Model 1451



查询"1451-005A-N"供应商

PC Board Mountable Pressure Sensor 0-60 mV Output Gage and Absolute Pressure Low Cost

- Altitude Measurement
- **Barometric Pressure**
- **Medical Instrumentation**
- Consumer Appliances
- **Tire Pressure**



FEATURES

- Surface Mount Package
- ±0.25% Pressure Non-linearity
- 3 Pressure Port Options
- Solid State Reliability WWW.DZSC.CO
- Low Power

STANDARD RANGES

Range	psia	psig
0 to 5	•	•
0 to 15	•	•
0 to 30	•	•
0 to 50	•	•
0 to 100	•	
0 to 250	•	
0 to 500		

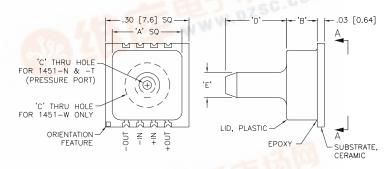
DESCRIPTION

The Model 1451 is a piezoresistive silicon pressure sensor packaged in a surface mount configuration. It is intended for high volume applications where small size, light weight, low cost, and compatibility with automated assembly equipment are required.

The pressure sensor is available with a gage or absolute pressure sensing chip that is attached to a surface mountable ceramic substrate. A cap is attached to the ceramic substrate, protecting the chip and providing the pressure port.

The devices are shipped in plastic anti-static shipping tubes for use with automated production equipment. The drawing shows a standard tube version. Caps are also available with a Narrow hole or a large hole to interface with the pressure media.

DIMENSIONS



MODEL 1451 LID TABULATION							
	1451-N (NARROW HOLE)	1451-W (WIDE HOLE)	1451-T (TUBE)				
'A'	.25 [6.4]	.25 [6.4]	.25 [6.4]				
'B'	.110 [2.79]	.110 [2.79]	.110 [2.79]				
,C,	ø.031 [0.78]	ø.160 [4.06]	ø.031 [0.78]				
,D,			.220 [5.59]				
'E'			ø.090 [2.29]				

ALL DIMENSIONS ARE IN INCHES [mm]



PERFORMANCE SPECIFICATIONS

Supply **查询**"1451-005A-N"供应商

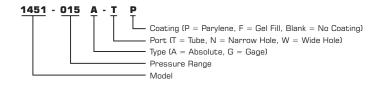
Ambient Temperature: 25°C (Unless otherwise specified)

PARAMETERS	MIN	TYP	MAX	UNITS	NOTES	
Full Scale Output Span	30	60	120	mV		
Zero Pressure Output	-25		25	mV		
Pressure Non-linearity	-0.25		0.25	% Span	1	
Pressure Hysteresis	-0.1		0.1	% Span		
Input & Output Resistance	3500	5000	6000	Ω		
Temperature Coefficient - Span		-0.20		%/°C	2	
Temperature Coefficient - Zero		+0.05		%/°C	2	
Temperature Coefficient - Resistance		+0.25		%/°C	2	
Thermal Hysteresis - Zero	-0.2		0.2	% Span	2	
Supply Voltage		3	12	Volts DC		
Response Time (10% to 90%)		1.0		msec	3	
Output Noise		1.0		μV p-p	4	
Insulation Resistance (50 VDC)	50			ΜΩ		
Long Term Stability		0.5		±% Span/year		
Pressure Overload			ЗХ	Rated		
Operating Temperature	-40°C to +125°C	-40°C to +125°C				
Storage Temperature	-50°C to +150°C	-50°C to +150°C				
Media	Non-Corrosive Gas	Non-Corrosive Gases				
Weight	0.3 g	0.3 g				

Notes

- 1. Best Fit Straight Line.
- 2. Over the temperature range 0-50°C with respect to 25°C.
- 3. For a zero-to-full scale pressure step change.

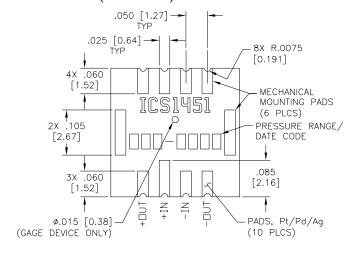
ORDERING INFORMATION



- 4. 10 Hz to 1 kHz.
- 5. For sensors above 100 psi applications, the entire sensor is required to be inside the pressure chamber.
- 6. Gel fill is only offered with the wide hole option.

CONNECTIONS

Bottom View (View A-A)



June 2001