



ALIADP

Smart Differential Pressure Level Transmitter

Model ADP9000L Series

GENERAL

ALIADP ADP9000L series is a digital differential pressure transmitter designed for industrial level measurement applications. The ADP9000L can be configured to provide intergrated 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
- Application : Liquid Level, Differential Pressure, Gauge Pressure, Absolute Pressure
- Measuring Range : 0 - 6.2 Kpa ~ 0 - 37 Kpa (Minimum)
: 0 - 4.0 Mpa ~ 0 - 25.0 Mpa (Maximum)
- Turndown Ratio : 100 : 1
- Accuracy : +/- 0.075% of span
- Stability : +/-0.15% of URL for 2 years
- Working Temperature : -40 to +250 °C
- Max. Pressure : 40 Mpa (Dependent on flange rating)
- Material
 - Flange/Adapter : Carbon Steel / Stainless Steel 304 /
: Stainless Steel 316
 - Diaphragm : Stainless Steel 316L / Hastelloy B /
Hastelloy C / Monel / Tantalum
 - Bolts & Nuts : Carbon Steel / Stainless Steel 316
 - Name / Tag Plate : Stainless Steel 304 / Stainless Steel 316
 - Converter Housing : Low copper cast aluminum alloy with
polyurethane, light blue paint
 - Fill Fluid : Silicone / High Temperature Silicone
Fluorine Oil / Vegetable Oil
- Protection Class : IP67 (Standard)
: Intrinsically Safe EEx ia IIC T5 (Standard)
: Explosion proof Ex D IIB T5



- Display : 5 Digits programmable & 0-100% Bargraph
- Display Unit : Standard 22 different engineering unit
5 Digits programmable for special unit
- Keypad : 3 internal keys for programming
and output setting
- Current Output : 4 - 20 mA 2 wires
with Hart Signal (Compatible)
Load : Rohm=(Vdc-9)*50
- Power Supply : 9 - 36 VDC
- Digital Communication : Hart Protocol
- Damping : 0 - 32 seconds
- Response Time : 200 mS
- Turn on Time : 2 Seconds with minimum damping
- Zero Calibration : Automatic calibration by push-button
- Cable Entry : 1/2" NPT(Female) / M20 Conduit Threads
- Temperature Effect : +/-0.18% ~ +/-0.5% of span per 20 °C
- EMI/RFI Effect : Follow SAMA PMC 33.1 from 20 to 1000
MHz and for field strengths up to 30 V/m
- Process connection
 - High Pressure Side : 1-1/2", 2", 3", 4" Flanges
ANSI / DIN / JIS / Tri-Clamp
 - Extended Diaphragm : 2", 4", 6" length
 - Low Pressure Side : 1/4" - 18 NPT , 1/2" - 14 NPT
- Ambient Temperature : -25 to +85 °C
- Dimensions : 102 mm (W) * 188 mm (H) * 189 mm (D)
- Weight : 8 - 15 Kg



