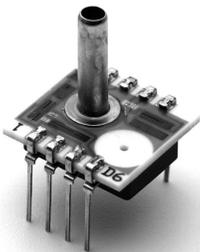




## GE NovaSensor

### NPC-1210 Series Medium Pressure



#### Description

The NPC-1210 series of solid state pressure sensors are designed to provide a cost effective solution for applications that require calibrated performance over a wide temperature range. Packaged in a dual-in-line configuration, the 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 normalize the FSO for field interchangeability. Additionally, the NPC-1210 series is available in pressure ranges from 0 to 5 through 0 to 100 psi. Please contact NovaSensor for other pressure ranges.

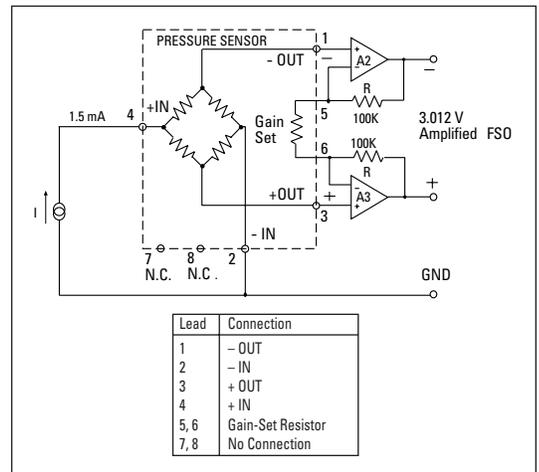
#### Features

- 100 mV Full-scale Output
- ±0.1% accuracy
- Interchangeable
- Temperature Compensated 0°C to 60°C
- PCB mountable package
- DIP package
- Solid state reliability
- Individual device traceability

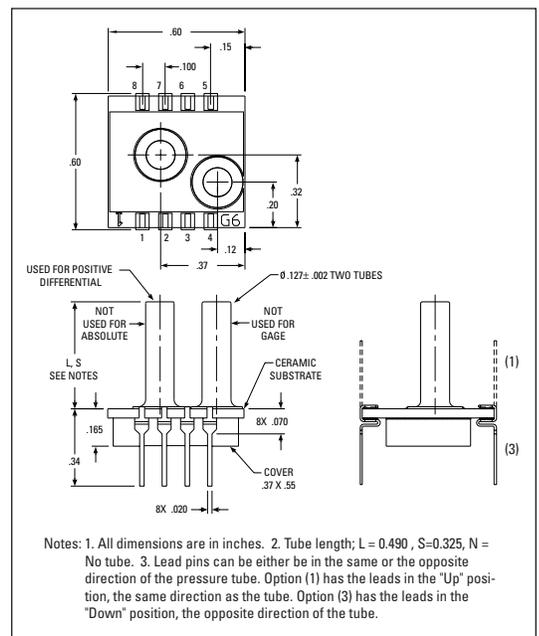
#### Applications

- Industrial automation
- Air flow monitors
- Process control
- Medical equipment
- Underground cable leak detection

#### Schematic Diagram



#### Package Diagram



#### Pressure Ranges

- Gauge and differential  
5, 15, 30, 50 and 100psi
- Absolute: 15, 30, 50 and 100psi  
(5psi: call NovaSensor)

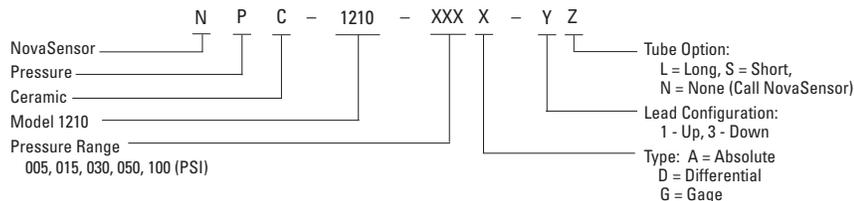
# Specifications

Parameter	Value	Units	Notes
<b>Environmental</b>			
Temperature Range			
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	Compatible with exposed materials		7
Positive differential and gage ports	Dry gases only		
Absolute, negative differential ports	Dry gases only		

Parameter	Units	Min.	Typ.	Max.	Notes
<b>Performance Parameters (Note 1)</b>					
Full Scale Output (FSO)	mV	75	100	150	2, 3
Zero Pressure Output	±mV	—	—	2	3
Linearity	±%FSO	—	—	0.1	4, 8
Pressure Hysteresis	±%FSO	—	—	0.1	
Input Impedance	Ω	2500	4000	6000	
Output Impedance	Ω	4000	5000	6000	
Thermal Accuracy-Span	±%FSO	—	—	0.5	3, 5, 8
Thermal Accuracy-Zero	±%FSO	—	—	0.5	3, 5, 8
Temperature Coefficient-Resistance	%/°C	—	0.2	—	5
Thermal Hysteresis-Zero	±%FSO	—	0.1	—	5
Input Excitation	mA	—	1.5	2.0	
Pressure Overload	Rated	—	—	3X	6

Notes: 1. Supply current = 1.5mA and ambient temperature = 25°C, unless otherwise noted. 2. Output span of unamplified sensor.  
 3. 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 resistor mismatch is 2%. 4. Best fit straight line 5. Temperature range 0-60°C, reference to 25°C. 6. 3X or 200 psi maximum, whichever is less. 7. Exposed materials are pyrex, ceramic, silicon, epoxy, RTV and stainless steel. 8. 5 PSI spec.: Linearity: 0.25 ±%FSO, TC-span: 0.75 ±%FSO, TC-zero: 0.75 ±%FSO.

## Ordering Information



**GE NovaSensor**



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

**Warranty:**  
 GE NovaSensor warrants its products against defects in material and workmanship for 12 months from the date of shipment. Products not subjected to misuse will be repaired or replaced. GE NovaSensor reserves the right to make changes without further notice to any products herein. GE NovaSensor makes no warranty, representation or guarantee regarding the suitability of its products for any particular application, nor does GE NovaSensor assume any liability arising out of the application or use of any product or circuit and specifically disclaims and all liability without limitation consequential or incidental damages. The foregoing warranties are exclusive and in lieu of all other warranties, whether written, oral, implied or statutory. NO IMPLIED STATUTORY WARRANTY OF MERCHANTABILITY OR FITNESS FOR PARTICULAR PURPOSE SHALL APPLY.

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