

GENERAL

ALIADP ADP9000 series is a digital differential pressure transmitter designed for industrial pressure measurement applications. The ADP9000 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 0.2%
- 0.075% accuracy
- Parameter setting by keypad directly
- 4-20 mA output plus direct digital HART communication
- Automatic zero calibration by press-button
- Explosion proof and weather proof housing

STANDARD SPECIFICATION

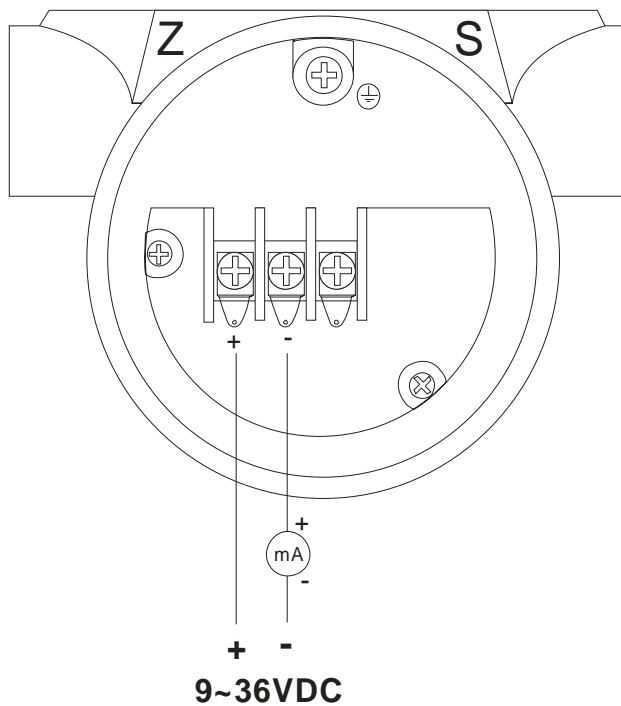
- | | | | |
|-----------------------|---|-----------------------|---|
| ● Process Fluid | : Liquid, Gas or Vapor | ● Display | : 5 Digits programmable & 0-100% bargraph |
| ● Application | : Differential Pressure, Gauge Pressure, Absolute Pressure | ● Display Unit | : 22 standard different engineering units 5 Digits programmable for special unit |
| ● Measuring Range | : 0 - 0.5 InH ₂ O ~ 0 - 6.0 InH ₂ O (Min.) : 0 - 580.2 psi ~ 0 - 3626.0 psi (Max.) | ● Keyboard | : 3 internal keys for programming and output setting |
| ● Turndown Ratio | : 1 : 100 | ● Current Output | : 4 - 20 mA 2 wires with Hart signal Load : $R_{ohm} = (V_{dc} - 9) * 50$ |
| ● Accuracy | : +/- 0.075% of span | ● Power Supply | : 9 - 36 VDC |
| ● Stability | : +/-0.15% of URL for 2 years | ● Damping | : 0 - 32 Seconds |
| ● Working Temperature | : -13 to +203 °F (-25 to +95 °C) | ● Response Time | : 200 mS |
| ● Max. Pressure | : 5801 psi | ● Mounting | : Bracket on 2" Pipe |
| ● Material | | ● Humidity Limit | : 0 to 100% Relative Humidity |
| Flange/Adapter | : Stainless Steel 304 / Stainless Steel 316 | ● Turn on Time | : 2 Seconds with minimum damping |
| Drain/Vent | : Stainless Steel 304 / Stainless Steel 316 | ● Zero Calibration | : Automatic zero calibration by press-button |
| Diaphragm | : Stainless Steel 316L / Hastelloy B / Hastelloy C / Monel / Tantalum | ● Cable Entry | : M20 Conduit Threads / 1/2" NPT (Female) |
| Wetted O-Ring | : Buna N / Viton / PTFE | ● Temperature Effect | : +/-0.18% of span per 20 °C |
| Bolts & Nuts | : Carbon Steel / Stainless Steel 316 | ● Vibration Effect | : +/-0.05% of URL per g to 200 Hz in any axis |
| Mounting Bracket | : Carbon steel / Stainless Steel 304 / 316 | ● EMI/RFI Effect | : Follow SAMA PMC 33.1 from 20 to 1000 MHz and for field strengths up to 30 V/m |
| Name / Tag Plate | : Stainless Steel 304 / Stainless Steel 316 | ● Process connection | : 1/4 - 18 NPT : 1/2 - 14 NPT (with adapter) |
| Converter Housing | : Low copper cast aluminum alloy with polyurethane, light blue paint | ● Ambient Temperature | : -13 to +176 °F / -25 to +80 °C |
| Fill Fluid | : Silicone / Fluorine Oil | ● Dimensions | : 4.0" (W) * 7.4" (H) * 5.1" (D) |
| ● Protection Class | : IP67 (Standard) : Intrinsically Safe EEx ia IIC T5 (Standard) : Explosion proof Ex D IIB T5 | ● Weight | : 7.7 lb (3.5Kg) |



