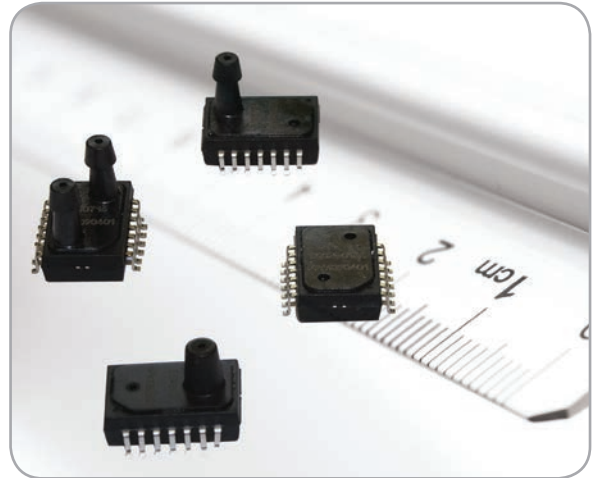


# NPA Low Pressure Surface-Mount Pressure Sensor Series



The NPA product series is provided in a miniature size as a cost effective solution for applications that require calibrated performance. Packaged in a SOIC14 pin surface mount, the NPA-Low Pressure Series is available in Gauge or Differential pressure ranges with either amplified analog or digital outputs. The sensor is intended for printed circuit board mounting and delivered in tape and reel form to simplify manufacturing handling.

## Features

- Surface Mountable
- Differential, Gauge, Low Pressure
- 2" and 5" H<sub>2</sub>O Full Scale
- Output Options: Amplified Analog, Digital Serial (14bit), Digital I<sup>2</sup>C
- On chip temperature sensor in digital mode
- Operating temperature range of -40 to 125°C
- Total Error Band:
  - +/-1.5% Span at 5"H<sub>2</sub>O full scale
  - +/-2.5% Span at 2"H<sub>2</sub>O full scale

# Low Pressure NPA Specifications

Parameter	Value	Units	Notes	
<b>Pressure Range</b>	2 or 5	In H <sub>2</sub> O	498 or 1245 Pa	
Maximum Overpressure	140	In H <sub>2</sub> O	400 in H <sub>2</sub> O Package Overpressure	
<b>Electrical @ 25°C (77°F) unless otherwise stated</b>				
Input Excitation	3.3 or 5.0	VDC		
<b>Environmental</b>				
Temperature Range				
Operating	-40 to +125	°C	-40 to +257°F	
Compensated	0 to +60	°C	+32 to +140°F	
Storage	-40 to +125	°C	-40 to +257°F	
<b>Mechanical/Package</b>				
Weight	~1	grams		
<b>Media Compatibility</b>				
Positive differential and gage ports	Media compatible with thermoset plastic, silicon, epoxy, RTV, Pyrex, and silicone gel			
Negative differential ports	Dry gasses only			
<b>Performance Parameters</b>	<b>Units</b>	<b>Minimum</b>	<b>Maximum</b>	<b>Notes</b>
Accuracy (Total Error Band)	% Span	-1.5	1.5	5"H <sub>2</sub> O Full Scale
		-2.5	2.5	2"H <sub>2</sub> O Full Scale
Response Time	ms		2	0.5 ms Typical
Current Consumption	mA		1.2	Typical

Series	Excitation Voltage	Min (V)	Max (V)	Notes
NPA-300	3.3V	3.28	3.32	NPA amplified analog
NPA-500	5.0V	4.97	5.03	NPA amplified analog
NPA-730	3.3V	3.28	3.32	NPA digital I2C
NPA-700	5.0V	4.97	5.03	NPA digital I2C