



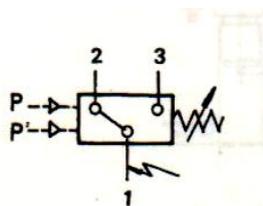
Model: CPK-20 Differential Pressure Switches

The sensor is diaphragm. The switches can be suitable for general gases and liquid medium. The setpoint control range is from 1 to 250kpa, and working pressure range is from 0 to 10Mpa.

□ Main Technical Performance

Suitable for air, gas, water, oil and other medium

Working viscosity: $<1 \times 10^{-3} \text{m}^2/\text{s}$
 Acceleration life: 10^5 cycles (220VAC/6A Resistance)
 Protection class: IP65
 Ambient temperature: $-10^\circ\text{C} \sim +55^\circ\text{C}$
 Mounting position: Best diaphragm perpendicular to the horizontal plane
 Vibrations: 10m/s^2
 Relative Humidity: 5%~95%
 Repeatability Error: $\leq 2\%$
 Electrical rating: AC 220V 6A(Resistance)600V Amax
 Medium Temperature: stable ambient temperature $0 \sim +60^\circ\text{C}$
 If the above temperature is exceeded, a long enough guide-pressure cooling is needed(Generally 3 meters above)



SPDT Switching process:

Terminals 1-3: switching element switch-on when pressure rises to increasing set point
 Terminals 1-2: switching element switch-off when pressure rises to increasing set point

□ Features

Control of high sensitivity
 High Hydrostatic Pressure and low differential pressure

□ Working Principle

The switches will become the differential pressure of the medium to the power value through the diaphragm, and compare with the setting spring force on the lever. Their force through the ejector to block in order to place shaft as a fulcrum rotation, while drive shaft rotation, shaft drive and then rotate to another lever through which the lever, so that micro-switch action, and thus play the role of two-type control.

□ Specifications

- Switching pressure difference not adjustable

| Differential pressure range kPa | Switching pressure difference | | Working pressure range *) MPa | Max allowable pressure*) MPa | Number of switching cycles (1/min) | Pressure sensor materials | | Connection (female threaded) | Weight Kg | Dimensional drawing No. | Cat. No. |
|---------------------------------|-------------------------------|-----------------|--------------------------------|-------------------------------|------------------------------------|---------------------------|-----------|------------------------------|-----------|-------------------------|--------------------|
| | lower range kPa | upper range kPa | | | | Housing | Diaphragm | | | | |
| 1...6 | 0.3 | 0.8 | 4 | 4 | 10 | 1Cr18Ni9Ti Stainless | TCP | G1/4" | 12 | 01 | 0870011 |
| 2...25 | 1.1 | 2.5 | 10 | 10 | | | | | 6.2 | 02 | 0870111 |
| 8..50 | 1.5 | 2.6 | 21 | 10 | | | | | 4.3 | 03 | 0870211 0870311 |
| 20...250 | 2.5 | 10 | | | | | | | | | |

Remark:

- Max. Allowable Pressure: In practice, even the temporal peak value of medium pressure at two pressure ports, should no exceed the value.



- **Maximum allowable differential pressure values:** In practical work, short-term maximum allowable differential pressure is allowed, which results that the change of the switching value is no more than 8% of the adjustment range of upper limit.
- What the values of switching difference list in the form is all the values when the low-pressure chamber is empty. The switching difference of the switches will go up as the work pressure is up. The work pressure changes 5MPa each time, the switching difference will change no more than 4% of the upper limit of adjustment range.
- Clients should simulate actual working conditions to debug before using in order to make the switches achieve the best results.
- When there exists suspended particulate matter in the charged medium, a 180 the purpose of filters should install before the high and low chambers of the switches.
- It's allowed that switching difference measured values are less than listed.

Switch selection and mounting instructions

Selected controller, it is best to use pre-set value in the controller settings.

The middle part of the adjustment range, (usually 20% ~ 80% of adjustable range).

If the controller is set up outdoor, it should be pretended from dramatic changes in ambient temperature, the sun's radiation, corrosive gases or water infiltration.

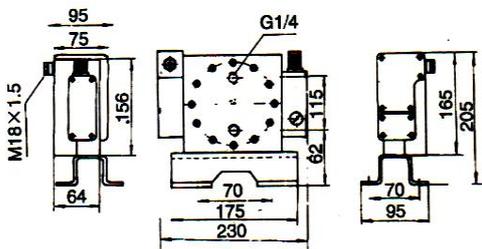
For the peak pressure and pulse pressure controlled liquid medium, the controller interface can be installed on a pressure shock damper to eliminate the adverse effects.

Off-current can not exceed the rating.

Install (or demolition) controller to pay attention to: Screwed pipe joints within a depth of no more than 12mm sensor.

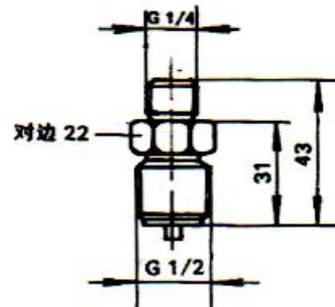
Outline overall and installing dimensions (units:mm)

01



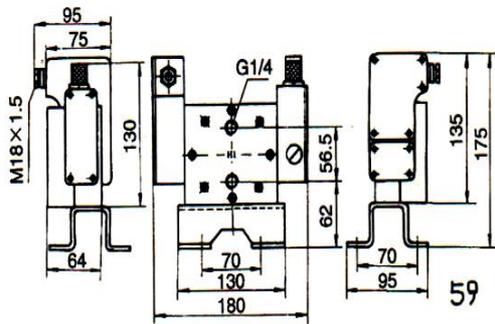
Accessories

Reducer
 G1/4" to G1/2"
 external thread
 Cat. No. 0574767

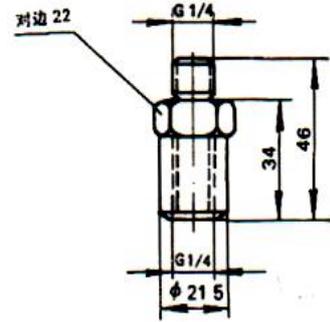




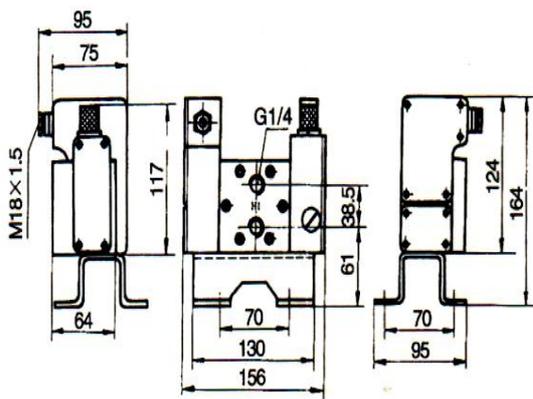
02



Surge damper G1/4"
Cat. No. 0574773



03



● Mounting brackets