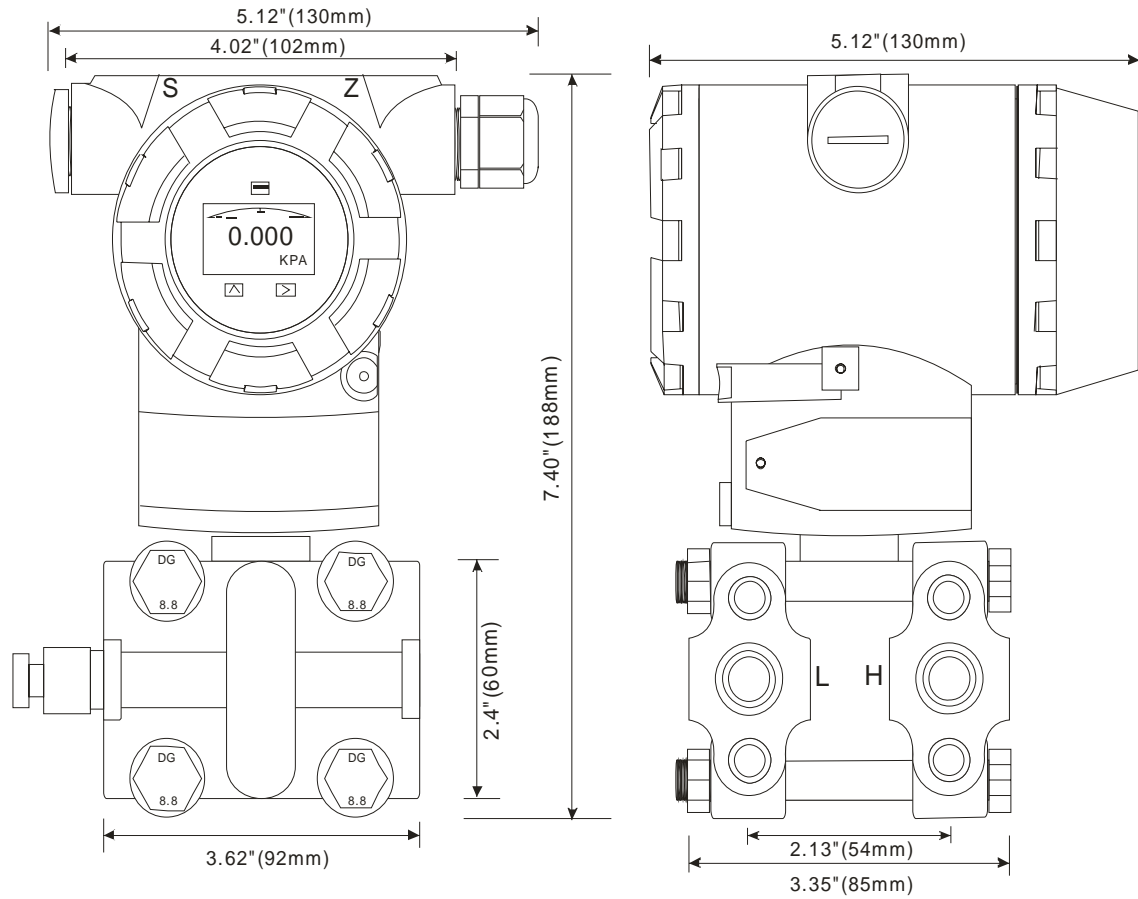
MEASURING RANGE

| Range Code | Pressure Range | | | | Transmitter | | |
|------------|----------------|---------------|------------------|------------------|-----------------------|----------------|-------------------|
| | Low Range | High Range | Low Range | High Range | Differential Pressure | Gauge Pressure | Absolute Pressure |
| 2 | 0 - 0.125 Kpa | 0 - 1.5 Kpa | 0 - 0.938 mmHg | 0 - 11.251 mmHg | ◆ | ◆ | |
| | 0 - 1.250 mbar | 0 - 15 mbar | 0 - 0.5018 InH2O | 0 - 6.022 InH2O | | | |
| | 0 - 0.018 psi | 0 - 0.218 psi | 0 - 0.001 Kg/cm2 | 0 - 0.015 Kg/cm2 | | | |
| 3 | 0 - 1.3 Kpa | 0 - 7.5 Kpa | 0 - 9.75 mmHg | 0 - 56.25 mmHg | ◆ | ◆ | |
| | 0 - 13 mbar | 0 - 75 mbar | 0 - 5.219 InH2O | 0 - 30.11 InH2O | | | |
| | 0 - 0.189 psi | 0 - 1.088 psi | 0 - 0.013 Kg/cm2 | 0 - 0.076 Kg/cm2 | | | |
| 4 | 0 - 6.2 Kpa | 0 - 37 Kpa | 0 - 46.5 mmHg | 0 - 277.5 mmHg | ◆ | ◆ | ◆ |
| | 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 - 225mmHg | 0 - 1350 mmHg | ◆ | ◆ | ◆ |
| | 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 - 34.5 InHg | 0 - 203.8 InHg | ◆ | ◆ | ◆ |
| | 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 - 103.4 InHg | 0 - 590.5 InHg | ◆ | ◆ | ◆ |
| | 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 - 345.5 InHg | 0 - 2008.0 InHg | ◆ | ◆ | ◆ |
| | 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 - 1181.2 InHg | 0 - 7381.6 InHg | ◆ | ◆ | ◆ |
| | 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 | | | |

