

## GENERAL

**ALIADP** ADP9000L series is a digital differential pressure transmitter designed for industrial level measurement applications. The ADP9000L can be configured to provide integrated solutions for a broad range of pressure and flow measurement applications.

## FEATURES

- Updating time of output current in 200 ms
- Improved performance, increased accuracy and greater stability
- Two Years stability of 0.15%
- 0.075% accuracy
- Parameter setting by keypad directly
- 4-20 mA output plus direct digital HART communication
- Automatic zero calibration by push-button
- Explosion proof and weather proof housing

## STANDARD SPECIFICATION

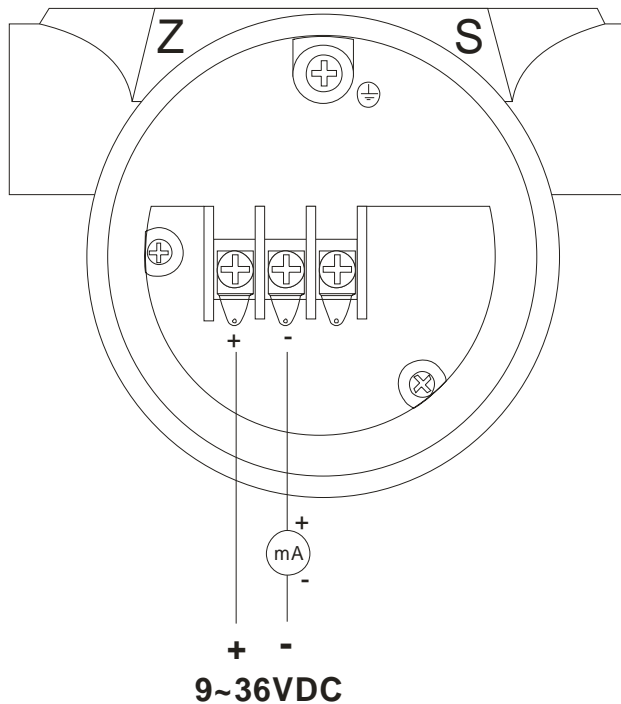
- |                       |   |                         |   |
|-----------------------|---|-------------------------|---|
| ● Process Fluid       | : Liquid, Gas or Vapor  | ● Display               | : 5 Digits programmable & 0-100% bargraph   |
| ● Application         | : Liquid Level, Differential Pressure, Gauge Pressure, Absolute Pressure  | ● Display Unit          | : 22 standard different engineering units<br>5 Digits programmable for special unit |
| ● Measuring Range     | : 0 - 24.9 InH <sub>2</sub> O ~ 0 - 148.5InH <sub>2</sub> O ( Minimum )<br>: 0 - 580.2psi ~ 0 - 3626.0psi ( Maximum ) | ● Keyboard              | : 3 internal keys for programming and output setting                                |
| ● Turndown Ratio      | : 1 : 100   | ● Current Output        | : 4 - 20 mA 2 wires with Hart signal<br>Load : Rohm=(Vdc-9)*50                      |
| ● Accuracy            | : +/- 0.075% of span  | ● Power Supply          | : 9 - 36 VDC  |
| ● Stability           | : +/-0.15% of URL for 2 years   | ● Digital Communication | : Hart Protocol   |
| ● Working Temperature | : -40 to +482 °F / -40 to +250 °C   | ● Damping               | : 0 - 32 Seconds  |
| ● Max. Pressure       | : 5801.5 psi (Dependent on flange rating)   | ● Response Time         | : 200 mS  |
| ● Material            |   | ● Turn on Time          | : 2 Seconds with minimum damping  |
| Flange/Adapter        | : Carbon Steel / Stainless Steel 304 /<br>: Stainless Steel 316   | ● Zero calibration      | : Automatic calibration by push-button  |
| Diaphragm             | : Stainless Steel 316L / Hastelloy B /<br>: Hastelloy C / Monel / Tantalum  | ● Cable Entry           | : 1/2" NPTF / M20 Conduit Threads   |
| Bolts & Nuts          | : Carbon Steel / Stainless Steel 316  | ● Temperature Effect    | : +/-0.18% of span per 20 °C  |
| Name / Tag Plate      | : Stainless Steel 304 / Stainless Steel 316   | ● EMI/RFI Effect        | : Follow SAMA PMC 33.1 from 20 to 1000 MHz and for field strengths up to 30 V/m     |
| Converter Housing     | : Low copper cast aluminum alloy with polyurethane, light blue paint  | ● Process Connection    |   |
| Fill Fluid            | : Silicone / High Temperature Silicone<br>: Fluorine Oil / Vegetable Oil  | High Pressure Side      | : 1-1/2", 2", 3", 4" flanges<br>ANSI / DIN / JIS / Tri-Clamp                        |
| ● Protection Class    | : IP67 ( Standard )<br>: Intrinsically Safe EEx ia IIC T5 ( Standard )<br>: Explosion proof Ex D IIB T5               | Extended Diaphragm      | : 2", 4", 6" length   |
|                       |   | Low Pressure Side       | : 1/4 - 18 NPT , 1/2 - 14 NPT   |
|                       |   | ● Ambient Temperature   | : -13 to +185 °F  |
|                       |   | ● Dimensions            | : 4.0" (W) * 7.4" (H) * 7.4" (D)<br>102 mm (W) * 188mm (H) * 189mm (D)              |
|                       |   | ● Weight                | : 17.6 - 33 lb (8-15 kg)  |



