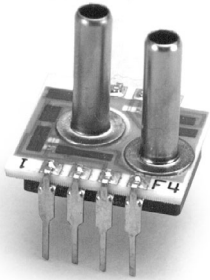




GE NovaSensor

NPC-1210 Series

Low Pressure



Description

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.

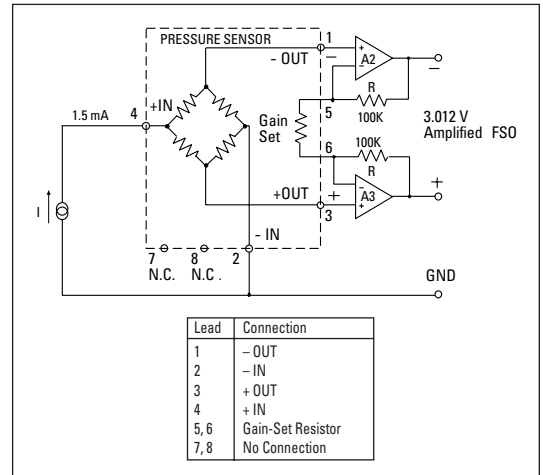
Features

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

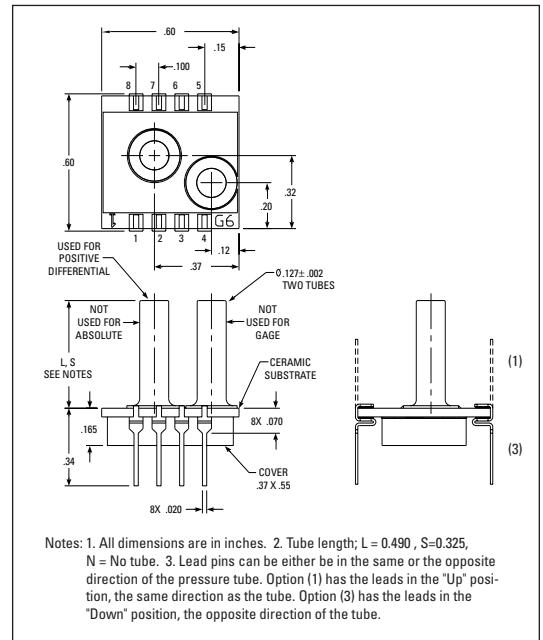
Applications

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

Schematic Diagram



Package Diagram



Pressure Ranges

- Gauge and differential
10 inch H2O, 1 psi

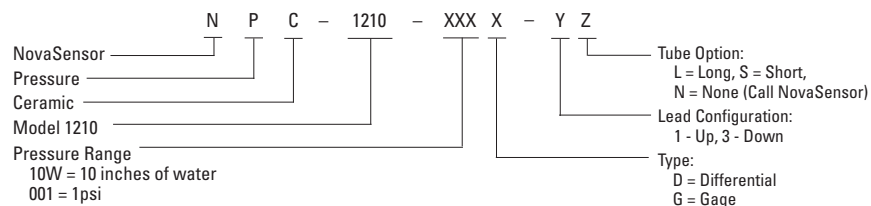
Specifications

Parameter	Value	Units	Notes
Environmental			
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
Mechanical			
Weight	2.5	grams	
Media Compatibility			
Positive differential and gage ports	Compatible with exposed materials		6
Negative differential ports	Dry gases only		

Parameter (Note 1)	Units	Min.	Typ.	Max.	Notes
Performance Parameters					
Full Scale Output (FSO) 10 inch	mV	25	50	70	2, 3
Full Scale Output (FSO) 1psi	mV	50	75	110	2, 3
Zero Pressure Output	mV	-2	—	2	3
Linearity	%FSO	-0.5	—	0.5	4
Pressure Hysteresis	%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	—	—	
Stability	μV/V	—	5	—	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. Exposed materials are ceramic, silicon, epoxy, RTV and stainless steel.

Ordering Information



GE NovaSensor



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 the date of shipment. Products not subjected to misuse will be repaired or replaced. NovaSensor reserves the right to make changes without further notice to any products herein. NovaSensor makes no warranty, representation or guarantee regarding the suitability of its products for any particular application, nor does 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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