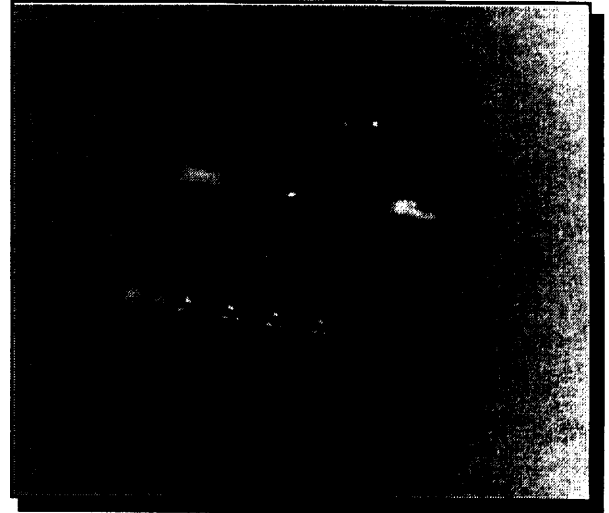


# NPC-1210

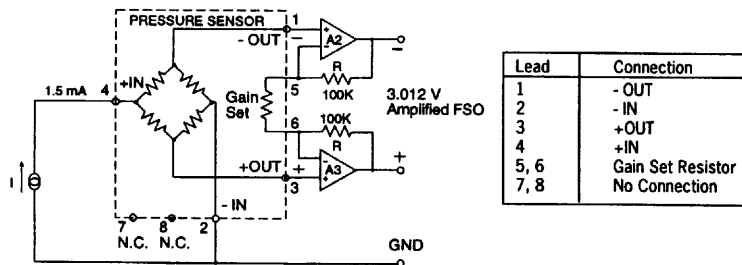
## Low Pressure Series

The NPC-1210 low pressure series of solid state pressure sensors are designed to provide the same cost effective solution as NovaSensor®'s other NPC-1210 pressure ranges. Packaged in a dual-in-line configuration, this NPC-1210 series is intended for printed circuit board mounting. Optional pressure port and lead configurations give superior flexibility in low profile applications where pressure connection orientation is critical.

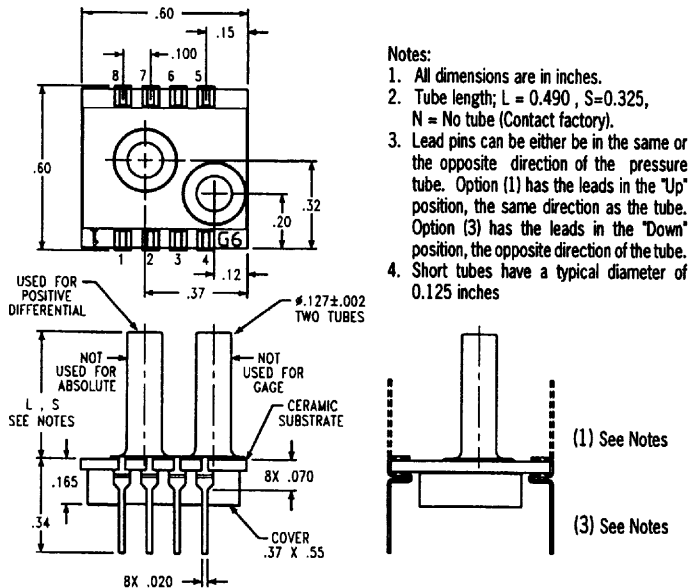
The NPC-1210 series is based on NovaSensor®'s advanced SenStable® piezoresistive sensing technology. Silicon micromachining techniques are used to ion implant piezoresistive strain gages into a Wheatstone bridge configuration. The NPC-1210 offers the added advantage of superior temperature performance over the temperature compensated range of 0°C to +60°C. A gain set resistor is included to provide field interchangeability. The low pressure NPC-1210 series is available in pressure ranges from 0 to 10 inches of water to 0 to 1 psi. Please contact the factory for other pressure ranges.