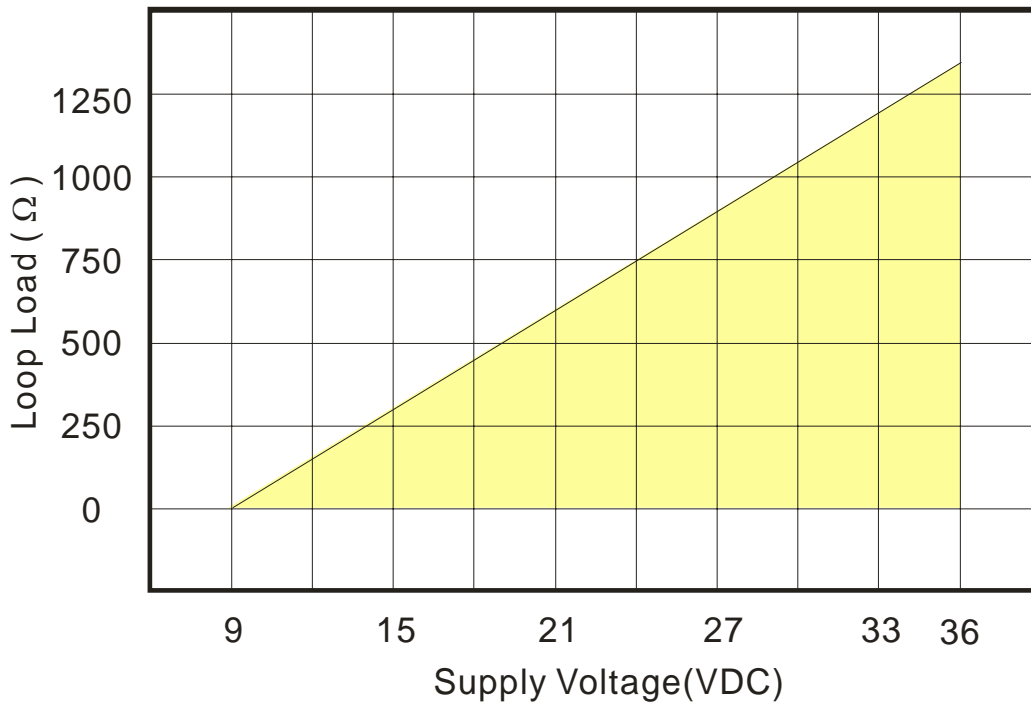
WIRING DIAGRAM



➤ DIMENSIONS



➤ Supply Voltage VS Loop Load



MODEL SELECTION GUIDE

| ADP9000 Series | | | | | | | | | | | | | |
|--|-----|---|----|---|---|----|---|---|----|---|---|-----|--|
| Example:ADP9000-D3-CNS-6NF-NNN-EX/S6 | | | | | | | | | | | | | |
| ADP9000- | X | X | -X | X | X | -X | X | X | -X | X | X | -XX | Description |
| Type | D | | | | | | | | | | | | Differential Pressure Transmitter |
| | G | | | | | | | | | | | | Gauge Pressure Transmitter |
| | A | | | | | | | | | | | | Absolute Pressure Transmitter |
| Pressure Range | 2 | | | | | | | | | | | | 0 - 0.5(0.06)InH2O ... 0 - 6.0InH2O (Type D/G) |
| | 3 | | | | | | | | | | | | 0 - 5.2(0.3011)InH2O ... 0 - 30.11InH2O (Type D/G) |
| | 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 |
| Diaphragm Material | -N | | | | | | | | | | | | Stainless Steel 316L |
| | -B | | | | | | | | | | | | Hastelloy B |
| | -C | | | | | | | | | | | | Hastelloy C |
| | -P | | | | | | | | | | | | Monel |
| | -T | | | | | | | | | | | | Tantalum |
| Process Flanges, Drain/Vent valve Material | N | | | | | | | | | | | | Stainless Steel 304 |
| | S | | | | | | | | | | | | Stainless Steel 316 |
| Bolts / Nuts Material | N | | | | | | | | | | | | Carbon Steel |
