



AUTO

Smart Pressure Transmitter Model AT3051TG(TA) Series

GENERAL

AUTO AT3051TG(TA) series is a digital pressure transmitter designed for industrial pressure measurement applications. The AT3051TG(TA) 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%
- 0.1% 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



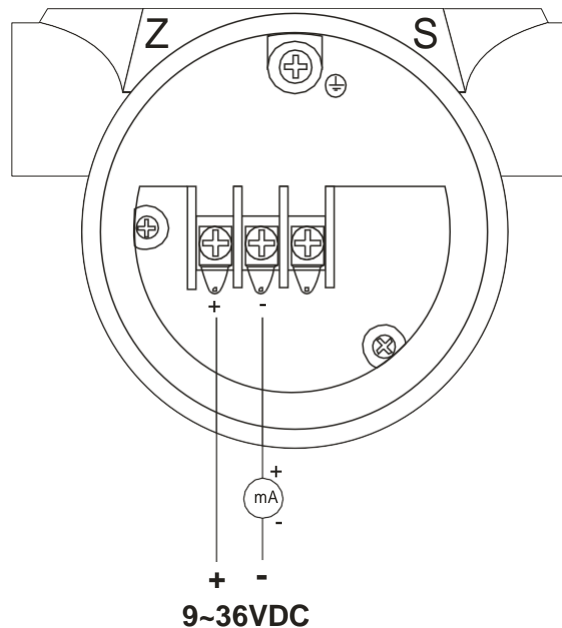
- Process Fluid : Liquid, Gas or Vapor
- Application : Absolute Pressure, Gauge Pressure, Vacuum
- Measuring Range : 0 - 10 Kpa ~ 0 - 30 Kpa (Minimum)
: 0 - 32 Mpa ~ 0 - 70 Mpa (Maximum)
- Turndown Ratio : 100 : 1
- Accuracy : +/- 0.1% of span
- Stability : +/- 0.15% of URL for 2 years
- Working Temperature : -25 to +95 °C
- Max. Pressure : 70 Mpa
- Material
 - Connection : SUS 304 / SUS 316
 - Diaphragm : SUS 316L / Tantalum
 - Housing : Low copper cast aluminum alloy with polyurethane, light blue paint
 - Name / Tag Plate : Stainless Steel 304 / Stainless Steel 316
- Cable Entry : M20 Conduit Threads / 1/2" NPT (Female)
- Process Connection : 1/2" NPT, 1/2" BSP
- Temperature Effect : +/- 0.18% ~ +/- 0.5% of span per 20 °C
- 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 to 1000 MHz and for field strengths up to 30 V/m
- 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)
Load : $R_{ohm} = (V_{dc} - 9) * 50$
- Power Supply : 9 ~ 36 VDC
- Digital Communication : Hart Protocol
- Damping : 0 - 32 seconds
- Response Time : 100 mS
- Mounting : Direct installation or 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 push-button
- Ambient Temperature : -25 to +85 °C
- Dimensions : 102 mm (W) * 160 mm (H) * 130 mm (D)
- Weight : 1.3 Kg
- Protection Class : IP67 (Standard)
: Intrinsically Safe EEx ia IIC T5 (Standard)
: Explosion proof Ex D IIB T5



