

GENERAL

ALIAPT The APT8000 Series is a digital pressure transmitter designed for industrial pressure measurement applications.

The APT8000 offer configurations for gauge pressure, absolute pressure and vacuum including integrated solutions for industrial applications.

FEATURES

- Updating time of output current in 90 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 press-button
- Explosion Proof and weather proof housing

STANDARD SPECIFICATION

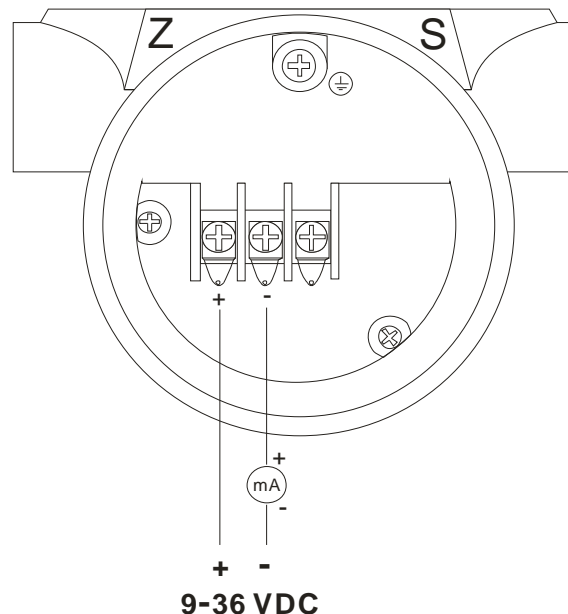
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|-----------------------|--|-------------------------|--|
| ● Process Fluid | : Liquid, Gas, Vapor | ● Display | : 5 Digits programmable & 0-100% Bargraph |
| ● Application | : Absolute Pressure, Gauge Pressure, Vacuum | ● Display Unit | : Standard 22 different engineering unit : 5 Digits programmable for special unit |
| ● Measuring Range | : 0-10 kPa~0-30 kPa (Minimum) : 0-32 MPa~0-70 MPa (Maximum) | ● Keypad | : 3 Internal keys for Programming and output setting |
| ● Turndown Ratio | : 100:1 | ● Current Output | : 4-20 mA (2-Wire) with Hart Signal (Compatible) 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 | : -25~95 °C | ● Damping | : 0-32 Seconds |
| ● Max. Pressure | : 70 MPa | ● Response Time | : 100 ms |
| ● Material | | ● Mounting | : Direct installation or bracket on 2" Pipe |
| Connection | : Stainless Steel 304 / Stainless Steel 316 | ● Humidity Limit | : 0-100% Relative Humidity |
| Diaphragm | : Stainless Steel 316 / Tantalum | ● Turn on Time | : 2 Seconds with minimum damping |
| Housing | : Low copper cast aluminum alloy with polyurethane, light blue paint | ● Zero Calibration | : Automatic zero calibration by push-button |
| Name / Tag Plate | : Stainless Steel 304 / Stainless Steel 316 | ● Ambient Temperature | : -25~85 °C |
| ● Cable Entry | : M20 Conduit Threads / 1/2" NPT (Female) | ● Dimensions | : 102 mm (W) * 160 mm (H) * 130 mm (D) |
| ● Process Connection | : 1/2" NPT, 1/2" BSPP | ● Weight | : 1.3 kg |
| ● Temperature Effect | : +/-0.18%~+/-0.5% of span per 20 °C | ● Protection Class | : IP67 (Standard) : Intrinsically Safe, Eex ia IIC T5 (Standard) : Explosion Proof, Ex db IIC T6 |
| ● Over Pressure Limit | : 200% of Full Scale | | |
| ● Vibration Effect | : +/-0.05% of URL per g to 200 Hz in any axis | | |
| ● EMI / RFI Effect | : Follow SAMA PMC 33.1 from 20-1000 MHz and for field strengths up to 30 V/m | | |



