

## Features

- 50 mV full scale output (FSO)
  - $\pm 0.1\%$  accuracy
  - Interchangeable
  - Temperature compensated 32°F to 140°F (0°C to 60°C)
  - PCB mountable package
  - DIP package
  - Solid state reliability
  - Individual device traceability
- 

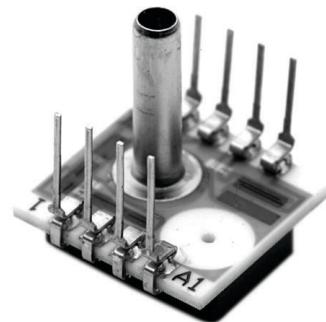
## Applications

- Industrial automation
  - Air flow monitors
  - Process control
  - Medical equipment
  - Underground cable leak detection
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# NPC-1220 Series

## NovaSensor Medium Pressure Sensors

NPC-1220 Series is a NovaSensor product. NovaSensor has joined other GE high-technology sensing businesses under a new name—GE Industrial, Sensing.



*NPC-1220 Series package diagram*

# NPC-1220 Series Specifications

## Pressure Ranges

- Gauge and differential: 5, 15, 30, 50 and 100 psi (0.34, 1.03, 2.06, 3.44 and 6.89 bar)
- Absolute: 15, 30, 50 and 100 psi (1, 2, 3.4 and 7 bar); 5 psi (0.34 bar)—call GE

| Parameter                             | Value                             | Units | Notes             |
|---------------------------------------|-----------------------------------|-------|-------------------|
| <b>Environmental</b>                  |                                   |       |                   |
| Temperature Range                     |                                   |       |                   |
| Operating                             | -40° to 257°                      | °F    | (-40°C to 125°C)  |
| Compensated                           | 32° to 140°                       | °F    | (0°C to 60°C)     |
| Storage                               | -67°F to 302°                     | °F    | (-55°C to 150 °C) |
| <b>Mechanical</b>                     |                                   |       |                   |
| Weight                                | 0.005                             | lb    | (2.5 g)           |
| Media Compatibility                   | Compatible with exposed materials |       |                   |
| Positive differential and gauge ports | Compatible with exposed materials |       |                   |
| Absolute, negative differential ports | Dry gases only                    |       |                   |

| Parameter                          | Units | Minimum | Typical | Maximum | Notes   |
|------------------------------------|-------|---------|---------|---------|---------|
| <b>Performance Parameters *</b>    |       |         |         |         |         |
| FS Output (FSO)                    | mV    | 49.5    | 50      | 50.5    | 2, 3    |
| Zero Pressure Output               | ±mV   | -2      | —       | 2       | 3       |
| Linearity                          | ±%FSO | -0.1    | —       | 0.1     | 4, 8    |
| Pressure Hysteresis                | ±%FSO | -0.1    | —       | 0.1     |         |
| Input Impedance                    | Ω     | 2500    | 4000    | 6000    |         |
| Output Impedance                   | Ω     | 4000    | 5000    | 6000    |         |
| Thermal Accuracy-Span              | %FSO  | -0.5    | —       | 0.5     | 3, 5, 8 |
| Thermal Accuracy-Zero              | %FSO  | -0.5    | —       | 0.5     | 3, 5, 8 |
| Temperature Coefficient-Resistance | %/°C  | —       | 0.2     | —       | 5       |
| Thermal Hysteresis-Zero            | %FSO  | —       | 0.1     | —       | 5       |
| Maximum Pressure                   | Rated | —       | —       | 3X      | 6       |

- \* 1. Ambient temperature = 77°F (25°C), unless otherwise noted.
2. Output span of unamplified sensor using the current set resistor and the circuit shown in the schematic drawing.
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-1220 is interchangeable only when used with the current set resistor shown in the schematic diagram.
4. Best fit straight line.
5. Temperature range 32°F to 140°F (0°C to 60°C), reference to 77°F (25°C).
6. 3X or 200 psi (13.78 bar) maximum, whichever is less.
7. Exposed materials are pyrex, ceramic, silicon, epoxy, RTV, and stainless steel.
8. 5 psi (0.34 bar) spec.:  
Linearity: 0.25 ±%FSO  
TC-span: 0.75 ±%FSO  
TC-zero: 0.75 ±%FSO

## Warranty

GE 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 reserves the right to make changes without further notice to any products herein. GE makes no warranty, representation or guarantee regarding the suitability of its products for any particular application. GE does not 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.

## Ordering Information

The code number to be ordered may be specified as follows:

NPC-1220

### Code Pressure Range

|     |                   |
|-----|-------------------|
| 005 | 005 psi (0.3 bar) |
| 015 | 015 psi (1 bar)   |
| 030 | 030 psi (2 bar)   |
| 050 | 050 psi (3.4 bar) |
| 100 | 100 psi (7 bar)   |

| Code | Type         |
|------|--------------|
| D    | Differential |
| A    | Absolute     |
| G    | Gauge        |

| Code | Lead Configurations |
|------|---------------------|
| 1    | Up                  |
| 3    | Down                |

| Code | Tube Options |
|------|--------------|
| L    | Long         |
| S    | Short        |
| N    | None         |

NPC-1220 - - - - Typical model number



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