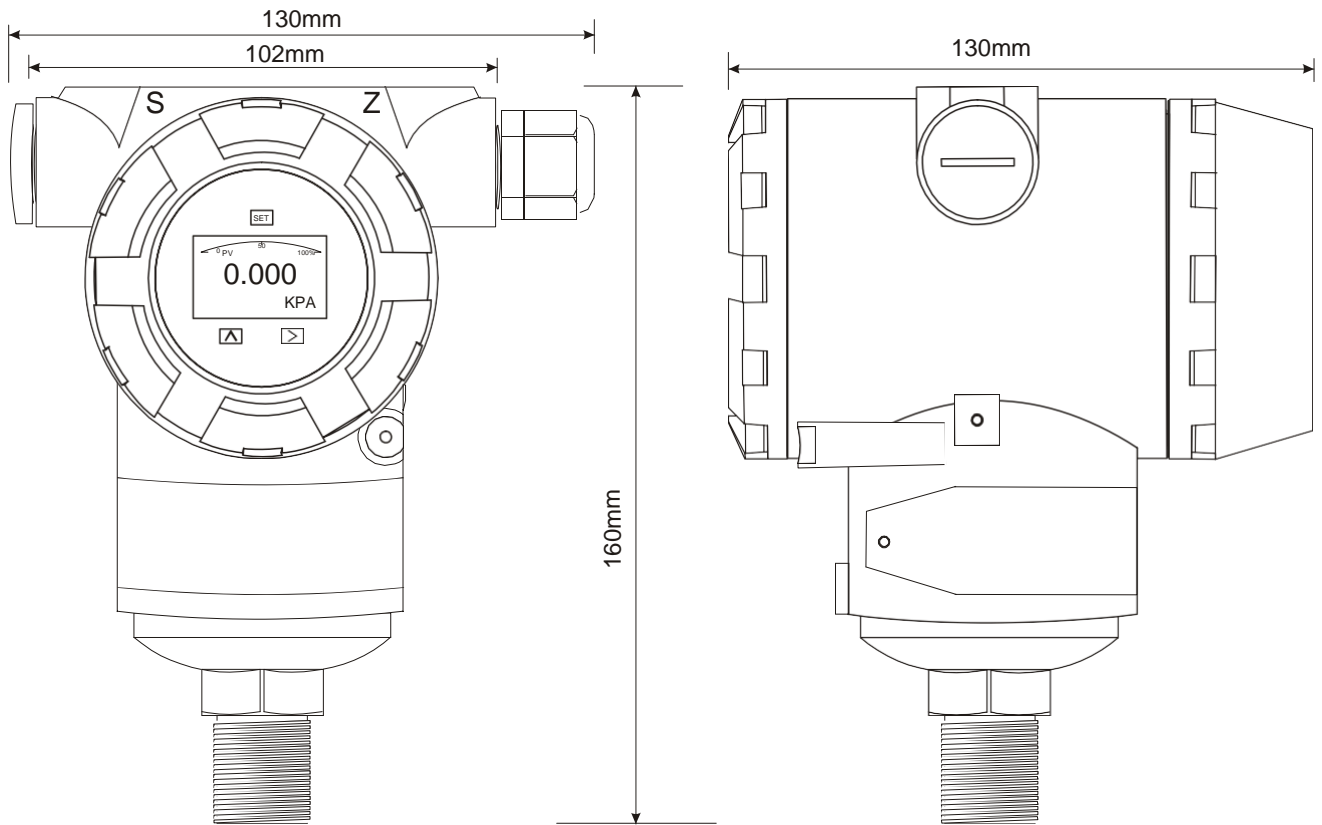
MEASURING RANGE

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 mmH2O	0 - 3059 mmH2O	◆	◆
	0 - 100 mbar	0 - 300 mbar	0 - 40.15 InH2O	0 - 120.4 InH2O		
	0 - 1.450 psi	0 - 4.351 psi	0 -0.102 Kg/cm2	0 - 0.306 Kg/cm2		
3	0 - 30Kpa	0 - 100 Kpa	0 - 3059 mmH2O	0 - 10197 mmH2O	◆	◆
	0 - 300 mbar	0 - 1000 mbar	0 - 120.4 InH2O	0 - 401.5 InH2O		
	0 - 4.351 psi	0 - 14.50 psi	0 - 0.306 Kg/cm2	0 - 1.020 Kg/cm2		
4	0 - 100 Kpa	0 - 200 Kpa	0 - 10.20 MH2O	0 - 20.39 MH2O	◆	◆
	0 - 1000 mbar	0 - 2000 mbar	0 - 401.5 InH2O	0 - 802.9 InH2O		
	0 - 14.50 psi	0 - 29 psi	0 - 1.020 Kg/cm2	0 - 2.039 Kg/cm2		
5	0 - 200 Kpa	0 - 700 Kpa	0 - 20.39 MH2O	0 - 71.38 MH2O	◆	◆
	0 - 2.0 Bar	0 - 7.0 Bar	0 - 802.9 InH2O	0 - 2810 InH2O		
	0 - 29psi	0 - 101.5 psi	0 - 2.039 Kg/cm2	0 - 7.138 Kg/cm2		
6	0 - 700 Kpa	0 - 1.7 Mpa	0 - 71.38 MH2O	0 - 173.4 MH2O	◆	◆
	0 - 7.0 Bar	0 - 17.0 Bar	0 - 2810 InH2O	0 - 6825 InH2O		
	0 - 101.5 psi	0 - 246.6 psi	0 - 7.138 Kg/cm2	0 - 17.34 Kg/cm2		
7	0 - 1.7 Mpa	0 - 3.5 Mpa	0 - 173.4 MH2O	0 - 356.9 MH2O	◆	◆
	0 - 17.0 Bar	0 - 35.0 Bar	0 - 6825 InH2O	0 - 14051 InH2O		
	0 - 246.6 psi	0 - 507.6 psi	0 - 17.34 Kg/cm2	0 - 35.69 Kg/cm2		
8	0 - 3.5 Mpa	0 - 7.0 Mpa	0 - 356.9 MH2O	0 - 713.8 MH2O	◆	◆
	0 - 35.0 Bar	0 - 70.0 Bar	0 - 14051 InH2O	0 - 28102 InH2O		
	0 - 507.6 psi	0 - 1015 psi	0 - 35.69 Kg/cm2	0 - 71.38 Kg/cm2		
9	0 - 7.0 Mpa	0 - 32 Mpa	0 - 713.8 MH2O	0 - 3263 MH2O	◆	◆
	0 - 70.0 Bar	0 - 320.0 Bar	0 - 28102 InH2O	0 - 128468 InH2O		
	0 - 1015 psi	0 - 4641.2 psi	0 - 71.38 Kg/cm2	0 - 326.3 Kg/cm2		
A	0 - 32 Mpa	0 - 70 Mpa	0 - 3263 MH2O	0 - 7137.9 MH2O	◆	◆
	0 - 320 Bar	0 - 700.0 Bar	0 - 128468 InH2O	0 - 281024 InH2O		
	0 - 4641.2 psi	0 - 10152.6 psi	0 - 326.3 Kg/cm2	0 - 713.8 Kg/cm2		