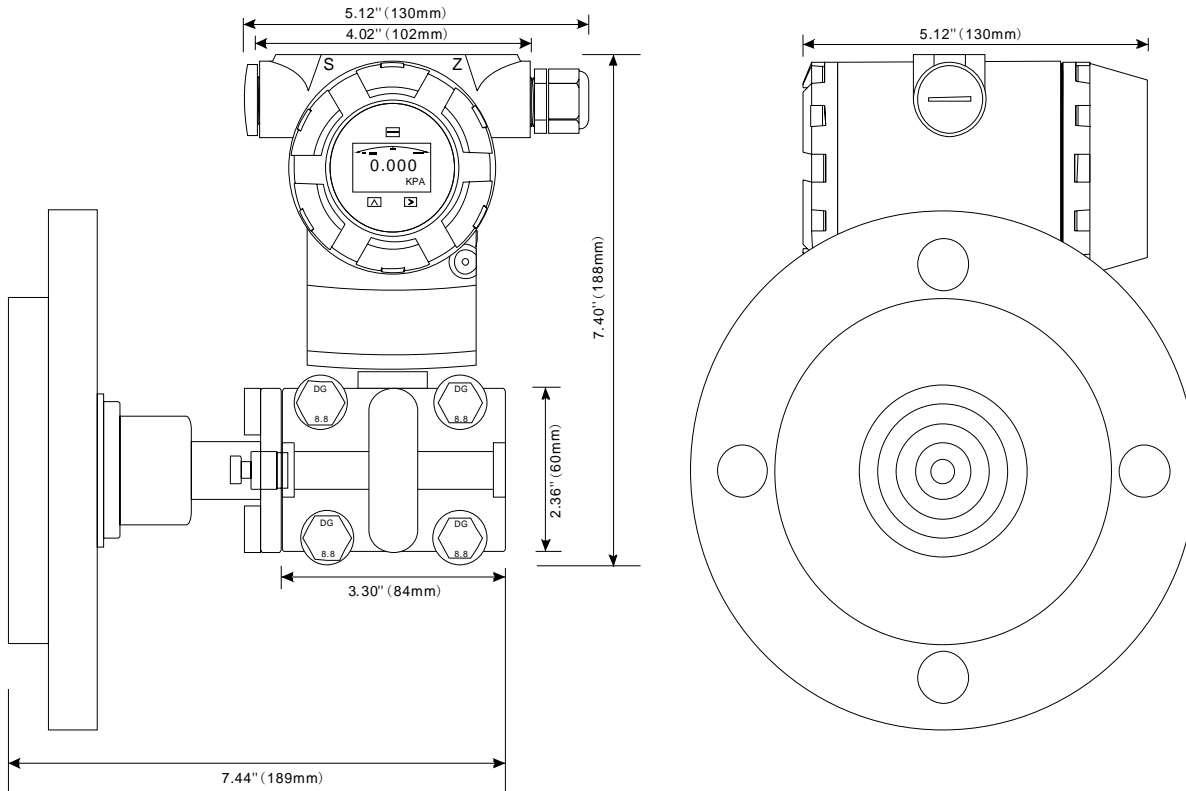
**MEASURING RANGE**

Range Code	Pressure Range				Transmitter		
	Low Range	High Range	Low Range	High Range	Differential Pressure	Level Pressure	Absolute Pressure
4	0 - 6.2 Kpa	0 - 37 Kpa	0 - 46.5 mmHg	0 - 277.5 mmHg	◆	◆	◆
	0 - 62 mbar	0 - 370 mbar	0 - 24.5 InH2O	0 - 148.5 InH2O			
	0 - 0.9 psi	0 - 5.4 psi	0 - 0.06 Kg/cm2	0 - 0.38 Kg/cm2			
5	0 - 30 Kpa	0 - 180 Kpa	0 - 225 mmHg	0 - 1350 mmHg	◆	◆	◆
	0 - 300 mbar	0 - 1800 mbar	0 - 120.4 InH2O	0 - 722.6 InH2O			
	0 - 4.4 psi	0 - 26.1 psi	0 - 0.31 Kg/cm2	0 - 1.84 Kg/cm2			
6	0 - 117 Kpa	0 - 690 Kpa	0 - 34.6 InHg	0 - 203.8 InHg	◆	◆	◆
	0 - 1.2 Bar	0 - 6.9 Bar	0 - 469.7 InH2O	0 - 2770 InH2O			
