

Series 901 Digital Pressure Indicator

FEATURES

- Ranges up to 20,000 psi
- LED display
- 30,000 counts of resolution
- Accuracy $\pm 0.07\%$ or $\pm 0.035\%$ of span
- Measure gauge, absolute, compound or vacuum pressure



Shown with optional remote sensor.

SPECIFICATIONS

Sensor:	Solid State non contacting optical sensor. Diaphragm type up to 273 psi. Bourdon tube for ranges up to 20,000 psi. Sensor can be mounted integrally in the enclosure or remotely with a 5, 10 or 20-foot cable.
Wetted Materials:	Inconel® 718 and 316 Stainless steel
Pressure Media:	Liquids or gases compatible with Inconel and 316 SS
Pressure connection:	Sensor ranges below 6000 psi ¼ NPT female 6000 psi and above 9/16-18 UNF-2B for ¼" high pressure tubing.
Overpressure Capability:	400% of span to 236 psi 100% of span 237 to 500 psi 30% of span from 501 to 10,000 psi 10% of span from 10,001 to 20,000 psi Note - calibration adjustment may be required following an overpressure condition.
Accuracy:	Model 901A $\pm 0.07\%$ of span Model 901B $\pm 0.035\%$ of span Includes linearity, hysteresis and repeatability at 70°F
Repeatability:	$\pm 0.005\%$ of span
Sensitivity:	Better than $\pm 0.005\%$ of span
Temp. Compensated Range:	Standard: 45 °F (7 °C) to 95 °F (35 °C) Optional: 20 °F (7 °C) to 120 °F (49 °C)
Temperature effects:	Maximum $\pm 0.0004\%$ of span per degree F above or below compensated range.
Storage Temperature:	-40 °F (-40 °C) to 180 °F (82 °C)
Optional Features:	Hi/Low setpoint, Min/Max recall, Tare, Engineering Unit Select (up to 3 units), Handle and Potentiometer adjustment tool, Panel mounting brackets Remote mount sensor
Optional Output Signals	
Digital:	Latched parallel BCD-Tristate RS232, selectable baud rate 1200, 2400 or 9600
Analog:	4-20 mA loop control 0-5 Vdc 0-10 Vdc Accuracy of analog output $\pm 0.2\%$ of span
Power Supply Input:	100/115/230 Vac nominal $\pm 10\%$, 50/60Hz, 5 watts maximum.

Indicator Housing material:	Molded high impact ABS case, black finish
Mounting:	Benchtop or panel (with optional panel mounting hardware)
Panel Cut out:	2.68" High x 5.43" Width
Weight:	2.8 lb (1.3 kg) with integral transducer.
Display:	Single plane 0.43"-high LED with decimal point and polarity. Four or five digit display (depending on range) with calibration resolution up to one part in 30,000.
Conversion (update) Rate:	Data display and digital output signals 250 milliseconds Max/min track memory 83 milliseconds. Analog output response time 3 milliseconds.
Warm Up Time:	15 minutes for rated accuracy (901A) and 30 minutes for complete stability. 15 minutes for rated accuracy (901B) and 90 minutes for complete stability.
Over/Under Range Indication:	Indicated by "or" or "ur" on the display after exceeding the calibrated range by 10% in either direction

WARNINGS

Pressure:	Select a range so that the maximum applied pressure will never exceed the upper range limit.
Vibration:	Excessive vibration could cause loosening of components resulting in loss of instrument accuracy or failure to provide valid data.
Pulsation:	Excessive pressure pulsation could result in fatigue failure of the pressure element.
Temperature:	Operation of the instrument in an environment where temperatures are in excess of design ratings may result in loss of accuracy and failure.
Process:	Pressure boundary materials must be resistant to the process media. Failure to assure compatibility may result in pressure sensing element deterioration or failure. Instruments used on high pressure gas, or potentially hazardous service, such as oxygen should be carefully selected in accordance with the recommendations of ASME B40.7.
Hazardous Location:	Only approved explosion proof or intrinsically safe instruments should be used in hazardous locations. This instrument is not approved for use in hazardous areas.

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ORDERING CODE	Example:	901	A	2	AEFG	G	PSI	10000
Model								
901 - Pressure Indicator		901						
Accuracy								
A - ±0.07% of span			A					
B - ±0.035% of span								
S - Special calibration								
Power Supply								
2 - Universal 100/115, 220 Vac 50/60Hz			2					
Options								
A - Analog output (specify 4-20 mA, 0-5 Vdc or 0-10V dc in P.O. notes)					A			
B - BCD output								
D - Custom								
E - Hi/Low relay					E			
F - Handle w/pot adjustment tool					F			
G - Min./Max. recall function					G			
H - Cleaned for oxygen service								
I - Panel mount hardware kit								
J - Remote mount sensor, (specify 5, 10 or 20 feet in P.O. notes)								
K - RS232 Output								
L - 20/120 Optional temp comp								
M - Tare function								
N - Engineering unit select (specify units in P.O. notes)								
Pressure Type								
G - Gauge						G		
A - Absolute								
V - Vacuum								
C - Compound								
Pressure Ranges								
(Choose psi range equal or next higher than desired span. Specify actual span value and units in P.O. notes)								
PSI							PSI	
Pressure Range GAUGE in psi								
Isolated								
4.36 psi								
6.0 psi								
7.81 psi								
10.5 psi								
11.9 psi								
17.16 psi								
24.6 psi								
32.6 psi								
42.1 psi								
62.5 psi								
85.1 psi								
108.2 psi								
150.7 psi								
232 psi								
300 psi								
500 psi								
600 psi								
800 psi								
1000 psi								
1500 psi								
2000 psi								
2500 psi								
3000 psi								
4000 psi								
5000 psi								
6000 psi								

