

Differential Pressure Transmitter

AT3051DP/GP/AP Series

DESCRIPTION

AT3051DP/GP/AP series is a digital differential pressure transmitter designed for industrial pressure measurement applications.

The AT3051 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%
- 0.1% 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



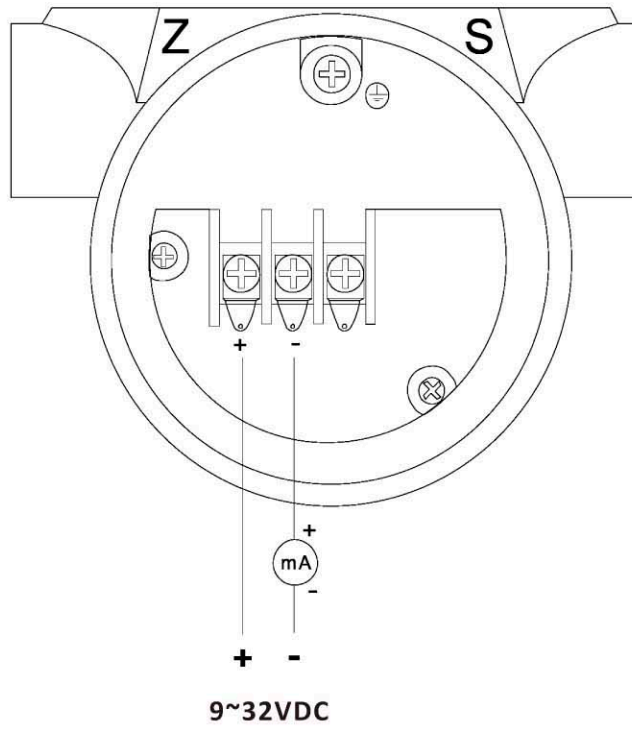
STANDARD SPECIFICATION

Process Fluid	Liquid, Gas, Vapor
Application	Absolute Pressure, Gauge Pressure, Differential Pressure
Measuring Range	0 - 6890 Kpa
Accuracy	+/- 0.1% of Span
Stability	+/-0.2% of URL for 2 Years
Working Temperature	-25 to +95 °C
Material	
Flange/Adapter	Stainless Steel 304 / Stainless Steel 316
Drains/Vents	Stainless Steel 304 / Stainless Steel 316
Diaphragm	Stainless Steel 316L / Hastelloy C / Monel / Tantalum
Wetted O-Ring	Buna N / Viton / PTFE
Bolts & Nuts	Carbon Steel / Stainless Steel
Mounting Bracket	Carbon Steel / Stainless Steel
Name / Tag Plate	Carbon Steel / Stainless Steel
Converter Housing	Low Copper Cast Aluminum Alloy with Polyurethane, light Blue Paint
Fill Fluid	Silicone / Fluorine Oil
Protection Class	IP65 (Standard) Intrinsically Safe Type, Flameproof (Exd IIC T6) Intrinsically Safe (Exia IIC T6)

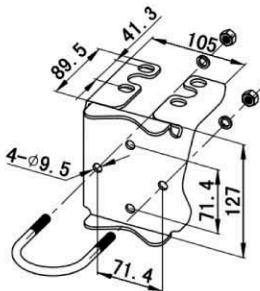
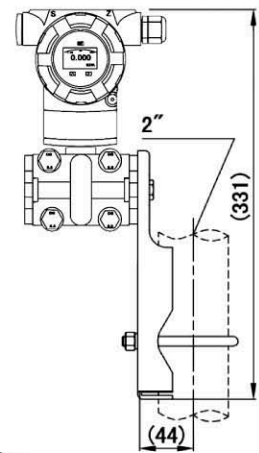
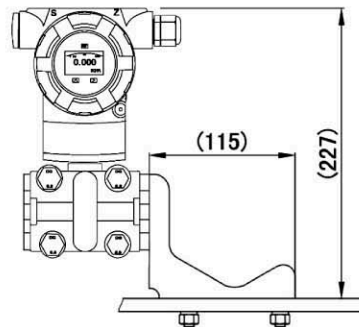
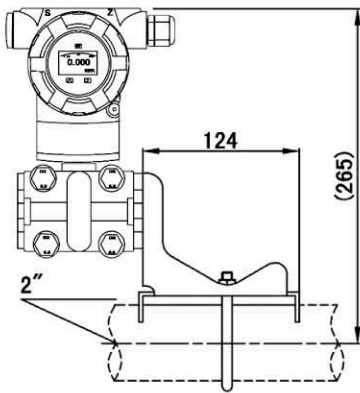
Display	5 Digits Programmable & 0-100% Bargraph
Display Unit	Standard 22 Different Engineering Unit 5 Digits Programmable for Special Unit
Keypad	3 Internal Keys for Programming and Output Setting
Current Output	4 - 20 mA 2 Wires with Hart Signal (Compatible)
Power Supply	9 - 32 VDC
Damping	0 - 32 seconds
Response Time	200 mS
Mounting	Bracket on 2" Pipe
Humidity Limit	0 to 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)
Temperature Effect	+/-0.18% ~ +/-0.5% of Span Per 20 °C
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)
Ambient Temperature	-25 to +80 °C

