Diaphragm Level Transmitter

AT3051LT Series

■ DESCRIPTION

AT3051LT series is a digital differential pressure transmitter designed for industrial level measurement applications.
It can be configured to provide intergrated solutions for a broad range of pressure and level 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 push-button
Explosion proof and weather proof housing

■ STANDARD SPECIFICATION

Process Fluid	Liquid, Gas, Vapor
Application	Liquid Level, Differential Pressure, Gauge Pressure, Absolute Pressure
Measuring Range	0 - 2068 Kpa
Accuracy	+/- 0.1% of Span
Stability	+/-0.2% of URL for 2 Years
Working Temperature	-40 to +250 °C
Material	Flange/Adapter : Carbon Steel / Stainless Steel 304 / Stainless Steel 316
	Diaphragm : Stainless Steel 316L / Hastelloy C / Monel / Tantalum
	Bolts & Nuts : Carbon Steel / Stainless Steel
	Name / Tag Plate : Stainless Steel
	Converter Housing : Low Copper Cast Aluminum Alloy with Polyurethane, Light Blue Paint
	Fill Fluid : Silicone / High Temperature 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
Digital Communication	Hart Protocol
Damping	0 - 32 Seconds
Response Time	100 mS
Turn on Time	2 Seconds with Minimum Damping
Zero Calibration	Automatic Calibration by Push-button
Cable Entry	1/2" NPT(Female)/M20 Conduit Threads
Temperature Effect	+/-0.18%~+/-0.5% of Span Per 20 °C
Process Connection	High Pressure Side : 1-1/2", 2", 3", 4" Flanges ANSI/DIN/JIS/Tri-Clamp Extended Diaphragm : 2", 4", 6" Length Low Pressure Side : 1/4"-18 NPT , 1/2"-14 NPT
Ambient Temperature	-25 to+85 °C

