type pressure and level transmitters. It is made by building in high stable and reliable piezo-resistive silicon pressure sensor and high accurate circuit board into the stainless steel housing. Integrated construction and standard signal provide the user easy and convenient application in the local working place. The special cable connects with housing, can be immersed into the media for a long time. This model application in the field of water tank, Fuel tank, building& office water level measurement, city water supply, irrigation, food and sanitation, water factory, refinery, metallurgy, glass factory, swage dispose center, water supply, reservoir, river, sea...

## II . Specifications:

| Model:<br>Parameter:                              | P403                                                                                                                                                                                                                             |            |          |           |
|---------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|----------|-----------|
| Characteristic:                                   | Various configurations<br>Corrosive proof, dew proof and leakage proof function<br>Full closed circuit<br>High accuracy and well stability                                                                                       |            |          |           |
| Technology parameter:                             | Electric connection: antiseptic Cable or by order.<br>Cable materials are optional according request, we offer 3 type special cable as follow:<br>PE Cable (Water Proof) ; PUR Cable (Oil Proof) ; PTFE Cable (Anti-Corrosive) . |            |          |           |
| Pressure Range:                                   | -1 Bar-0-1 Bar.....600 Bar (for pressure measurement)<br>0-1 mH2O.....500 mH2O Optional (for level measurement)                                                                                                                  |            |          |           |
| Overload:                                         | 150% F.S.                                                                                                                                                                                                                        |            |          |           |
| Burst Pressure                                    | 300% F.S.                                                                                                                                                                                                                        |            |          |           |
| Accuracy:<br>(Linearity Hysteresis Repeatability) | $\leq \pm 0.5\%F.S$<br>$\leq \pm 0.25\%F.S$<br>$\leq \pm 0.1\%F.S$ (high cost type!)<br>Including non-lin., rep. and hys. Optional                                                                                               |            |          |           |
| Long Stability:                                   | Standard: $0.1\%F.S \pm 0.05\%$                                                                                                                                                                                                  |            |          |           |
| Working Temp:                                     | $-30^{\circ}C \sim 85^{\circ}C$ (Non-Cooling Device); $-30^{\circ}C \sim 150^{\circ}C$ ( With Cooling Device)                                                                                                                    |            |          |           |
| Storage Temp:                                     | $-40^{\circ}C \sim 120^{\circ}C$                                                                                                                                                                                                 |            |          |           |
| Temp Compensation:                                | $-10^{\circ}C \sim 70^{\circ}C$                                                                                                                                                                                                  |            |          |           |
| Medium compatible:                                | Compatible with 316L Stainless Steel                                                                                                                                                                                             |            |          |           |
| Electronic Wire:                                  | 2 Wire                                                                                                                                                                                                                           | 3 Wire     |          |           |
| Output:                                           | 4~20mA                                                                                                                                                                                                                           | 0~5V       | 1~5 V    | 0.5~4.5 V |
| Power Supply:                                     | 12~36 V DC                                                                                                                                                                                                                       | 12~36 V DC | 12~36Vdc | 5 V DC    |
| Insulate resistance:                              | $>100M \Omega$ @50V                                                                                                                                                                                                              |            |          |           |
| Zero Temp. Drift:                                 | $0.03\%FS/^{\circ}C$ ( $\leq 100kPa$ ) , $0.02\%FS/^{\circ}C$ ( $>100kPa$ )                                                                                                                                                      |            |          |           |
| FS Temp. Drift:                                   | $0.03\%FS/^{\circ}C$ ( $\leq 100kPa$ ) , $0.02\%FS/^{\circ}C$ ( $>100kPa$ )                                                                                                                                                      |            |          |           |
| Electronic connection:                            | DIN 43650 Hirschman Terminal Box;<br>Fixed cable and water proof IP68 optional.                                                                                                                                                  |            |          |           |
| Process Connect:                                  | G1/2", G1", 1/2" NPT, 1" NPT, M20*1.5, M24*1.5; $\Phi 50$ flange or by order.                                                                                                                                                    |            |          |           |
| Response time:                                    | $\leq 10ms$                                                                                                                                                                                                                      |            |          |           |
| Pressure Type:                                    | Gauge pressure; Absolute pressure optional.                                                                                                                                                                                      |            |          |           |
| Certificate approving:                            | Exia IICT5 and CE Certificate.                                                                                                                                                                                                   |            |          |           |
| EMC Standard:                                     | electromagnetic radiation: EN50081-1/-2<br>electromagnetic susceptibility: EN50082-2                                                                                                                                             |            |          |           |
| Water Proof:                                      | IP65 to IP68                                                                                                                                                                                                                     |            |          |           |
| Weight:                                           | Net weight is about 0.35KG, Full Packing weight is about 0.5KG (Not Include Cable)                                                                                                                                               |            |          |           |
| Remarks:                                          | Special applications request by order                                                                                                                                                                                            |            |          |           |