	0 - 17.0 psi	0 - 100.1 psi	0 - 1.19 Kg/cm2	0 - 7.04 Kg/cm2			
7	0 - 350 Kpa	0 - 2000 Kpa	0 - 103.4 InHg	0 - 590.5 InHg	◆	◆	◆
	0 - 3.5 Bar	0 - 20 Bar	0 - 1405 InH2O	0 - 8029 InH2O			
	0 - 50.8 psi	0 - 290.1 psi	0 - 3.57 Kg/cm2	0 - 20.39 Kg/cm2			
8	0 - 1.17 Mpa	0 - 6.8 Mpa	0 - 345.5 InHg	0 - 2008.0 InHg	◆	◆	◆
	0 - 11.7 Bar	0 - 68 Bar	0 - 4697.1 InH2O	0 - 2.7*10 <sup>4</sup> InH2O			
	0 - 169.7 psi	0 - 986.3 psi	0 - 11.93 Kg/cm2	0 - 69.34 Kg/cm2			
9	0 - 4.0 Mpa	0 - 25 Mpa	0 - 1181.2 InHg	0 - 7381.6 InHg	◆	◆	◆
	0 - 40 Bar	0 - 250 Bar	0 - 16059 InH2O	0 - 1.0*10 <sup>5</sup> InH2O			
	0 - 580.2 psi	0 - 3626 psi	0 - 40.79 Kg/cm2	0 - 254.9 Kg/cm2			

