

MECHANICAL PRESSURE SWITCH

MANUAL

I : NOTICE

1. After receiving the product, please check whether the packaging and appearance are in good condition, and check whether the model and specification of the pressure switch are consistent with the product you purchased.
2. Install and wire the product correctly and reliably according to the process connection, electrical connection and installation method provided by the product.
3. Do not install with electricity!
4. Please pay attention to the technical specifications and conditions of use of the product during use, such as allowable medium temperature, overload pressure, power supply voltage, etc.
5. The pressure switch is a precision device, please do not disassemble it by yourself when using it, let alone touch the diaphragm with hard objects to avoid damage to the product.
6. During the installation process, pay attention to protect the product, and do not install or disassemble it forcefully, otherwise it will easily damage the product, especially the installation threads.
7. When installing, please use a suitable wrench to install or disassemble. Do not force the casing to tighten or disassemble by hand, otherwise the damage caused will not be covered by the warranty.

(!) Product damage caused by non-professional operation not in accordance with the operating specifications is not covered by the warranty.

II : WARNING

1. When the ambient temperature is above 60°C, use a forced fan or cooler to cool it.
2. The installation, commissioning and maintenance of this product should be carried out by qualified engineering and technical personnel.
3. Please ground the product shell reliably, which is helpful for anti-electromagnetic interference and electrical safety.
4. If the failure or abnormality of this product may lead to a major accident in the system, please set up an appropriate external protection circuit to prevent accidents.
5. The company is not responsible for any direct or indirect losses other than the product itself.
6. The company reserves the right to change the product manual without notice.

III : DESCRIPTION

The mechanical pressure switch is a pressure switch whose pure mechanical deformation leads to micro-switch action. It has a built-in diaphragm type or piston type sensing element, which is used to convert physical quantities such as air pressure or hydraulic pressure into an electrical switch signal.

The mechanical pressure switch adopts 304 stainless steel joint and plastic shell, which is characterized by convenient use, stable operation and long mechanical life. The user can adjust the action point through the Allen wrench with the product. The product will preset an action point before leaving the factory, which is convenient for customers to use directly.

This series of products are widely used, especially suitable for pressure control and protection of fire-fighting equipment, automation equipment, mining machinery and other application machinery.

IV : SPECIFICATION

Product range: 0~1/10/25/50/10/100/200/400bar

Overload pressure: >300bar(setting range0.2-50bar);

>600bar(setting range: 50-400bar)

Connection materials: 304SS

Installation location: Any place

Working temperature: -20~80°C

Stroke: 90times/minute

Hysteresis: 15~25% setting value

Accuracy: 5% setting value

Mechanical life: > 1 million times

Outlet definition: DIN, STRAIGHT OUT(Refer to the labels)

Output: 30VDC, 3A 125VAC, 3A

125VDC, 0.25A 250VAC, 1.5A

Materials:Diaphragm NBR

Piston 316SS with NBR seal

Hydraulic connection Brass or 304SS

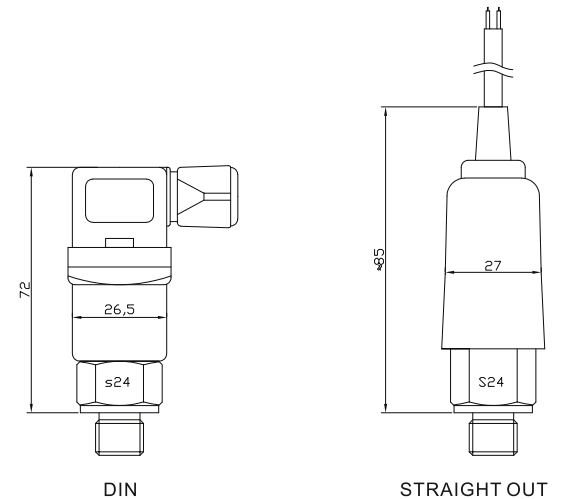
Protection cap UL94V0 rubber

Testing medium: Non-corrosive gas liquids such as water, oil and air

Connection: M20*1.5 G1/2 G1/4 NPT1/4 NPT1/2 or customized

Operation point: Adjust the operation point, please pay attention to fine-tuning

V: DIMENSION



Product setting range:

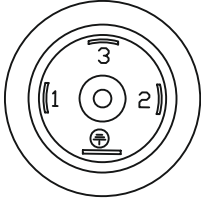
| Setting range(bar) | Compressed material | Max Pressure resistance |
|--------------------|---------------------|-------------------------|
| 1(0.2...3bar) | Diaphragm | 25 |
| 2(1...10bar) | Diaphragm | 25 |
| 3(5...50bar) | Piston | 300 |
| 4(30...100bar) | Piston | 300 |
| 5(40...200bar) | Piston | 300 |
| 6(50...400bar) | Piston | 600 |

1. Do not apply more pressure than the product is rated for!
2. Do not pass current and voltage exceeding the rated load of the product!
3. Do not measure media that are corrosive to stainless steel or copper!
4. Do not connect live wires or adjust pressure set points!
5. Strong impact may affect the set value or even damage the product.

