



# BANNING HIGH PRESSURE TRANSMITTER KSHP



**BANNING**

## DESCRIPTION

KSPH series pressure seat is made of 17-4PH stainless steel one-piece integrated structure. The integrated stainless steel diaphragm makes the overload performance much higher than that of common cores such as diffused silicon and ceramics, and its pressure interface has no welds, no silicone oil or Other organic substances have good sealing performance. In the standard production process, various parameters are strictly controlled, and the entire product has undergone strict testing and aging of components, semi-finished products and finished products, and its performance is stable and reliable.

## CHARACTERISTICS

- Anti-100V/m electromagnetic interference
- Stainless steel one-piece integrated structure, no O-rings
- high pressure
- Adapt to harsh environments
- Various output signals
- High reliability and stability
- Strong overload capacity
- Wide operating temperature range

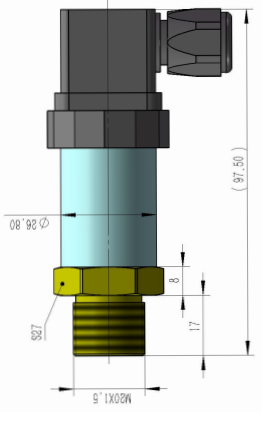
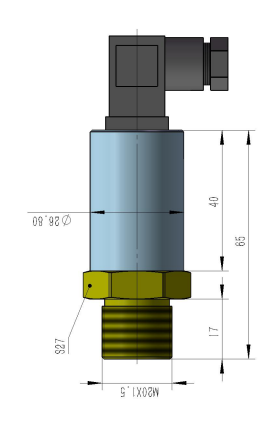
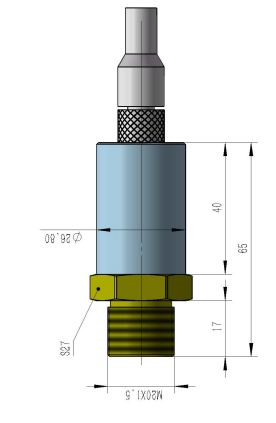
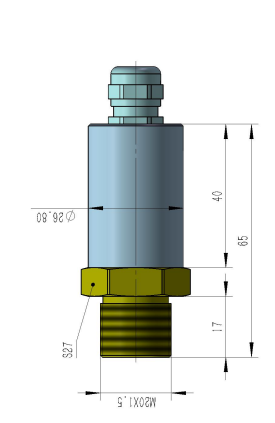
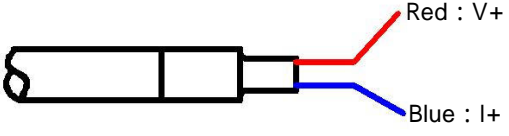
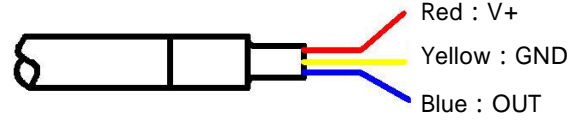
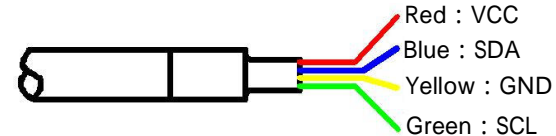
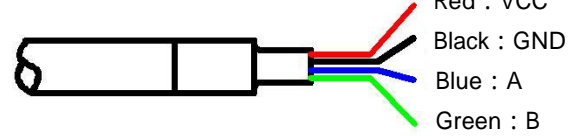
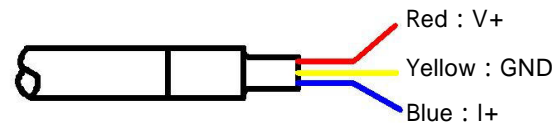
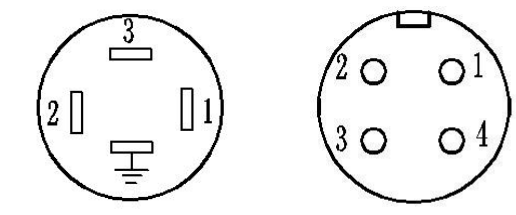
## PERFORMANCE

