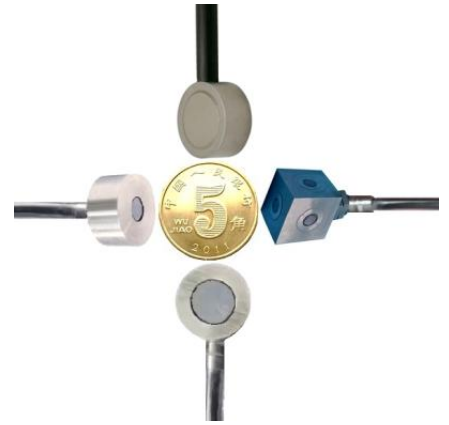


HC-16 Micro Soil Stress Sensor

Product Introduction

Due to the necessity of insitu pressure measurement of the measured flow field,placement position,or dynamic frequency response,there are often severe requirements for the miniaturization of the sensor's external dimensions.HC-16 series miniature pressure sensors and transmitters are designed for the above working conditions.The series uses advanced micromachined silicon diaphragm as the core component, highprecision integrated pressure resistance sensor,and utilizes international advanced miniaturization.The manufacturing and packaging process is performed in an elaborate and delicate miniature package.Its small size,light weight, durability,and excellent dynamic and static characteristics.



Features of Product

- ☆ High precision, up to 0.1% FS
- ☆ Dynamic pressure sensor , High frequency dynamic response: 20KHz~2MHz
- ☆ Small size, small diameter to ϕ 10mm, thickness 6.8mm
- ☆ Good long-term stability, resistant to all kinds of worse condition
- ☆ Wide range of temperature, from -40°C to $+120^{\circ}\text{C}$ (up to $+175^{\circ}\text{C}$ specially)
- ☆ Good medium compatibility, may be used for all kinds of corrosive medium.
- ☆ Wide scale of measurement, any scale from 10KPa to 100MPa (The range can be freely selected between 10Kpa and 100Mpa)
- ☆ May specially be customized according to the customer's requirements: Range size, external dimensions, performance parameters, accuracy level, output type, cable length and other parameters can all be customized.

Product Parameters

Measuring range	10KPa~100MPa(Choose between 10Kpa~100Mpa)
Overloading capacity	1.2~5 times FS (Overload is determined by the range)
Pressure type	Gauge pressure or absolute pressure
Medium to be measured	The gas or liquid compatible with 316 stainless steel
Accuracy	0.1% FS,0.2% FS,0.3% FS
Long-term stability	Typical: $\pm 0.1\%$ FS /year,Maximum: $\pm 2\%$ FS/year
Operating temperature	$-40^{\circ}\text{C}\sim 85^{\circ}\text{C}$ (generally), $-40^{\circ}\text{C}\sim 125^{\circ}\text{C}$ (Specially)
Zero point temperature drifting	Typical: $\pm 0.02\%$ FS/ $^{\circ}\text{C}$,Maximum: $\pm 0.05\%$ FS/ $^{\circ}\text{C}$
Sensitivity temperature drifting	Typical: $\pm 0.02\%$ FS/ $^{\circ}\text{C}$,Maximum: $\pm 0.05\%$ FS/ $^{\circ}\text{C}$
Range of power supplying	5VDC, $\pm 15\text{VDC}$,9~32VDC(24VDC generally)
Signal output	mV output /4~20mA/0~5VDC/RS485 //Customized
Intrinsic frequency	20KHz~2MHz

Enclosure protective degree	IP68
Resolution	Infinite small(theoretical) 1/100000 (general)
Port and enclosure	Stainless steel(1Cr18Ni9Ti)

Application of Product

☆This series of products is particularly suitable for model tests and on-site applications such as geotechnical experiments, landslide and debris flow experiments, and blasting shock wave experiments. It is widely used in various fields such as civil engineering, geotechnical mechanics, and earthquake monitoring.

Guideline of Selection

HC-16	Micro Pressure Sensor and Transducer	
	Code	Type of pressure
	g	Gauge pressure (may not be indicated)
	a	Absolute pressure
	Range	Choose any measurement range between -100KPa and 100MPa
		Code
		Code cable length
	L1	standard configuration 3m
	L2	custom length
		Code
		Overall accuracy(linear+ repeatability+ lagging)
	1	±0.3%FS
	2	±0.2%FS
	3	±0.1%FS
		Code
		Signal Output
	A1	4~20mA
	V1	mV output
	V2	0~5V
	RS	RS485
	V0	Customized output signal
		Code
		Additional functions
	F1	M10*1 external thread
	F2	Φ20*10 Input type
	F3	Φ15 *10 Input type
	F4	Φ15*6.8 Input type
	F0	Special customized sensor

HC-16 - g- 0~50Kpa - L1 - 2 - V2 - F2

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