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7500 psi	
10000 psi	10000
15000 psi	
20000 psi	
Pressure Range ABSOLUTE in psi	
6.0 psi	
7.81 psi	
10.5 psi (barometer absolute range)	
11.9 psi	
17.6 psi	
24.6 psi	
32.6 psi	
42.1 psi	
62.5 psi	
85.1 psi	
108.2 psi	
150.7 psi	
232 psi	
300 psi	
500 psi	
600 psi	
800 psi	
1000 psi	
1500 psi	
2000 psi	
2500 psi	
3000 psi	
4000 psi	
5000 psi	
7500 psi	
10000 psi	
15000 psi	
20000 psi	
Pressure range VACUUM in psi	
4.36 psi	
6.0 psi	
7.81 psi	
10.5 psi	
11.9 psi	
17.16 psi	
100 psi	
Pressure range COMPOUND in psi (specify actual range in P.O. notes i.e. -1 to +4Bar)	
3.63 psi	
4.91 psi	
7.10 psi	
9.8 psi	
10.82 psi	
15.6 psi	
20.5 psi	
32.2 psi	
38.3 psi	
56.8 psi	
78.4 psi	
96.6 psi	
137 psi	
197 psi	

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PRESSURE RANGES

psi	in H ₂ O	in Hg	mm Hg or Torr	kPa	MPa	kg/cm ² or Kp/cm ² or bar	Millibar of cm H ₂ O	mm H ₂ O
GAUGE AND ABSOLUTE RANGES								
2	50 ⁽²⁾	5	100	20	10	1	200	200
3	100	10	150	30	16	1.6	300	3000
5 ⁽¹⁾	150	20	300	50	25	2.5	500	5000
10	200	30	500	60	40	4	1000	
15	300	32	600	100	60	5	2000	
20	400	36	760	160	100	6	3000	
30	500	50	1000	250	160	10	5000	
50	600	60	1500	400	200	16	10000	
100	2000	200	3000	600		25		
150	3000	300	5000	1000		40		
200			6000	1600		100		
300			10000	2500		250		
400				4000		400		
500				6000		600		
600						1000		
800						1600		
1000						2000		
1500								
2000								
2500								
3000								
4000								
5000								
6000								
10000								
15000								
20000 ⁽³⁾								

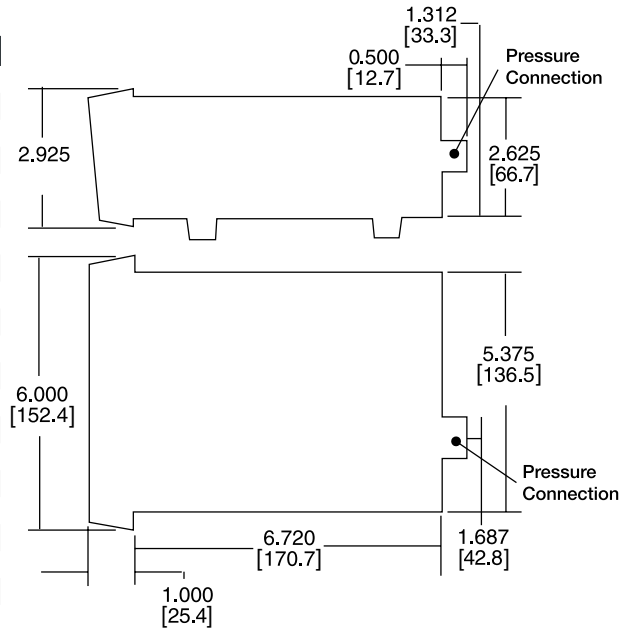
VACUUM RANGES

5		5	100	20		0.2	200	
10		10	200	30		0.5	300	
15		20	300	50		1	500	
		30	500	100			1000	
			750					

COMPOUND RANGES

+2/-2		+5/-5						
+3/-3		+10/-10						
+5/-5		+15/-15						
+10/-10		+20/-20						
+15/-15		+30/-30						
+30/-15		+50/-30						
+50/-15		+100/-30						
+100/-15		+15/-30						
		+300/-30						

DIMENSIONS Dimensions in () are millimeters



NOTES

- (1) Minimum Absolute range is 5 psia
- (2) Limited to $\pm 0.06\%$ fs due to resolution limitation
Non standard range are available on application
- (3) Accuracy limited to 0.07% of span