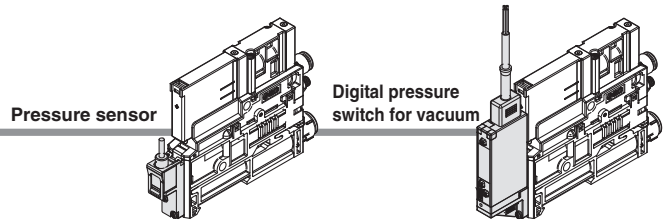


Pressure Sensor/Digital Pressure Switch for Vacuum Specifications



Pressure Sensor/ZK2-PS□-A (Refer to the PSE series in Best Pneumatics No. 6 and 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 individual catalog ZSE/ISE10 series and 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