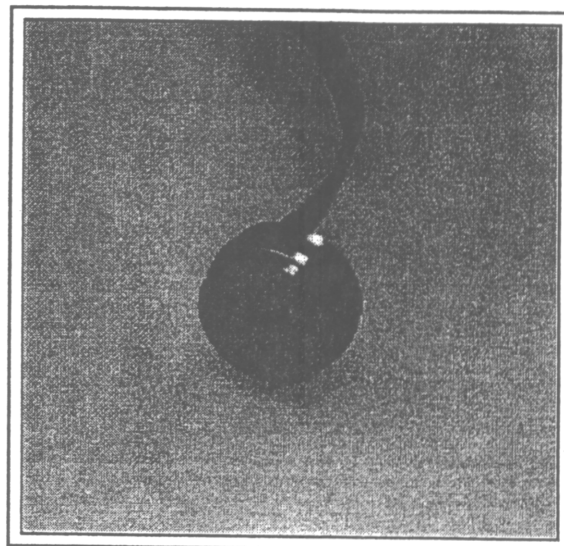


NPI-12 Stainless Steel Media Isolated Sensor

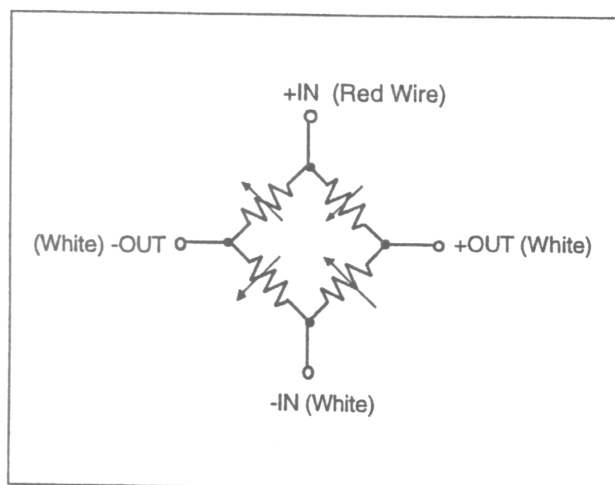
The NPI-12 series of solid state, media isolated pressure sensors are designed to provide a cost effective solution for applications that detect tube blockages and pump performance. The NPI-12 is intended to mount adjacent to flexible tubing to sense tube expansion. Cleanliness is assured with the NPI-12's stainless steel finish.

The NPI-12 Incorporates state-of-the-art IsoSensor technology, which gives the OEM user the best in price and performance. They are designed to operate in hostile environments while providing outstanding sensitivity, linearity and hysteresis. The piezoresistive sensor chip is housed in a fluid-filled cavity and isolated from the measured media by a stainless steel diaphragm and body. As with all on NovaSensor® silicon sensors, the NPI-12 employs SenStable® processing technology, which provides excellent output stability.

The NPI-12 offers many features with superior performance. The pressure sensitivity is calibrated at 0.20 ± 0.01 mV/V/psi. The combined errors of linearity, pressure hysteresis, repeatability and temperature are less than ± 4 %FSO. The maximum overpressure is 50 psig. A five volt excitation is needed to supply power to the device. The operating temperature range for the NPI-12 is $+10^{\circ}\text{C}$ to $+40^{\circ}\text{C}$, while the storage temperature is -40°C to $+70^{\circ}\text{C}$. Electrical connection is accomplished with a 4 pin connector that accepts standard .025 inch square posts on .100 inch centers. A red wire allows for easy recognition of connector orientation.



SCHEMATIC DIAGRAM



APPLICATIONS

- Low-cost media isolation
- Peristaltic Pumps
- Infusion Pumps
- Medical equipment
- Occlusion Detection

FEATURES

- Low-cost media isolation
- 20 mV/V/psi Sensitivity
- $\pm 0.1\%$ accuracy
- Operating Temperature 10°C to 40°C
- 5 VDC excitation
- Four Pin Connector
- Solid state reliability

HOW TO ORDER:

Part Number	Description
NPI-12-101GH	15 Psig

Specifications and Package Diagram

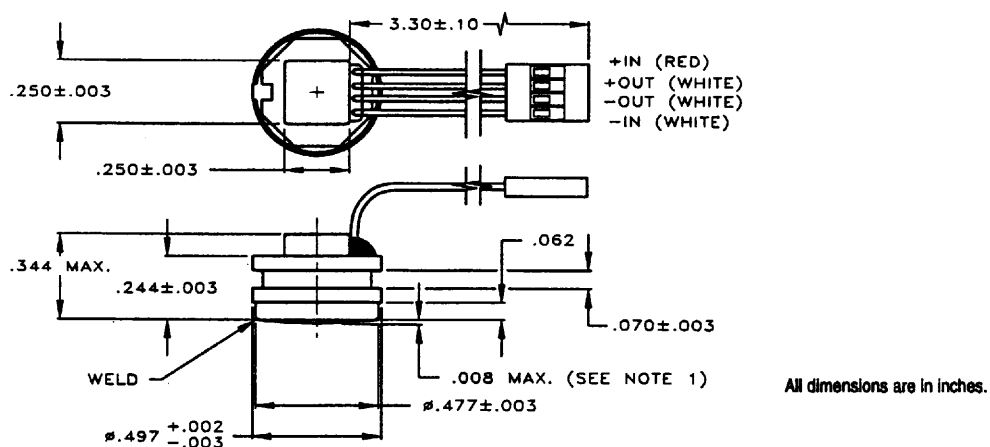
SUNSTAR传感与控制 <http://www.sensor-ic.com/> TEL: 0755-83376549 FAX: 0755-83376182 E-MAIL: szss20@163.com

PARAMETER	VALUE	UNITS	NOTES		
GENERAL					
Pressure Range	15	psig			
Maximum Overpressure	50	psig			
ELECTRICAL @ 25°C (77°F) unless otherwise stated					
Excitation	5.0	volts			
ENVIRONMENTAL					
Temperature Range					
Operating	+10 to +40	°C	+50 to +104°F		
Storage	-40 to +70(Dry)	°C			
MECHANICAL					
Weight	5	grams			
Media Compatibility	316L Stainless Steel				
Diaphragm Dome Height	.000 to .008	inch	1		
PERFORMANCE PARAMETERS (Note 2)					
	Units	Min.	Typ.	Max.	Notes
Zero Pressure Output	±%FSO	—	—	5	
Sensitivity	mV/V/psi	0.19	0.20	0.21	
Linearity, Hysteresis, Temperature Errors	±%FSO	—	—	4.0	3
Response Time (10% to 90%)	ms	—	1.0	—	4

Notes:

1. Maximum change in diaphragm height relative to the edge of the sensor.
2. Supply current = 5 VDC and ambient temperature = 25°C, unless otherwise noted.
3. Best fit straight line
4. For a zero-to-full scale pressure step change.

PACKAGE DIAGRAM



Sales Terms:
Warranty:

NovaSensor standard sales terms apply. Prices and specifications are subject to change without notice.
NovaSensor warrants its products against defects in material and workmanship for 12 months from date of shipment. Products not subjected to misuse will be repaired or replaced. THE FOREGOING IS IN LIEU OF ANY OTHER EXPRESSED OR IMPLIED WARRANTIES. NovaSensor reserves the right to make changes to any product herein and assumes no liability arising out of the application or use of any product or circuit described or referenced herein.



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