

GENERAL

ALIAPT The APT80CS Series is a digital pressure transmitter designed for industrial pressure measurement applications.

The APT80CS 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

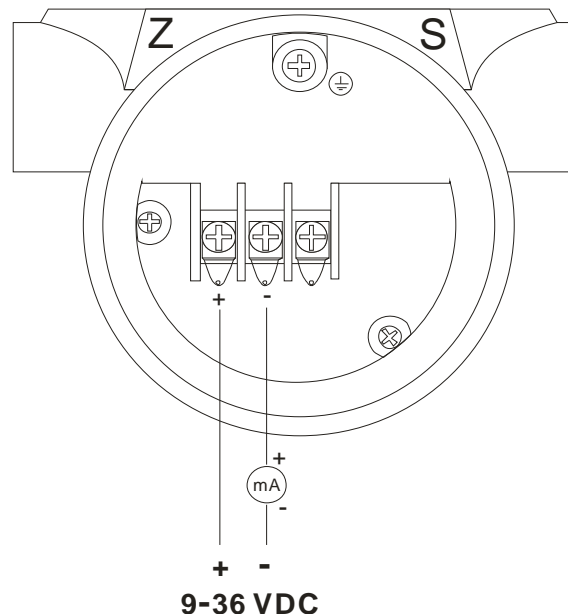
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|-----------------------|--|-------------------------|---|
| ● Process Fluid | : Liquid, Gas, Vapor | ● Display | : 5 Digits programmable & 0-100% Bargraph |
| ● Application | : Absolute Pressure, Gauge Pressure, Vacuum | ● Display Unit | : Standard 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 wires)
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 d IIB T5 |
| ● Over Pressure Limit | : 120% 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 | | |



