



AUTO GP DP AP

Smart Pressure Transmitter

GENERAL

AUTO AT3051 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 level, flow measurement applications.

FEATURES

- Updating time of output current in 200 ms
- Improved performance, increased accuracy and greater stability
- Two years stability of 0.1%
- 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

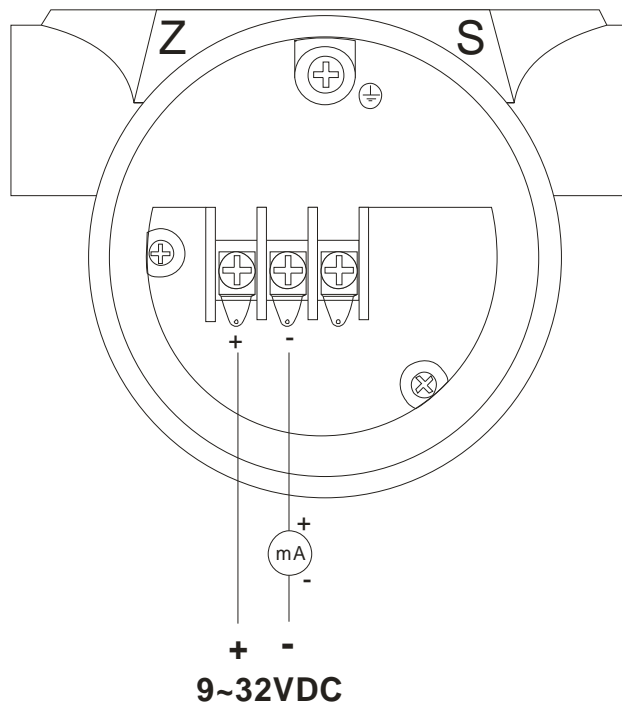
- Process Fluid : Liquid, Gas or Vapor
- Application : Absolute Pressure, Gauge Pressure, Differential Pressure
- Measuring Range : 0 - 0.16 kPa ~ 0 - 1.0 kPa (Minimum)
: 0 - 4.0 MPa ~ 0 - 20.0 MPa (Maximum)
- Turndown Ratio : 10 : 1
- Accuracy : 0.1%
- Stability : +/-0.2% of URL for 2 yearsLoad:R
- Working Temperature : -25 to +95 °C
- Max. Pressure : 40 MPa
- Material
 - Flange/Adapter : Stainless Steel 304 / Stainless Steel 316
 - Drains/Vents : Stainless Steel 304 / Stainless Steel 316
 - Diaphragm : Stainless Steel 316L / Hastelloy B / Hastelloy C / Monel / Tantalum
 - Wetted O-Ring : Buna N / Viton / PTFE
 - Bolts & Nuts : Carbon Steel / Stainless Steel 316
 - Mounting Bracket : Carbon steel / Stainless Steel 304 / 316
 - Name / Tag Plate : Stainless Steel 304 / Stainless Steel 316
 - Converter Housing : Low copper cast aluminum alloy with polyurethane, light blue paint
 - Fill Fluid : Silicone / Fluorine Oil
- Protection Class:IP65 (Standard)
 - : Intrinsically Safe EEx ia IIC T5 (Standard)
 - : Explosion proof Ex D IIB T5
- 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)
ohm=(Vdc-9)*50
- Power Supply : 9 - 36 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
- EMI/RFI Effect : Follow SAMA PMC 33.1 from 20 to 1000 MHz and for field strengths up to 30 V/m
- Process Connection : 1/4" - 18 NPT
: 1/2" - 14 NPT(with adapter)
- Ambient Temperature : -25 to +80 °C
- Dimensions : 102 mm (W) * 188 mm (H) * 130 mm (D)
- Weight : 3.5 Kg