Performance	KSPH
Measuring range	0 ~ 1MPa...300MPa
pressure type	seal pressure
Power supply	9 ~ 30VDC ; 5VDC
Power output	4 ~ 20mA、0 ~ 5V、0 ~ 10V (9 ~ 30VDC) ; 0.5 ~ 4.5V(5VDC)
precision	± 0.25%FS
Hysteresis and Repeatability	± 0.25%FS
Long-term stability (1 year)	± 0.25%FS
Insulation resistance (250Vdc)	50M
Overload pressure	200%FS
Destruction pressure	500%FS
Pressure cycling (from zero to full scale)	10 × 10 <sup>6</sup> Pressure cycle
Compensated temperature	-20 ~ 85
Operating temperature	-40 ~ 125
Storage temperature	-40 ~ 125
vibration	± 20g
Shock (11ms)	100g

## APPLICATION

- It is widely used in pressure measurement of industrial process sites such as petroleum, chemical industry, metallurgy, electric power, hydrology and so on.

# EXTERNAL STRUCTURE

Connector code	J5 : Big Hirschmann	J14 : Small Hirschmann	J15 : Hirschmann direct lead	J13 : M12 Aviation plug									
Dimensions unit : mm													
Wiring	 <p>Red : V+ Blue : I+</p> <p>Direct lead: 4 ~ 20mA output</p>		 <p>Red : V+ Yellow : GND Blue : OUT</p> <p>Direct lead: 0.5 ~ 4.5 VDC output</p>										
	 <p>Red : VCC Blue : SDA Yellow : GND Green : SCL</p> <p>Direct lead: I<sup>2</sup>C output</p>		 <p>Red : VCC Black : GND Blue : A Green : B</p> <p>Direct lead: RS485 output</p>										
	 <p>Red : V+ Yellow : GND Blue : I+</p> <p>Direct Lead: 0 ~ 20mA or 0 ~ 10mA output</p>												
	 <p>Big/Small Hirschmann      M12 aviation plug</p>		<p>4 ~ 20mA output</p> <p>0.5~4.5VDC output</p> <p>0~5VDC output</p> <p>0~10VDC output</p>	<table border="1"> <tr> <td>1</td> <td>Red : V+</td> </tr> <tr> <td>3</td> <td>Blue : I+</td> </tr> <tr> <td>1</td> <td>Red : V+</td> </tr> <tr> <td>2</td> <td>Blue : OUT</td> </tr> <tr> <td>3</td> <td>Yellow : GND</td> </tr> </table>	1	Red : V+	3	Blue : I+	1	Red : V+	2	Blue : OUT	3
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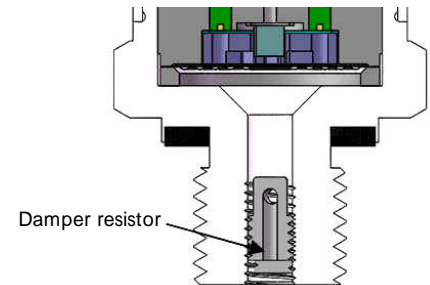
# SELECTION OF DAMPER

## APPLICATION :

- Cavitation, liquid hammer and pressure spikes can occur in air or liquid systems with varying flow rates. Examples include quick closing of valves or starting and stopping of pumps.
- These problems can occur at the inlet and outlet, even at fairly low operating pressures.

## MEDIA CONDITION :

- In liquids containing particles, clogging of the nozzle may occur. Mounting the transmitter vertically minimizes the risk of clogging, as the flow of fluid is limited to the initial start-up, while the volume behind the nozzle is fixed and the nozzle's aperture is relatively large (1.2mm).
- The effect of medium viscosity on response time is small. Even if the viscosity reaches 100 CST, the response time will not exceed 4ms.



