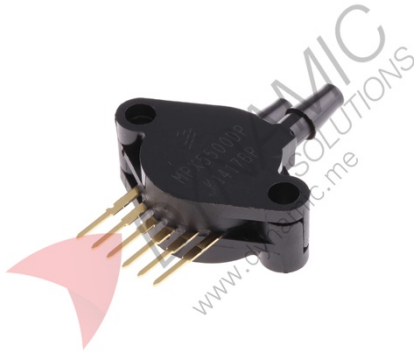


MPX5500DP Differential Pressure Sensor



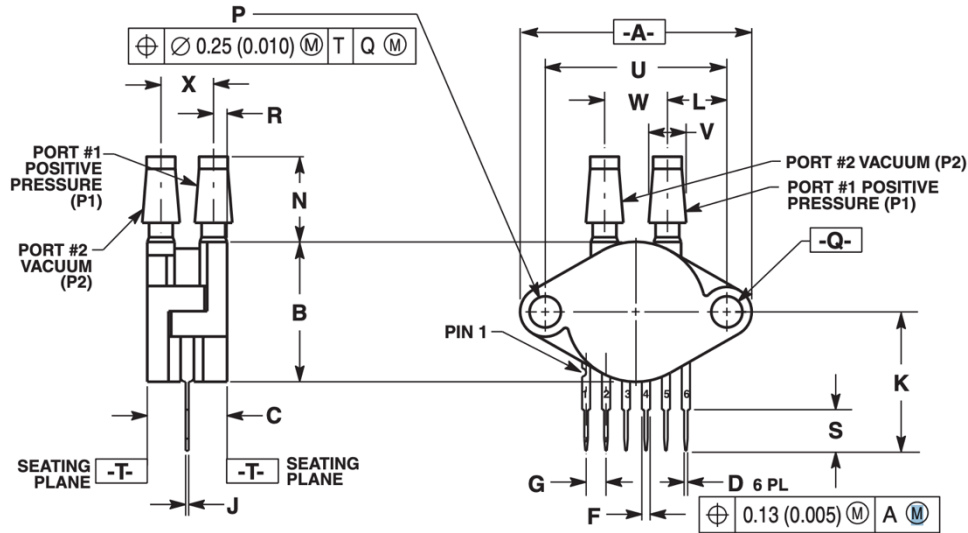
Features:

The MPX5500DP differential pressure sensor is a piezoresistive transducer designed for precision measurement in embedded control systems. It combines micromachining, thin-film metallization, and bipolar processing in a monolithic silicon element, delivering a ratiometric analog output proportional to applied pressure. With its $\pm 2.5\%$ maximum error over a wide temperature range, fast response, and robust epoxy unibody package, the sensor is widely applied in automotive pressure monitoring, HVAC systems, industrial process control, and medical instrumentation.

Specifications	
Pressure Range	0–500 kPa
Supply Voltage	4.75–5.25 Vdc
Supply Current	7.0 typ, 10 max
Zero Pressure Offset	0.088–0.313 Vdc
Full Scale Output	4.587–4.813 Vdc
Full Scale Span	4.5 typ Vdc
Accuracy	$\pm 2.5\%$ VFSS
Sensitivity	9.0 typ mV/kPa
Response Time	1.0 ms
Output Source Current	0.1 max mA
Warm-Up Time	20 ms
Operating Temperature	-40 to +125 °C
Storage Temperature	-40 to +125 °C
Maximum Pressure	2000 kPa
Usage	Differential and gauge pressure sensing for microcontroller-based systems

Pinouts:

Pin Name	Type	Description
VOUT	Analog	Analog output voltage signal
GND	Power	Power ground
VCC	Power	Supply voltage (4.75–5.25 Vdc)
V1	Port	Pressure input port P1 (positive pressure side)
V2	Port	Pressure input port P2 (reference/negative side)
VEX	—	Not connected (reserved)



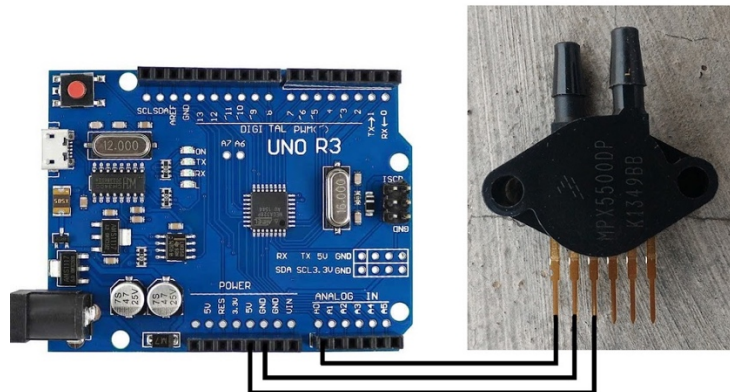
NOTES:

1. DIMENSIONING AND TOLERANCING PER ASME Y14.5M, 1994.
2. CONTROLLING DIMENSION: INCH.

DIM	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	1.145	1.175	29.08	29.85
B	0.685	0.715	17.40	18.16
C	0.405	0.435	10.29	11.05
D	0.027	0.033	0.68	0.84
F	0.048	0.064	1.22	1.63
G	0.100 BSC		2.54 BSC	
J	0.014	0.016	0.36	0.41
K	0.695	0.725	17.65	18.42
L	0.290	0.300	7.37	7.62
N	0.420	0.440	10.67	11.18
P	0.153	0.159	3.89	4.04
Q	0.153	0.159	3.89	4.04
R	0.063	0.083	1.60	2.11
S	0.220	0.240	5.59	6.10
U	0.910 BSC		23.11 BSC	
V	0.182	0.194	4.62	4.93
W	0.310	0.330	7.87	8.38
X	0.248	0.278	6.30	7.06

STYLE 1:

1. V_{OUT}
2. GROUND
3. V_{CC}
4. V₁
5. V₂
6. V_{EX}



Product Pictures:

