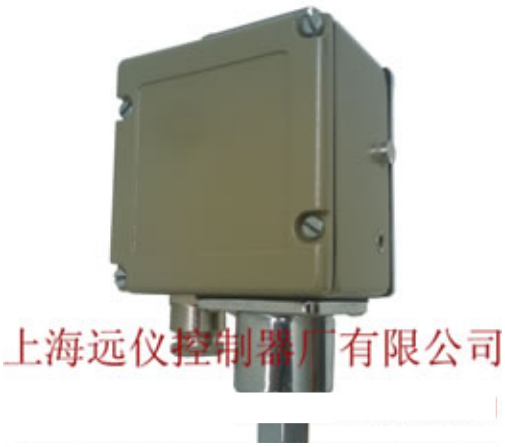
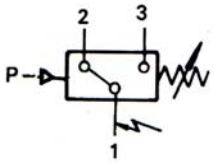
Pressure Switches
Model:YWK-100

The Sensor of YWK-100 is diaphragm type, it can be suitable for neutral gas such as air and steam and other fluid medium such as water, Refrigerant and oil. The Set Point of the Switch is adjustable, and the adjustable range is from 0 MPa to 2Mpa. The switch's housing is Aluminum and water-proof.



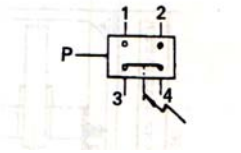
☐ Main Technical Performance

Working viscosity:	<1×10-3m²/s
Protection Class:	IP65
Ambient temperature:	-25~+55℃
Fluid temperature:	0~+95℃
Vibrations:	Max40m/s²
Repeatability:	≤1.5%
Electrical rating:	Vmax=380VAC Imax=6A(Resistance) Pmax=600VA



Switching Function:

Microswitch SPDT
Terminals 1-3:Contacts close on rising pressure
Terminals 1-2:Contacts open on rising pressure



Double-break bridge microswitch function
Terminals 1-2:Contacts close on rising pressure
Terminals 1-3:Contacts open on rising pressure

☐ Characteristic date

- **Switching pressure difference no adjustable（Microswitch SPDT）**

Adjustable Range MPa	Switching pressure difference MPa	Max. Allowable Pressure MPa	Number of switching cycles Z(1/min)	Pressure sensor materials		Connection (internal thread)	Drawing No.
				Housing	Diaphragm		
0…0.1	0.003	1.2	20	Hpb 59-1brass	1Gr18Ni9Ti Stainless steel	G1/4″	01
0…0.2	0.004	1.2	20			G1/4″	01
0.02…0.4	0.008	1.2	20			G1/4″	01
0.02…0.6	0.01	1.2	20			G1/4″	01
0.03…0.8	0.012	1.8	20			G1/4″	01
0.03…1.0	0.015	2.0	20			G1/4″	01
0.05…1.6	0.025	2.5	20			G1/4″	01
0.05…2.0	0.03	3.5	20			G1/4″	01

- **Switching pressure difference adjustable（Microswitch SPDT）**

Adjustable Range MPa	Switching pressure difference MPa	Max. Allowable Pressure * MPa	Number of switching cycles Z(1/min)	Pressure sensor materials		Connection (internal thread)	Drawing No.
				Housing	Diaphragm		
0…0.1	0.008…0.03	1.2	20	Hpb59-1brass	1Cr18Ni9Ti Stainless steel	G1/4"	01
0…0.2	0.01…0.08	1.2	20			G1/4"	01
0.02…0.4	0.025…0.12	1.2	20			G1/4"	01
0.02…0.6	0.03…0.15	1.2	20			G1/4"	01
0.03…0.8	0.04…0.2	1.8	20			G1/4"	01
0.03…1.0	0.05…0.25	2.0	20			G1/4"	01
0.05…1.6	0.08…0.3	2.5	20			G1/4"	01
0.05…2.0	0.12…0.5	3.5	20			G1/4"	01