### III. Dimension and Drawing:



P403

#### IV. Electronic Connections:

| Electronic Wire Connections                             |                      |                        |                              |                        |                       |  |
|---------------------------------------------------------|----------------------|------------------------|------------------------------|------------------------|-----------------------|--|
|                                                         | Power Supply<br>Vcc+ | Power Supply<br>V-/0V  | Signal Output<br>S+          | Signal Output<br>S-/0V | Ground Wire           |  |
| <b>2 wire</b><br><b>4-20 mA</b>                         | Red wire             | NA                     | Blue wire &<br>Green wire    | NA                     | Yellow wire           |  |
| <b>3 Wire</b><br><b>0-5V; 0-10V;</b><br><b>0.5-4.5V</b> | Red wire             | Black wire             | Blue wire &<br>Green wire    | White/Yellow<br>wire   | Yellow wire           |  |
| <b>Hirschman</b><br><b>Connector Type</b>               | Pins 1<br>Red wire   | Pins 3<br>Black wire   | Pins 2<br>Signal wire        | Pins 3<br>Black wire   | Pins G<br>ground wire |  |
| <b>M12 Connector</b><br><b>4 Pins Type</b>              | Pins 1<br>Brown wire | Pins 3<br>0V/Blue wire | Pins 2<br>White wire         | Pins 3<br>0V/Blue wire | Pins 4<br>Black wire  |  |
| <b>Packard 3 Pins</b><br><b>Connector Type</b>          | Pins B<br>Red wire   | Pins A<br>Black wire   | Pins C<br>Blue/Green<br>wire | Pins A<br>Black wire   | NA                    |  |

#### V. Part NumberCode Table For Pressure Range:

|     |       |     |       |     |       |     |            |
|-----|-------|-----|-------|-----|-------|-----|------------|
| 000 | -1-0  | 016 | 0-1.5 | 031 | 0-10  | 047 | 0-125      |
| 001 | -1-1  | 017 | 0-1.6 | 032 | 0-12  | 048 | 0-150      |
| 002 | -1-9  | 018 | 0-1.7 | 033 | 0-15  | 049 | 0-200      |
| 003 | -1-10 | 019 | 0-1.8 | 034 | 0-16  | 050 | 0-250      |
| 004 | -1-16 | 020 | 0-1.9 | 035 | 0-20  | 051 | 0-300      |
| 005 | -1-20 | 021 | 0-2.0 | 036 | 0-25  | 052 | 0-350      |
| 006 | -1-25 | 016 | 0-2.1 | 037 | 0-30  | 053 | 0-400      |
| 007 | -1-30 | 022 | 0-2.2 | 038 | 0-35  | 054 | 0-450      |
| 008 | -1-35 | 023 | 0-2.3 | 039 | 0-40  | 055 | 0-500      |
| 009 | -1-40 | 024 | 0-2.5 | 040 | 0-50  | 056 | 0-600      |
| 010 | -1-65 | 025 | 0-3   | 041 | 0-60  | 057 | 0-700      |
| 011 | 0-0.5 | 026 | 0-4   | 042 | 0-65  | 058 | 0-800      |
| 012 | 0-1.0 | 027 | 0-5   | 043 | 0-70  | 059 | 0-1000     |
| 013 | 0-1.1 | 028 | 0-6   | 044 | 0-80  | 060 | 0-10000    |
| 014 | 0-1.2 | 029 | 0-7   | 045 | 0-90  | 061 | 0-15000    |
| 015 | 0-1.3 | 030 | 0-8   | 046 | 0-100 | X   | Customized |

## V. Order Information