# THREAD INTERFACE

Thread code	C1 : M20 × 1.5-6g	C2 : G1/2	C3 : G1/4
Dimensions unit : mm			
Torque	15 ~ 25Nm	15 ~ 25Nm	15 ~ 25Nm



Thread code	C5 : NPT1/4	C6 : R1/4	C7 : NPT1/2
Dimensions unit : mm			
Torque	15 ~ 25Nm	15 ~ 25Nm	15 ~ 25Nm
Thread code	C8 : M12 × 1.5	C10: R1/2	C15: G3/8
Dimensions unit : mm			
Torque	15 ~ 25Nm	15 ~ 25Nm	15 ~ 25Nm

**NOTE :** Torque depends on various factors, such as gasket material, matching materials, thread lubrication, and pressure.

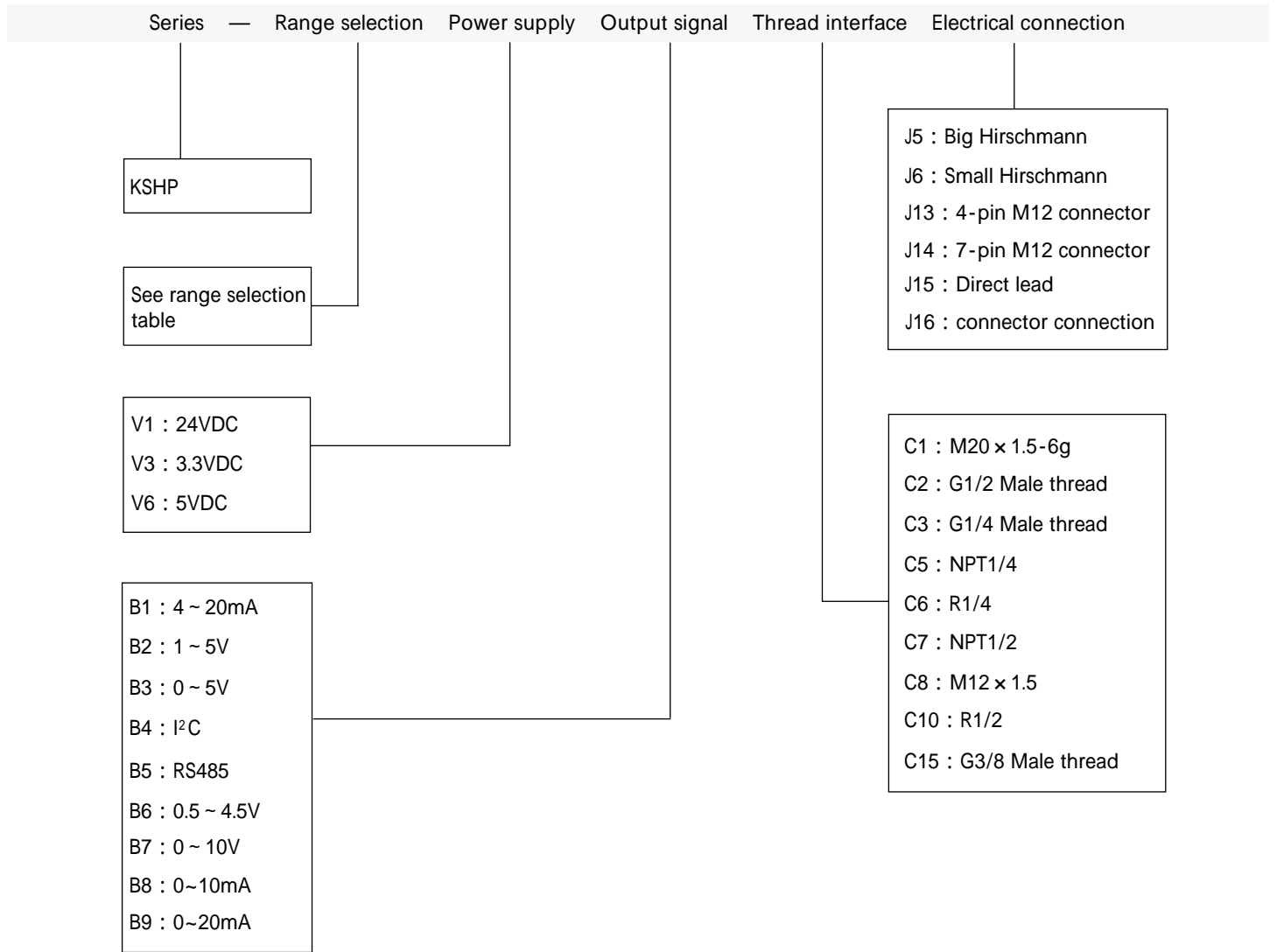
## PRESSURE RANGE TABLE

Range code	Pressure type	Measuring range	Overload pressure	Burst pressure	Remark
1M	S	0 ~1MPa	150%FS	300%FS	
1.6M	S	0 ~1.6MPa	150%FS	300%FS	
2.5M	S	0 ~2.5MPa	150%FS	300%FS	
4M	S	0 ~4MPa	150%FS	300%FS	
6M	S	0 ~6MPa	150%FS	300%FS	
10M	S	0 ~10MPa	150%FS	300%FS	
16M	S	0 ~16MPa	150%FS	500%FS	
25M	S	0 ~25MPa	150%FS	300%FS	
40M	S	0 ~40MPa	150%FS	300%FS	
60M	S	0 ~60MPa	150%FS	200%FS	
100M	S	0 ~100MPa	120%FS	150%FS	
120M	S	0 ~120MPa	120%FS	150%FS	
150M	S	0 ~150MPa	120%FS	150%FS	
200M	S	0 ~200MPa	120%FS	150%FS	
300M	S	0 ~300MPa	120%FS	150%FS	

**NOTE :** 1 : S seal pressure.

2 : Use a non-oil-filled pressure sensor. The measurement medium must be pure gas.

# NOMENCLATURE



## FOR EXAMPLE : KSHP-130MSV1B1C3J5

The series is KSHP, range is 0 ~ 130MPa, pressure type is seal pressure, power supply mode is 24VDC , output signal is 4-20mA, thread interface is G1 / 4 male thread, and electrical connector is Big Hirschmann.

When selecting, please pay attention to the compatibility of the tested medium and the product's contact part.

# DISCLAIMER

## Warning

### LIFE OR PROPERTY RISK

- Please ensure that this product has been designed as part of whole system and already considered related risks, make sure the product has the correct ratings and is designed based on the entire system. It must not be used when applications related to serious life or property damage risks.

Failure to follow this instruction can result in death or serious injury.

## Warning

### PERSONAL INJURY

- DO NOT USE these products as safety or emergency stop devices or in any other application where failure of the product could result in personal injury.

Failure to follow this instruction can result in death or serious injury.

## Warning

### MISUSE OF DOCUMENTATION

- The information presented in this product sheet is for reference only. Do not use this document as a product installation guide.
- Complete installation, operation, and maintenance information is provided in the instructions supplied with each product.

Failure to follow this instruction can result in death or serious injury.

## Warranty/Remedy

Banning warrants goods of its manufacture as being free of defective materials and faulty workmanship during the applicable warranty period. Banning's standard product warranty applies unless agreed to otherwise by Banning in writing; please refer to your order acknowledgment or consult your local sales office for specific warranty details. If warranted goods are returned to Banning during the period of coverage, Banning will repair or replace, at its option, without charge those items that Banning, in its sole discretion, finds defective. The foregoing is buyer's sole remedy and is in lieu of all other warranties, expressed or implied, including those of merchantability and fitness for a particular purpose. In no event shall Banning be liable for consequential special, or indirect damages.

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