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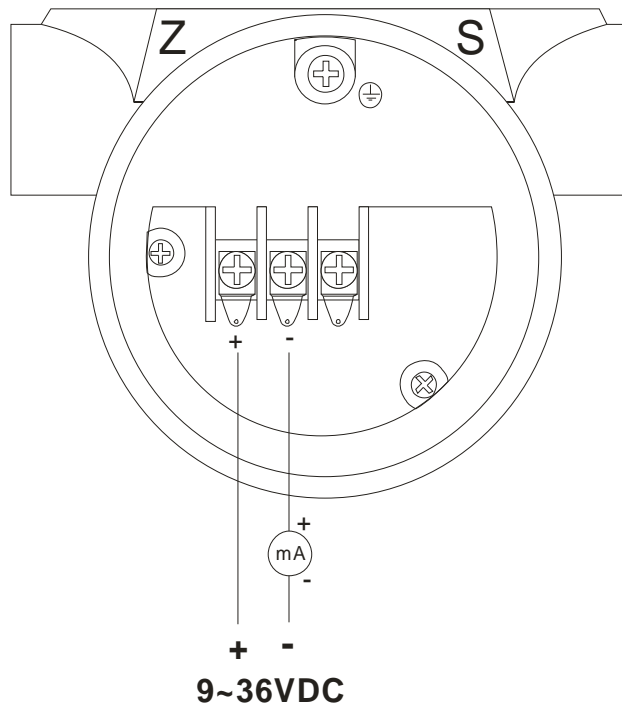
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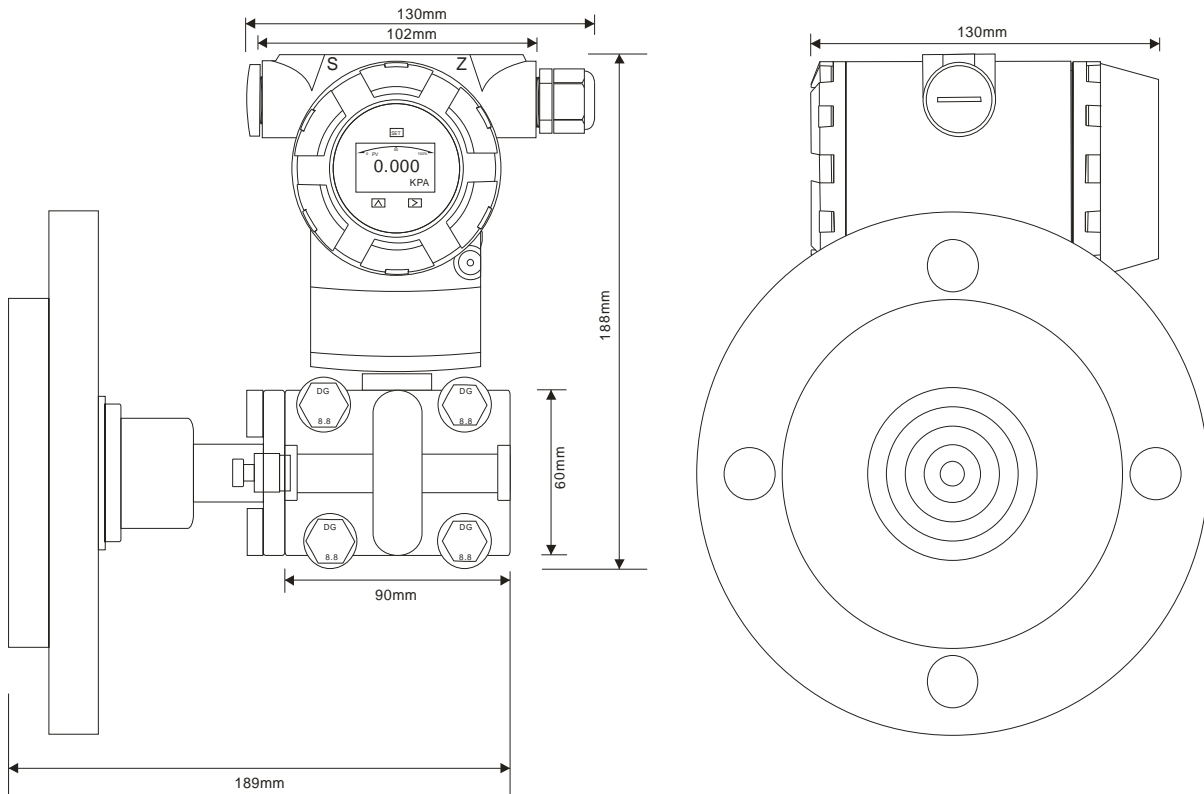
MEASURING RANGE

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 - 632.2 mmH2O	0 - 3773 mmH2O	◆	◆	◆
	0 - 62 mbar	0 - 370 mbar	0 - 24.89 InH2O	0 - 148.5 InH2O			
	0 - 0.899 psi	0 - 5.366 psi	0 - 0.063 Kg/cm2	0 - 0.377 Kg/cm2			
5	0 - 30 Kpa	0 - 180 Kpa	0 - 3.059 MH2O	0 - 18.35 MH2O	◆	◆	◆
	0 - 300 mbar	0 - 1800 mbar	0 - 120.4 InH2O	0 - 722.6 InH2O			
	0 - 4.351 psi	0 - 26.11 psi	0 - 0.306 Kg/cm2	0 - 1.835 Kg/cm2			
6	0 - 117 Kpa	0 - 690 Kpa	0 - 11.93 MH2O	0 - 70.36 MH2O	◆	◆	◆
	0 - 1.170 Bar	0 - 6.900 Bar	0 - 469.7 InH2O	0 - 2770 InH2O			
	0 - 16.97 psi	0 - 100.1 psi	0 - 1.193 Kg/cm2	0 - 7.036 Kg/cm2			
7	0 - 350 Kpa	0 - 2000 Kpa	0 - 35.69 MH2O	0 - 203.9 MH2O	◆	◆	◆
	0 - 3.5 Bar	0 - 20 Bar	0 - 1405 InH2O	0 - 8029 InH2O			
	0 - 50.76 psi	0 - 290.1 psi	0 - 3.569 Kg/cm2	0 - 20.39 Kg/cm2			
8	0 - 1.17 Mpa	0 - 6.8 Mpa	0 - 119.3 MH2O	0 - 693.4 MH2O	◆	◆	◆
	0 - 11.70 Bar	0 - 68 Bar	0 - 4697.1 InH2O	0 - 27299 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 - 407.9 MH2O	0 - 2549 MH2O	◆	◆	◆
	0 - 40 Bar	0 - 250 Bar	0 - 16059 InH2O	0 - 100366 InH2O			
	0 - 580.2 psi	0 - 3626 psi	0 - 40.79 Kg/cm2	0 - 254.9 Kg/cm2			