### Schematic Diagram



### Package Diagram



### APPLICATIONS

- Ventilation
- Air flow monitors
- Process control
- Respirators
- Medical equipment

### FEATURES

- ±0.5% static accuracy
- Interchangeable
- Temperature Compensated 0°C to 60°C
- PCB mountable package
- Media compatible
- DIP package
- Solid state reliability
- Individual device traceability

### PRESSURE RANGES

- Gauge and Differential  
10 inch H<sub>2</sub>O and 1 psi

# NPC-1210 Low Pressure Specification

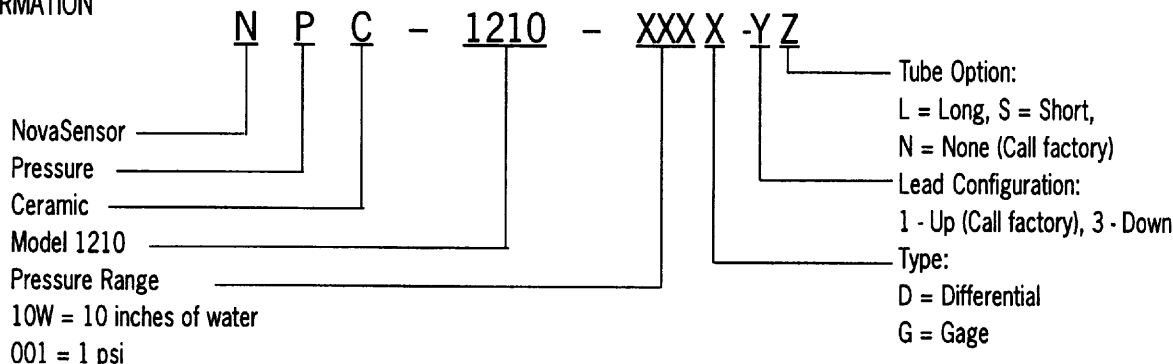
SUNSTAR 传感与控制 <http://www.sensor-ic.com/> TEL: 0755-83376549 FAX: 0755-83376182 E-MAIL: szss20@163.com

PARAMETER	VALUE	UNITS	NOTES		
<b>ENVIRONMENTAL</b>					
Temperature Operating	-40 to +125	°C	-40 to +257°F		
Compensated	0 to +60	°C	+32 to +140°F		
Storage	-55 to +150	°C	-67 to +302°F		
<b>MECHANICAL</b>					
Weight	2.5	grams			
Media Compatibility:	Positive differential and gage ports Absolute, negative differential ports	Dry gases only Dry gases only	6		
<b>PERFORMANCE (Note 1)</b>					
Parameter	Units	Min.	Typ.	Max.	Notes
Full Scale Output (FSO) 10 inch	mV	25	50	70	2, 3
Full Scale Output (FSO) 1 psi	mV	50	75	110	2, 3
Zero Pressure Output	mV	-2	—	2	3
Linearity	%FSO	-0.5	—	0.5	4
Zero Pressure Repeatability	%FSO	-0.1	—	0.1	
Input Impedance	Ω	2500	4000	6000	
Output Impedance	Ω	4000	5000	6000	
Thermal Accuracy-Span	%FSO	-1.0	—	1.0	3, 5
Thermal Accuracy-Zero	%FSO	-1.25	—	1.25	3, 5
Temperature Coefficient-Resistance	%/°C	—	0.22	—	5
Thermal Hysteresis-Zero	%FSO	—	0.1	—	5
Pressure Overload	psi	5	—	—	6
Stability	μV/V	—	5	—	7

**Notes:**

- Supply current = 1.5mA and ambient temperature = 25°C, unless otherwise noted.
- Output span of unamplified sensor.
- Compensation resistors are an integral part of the sensor package; no additional external resistors are required. Pins 7 and 8 must be kept open. The NPC-1210 is interchangeable only when used with the gain set resistor shown in the Schematic Diagram. Maximum gain-set mismatch is 2%
- Best fit straight line
- Temperature range 0-60°C, reference to 25°C.
- Wetted materials are ceramic, silicon, epoxy, RTV and nickel.
- 100 hours at 40°C

**ORDERING INFORMATION**



**Sales Terms:** NovaSensor standard sales terms apply. Prices and specifications are subject to change without notice.

**Warranty:** 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.



NovaSensor

SM0049 Rev. A

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