





FEATURES

- O-Ring Mount
- -20°C to +85°C Compensated Temperature
- 1.0% Interchangeable Span (provided by gain set resistor)
- Solid State Reliability
- ±0.3% Pressure Non Linearity
- Titanium Option

APPLICATIONS

- Medical Instruments (Dialysis Machines)
- Process Control
- Fresh, Waste, Salt and Brackish Water Measurements
- Refrigeration/Compressors
- Pressure Transmitters
- Hydraulic Controls

154BC

SPECIFICATIONS

- Low Cost
- 316L Stainless Steel or Titanium
- 19mm Diameter Package
- 0 100mV Output
- Gage and Absolute
- Wide Compensated Temperature Range

The 154BC is a 19mm small profile, media compatible, piezoresistive silicon pressure sensor packaged in a 316L stainless steel or ASTM Grade 2 CP titanium housing. The 154BC is a low-cost unit designed without a header for O-ring mounting and OEM applications where compatibility with corrosive media is required. The titanium option offers greater resistance to corrosive materials and harsh cleaning chemicals, opening the range of its application use to things such as dialysis machines and salt/brackish water measurements.

The sensing package utilizes silicone oil to transfer pressure from either a 316L stainless steel or titanium diaphragm to the sensing element. A ceramic substrate is attached to the package that contains laser-trimmed resistors for temperature compensation and offset correction. An additional laser-trimmed resistor is included which can be used to adjust an external differential amplifier and provide span interchangeability to within $\pm 1\%$.

Please refer to the 154N uncompensated and constant voltage datasheets for more information on different features of the 154.

STANDARD RANGES



Range (psi)	Gage	Range (Bar)	Absolute	
0 to 015	•			
0 to 030	•			
0 to 050	•			
0 to 100	•	0 to 007	07 •	
		0 to 012	•	
		0 to 018	•	
0 to 300	•			
		0 to 020	_	

0 to 028

PERFORMANCE SPECIFICATIONS

PARAMETERS	MIN	TYP	MAX	UNITS	NOTES
Span	75	100	150	mV	1
Zero Pressure Output	-1.0	0	1.0	mV	2
Pressure Non Linearity	-0.30		0.30	%Span	3
Pressure Hysteresis	-0.20		0.20	%Span	
Repeatability		±0.02		%Span	
nput Resistance	2.0	3.5	5.8	kΩ	3
Output Resistance	3.0		6.0	kΩ	
Temperature Error – Span	-1.0		1.0	%Span	4
Temperature Error – Offset	-1.0		1.0	%Span	4
Thermal Hysteresis – Span	-0.25	±0.05	0.25	%Span	4
Thermal Hysteresis – Offset	-0.25	±0.05	0.25	%Span	4
₋ong Term Stability – Span		±0.10		%Span/Year	
ong Term Stability – Offset		±0.25		%Span/Year	
Supply Current	0.5	1.5	2.0	mA	5
Output Load Resistance	5			ΜΩ	6
nsulation Resistance (50V _{DC})	50			ΜΩ	7
Output Noise (10Hz to 1kHz)		1.0		μV p-p	
Response Time (10% to 90%)		0.1		ms	
Overload Pressure			2X	Rated	8
Burst Pressure			ЗХ	Rated	9
Compensated Temperature	-20		+85	°C	
Operating Temperature	-40		+125	ōC	10
Storage Temperature	-50		+125	ōC	10
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Media - Pressure Port

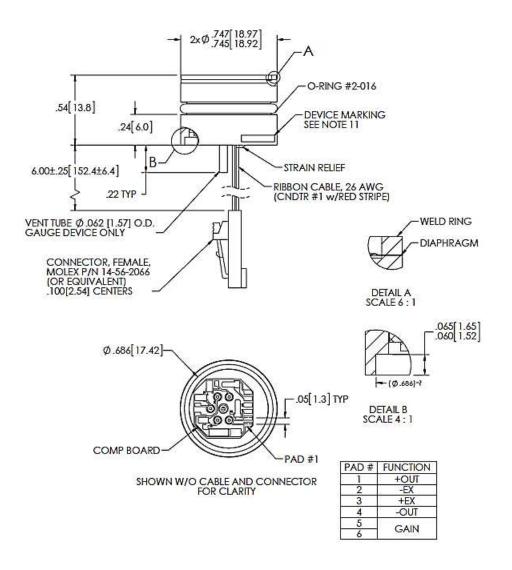
Liquids and Gases compatible with 316L Stainless Steel or ASTM Grade 2 CP Titanium

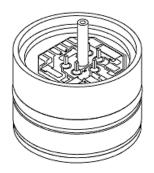
Notes

- 1. For amplified output circuits, 3.012V ±1% interchangeability with gain set resistor. See application schematic.
- 2. Measured at vacuum for absolute (A), ambient for gage (G).
- Best fit straight line.
- 4. Over the compensated temperature range with respect to 25°C.
- 5. Guarantees output/input ratiometricity.
- 6. Load resistance to reduce measurement errors due to output loading.
- 7. Between case and sensing element.
- 8. 2X or 500psi, whichever is less. The maximum pressure that can be applied without changing the transducer's performance or accuracy.
- 3X or 600psi, whichever is less. The maximum pressure that can be applied to a transducer without rupture of either the sensing element or transducer.
- 10. Maximum temperature range for product with standard cable and connector is -20°C to +105°C.
- 11. Marking:
 - Part marked with Model Number, Pressure Range, Type, Lot Number, Serial Number and Date Code
- Shipping:
 - The stainless steel diaphragm is protected by a plastic cap. Each unit will be packaged individually in a plastic vial with antistatic foam.

DIMENSIONS

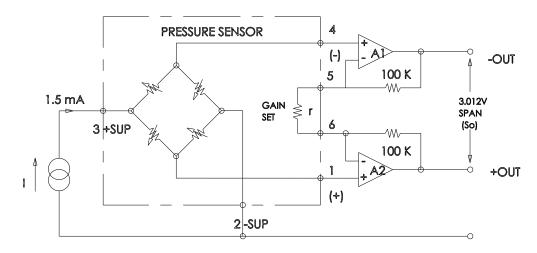






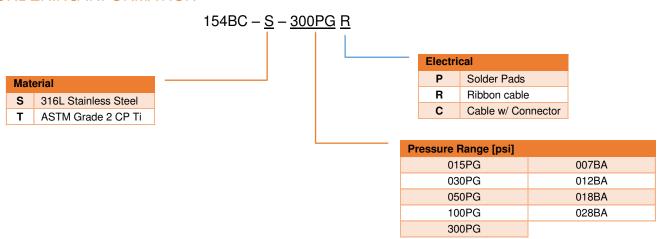


APPLICATION SCHEMATIC





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