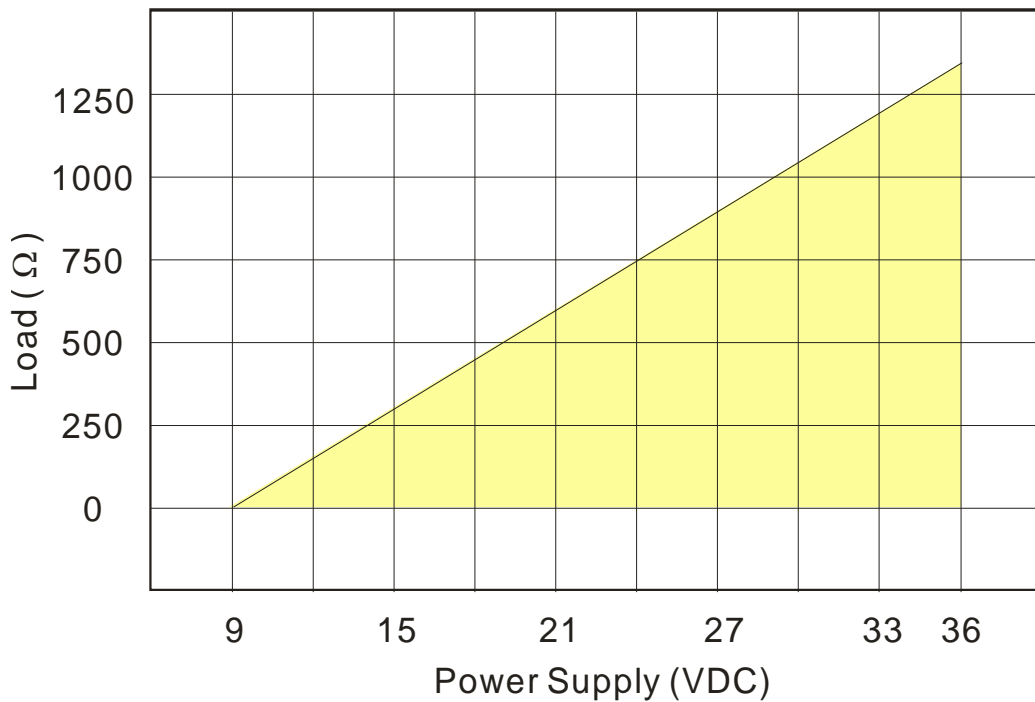
WIRING DIAGRAM



➤ 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 - 6.2 (0.37) Kpa ... 0 - 37 Kpa
	5											0 - 30 (1.8) Kpa ... 0 - 180 Kpa
	6											0 - 117 (6.9) Kpa ... 0 - 690 Kpa
	7											0 - 350 (20) Kpa ... 0 - 2000 Kpa
	8											0 - 1.17 (0.068) Mpa ... 0 - 6.8 Mpa
	9											0 - 4.0 (0.25) Mpa ... 0 - 25 Mpa
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 Rating	1											1-1/2" (Diaphragm Diameter If Extended: 38mm)
	2											2" (Diaphragm Diameter If Extended: 48mm)
	3											3" (Diaphragm Diameter If Extended: 66mm)
	4											4" (Diaphragm Diameter If Extended: 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 130 °C)
	-S											HT Silicone (Max. Temperature 250 °C)
	-F											Fluorine (Max. Temperature 160 °C)
	-V											Vegetable Oil (Max. Temperature 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 (Compatible)
	-ZZ											Others