

# Uncompensated/Unamplified Millivolt Analog Output

**Table 2. Operating Specifications**

Parameter	Min.	Typ.	Max.	Unit
Supply voltage ( $V_{\text{supply}}$ ) <sup>2</sup>	1.8	5.0 <sup>3</sup>	12.0	Vdc
Supply current (at 5.0 Vdc supply)	–	1.5	2	mA
Specified temperature range <sup>4</sup>	-40 [-40]	–	85 [185]	°C [°F]
Startup time	–	–	5	ms
Accuracy <sup>5</sup>	–	–	±0.25	%FSS BFSL <sup>6</sup>

**Table 3. Environmental Specifications**

Parameter	Characteristic
Humidity	0% to 95% RH, non-condensing
Vibration	MIL-STD-202F, Curve AK (20.7 g random)
Shock	MIL-STD-202F, Method 213B, Condition F
Life <sup>7</sup>	1 million pressure cycles minimum
Solder reflow	J-STD-020-C

**Table 4. Wetted Materials<sup>8</sup>**

Parameter	Port 1 (Pressure Port)	Port 2 (Reference Port)
Covers	high temperature polyamide	high temperature polyamide
Substrate	alumina ceramic	alumina ceramic
Adhesives	epoxy, RTV	epoxy, RTV
Electronic components	ceramic, silicon	silicon, glass, gold, solder

**Notes:**

1. Absolute maximum ratings are the extreme limits the device will withstand without damage.
2. Ratiometricity of the sensor (the ability of the device output to scale to the supply voltage) is achieved within the specified operating voltage.
3. Incorrect application of supply voltage or ground to the wrong pin may cause electrical failure.
4. The specified temperature range is the temperature range over which the sensor will produce an output proportional to pressure within the specified performance limits.
5. Accuracy: The maximum deviation in output from a Best Fit Straight Line (BFSL) fitted to the output measured over the pressure range at 25 °C [77 °F]. Includes all errors due to pressure non-linearity, pressure hysteresis, and non-repeatability.
6. Full Scale Span (FSS) is the algebraic difference between the output signal measured at the maximum ( $P_{\text{max}}$ ) and minimum ( $P_{\text{min}}$ ) limits of the pressure range. (See Figure 1 for ranges.)
7. Life may vary depending on specific application in which sensor is utilized.
8. Contact Honeywell Customer Service for detailed material information.

## CAUTION

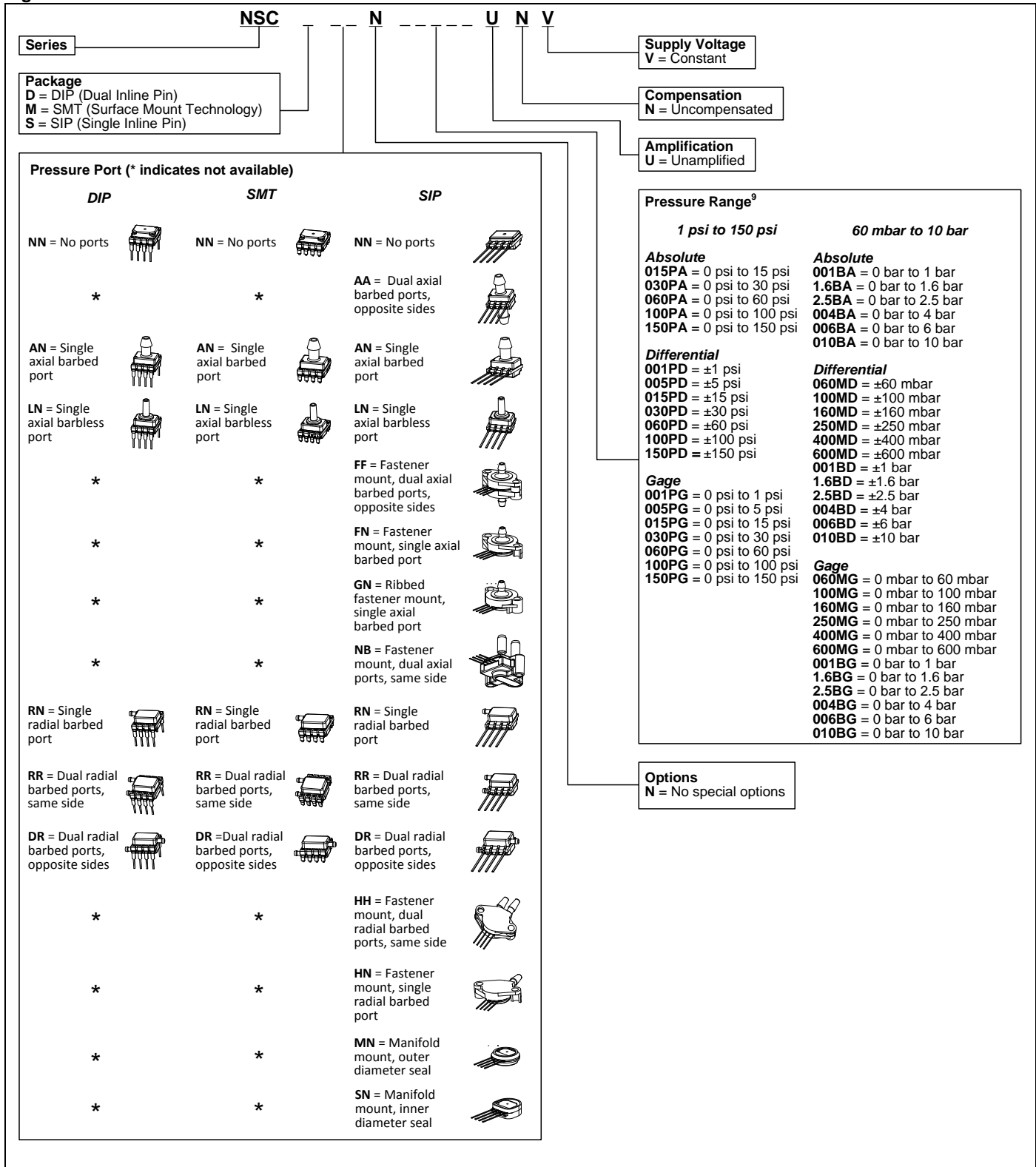
### PRODUCT DAMAGE

- Ensure liquid media is applied to Port 1 only; Port 2 is not compatible with liquids.
- Ensure liquid media contains no particulates. All TruStability® sensors are dead-ended devices. Particulates can accumulate inside the sensor, causing damage or affecting sensor output.
- Recommend that the sensor be positioned with Port 1 facing downwards; any particulates in the system are less likely to enter and settle within the pressure sensor if it is in this position.
- Ensure liquid media does not create a residue when dried; build-up inside the sensor may affect sensor output. Rinsing of a dead-ended sensor is difficult and has limited effectiveness for removing residue.
- Ensure liquid media are compatible with wetted materials. Non-compatible liquid media will degrade sensor performance and may lead to sensor failure.

**Failure to comply with these instructions may result in product damage.**

# TruStability® Board Mount Pressure Sensors: NSC Series— Uncompensated/Unamplified

Figure 1. Nomenclature and Order Guide



**Note:**

9. See Table 5 for an explanation of sensor pressure types.