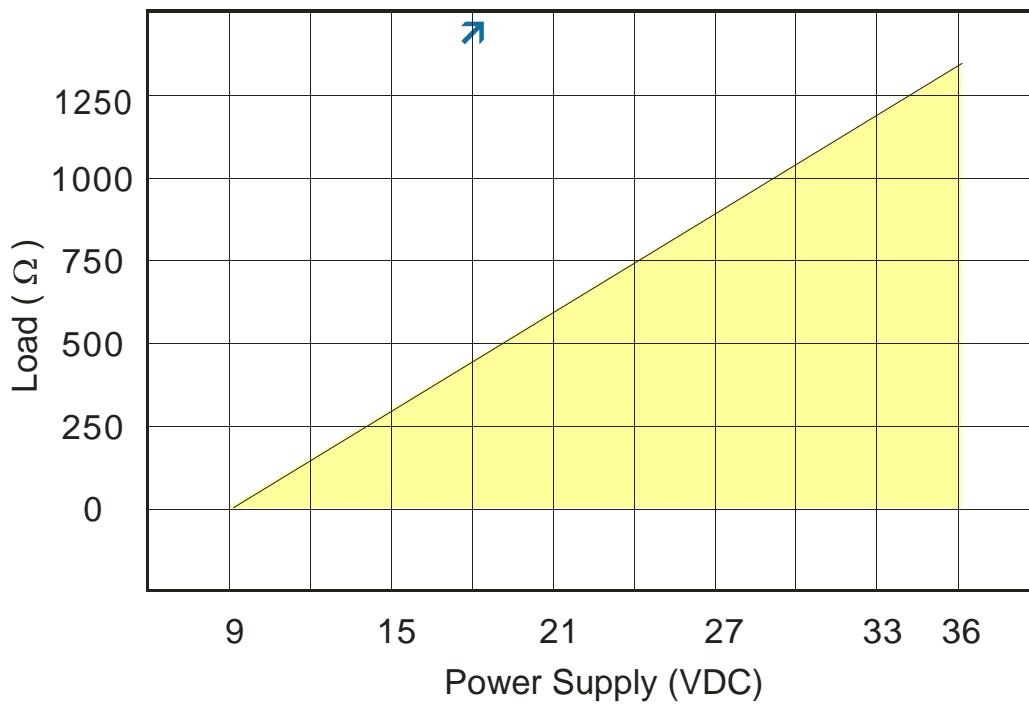
WIRING DIAGRAM



DIMENSIONS



Supply Voltage VS Loop Load



MODEL SELECTION GUIDE

AT3051TG(TA) Series										
Example: AT3051-TG3NNNNNN										
AT3051-	X	X	X	X	-X	X	X	X	-XX	Description
Type	TG									Gauge Pressure Transmitter
	TA									Absolute Pressure Transmitter
Pressure 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
	9									0~20680 Kpa
	0									0~41370 Kpa
Output	L									4-20mA DC/smart button, linear output
	S									4-20mA DC/HART, linear output
Diaphragm Material	N									Stainless Steel 316L
	T									Hastelloy C
	Z									Other
Process Connection	-D									1/2" NPT M
	-A									M20*1.5 M
	-B									1/2" NPT F
	-C									G1/2" M
	-Y									Others
Filling Oil	2									Silicone oil
	3									Fluorine oil
Cable Entry	1									M20*1.5 Conduit Threads
	2									1/2" NPT (Female)
	0									Other
Mounting Bracket Material	B00									None
	B15									Tube mounted flat bracket (Carbon Steel)
	B16									Wall mount bracket (Carbon Steel)
	B17									Tube mounted flat bracket (Stainless Steel)
	B18									Wall mount bracket (Stainless Steel)
Option	-NN									None
	-D									Intrinsically Safe +Explosion proof Exd II CT4~T6
	-I									Intrinsically Safe Exia II CT4~T6
	-M3									LCD display
	-ZZ									Others