



## D5100

### Industrial Differential Pressure Transducer

#### SPECIFICATIONS

- 316L Stainless Steel Wetted Surface
- Voltage, Current, and mV Outputs
- True Wet/Wet Differential
- CE Certified (amplified version only)
- Variety of Pressure Ports and Electrical Connections

#### FEATURES

- Heavy Industrial CE Approval (amplified only)
- As Low As  $\pm 0.1\%$  Pressure Non Linearity
- Rugged Construction: Can Withstand 50g Shock/20g Vibration
- Up to  $-40^{\circ}\text{C}$  to  $+125^{\circ}\text{C}$  Operating Temperature Range
- Excellent Stability
- Various Output, Pressure Ports and Electrical Connections

The D5100 series from Measurement Specialties sets the price and performance standard for differential pressure transducers used in demanding environments.

The amplified model of the D5100 series exceeds the latest heavy industrial CE requirements including surge protection and reverse polarity protection. The amplified and mV output pressure transducers both have two pressure ports for high and low pressures and all wetted parts are made of 316L stainless steel. They come in a variety of electrical configurations and ranges from 1 to 500 psi (up to 35 Bar).

#### APPLICATIONS

- Process Controls
- Tank Level Measurement
- Filter Performance Monitoring
- Corrosive Fluids and Gas Measurement Systems
- Flow Measurements

## STANDARD RANGES

Range	psiD	Range	barD
0 to 1	•	0 to 0.07	•
0 to 5	•	0 to 0.35	•
0 to 15	•	0 to 1	•
0 to 30	•	0 to 2	•
0 to 50	•	0 to 3.5	•
0 to 100	•	0 to 7	•
0 to 300	•	0 to 20	•
0 to 500	•	0 to 35	•

## PERFORMANCE SPECIFICATIONS (AMPLIFIED OUTPUT)

Typical Drive: See Output Options Table

Ambient Temperature: 25°C (unless otherwise specified)

PARAMETERS	1 PSI			≥5 PSI			UNITS	NOTES
	MIN	TYP	MAX	MIN	TYP	MAX		
Accuracy	-0.3		0.3	5psi: -0.25 ≥15psi: -0.1		0.25 0.1	%Span	1
Isolation, Body To Any Lead	1			1			MΩ @25V <sub>DC</sub>	
Pressure Cycles	1.00E+6			1.00E+6			0-FS Cycles	
Proof Pressure (High Side)			10X			3X	Rated	2
Proof Pressure (Low Side)			10X			3X	Rated	3
Burst Pressure (High Side)			12X			4X	Rated	2
Burst Pressure (Low Side)			12X			4X	Rated	3
Line (common) Pressure			1000			1000	psi	
Line Pressure Effect on Zero		0.004		5psi: 0.0008 TYP ≥15psi: 0.0005 TYP			%Span/psi	
Long Term Stability		±0.25			±0.1		%Span/year	
Total Error Band	-1.5		1.5	-1		1	%Span	
Compensated Temperature	0		50	0 -20		70 +85	°C	
Operating Temperature	-40		+85	-40		+125	°C	4
Storage Temperature	-40		+125	-40		+125	°C	4
Load Resistance (R <sub>L</sub> )	R <sub>L</sub> > 100k Ω							5
Sensor Type	Differential Pressure Sensor with Unidirectional Calibration							
Pressure Port Material	316L Stainless Steel							
Bandwidth	DC to 1KHz (typical)							
Shock	50g, 11 msec Half sine shock per MIL-STD-202F, Method 213B, Condition A							
Vibration	±20g, MIL-STD-810C, Procedure 514.2, Fig 514.2-2, Curve L							

## Notes

1. Combined linearity, hysteresis and repeatability using Best Fit Straight Line.
2. 1000psi, whichever is less.
3. 150psi, whichever is less.
4. Except cable 105°C Max.
5. Voltage output.