- **Switching pressure difference adjustable（Double-break bridge micro-switch）**

Adjustable Range MPa	Switching pressure difference MPa	Max. Allowable Pressure * MPa	Number of switching cycles Z(1/min)	Pressure sensor materials		Connection (internal thread)	Drawing No.
				Housing	Diaphragm		
0…0.1	0.015…0.03	1.2	20	Hpb59-1 brass	1Cr18Ni9Ti Stainless steel	G1/4"	01
0…0.2	0.018…0.08	1.2	20			G1/4"	01
0.02…0.4	0.035…0.12	1.2	20			G1/4"	01
0.02…0.6	0.04…0.15	1.2	20			G1/4"	01
0.03…0.8	0.06…0.2	1.8	20			G1/4"	01
0.03…1.0	0.07…0.25	2.0	20			G1/4"	01
0.05…1.6	0.10…0.3	2.5	20			G1/4"	01
0.05…2.0	0.15…0.5	3.5	20			G1/4"	01

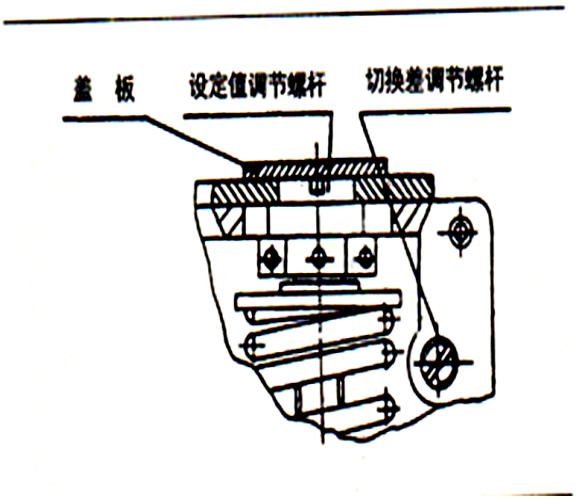
* Even shot pressure peaks must not exceed this value (=max.test pressure)

□ Setting of the switching points

Switching pressure difference no adjustable

Use range spindle to set the upper or lower switching point on design with **fixed** switching pressure difference. The opposite one is determined by the fixed switching pressure difference.

On designs with adjustable switching pressure difference. Use range spindle to set the lower switching point, then use differential spindle to set the upper switching point by adding the desired switching pressure difference.



Turning the range spindle anticlockwise shifts both switching points upwards. Turning the differential spindle anticlockwise shifts only the upper switching point upwards, i.e. the switching pressure difference (distance between the upper and lower switching points)increases.

Example :

Desired : Lower switching point 0.588Mpa

Upper switching point 0.6MPa

(Switching pressure difference=0.021Mpa)

To set precise switching points a pressure gauge is required.(The pressure switch is a switching and regulating device and not a measuring instrument even if has a scale to assist in the setting.)

The setting can be changed at any time, even during operation.

Range and differential spindle are provided with a releasable detent; if desired, switch can also be leadsealed.

Switching pressure difference adjustable

Example :

Desired : Lower switching point 0.5Mpa
Upper switching point 0.6MPa
(Switching pressure difference=0.1Mpa)

To set precise switching points a pressure gauge is required.(The pressure switch is a switching and regulating device and not a measuring instrument even if has a scale to assist in the setting.)

The setting can be changed at any time, even during operation.

Range and differential spindle are provided with a releasable detent; if desired, switch can also be leadsealed.

☐ Switch selection and mounting instructions

The switching points should normally be in about the middle of the adjustable range.

Observe switching pressure during normal operation .

Do not exceed electrical ratings.

Electrical connection by a M18x1.5 cable gland, in accordance with local regulations. For outdoor installation sufficient protection has to be provided for Critical conditions are :Aggressiveness of air, high or low temperatures, drastic changes in temperature, solar radiation, penetration of water. For liquid media with pressure peaks and /or pulsating pressure, install surge damper upstream to eliminate scattering of switching points and excessive wear. If working fluid is steam, install condenser coil upstream.

Avoid twisting of pressure sensor, hold it tight when connecting the switch.

☐ Dimensional drawing Units： mm