ALIADPFLOW
MultiVariable Transmitter
Model APT9600 Series

GENERAL

ALIADPFLOW The MultiVariable Transmitter APT9600 Series is adaptable and capable of multivariable measurements of differential pressure, static pressure and process temperature. The Transmitter includes flow equations for steam, gases and liquids. This device is also engineered with built-in flow calculations for fully compensated mass flow measurements. Multivariable Transmitter designed to meet challenging processes.

FEATURES

- Converter can be rotated at 4 directions for easy installation
- Multiple variables Measures, streamline process and cost-efficiency
- Fuly compensation available for gas and steam measurements
- Liquid mass measurements can be density compensated by temperature
- 0.075% accuracy
- Parameter setting by keypad directly
- 4-20 mA output, HART communication
- Transmitter allows multivariable measurements in combinations of differential and static pressure and temperature

STANDARD SPECIFICATION

- Process Fluid : Liquid, Gas, Steam
- Application : Differential pressure, Static pressure
  Temperature, Flow
- DP range : 0-200 kPa
- Pressure Range : 0-25 MPa (0-250 bar)
- Temperture : -25~500 °C (-13 °F ~ 932 °F) RTD (PT1000)
- Flow Range : 0-999999
- Turndown Ratio : 100:1
- Accuracy : +/-0.075% of span
  : Class A (Temperature)
- Stability : +/-0.15% of URL for 2 years
- Working Temperature : -25~95 °C
- Ambient Temperature : -25~70 °C
- Material

  Flange / Adapter : Stainless Steel 304 / Stainless Steel 316
  Drains / Vents : Stainless Steel 304 / Stainless Steel 316
  Diaphragm : Stainless Steel 316L / Hastelloy C
  Wetted O-Ring : Buna N / Viton / PTFE
  Bolts & Nuts : Carbon Steel / Stainless Steel 316
  T. Sensor wetted parts : Stainless Steel 316L / Hastelloy C
  Converter Housing : Low copper cast aluminum alloy with polyurethane, light blue paint
- Fill Fluid : Silicone Oil
- Mounting : Direct Mounting / Bracket on 2" Pipe
- Display : 8-Digit totalizer, 6-Digit flow rate
  : 5-Digit Pressure, 5-Digit Temp.
- Display Unit : 32 Flow engineering unit
- Keypad : 3 Internal keys for programming and output setting
- Current Output : 4-20 mA (2-Wire) with HART signal (Compatible)
  Load : Rohm= (VDC-12) * 50
- Power Supply : 12-32 VDC
- Damping : 0-32 Seconds
- Humidity Limit : 0-100% Relative Humidity
- Turn on Time : 2 Seconds with minimum damping
- Zero Calibration : Automatic zero calibration by press-button
- Cable Entry : M20 Conduit Threads / 1/2" NPT (Female)
- Protection Class : IP67 (Standard)
  : Intrinsically Safe, Eex ia IIC T5 (Standard)
  : Explosion Proof, Ex db IIC T6
- EMI / RFI Effect : Follow SAMA PMC 33.1 from 20-1000 MHz and for field strengths up to 30 V/m
- Vibration Effect : +/-0.05% of URL per g to 200 Hz in any axis
- Process Connection : 1/4"-18 NPT
  : 1/2"-14 NPT (with adapter)
- Dimensions : 102 mm (W) * 188 mm (H) * 130 mm (D)
- Weight : 3.5 kg

CE

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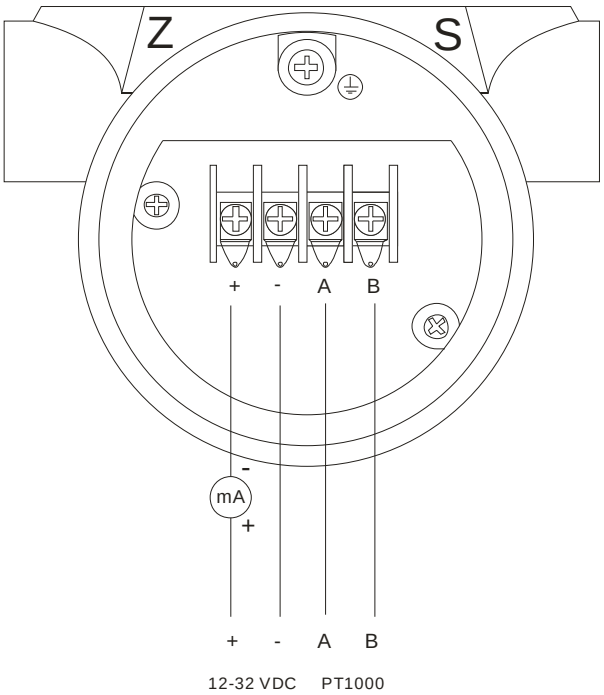
MEASURING RANGE