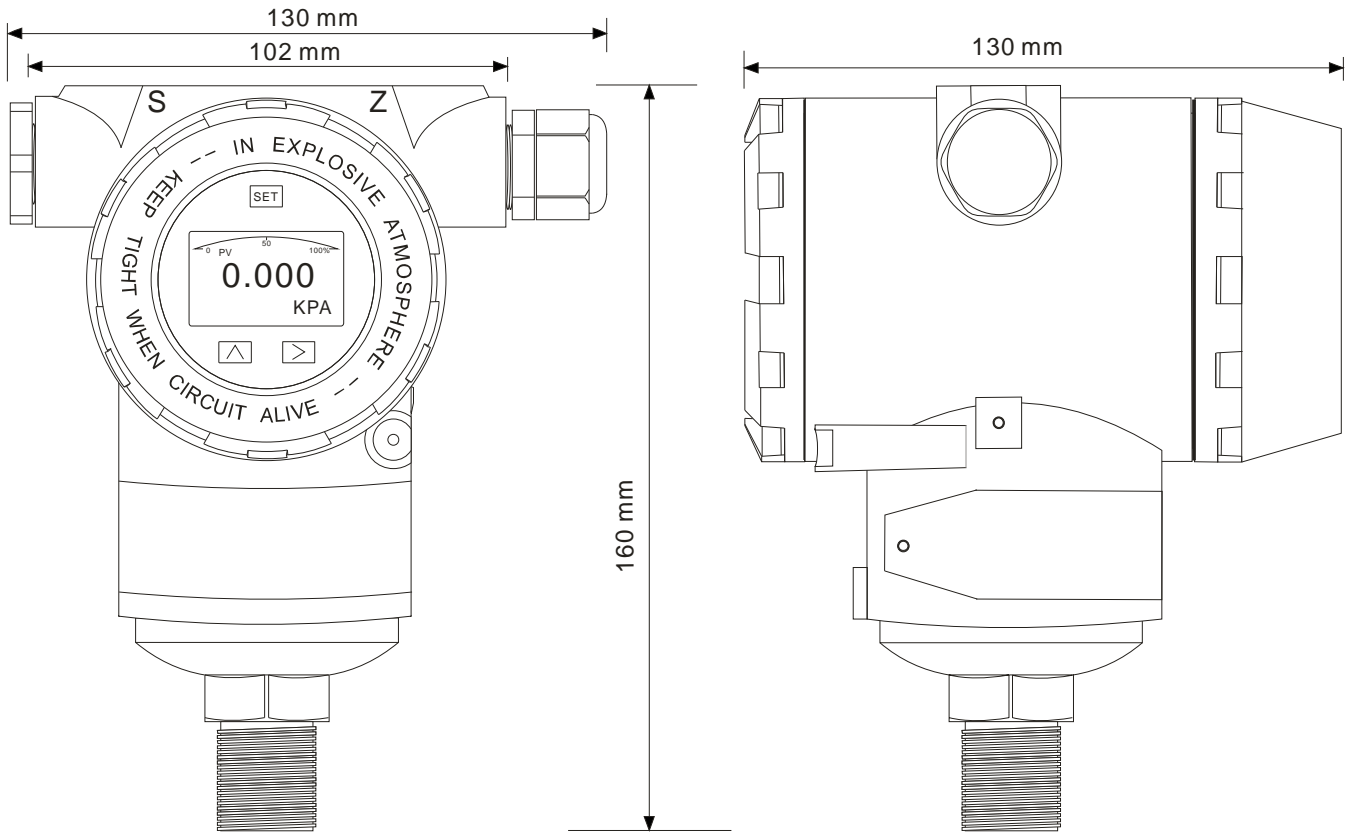
MEASURING RANGE

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		

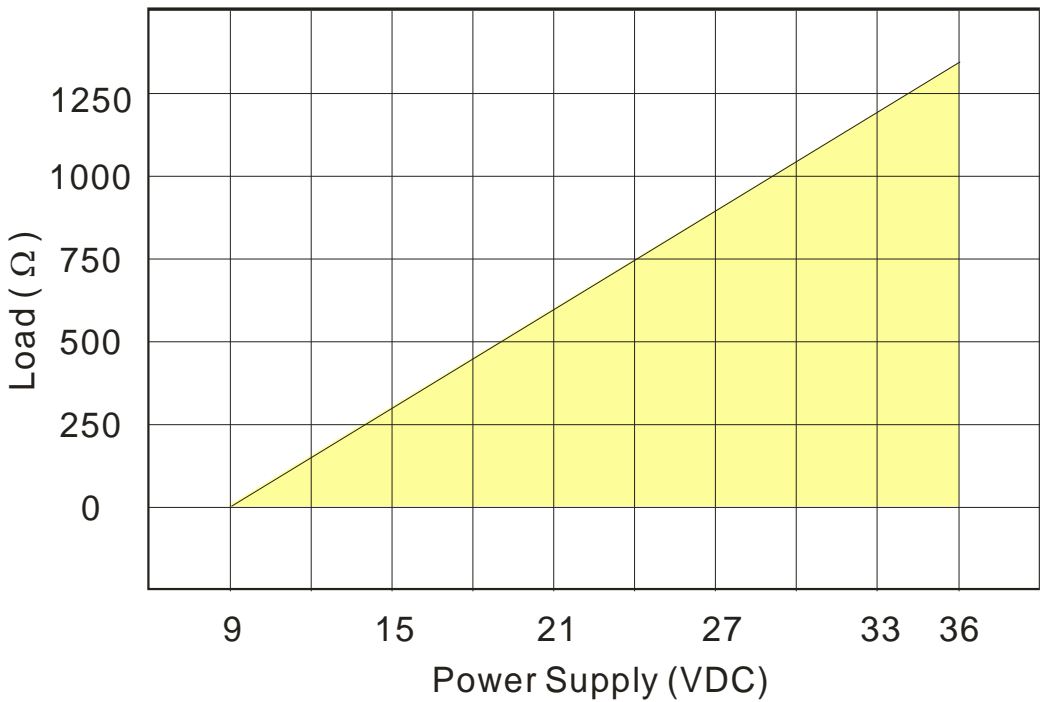
WIRING DIAGRAM



➤ DIMENSIONS



➤ Supply Voltage VS Loop Load



MODEL SELECTION GUIDE

APT80CS Series										
Example: APT80CS-G36N-N6NN-NN										
APT80CS-	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" NPT
	-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 d IIB T5
	-HT									HART Signal (Compatible)
	-RS									Customized range setting
	-RC									Customized range calibration
	-ZZ									Others