

PIEZORESISTIVE CERAMIC PRESSURE SENSOR

FEATURES:

- Ceramic thick film integrated piezoresistive technology, excellent performance, small size, flexible packaging
- Corrosion resistance, direct contact and measurement of corrosive media without isolation
- As a pressure sensor, it is easy to integrate with the transducer electronic circuit
- High reliability, good stability, low cost, can be mass production
- Meet EU directive 2002/95/EC on limits on toxic and hazardous substances requirement

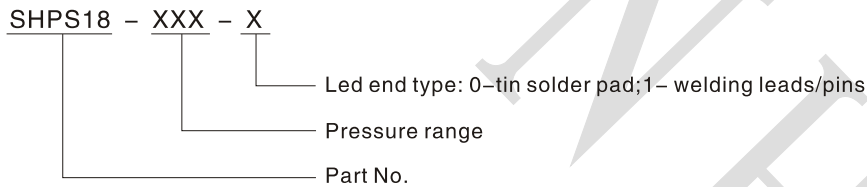
APPLICATION:

It is widely used for measuring pressure, hydraulic pressure and water level in automobile, petrochemical, metallurgy, electric power and hydrology industries. In addition, with the development of electromechanical integration and information technology, it is also widely applied in the fields of aerodynamic devices, medical treatment and household appliances, such as air compressor, fork lift, brake system, tire pressure test, medical equipment, cold storage system, water dispenser, battery power supply equipment etc.

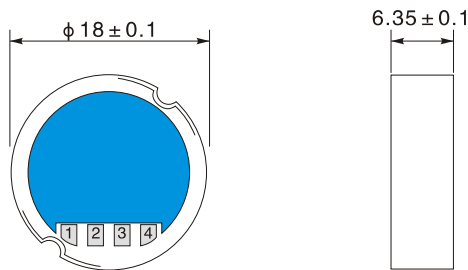
ENVIRONMENTAL PARAMETERS:

Direct contact with dielectric material: $Al_2O_3-96\%$
 Operating temperature range: $-40\text{ }^\circ\text{C} \sim 80\text{ }^\circ\text{C}$ ($-40\text{ }^\circ\text{C} \sim 125\text{ }^\circ\text{C}$ optional)
 Storage temperature range: $-40\text{ }^\circ\text{C} \sim 150\text{ }^\circ\text{C}$
 Temperature drift (zero and full scale)
 $\leq \pm 0.03\% \text{ FS} / \text{ }^\circ\text{C}$ or less (pressure range scope: 2 bar to 200 bar)
 $\leq \pm 0.04\% \text{ FS} / \text{ }^\circ\text{C}$ or less (pressure range scope: 400 bar to 600 bar)

NOMENCLATURE:



CONTOUR SIZE:



Pins	Symbol	Describe
1	+E	Excitation voltage +
2	V ₀₊	Output -
3	-E	Excitation voltage -
4	V ₀₋	Output +

PIEZORESISTIVE CERAMIC PRESSURE SENSOR**ELECTRICAL PARAMETERS:**

Maximum excitation voltage: 30Vdc
Bridge road impedance: $11K\Omega \pm 30\%$
Zero offset: $\leq \pm 0.4mV$
Output signal: 1.5~3mV/V
Comprehensive precision: $<0.2\sim 1.5\%FS$
Dielectric strength: $>2KV$
Zero long-term stability: $\pm 0.25\%FS0$ typ(20°C)

P/N	Pressure range (bar)	Pressure overload (bar)	Destructive pressure (bar)
SHPS18-001	0~1	2	4
SHPS18-002	0~2	4	5
SHPS18-005	0~5	10	12
SHPS18-010	0~10	20	25
SHPS18-020	0~20	40	50
SHPS18-030	0~30	60	80
SHPS18-050	0~50	100	125
SHPS18-100	0~100	200	250
SHPS18-200	0~200	400	500
SHPS18-400	0~400	600	700
SHPS18-600	0~600	800	900

Note: Other ranges can be customized according to customer requirements