| | S | | | | | | | | | | | | Stainless Steel 316 |
| Mounting Bracket Material | -N | | | | | | | | | | | | Carbon Steel |
| | -4 | | | | | | | | | | | | Stainless Steel 304 |
| | -6 | | | | | | | | | | | | Stainless Steel 316 |
| Wetted O-ring Material | N | | | | | | | | | | | | Buna-N |
| | V | | | | | | | | | | | | Viton |
| | P | | | | | | | | | | | | PTFE |
| Fill Fluid | N | | | | | | | | | | | | Silicone |
| | F | | | | | | | | | | | | Fluorine |
| Process Connection | -N | | | | | | | | | | | | 1/4" - 18 NPT |
| | -A | | | | | | | | | | | | 1/2" - 14 NPT(with Adapter) |
| | -Z | | | | | | | | | | | | Other |
| Cable Entry | N | | | | | | | | | | | | M20 Conduit Threads |
| | P | | | | | | | | | | | | 1/2" NPT(Female) |
| | Z | | | | | | | | | | | | Other |
| Maximum Pressure Limit | N | | | | | | | | | | | | 580 psi |
| | 1 | | | | | | | | | | | | 928 psi |
| | 2 | | | | | | | | | | | | 2320 psi |
| | 3 | | | | | | | | | | | | 5801 psi |
| Option | -NN | | | | | | | | | | | | None |
| | -EX | | | | | | | | | | | | Explosion proof Ex D IIB T5 |
| | -S6 | | | | | | | | | | | | Stainless Steel 316 Name Plate and Tag Plate |
| | -HT | | | | | | | | | | | | Hart Signal |
| | -ZZ | | | | | | | | | | | | Others |