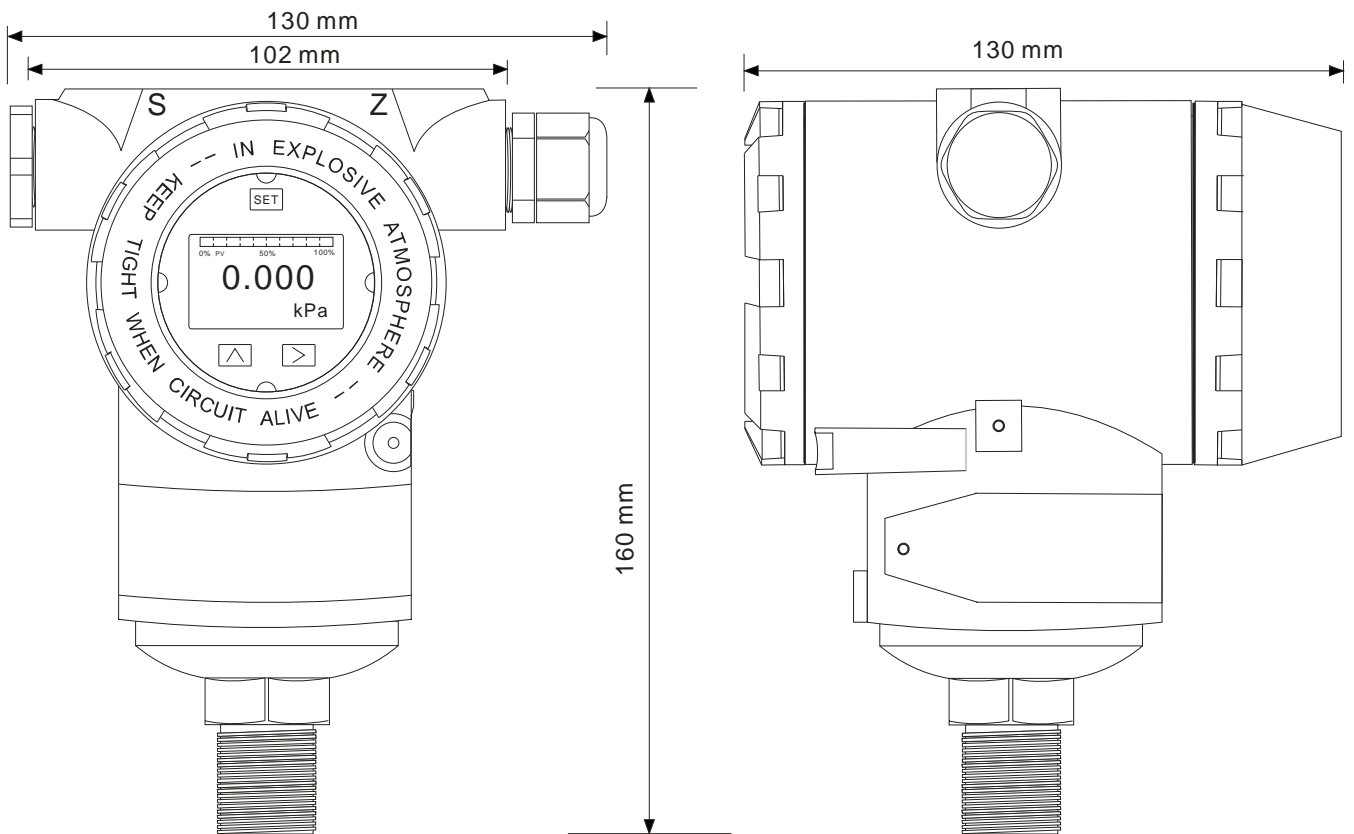
MEASURING RANGE

| Range Code | Pressure Range | | | | Transmitter | |
|------------|----------------|---------------|------------------------------|-----------------------------|----------------|-------------------|
| | Low Range | High Range | Low Range | High Range | Gauge Pressure | Absolute Pressure |
| 2 | 0-10 kPa | 0-30 kPa | 0 -1020 mmH ₂ O | 0-3059 mmH ₂ O | ◆ | ◆ |
| | 0-100 mbar | 0-300 mbar | 0-40.15 inH ₂ O | 0-120.4 inH ₂ O | | |
| | 0-1.450 psi | 0-4.351 psi | 0 -0.102 kgf/cm ² | 0-0.306 kgf/cm ² | | |
| 3 | 0-30 kPa | 0-100 kPa | 0-3059 mmH ₂ O | 0-10197 mmH ₂ O | ◆ | ◆ |
| | 0-300 mbar | 0-1000 mbar | 0-120.4 inH ₂ O | 0-401.5 inH ₂ O | | |
| | 0-4.351 psi | 0-14.50 psi | 0-0.306 kgf/cm ² | 0-1.020 kgf/cm ² | | |
| 4 | 0-100 kPa | 0-200 kPa | 0-10.20 mH ₂ O | 0-20.39 mH ₂ O | ◆ | ◆ |
| | 0-1000 mbar | 0-2000 mbar | 0-401.5 inH ₂ O | 0-802.9 inH ₂ O | | |
| | 0-14.50 psi | 0-29 psi | 0-1.020 kgf/cm ² | 0-2.039 kgf/cm ² | | |
| 5 | 0-200 kPa | 0-700 kPa | 0-20.39 mH ₂ O | 0-71.38 mH ₂ O | ◆ | ◆ |
| | 0-2.0 bar | 0-7.0 bar | 0-802.9 inH ₂ O | 0-2810 inH ₂ O | | |