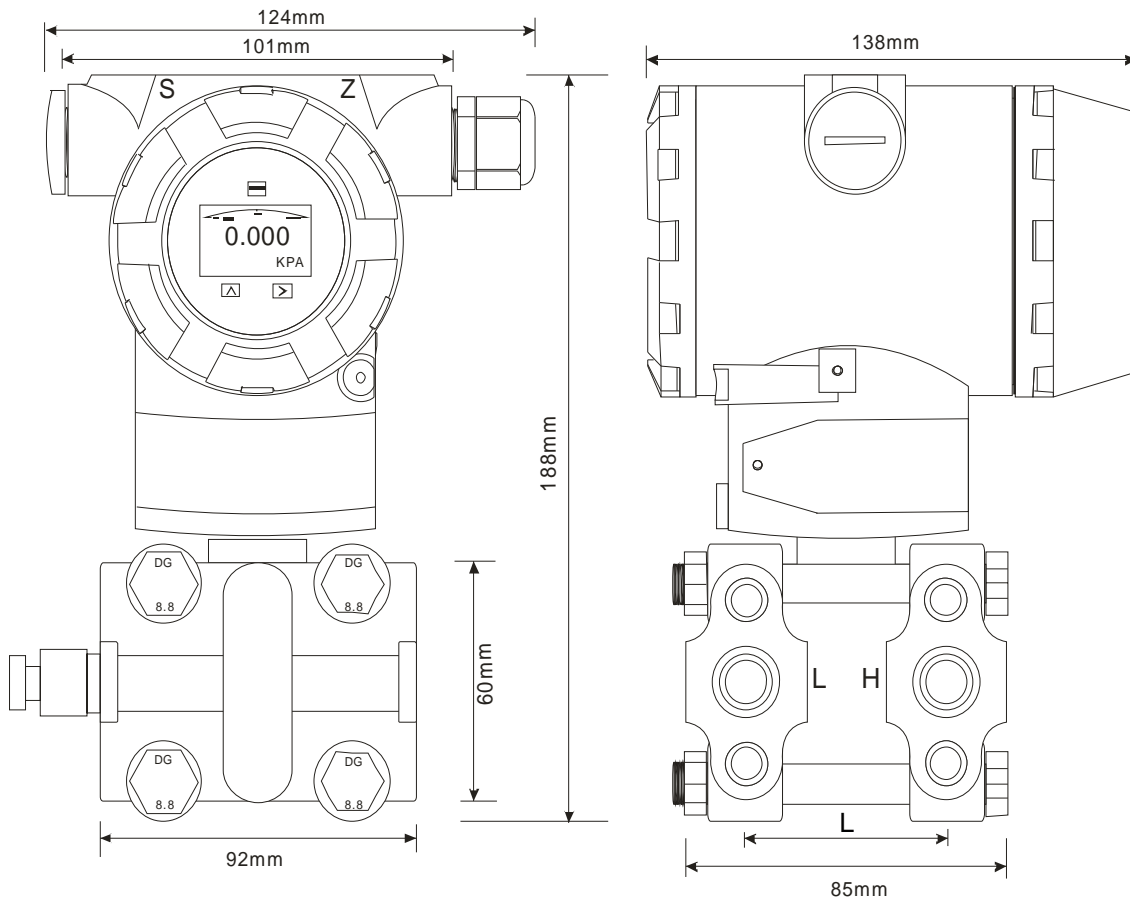
➤ MEASURING RANGE

Code	Range (kpa)	AP	GP	DP	HP
2	0~0.125~1.5		●	●	
3	0~1.3~7.5		●	●	
4	0~6.2~37.4	●	●	●	●
5	0~31~186.8	●	●	●	●
6	0~117~390	●	●	●	●
7	0~345~2068	●	●	●	●
8	0~1170~6890	●	●		

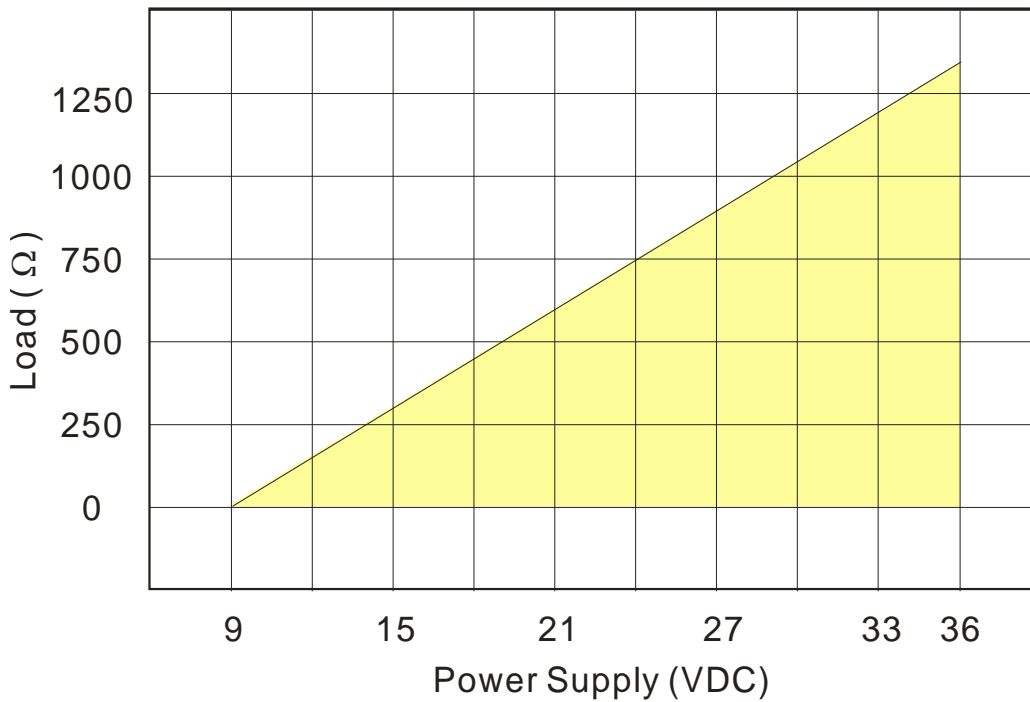
➤ WIRING DIAGRAM



➤ DIMENSIONS



➤ Supply Voltage VS Loop Load



MODEL SELECTION GUIDE

Item	Code	Specification
AT3051DP		Differential Pressure /Level Transmitter(2-7)
AT3051GP		Gauge Pressure Transmitter(2-8)
Measurement Range	2	0-0.1~1.5 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	Process flange side upper
	L	Process flange side lower
Wetted O-ring Material	7	Buna-N (NBR)
	6	Viton (FKM) (Temperature ≥-20℃)
	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	1/2NPT
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 T4~T6)
	i	Intrinsically safe (Exia IIC T4~T6)
	M3	LCD display
	D1	Stainless steel drain valve or screw (2pcs)
	C1	1/2" NPT female waist flange (2sets)
	C12	1/4" 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