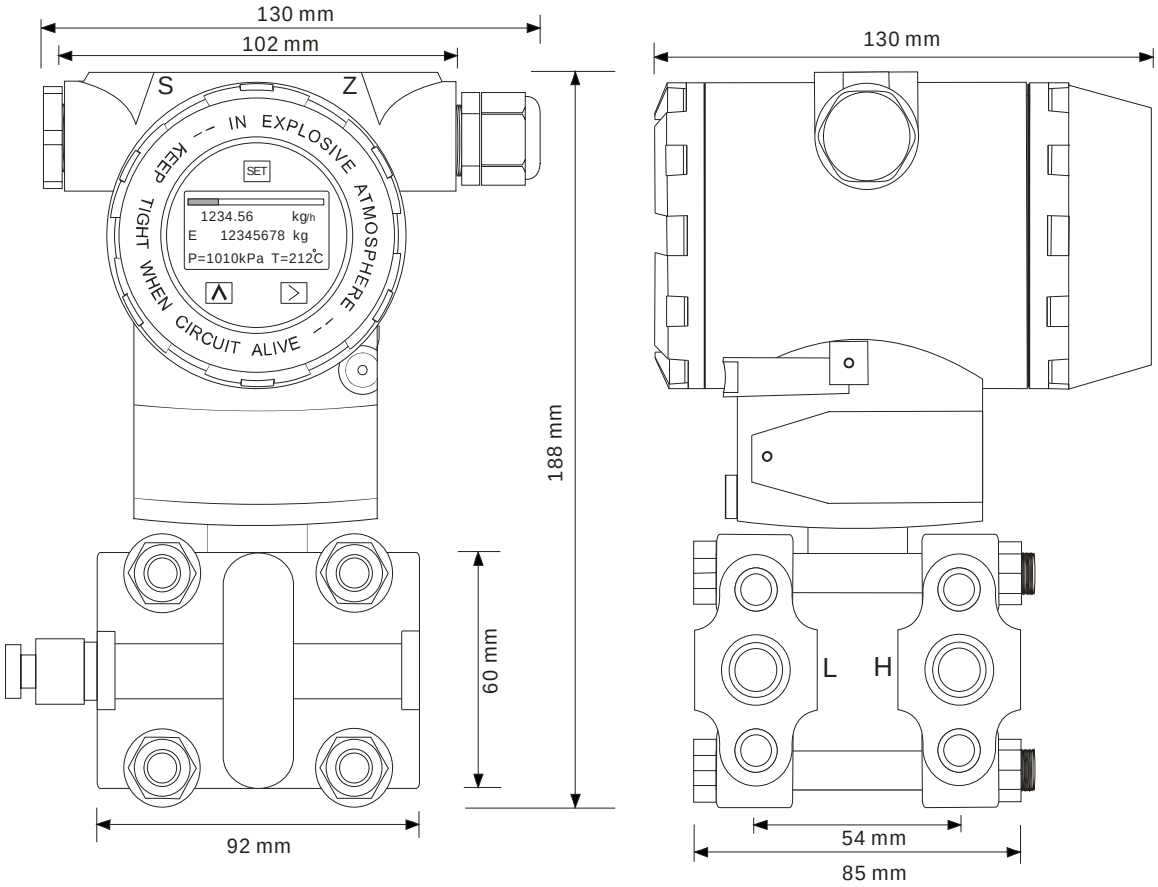
Range Code	Differential Pressure Range			
	Low Range	High Range	Low Range	High Range
3	0-1.0 kPa	0-6.0 kPa	0-102.0 mmH_2O	0-611.82 mmH_2O
	0-10 mbar	0-60 mbar	0-4.015 inH_2O	0-24.088 inH_2O
	0-0.145 psi	0-0.87 psi	0-0.010 kgf/cm^2	0-0.061 kgf/cm^2
4	0-6.0 kPa	0-40 kPa	0-611.82 mmH_2O	0-4078 mmH_2O
	0-60 mbar	0-400 mbar	0-24.088 inH_2O	0-160.6 inH_2O
	0-0.87 psi	0-5.802 psi	0-0.061 kgf/cm^2	0-0.408 kgf/cm^2
5	0-40 kPa	0-200 kPa	0-4.079 mH_2O	0-20.39 mH_2O
	0-400 mbar	0-2000 mbar	0-160.6 inH_2O	0-802.9 inH_2O
	0-5.802 psi	0-29.0 psi	0-0.408 kgf/cm^2	0-2.039 kgf/cm^2

Range Code	Maximum Pressure Range			
	Type	Range	Overload Pressure	Burst Pressure
1	Static Pressure	0-1 MPa	200%FS	400%FS
2	Static Pressure	0-2 MPa	200%FS	400%FS
3	Static Pressure	0-3 MPa	200%FS	400%FS
4	Static Pressure	0-4 MPa	200%FS	400%FS
5	Static Pressure	0-16 MPa	200%FS	400%FS
6	Static Pressure	0-25 MPa	150%FS	400%FS

WIRING DIAGRAM



DIMENSIONS



APPLICATION EXAMPLES

MODEL SELECTION GUIDE

APT9600 Series													
Example: APT9600-3-NNS-XNN-NN1T-EX/S6													
APT9600-	X	-X	X	X	-X	X	X	-X	X	X	X	-XX	Description
Differential Pressure Range	3												0-1.0 (0.06) kPa ... 0-6.0 kPa
	4												0-6.0 (0.4) kPa ... 0-40 kPa
	5												0-40 (2.0) kPa ... 0-200 kPa
Diaphragm Material		-N											Stainless Steel 316L
		-C											Hastelloy C
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
					-X								Direct mounting, without 2" Mounting Bracket
Wetted O-ring Material						N							Buna-N
						V							Viton
						P							PTFE
Fill Fluid							N						Silicone Oil
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										1			1 MPa
										2			2 MPa
										3			3 MPa
										4			4 MPa
										5			16 MPa
										6			25 MPa (With DP range code 5 only)
Temperature Sensor											N		Without RTD Temperature sensor
											T		With RTD PT1000 (Class A). See ATT1000 Series
Option												-NN	None
												-EX	Explosion Proof, Ex db IIC T6
												-S6	Stainless Steel 316 Name Plate and Tag Plate
												-HT	HART Signal (Compatible)
												-RS	Customized range setting
												-RC	Customized range calibration
												-ZZ	Others