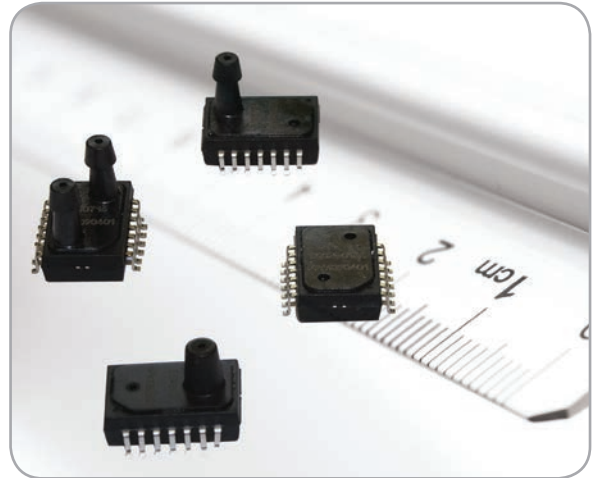


NPA Low Pressure Surface-Mount Pressure Sensor Series



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" H₂O Full Scale
- Output Options: Amplified Analog, Digital Serial (14bit), Digital I²C
- On chip temperature sensor in digital mode
- Operating temperature range of -40 to 125°C
- Total Error Band:
 - +/-1.5% Span at 5"H₂O full scale
 - +/-2.5% Span at 2"H₂O full scale

Low Pressure NPA Specifications

Parameter	Value	Units	Notes	
Pressure Range	2 or 5	In H ₂ O	498 or 1245 Pa	
Maximum Overpressure	140	In H ₂ O	400 in H ₂ O Package Overpressure	
Electrical @ 25°C (77°F) unless otherwise stated				
Input Excitation	3.3 or 5.0	VDC		
Environmental				
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	
Mechanical/Package				
Weight	~1	grams		
Media Compatibility				
Positive differential and gage ports	Media compatible with thermoset plastic, silicon, epoxy, RTV, Pyrex, and silicone gel			
Negative differential ports	Dry gasses only			
Performance Parameters	Units	Minimum	Maximum	Notes
Accuracy (Total Error Band)	% Span	-1.5	1.5	5"H ₂ O Full Scale
		-2.5	2.5	2"H ₂ 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