SCS19 High Precision Pressure Sensor



Product Introduction

SCS19 series pressure sensor adopts medium isolation type package. This series of sensors is designed based on harsh application environment. The pressure -sensitive chip is encapsulated in a cavity filled with silicone oil, and the cavity is composed of a corrugated diaphragm and a stainless steel shell seal. This series of sensors covers the pressure measurement range of 0~70MPa, and can provide three types of pressure measurement: absolute pressure (A), gauge pressure (G) and sealed gauge pressure (S). SCS19 series sensors have the advantages of high repeatability, high reliability and wide operating temperature range.

Features



Dielectric Isolation Package



Operating Temperature Range:-55~180℃



High Reliability



Absolute Pressure, Gauge Pressure and Sealing Gauge Pressure are Optional

Application



Process Control System



Hydraulic System and Valves



Oil Drilling



Industrial Automation

Technical Indicators

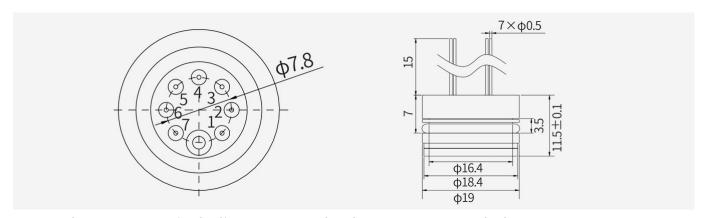
Standard Range							
Range Code	Pressure Range	Туре	Notes				
15K0	0∼15kPa	G/A	2psi				
35K0	0~35kPa	G/A	5psi				
100K	0~100kPa	G/A	15psi				
200K	0~200kPa	G/A	30psi				
350K	0~350kPa	G/A	50psi				
700K	0~700kPa	G/A	100psi				
01M0	0~1MPa	G/A	150psi				
02M0	0~2MPa	G/A	300psi				
03M5	0~3.5MPa	G/S/A	500psi				
07M0	0~7MPa	S/A	1000psi				
10M0	0~10MPa	S/A	1500psi				
20M0	0~20MPa	S/A	3000psi				
35M0	0~35MPa	S/A	5000psi				
70M0	0~70MPa	S/A	10000psi				
Max Overload Pressure	2	Rated Pressure					

Electrical Performance						
Parameter	Numerical Value	Unit				
Excitation	2~10	V				
EXCITATION	0.2~2	mA				
Bridge Resistance	3~7.5	kΩ				

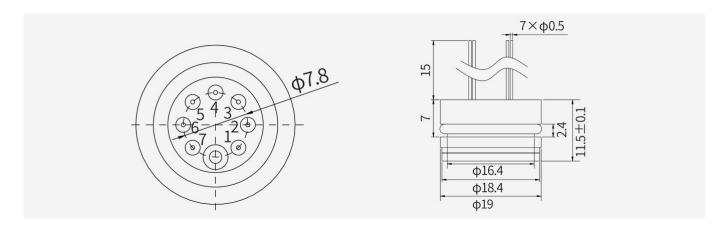
Performance Parameter							
Parameter	Minimum	Typical	Maximum	Unit	Notes		
Repeatability	0.02	0.05	0.1	%FSO	2		
Linearity	0.05	0.1	0.15	%FSO	1		
Hysteresis	0.02	0.05	0.1	%FSO	2		
Zero Temperature Haysteresis	0.01	0.05	0.15	%FSO	2		
Full Temperature Hysteresis	0.01	0.05	0.15	%FSO	2		
Full Scale Span	45	75	175	mV	2		
Zero Temperature Coefficient (TCO)	20	260	600	ppm/°C	2		
Sensitivity Temperature Coefficient (TCS)	-1400	-1900	-2500	ppm/°C			
Mixing Temperature Coefficient (TCS+TCR)	-400	-700	-1100	ppm/℃	2		

Notes: 1. Least squares fit straight line; 2. 1.5mA power supply; 3. Reference temperature is 25°C; 4. S: sealing pressure; A: absolute pressure; G: gauge pressure;

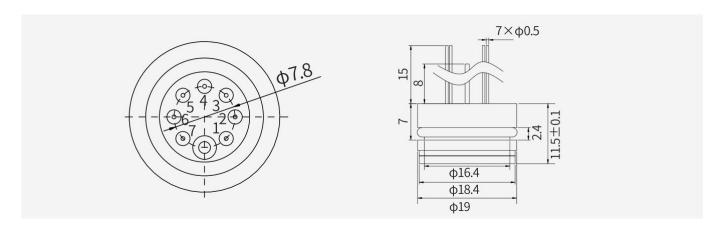
Overall Dimension



Above 10MPa (including 10MPa) absolute pressure/sealed gauge pressure



Absolute pressure/sealed gauge pressure below 10MPa



Gauge pressure below 10MPa