

## Model DP86



- 316L SS
- 0 - 100mV Output
- Wet/Wet Differential
- Low Pressure

### DESCRIPTION

The Model DP86 differential pressure sensor is a double-sided, media compatible, piezoresistive silicon pressure sensor packaged in a 316L stainless steel housing. The DP86 is designed for o-ring mounting. The sensing package utilizes silicone oil to transfer pressure from the two 316L stainless steel diaphragms to a single sensing element.

The Model DP86 is designed for high performance, low pressure applications where differential pressure measurement is required. The stainless steel package makes it suitable for use in liquids and corrosive environments.

### FEATURES

- O-Ring Mount
- -20°C to +125°C Operating Range
- $\pm 0.1\%$  Pressure Non Linearity
- Solid State Reliability
- Low Pressure

### APPLICATIONS

- Level Controls
- Tank Level Measurement
- OEM Equipment
- Corrosive Fluids and Gas Measurement Systems
- Flow Measurements

### STANDARD RANGES

Range	psid
0 to 5	•
0 to 15	•
0 to 30	•
0 to 50	•
0 to 100	•
0 to 300	•
0 to 500	•

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## PERFORMANCE SPECIFICATIONS

Supply Current: 1.5mA

Ambient Temperature: 25 °C (unless otherwise specified)

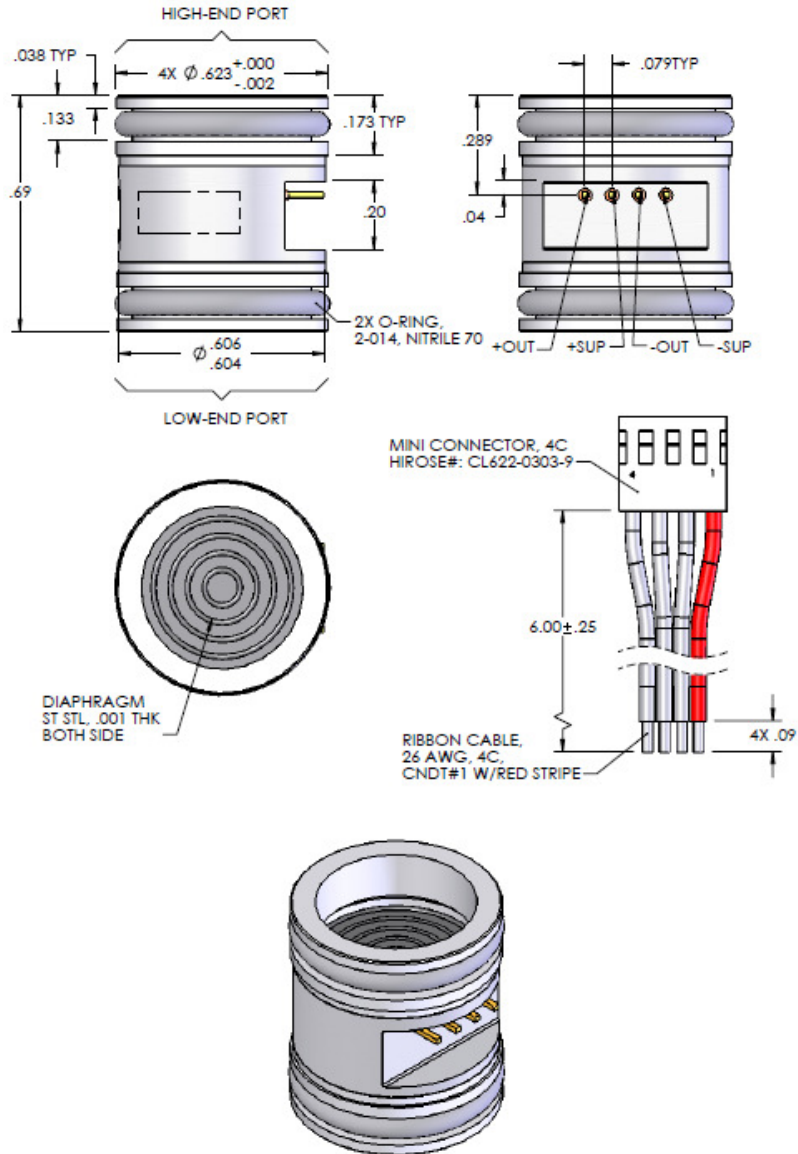
PARAMETERS	MIN	TYP	MAX	UNITS	NOTES
Sensitivity (5psi)	12.5	19.5	26.5	mV/V FS	
Sensitivity (15 – 500psi)	13.2	20	26.5	mV/V FS	
Zero Pressure Output	-6	0	8	mV/V	
Pressure Non-Linearity (5psi)	-0.25		0.25	%Span	1
Pressure Non-Linearity (15 – 500psi)	-0.10		0.10	%Span	1
Pressure Hysteresis (5psi)	-0.10		0.10	%Span	
Pressure Hysteresis (15 – 500psi)	-0.05		0.05	%Span	
Input/Output Resistance	3800	4400	5800	Ω	
Temperature Coefficient – Span	-1450	-1250	-1000	ppm/°C	2
Temperature Coefficient – Zero		1		uV/V/°C	2
Temperature Coefficient – Resistance	1300	1510	1750	ppm/°C	2
Thermal Hysteresis – Span	-0.25		0.25	% Span	2
Thermal Hysteresis – Zero	-0.25		0.25	% Span	2
Supply Current			1.5	mA	
Insulation Resistance (50Vdc)	50			MΩ	3
Output Load Resistance	5			MΩ	
Pressure Overload			3X	Rated	
Line (common mode) pressure			1000	psi	
Line Pressure Effect on Zero (5 psi)			0.8	%Span/1k psi	
Line Pressure Effect on Zero (15 – 500 psi)			0.5	%Span/1k psi	
Operating Temperature	-20		+125	°C	4
Storage Temperature	-50		+150	°C	4
Weight			24	grams	
Media – Pressure Port					Liquids and Gases, Compatible with 316L Stainless Steel and Nitrile

### Notes

1. Best fit straight line.
2. Over the temperature -20 °C to +85 °C.
3. Between case and pins.
4. Maximum temperature for cable and connector is -20 °C to +105 °C.

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## DIMENSIONS



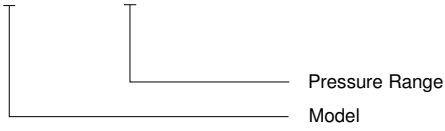
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## ORDERING INFORMATION

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