Differential Pressure Transmitter/Pressure Transmitter

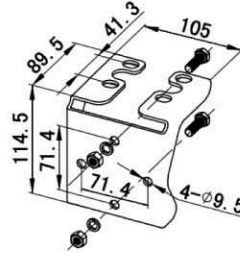
■ WIRING DIAGRAM



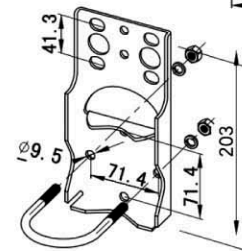
■ DIMENSIONS



B01 B04



B02 B05



B03 B06

Differential Pressure Transmitter/Pressure Transmitter

■ MODEL SELECTION

Item	Code	Specification
AT3051DP		Differential Pressure Transmitter
AT3051GP		Gauge Pressure Transmitter
AT3051AP		Absolute Pressure Transmitter
Measurement Range	2	0~1.5 Kpa
	3	0~7.5 Kpa
	4	0~37.4 Kpa
	5	0~186.8 Kpa
	6	0~690 Kpa
	7	0~2068 Kpa
	8	0~6890 Kpa
Output	S	4-20mA, HART Protocol, Linear Output
	J	4-20mA, HART Protocol, Square Root Output(Range≥5kpa)
Diaphragm Material / Fill Fluid	2	Stainless Steel 316L/Silicone Oil
	3	Hastelloy C(range >3Kpa)/Silicone Oil
	A	Stainless Steel 316L/Fluorine Oil
Drain Hole	B	Back of Process Flange or None
	U	Upper Side Process Flange
	L	Lower Side Process Flange
Wetted O-ring Material	7	Buna-N (NBR)
	6	Viton (FKM) (Temperature ≥-20°C)
	5	Low Temperature Viton (FKM-GFLT)
Process Connection	H	1/4" NPT F
Maximum Pressure Limit	1	14 Mpa(4Mpa for Range 2)
	3	25 Mpa
Cable Entry	1	M20*1.5
	2	1/2" NPT
Mounting Bracket	B00	None
	B01	Tube-type Curved Bracket (Carbon Steel)
	B02	Wall Mounting Bracket (Carbon Steel)
	B03	Tube-type Flat Bracket (Carbon Steel)
	B04	Tube-type Curved Bracket (Stainless Steel)
	B05	Wall Mounting Bracket (Stainless Steel)
	B06	Tube-type Flat Bracket (Stainless Steel)
Optional	d	Intrinsically Safe Type, Flameproof (Exd IIC T6 Gb)
	i	Intrinsically Safe (Exia IIC T6 Ga)
	M3	LCD Display
	D1	Stainless Steel Drain Valve or Screw (2pcs)
	C1	1/2" NPT Female Waist Flange (2sets)
	C12	1/2" NPT-M20*1.5-Φ14 Pressure Pipe (2sets)
	C2	M20*1.5 Male Thread T Joint (2sets)
	C21	M20*1.5 T Joint -Φ14 Pressure Pipe (2sets)
	K1	Degreasing Treatment