| | 0-29 psi | 0-101.5 psi | 0-2.039 kgf/cm ² | 0-7.138 kgf/cm ² | | |
| 6 | 0-700 kPa | 0-1.7 MPa | 0-71.38 mH ₂ O | 0-173.4 mH ₂ O | ◆ | ◆ |
| | 0-7.0 bar | 0-17.0 bar | 0-2810 inH ₂ O | 0-6825 inH ₂ O | | |
| | 0-101.5 psi | 0-246.6 psi | 0-7.138 kgf/cm ² | 0-17.34 kgf/cm ² | | |
| 7 | 0-1.7 MPa | 0-3.5 MPa | 0-173.4 mH ₂ O | 0-356.9 mH ₂ O | ◆ | ◆ |
| | 0-17.0 bar | 0-35.0 bar | 0-6825 inH ₂ O | 0-14051 inH ₂ O | | |
| | 0-246.6 psi | 0-507.6 psi | 0-17.34 kgf/cm ² | 0-35.69 kgf/cm ² | | |
| 8 | 0-3.5 MPa | 0-7.0 MPa | 0-356.9 mH ₂ O | 0-713.8 mH ₂ O | ◆ | ◆ |
| | 0-35.0 bar | 0-70.0 bar | 0-14051 inH ₂ O | 0-28102 inH ₂ O | | |
| | 0-507.6 psi | 0-1015 psi | 0-35.69 kgf/cm ² | 0-71.38 kgf/cm ² | | |
| 9 | 0-7.0 MPa | 0-32 MPa | 0-713.8 mH ₂ O | 0-3263 mH ₂ O | ◆ | ◆ |
| | 0-70.0 bar | 0-320.0 bar | 0-28102 inH ₂ O | 0-128468 inH ₂ O | | |
| | 0-1015 psi | 0-4641.2 psi | 0-71.38 kgf/cm ² | 0-326.3 kgf/cm ² | | |
| A | 0-32 MPa | 0-70 MPa | 0-3263 mH ₂ O | 0-7137.9 mH ₂ O | ◆ | ◆ |
| | 0-320 bar | 0-700.0 bar | 0-128468 inH ₂ O | 0-281024 inH ₂ O | | |
| | 0-4641.2 psi | 0-10152.6 psi | 0-326.3 kgf/cm ² | 0-713.8 kgf/cm ² | | |

