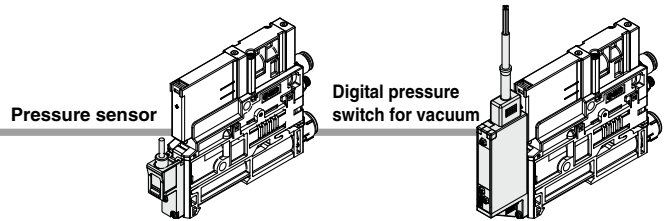


Pressure Sensor/Digital Pressure Switch for Vacuum Specifications



Pressure Sensor/ZK2-PS□-A (Refer to the PSE series in Best Pneumatics No. 6 and the Operation Manual for details.)

Model (Sensor unit: Standard model number)	ZK2-PS1-A (PSE541)	ZK2-PS3-A (PSE543)
Rated pressure range	0 to -101 kPa	-100 to 100 kPa
Proof pressure	500 kPa	
Applicable fluid	Air/Non-corrosive gas/Incombustible gas	
Output voltage	1 to 5 VDC	
Output impedance	Approx. 1 kΩ	
Power supply voltage	10 to 24 VDC ±10%, Ripple (P-P) 10% or less	
Current consumption	15 mA or less	
Accuracy	±2% F.S. (Ambient temperature at 25°C)	
Linearity	±0.4% F.S. or less	
Repeatability	±0.2% F.S. or less	
Effect of power supply voltage	±0.8% F.S. or less	
Temperature characteristics	±2% F.S. or less (Ambient temperature: 25°C reference)	
Material	Case	Resin case
	Pressure sensing section	Sensor pressure receiving area: Silicon, O-ring: HNBR
Lead wire	Oilproof heavy-duty cable 2.7 x 3.2 mm (Elliptic), 0.15 mm ² 3 cores 3 m	

Digital Pressure Switch for Vacuum/ZK2-ZS□□□□-A (Refer to the ZSE/ISE10 series in Best Pneumatics No.6 and the Operation Manual for details.)

Model (Switch unit: Standard model number)	ZK2-ZSE□□□□-A (ZSE10)	ZK2-ZSF□□□□-A (ZSE10F)
Rated pressure range	0 to -101 kPa	-100 to 100 kPa
Set pressure range/Pressure display range	10 to -105 kPa	-105 to 105 kPa
Proof pressure	500 kPa	
Minimum setting unit	0.1 kPa	
Applicable fluid	Air/Non-corrosive gas/Incombustible gas	
Power supply voltage	12 to 24 VDC ±10%, Ripple (p-p) 10% or less (Protected against reverse connection)	
Current consumption	40 mA or less	
Switch output	NPN or PNP open collector 2 outputs (selectable)	
	Maximum load current	80 mA
	Maximum applied voltage	28 V (with NPN output)
	Residual voltage	2 V or less (with load current at 80 mA)
	Response time	2.5 ms or less (Anti-chattering function working: 20, 100, 500, 1000 or 2000 ms selected)
	Short circuit protection	Yes
Repeatability	±0.2% F.S. ±1 digit	
Hysteresis	Hysteresis mode	Variable (0 or above) ^{Note)}
	Window comparator mode	
Display	3 1/2 digit, 7-segment LED, 1-color display (Red)	
Display accuracy	±2% F.S. ±1 digit (Ambient temperature at 25 ±3°C)	
Indicator light	Lights up when output is turned ON. OUT1: Green, OUT2: Red	
Environmental resistance	Enclosure	IP40
	Operating temperature range	Operating: -5 to 50°C, Storage: -10 to 60°C (with no freezing or condensation)
	Operating humidity range	Operating/Storage: 35 to 85% RH (with no condensation)
	Withstand voltage	1000 VAC for 1 minute between terminals and housing
	Insulation resistance	50 MΩ or more (500 VDC measured via megohmmeter) between terminals and housing
	Vibration resistance	10 to 150 Hz at whichever is smaller of 1.5 mm amplitude or 20 m/s ² , in X, Y, Z directions, for 2 hours each (De-energized)
Impact resistance	100 m/s ² in X, Y, Z directions, 3 times each (De-energized)	
Temperature characteristics	±2% F.S. (at 25°C in an operating temperature range of -5 and 50°C)	
Lead wire	Oilproof heavy-duty vinyl cable 5 cores, Cross section: 0.15 mm ² (AWG26), Insulator O.D.: 1.0 mm	
Standards	Compliant with CE marking, RoHS	

Note) If the applied voltage fluctuates around the set value, the hysteresis must be set to a value more than the fluctuating width, otherwise, chattering will occur.

How to Order

Specifications/
Flow-rate Characteristics

Port Layout

Construction

Exploded View of Manifold

Dimensions

Specific Product Precautions