



Model PSC629 Flat Package Pressure Sensor for Low to Medium Pressure Industry and General Purpose Applications

PSC629 Pressure Sensor incorporates a piezoresistive oil filled sensor capsule in a low profile form factor that provides media isolation and robust construction. The structure is well suited for use in harsh media environments and chemical applications as the media is in contact with stainless steel diaphragm and the O-ring isolates the media from the electronics. This product comes with following configurations: resistor compensated mV output or non-compensated mV output. ASIC compensated Analog 0.5V to 4.5V. ASIC compensated Digital I2C output.

The sensor's package is designed to incorporate an O-ring seal to ease application into the target system. These sensors are available in Absolute and Gauge reference configuration. Wetted parts is 316 stainless steel.



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Mechanical Configuration	
Media	Compatible With 316 stainless steel
Housing	316 stainless steel
Wetted Material	316 stainless steel



PSC621 Ordering Model NO.: PSC629X-Y-Z		
X	Y	Z
Output Type	Pressure Type	Pressure Range
A = 0.5 to 4.5 VDC	A = Absolute Pressure	1 = 0 to 5 PSIA/G
D = I ² C digital output	G = Gauge Pressure	2 = 0 to 15 PSIA/G
M = mV		3 = 0 to 30 PSIA/G
		4 = 0 to 50 PSIA/G
		5 = 0 to 100 PSIA/G
		6 = 0 to 150 PSIA/G

Structure reference (Unit: Inch[mm])

*custom design pressure ranges are available

Electrical data	PSC629A	PSC629D	PSC629M			
			Min.	Typ.	Max.	Unit & Note
Excitation				5	10	
Supply Voltage	4.75 to 5.25 VDC	3 VDC				
Output	0.5 to 4.5 VDC (Ratiometric)	I ² C (0x28 Fixed and Locked)				
Impedance			4000	5000	6000	Ω
Update Rate	1.5 ms	1.5 ms				
Clock Frequency		4 MHz				
Temperature Calculation		Temp output [C] = (High_Temp [7:0] x 8 + Low_Temp [7:5] / 2 ¹¹ x 200-50)				
Current Consumption	<3 mA	<2.5 mA	<3 mA			
Performance (specified @ 25 °C)						
Accuracy (Best fit straight line)	± 0.25% FS	± 0.25% FS				
Zero/Span Offset Tolerance	± 2.0%	± 1.5%				
Stability (typical)	< ±0.25% full scale per year	< ±0.25% full scale per year	-0.2	0	0.2	%FSO
Compensated Temperature Range	0°C~55°C	0°C~50°C	0°C~50°C			
Operating Temperature Range	-40°C~85°C	-30°C~100°C	-30°C~100°C			
Storage Temperature Range	-40°C~125°C	-40°C~125°C	-40°C~125°C			
Burst Pressure	3 X Full Scale	3 X Full Scale	3 X Full Scale			
Proof Pressure	2 X Full Scale	2 X Full Scale				
Fatigue Life	4 million full scale cycles	1 million full scale cycles				
Offset			-10	0	10	mV/V(Zero Pressure,Gauge,@25°C)
Non-Linearity			-0.2	0	0.2	%FSO (BFSL,@25°C)
Pressure Hysteresis			-0.1	0	0.1	%FSO (@25°C)
Temp Coeff-Zero			-25	0	25	μV/V/C(-40°C~150°C)
Temp Coeff-Resistance			2300	2800	3300	PPM/C(-40°C~150°C)
Temp Coeff-Sensitivity			-1500	-2200	-2500	PPM/C(-40°C~150°C)