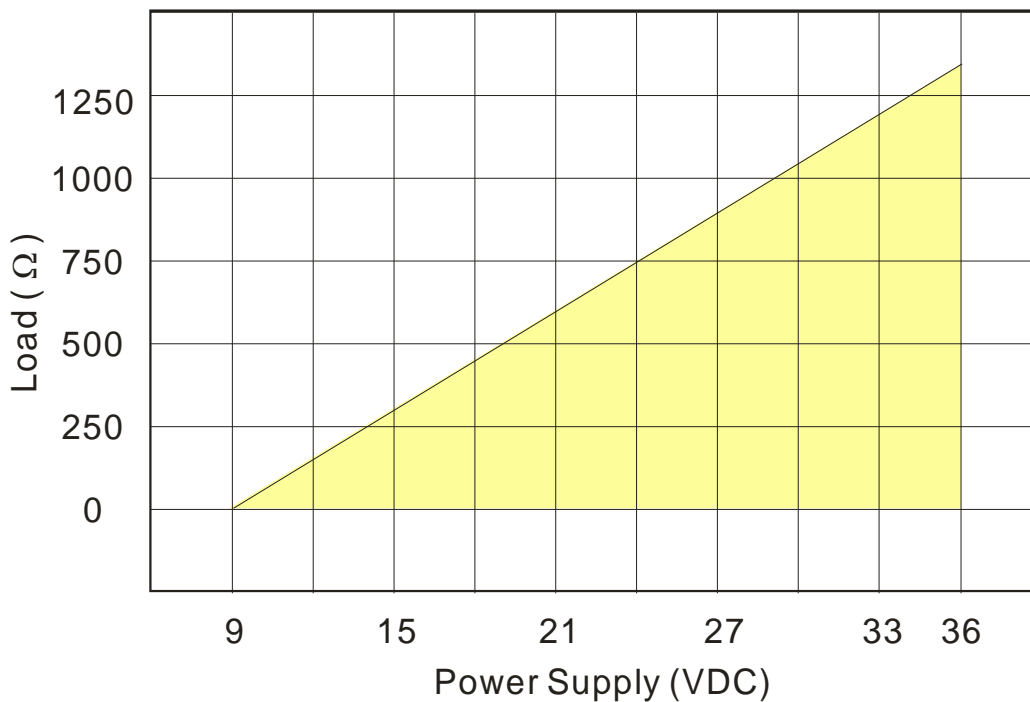
WIRING DIAGRAM



DIMENSIONS



Supply Voltage VS Loop Load



MODEL SELECTION GUIDE

| APT8000 Series | | | | | | | | | | |
|-------------------------------|-----|---|---|---|----|---|---|---|-----|---------------------------------|
| Example: APT8000-G36N-N6NN-NN | | | | | | | | | | |
| APT8000- | X | X | X | X | -X | X | X | X | -XX | Description |
| Type | G | | | | | | | | | Gauge Pressure Transmitter |
| | A | | | | | | | | | Absolute Pressure Transmitter |
| Pressure Range | 2 | | | | | | | | | 0-10 (0.3) kPa ... 0-30 kPa |
| | 3 | | | | | | | | | 0-30 (1.0) kPa ... 0-100 kPa |
| | 4 | | | | | | | | | 0-100 (2.0) kPa ... 0-200 kPa |
| | 5 | | | | | | | | | 0-200 (7.0) kPa ... 0-700 kPa |
| | 6 | | | | | | | | | 0-700 (17) kPa ... 0-1.7 MPa |
| | 7 | | | | | | | | | 0-1.7 (0.035) MPa ... 0-3.5 MPa |
| | 8 | | | | | | | | | 0-3.5 (0.07) MPa ... 0-7.0 MPa |
| | 9 | | | | | | | | | 0-7.0 (0.32) MPa ... 0-32 MPa |
| | A | | | | | | | | | 0-32 (0.70) MPa ... 0-70 MPa |
| Process Connector material | N | | | | | | | | | Stainless Steel 304 |
| | 6 | | | | | | | | | Stainless Steel 316 |
| Diaphragm Material | N | | | | | | | | | Stainless Steel 316L |
| | T | | | | | | | | | Tantalum |
| | Z | | | | | | | | | Other |
| Process Connection | -N | | | | | | | | | 1/2" NPTM |
| | -B | | | | | | | | | 1/2" BSPP |
| | -Z | | | | | | | | | Other |
| Name Plate Material | N | | | | | | | | | Stainless Steel 304 |
| | 6 | | | | | | | | | Stainless Steel 316 |
| Cable Entry | N | | | | | | | | | M20 Conduit Threads |
| | P | | | | | | | | | 1/2" NPT (Female) |
| | Z | | | | | | | | | Other |
| Mounting Bracket Material | N | | | | | | | | | None |
| | 4 | | | | | | | | | Stainless Steel 304 |
| | 6 | | | | | | | | | Stainless Steel 316 |
| Option | -NN | | | | | | | | | None |
| | -EX | | | | | | | | | Explosion Proof, Ex db IIC T6 |
| | -HT | | | | | | | | | HART Signal (Compatible) |
| | -RS | | | | | | | | | Customized range setting |
| | -RC | | | | | | | | | Customized range calibration |
| | -ZZ | | | | | | | | | Others |