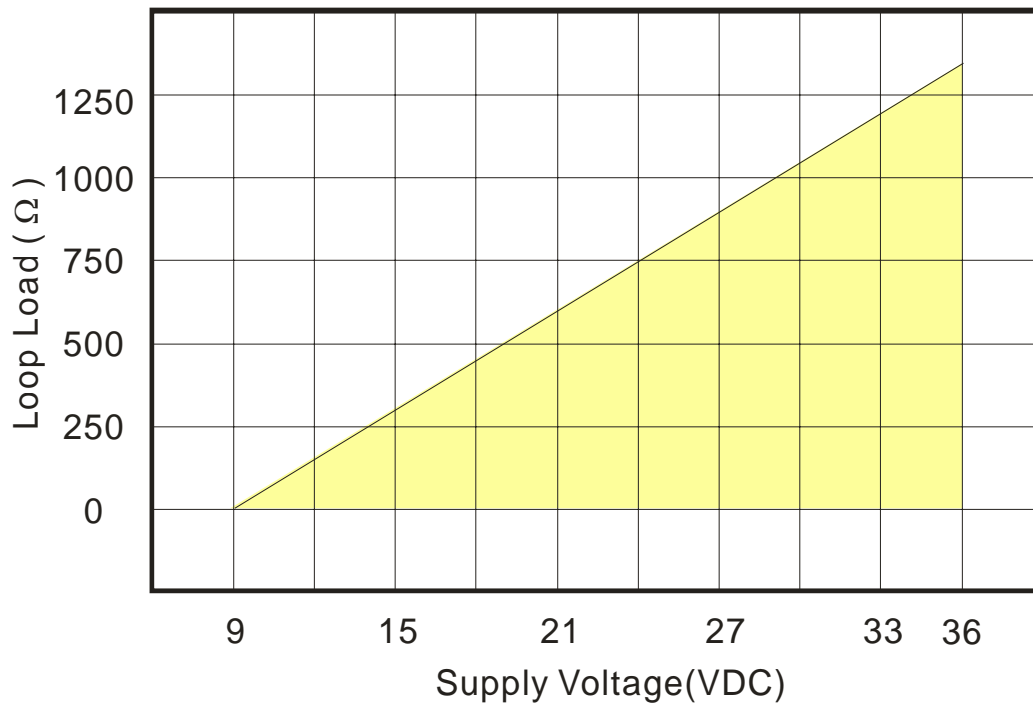
**WIRING DIAGRAM**



**➤ DIMENSIONS**



**➤ Supply Voltage VS Loop Load**



**MODEL SELECTION GUIDE**

ADP9000L Series												
Example: ADP9000L-4A30N-4NN-NN-EX/HT												
ADP9000L-	X	X	X	X	X	-X	X	X	-X	X	-XX	Description
Pressure Range	4											0 - 24.89 (1.485) InH2O ... 0 - 148.5 InH2O
	5											0 - 120.4 (7.226) InH2O ... 0 - 722.6 InH2O
	6											0 - 16.97 (1.001) psi ... 0 - 100.1 psi
	7											0 - 50.76 (2.901) psi ... 0 - 290.1 psi
	8											0 - 169.7 (9.863) psi ... 0 - 986.3 psi
	9											0 - 580.2 (36.26) psi ... 0 - 3626 psi
Process Connection	1											PN10
	2											PN16
	3											PN25
	4											PN40
	A											ANSI 150#
	B											ANSI 300#
	J											JIS 10K
	K											JIS 20K
Z											Other	
Flange Size	1											1-1/2" (If Include Extension Diaphragm, Diameter=32mm)
	2											2" (If Include Extension Diaphragm, Diameter=49mm)
	3											3" (If Include Extension Diaphragm, Diameter=64mm)
	4											4" (If Include Extension Diaphragm, Diameter=89mm)
Diaphragm Extension Length	0											Flush Diaphragm
	2											2" (50mm)
	4											4" (100mm)
	6											6" (150mm)
Diaphragm Material	N											Stainless Steel 316L
	B											Hastelloy B
	C											Hastelloy C
	T											Tantalum
Flange Material	-N											Carbon Steel
	-4											Stainless Steel 304
	-6											Stainless Steel 316
Low Pressure Side Process Connection	N											1/4" - 18 NPT
	A											1/2" - 14 NPT( with Adapter)
	Z											Other
Bolts / Nuts Material	N											Carbon Steel
	S											Stainless Steel 316
Fill Fluid	-N											Silicone (Max. Temperature 266 °F / 130°C)
	-S											HT Silicone (Max. Temperature 482 °F / 250°C)
	-F											Fluorine (Max. Temperature 320 °F / 160°C)
	-V											Vegetable Oil (Max. Temperature 266 °F / 130°C)
Cable Entry	N											M20 Conduit Threads
	P											1/2" NPT( Female)
	Z											Other
Option	-NN											None
	-EX											Explosion Proof Ex D IIB T5
	-S6											Stainless Steel 316 Name Plate and Tag Plate
	-HT											Hart Signal
	-ZZ											Others