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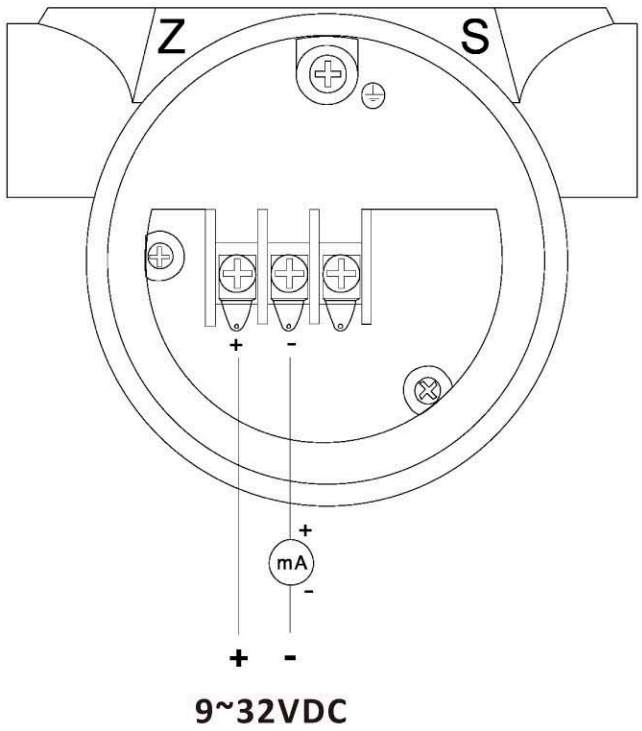
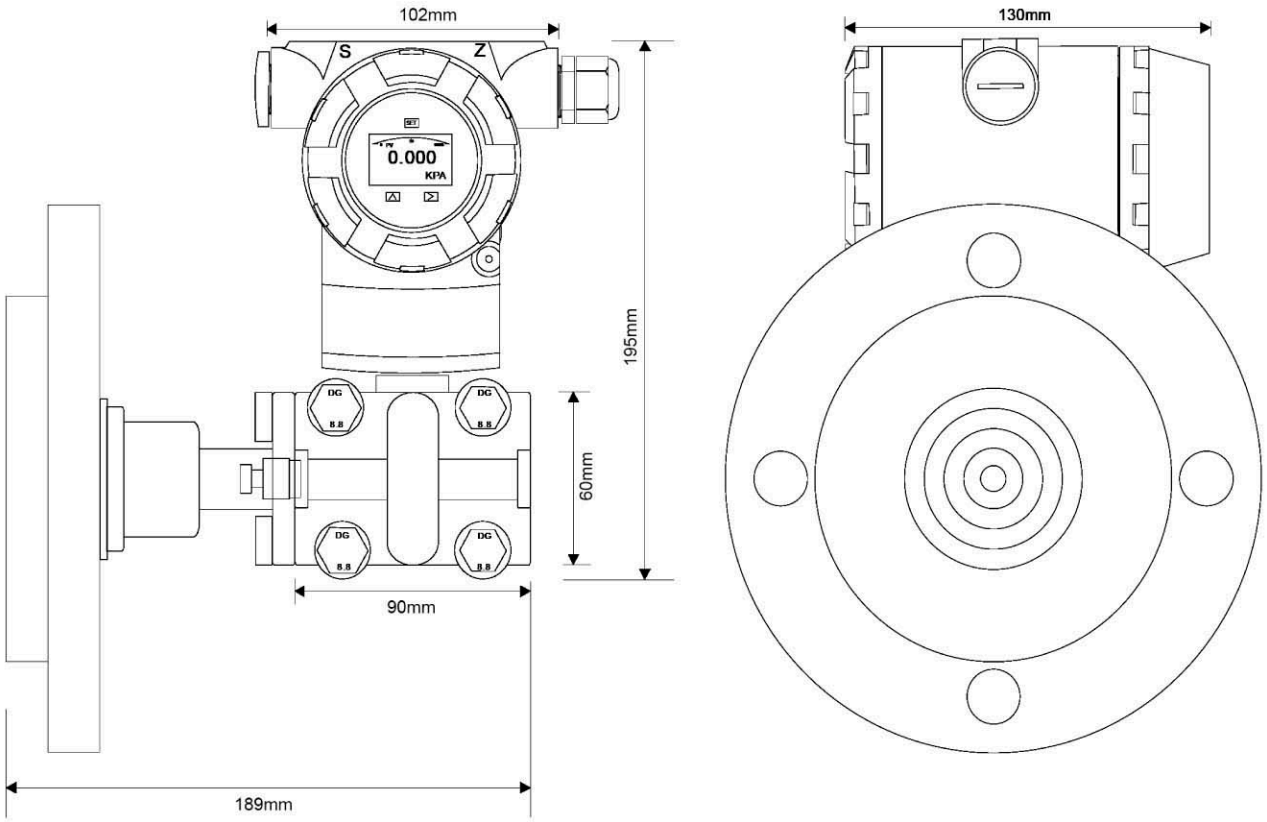
■ WIRING DIAGRAM



■ DIMENSIONS



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■ MODEL SELECTION

Item	Code	Specification
AT3051LT		Level Transmitter
Measurement Range	3	0~7.5 Kpa
	4	0~37.4 Kpa
	5	0~186.8 Kpa
	6	0~690 Kpa
	7	0~2068 Kpa
Output	S	4-20mA, HART Protocol, Linear Output
Sensor Diaphragm Material/ Fill Fluid	2	Stainless Steel 316L/Silicone Oil
	3	Hastelloy C/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)
Cable Entry	1	M20*1.5
	2	1/2'' NPT
Process Connection	C	2'' ANSI 150#
	D	2'' ANSI 300#
	J	2'' ANSI 600#
	E	3'' ANSI 150#
	F	3'' ANSI 300#
	K	3'' ANSI 600#
	G	4'' ANSI 150#
	H	4'' ANSI 300#
	Q	DN50 PN16
	R	DN50 PN40
	M	DN80 PN16
	S	DN80 PN25
	T	DN80 PN40
	N	DN100 PN16
	U	Customized
Flange Diaphragm Material	A	Stainless Steel 316L
	B	Hastelloy C
	C	Tantalum
	D	Titanium
	E	Monel
	F	PTFE Coating
	G	F46 Coating
	H	Gold-Plated
Insert Tube Length	0	0
	1	50mm
	2	100mm
	3	150mm
Fill Fluid(High Pressure Side)	A	Silicone Oil
	C	Fluorine Oil
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