★ Due to the different products ordered by the customer, some parameters or contents of this manual may be slightly different from the products received by the customer. This manual is for reference only. If you find any problems, please contact the supplier.

VI: DIMENSION DIAGRAM

6.1 DIN TYPE outlet definition

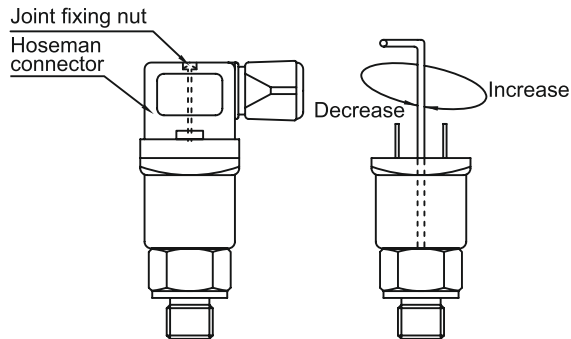


| | | | |
|---------------|---|-----|-----|
| Wiring output | 1 | COM | COM |
| | 2 | NC | NC |
| | 3 | NO | NO |

Please refer to the actual label

6.2 Pressure adjustment method

1. Use a screwdriver to loosen the Hoseman connector, remove the connector and connect as required.
2. Referring to the figure below, use the matching hexagon wrench, insert the adjustment hole, and rotate the hexagon wrench to adjust the operation point. Clockwise increase the action point, counterclockwise decrease the action point.



Note: Adjust the operation point, please pay attention to fine-tuning.

VII: PROBLEMS & SOLUTIONS

1. The pressure is up, and the action point is reached without action:
 - 1) In this case, check whether the pressure interface is leaking or blocked, and then check the wiring method. If it is normal, check whether there is output at the zero position of the switch, or simply pressurize to see if the output changes. The change proves that the switch is not damaged. If there is no change the switch is damaged. Finally, it may be that the instrument is damaged, or other aspects of the entire system.
2. The output signal of the switch is unstable. In this case, you should consider:
 - 1) The pressure source itself is an unstable pressure
 - 2) The anti-interference ability of the instrument or pressure switch is not strong
 - 3) The pressure switch wiring is not firm
 - 4) The pressure switch itself vibrates a lot
 - 5) The pressure switch itself is faulty
3. The output of the pressurization switch does not act, and the output of the pressurization switch suddenly acts, and the zero position of the pressure relief switch cannot be returned:
 - 1) Check the sealing ring of the switch, generally due to the specification of the sealing ring (too soft or too thick), when the switch is tightened, the sealing ring is compressed into the pressure-inducing port of the sensor to block the sensor. When it is very large, the sealing ring is suddenly opened, and the pressure sensor is changed by the pressure. When the pressure is reduced again, the sealing ring returns to block the pressure inlet, and the remaining pressure cannot be released, so the zero position of the switch cannot go down.
 - 2) The method to eliminate this reason is to remove the sensor to see if the sealing ring is normal. If it is normal, replace the sealing ring and try again.
4. The switch has no output:
 - 1) Wrong wiring (check the instrument and switch), pay attention to the selection of NC and NO
 - 2) Open circuit or short circuit of the wire itself
5. The device cannot be driven:
 - 1) Pay attention to the drive current
 - 2) Replace the relay

VIII: AFTER-SALE SERVICE

After sales service and warranty clause

1.The warranty period is 12 months from the date of delivery. Our company's products from the date of sale within 7 days of normal use if there is a failure, consumers can choose refund, exchange, maintenance and other services. After the purchase of our company's products, it will be guaranteed free of charge within one year if there is a non-human damage. For consumers who do not meet free replacement or free warranty services, our company still provides technical services.
The time of purchase is based on the invoice issued by distributor or the date of receipt.

2.Products are mainly divided into shell, control elements and pressure sensitive components.
The shell is normal wear, use the old, these are not responsible for warranty and replacement.
Wiring error or control element damage of excessive load caused by circuit board is not responsible for warranty.
Pressure-sensitive original damage caused by over pressure or hard material touching the diaphragm is not responsible for warranty.

3.One of the following circumstances can not enjoy the "Three Guarantees" service:

- 1) Human factors damage and use in abnormal working environment, failures and damages caused by not using in accordance with the instructions or not accordance with the instructions of using in the environment.
- 2) Without the consent of our company, users disassemble, repair and refit products without permission.
- 3) Damage caused by bad transportation after purchase of our products.
- 4) Damage caused by other force majeure (such as floods, lightning strikes, earthquakes, abnormal voltages).
- 5) Normal using the old, wear, rupture and immersion etc.
- 6) Products that do not belong to our company (such as fake goods).
- 7) Can't show the valid shopping voucher, no warranty card, etc.