



GENERAL

The ALDPT-3051 LT is an intelligent different pressure level transmitter using advanced microprocessor technology with digit communication. The ALDPT differential pressure level transmitter is capable of differential, gage, or absolute pressure measurement. It uses advanced capacitance sensor technology (piezoresistive sensors for absolute pressure models), the ALDPT-3051 differential pressure level transmitter features self-diagnostic, field parameter adjustment, auto-zero and all industrial standard capabilities with half the price. It is composed of differential pressure transmitter and the welding installation level flange, which can measure liquid, gas or steam flow as well as fluid density, level and pressure. Output options available include 4-20mA or 1-5VDC with HART protocol, Profibus, or foundation fieldbus. The ALDPT-3051 smart pressure transmitter offers so many options that it can be configured for any application.

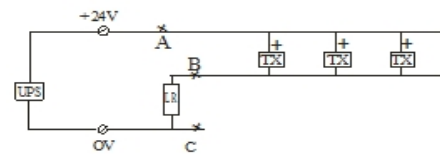
FEATURES

- High accuracy, little temperature effect ($\pm 0.15\%$ FS/ 10°C)
- 100:1 Turn-down
- Security lock- parameters
- Advanced diagnostics capabilities
- Large measuring range
- Software compensation
- Available in 316SS, Tantalum and other exotic materials
- Available in either Intrinsically Safe ExialICT4 or Explosion Proof ExdIICT6
- Auto-zero adjustment
- Analog 4~20 mA DC two wire linear output
- HART protocol, or foundation fieldbus



SPECIFICATION

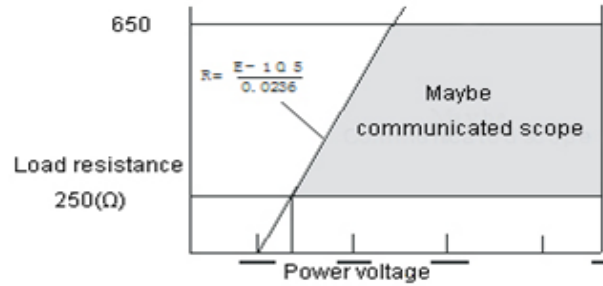
- Measuring Range: 0~4~40Kpa to 0~40~200Kpa
0~160~1000Kpa
0~0.4~2.5Mpa
- Fluid: liquid, gas and steam
- Temperature: $-40^{\circ}\text{C} \sim 100^{\circ}\text{C}$
Drift (zero): 0.5%FS/ 50°C
Drift (span): 0.7%FS/ 50°C
- Accuracy grade: 0.075 grade, 0.2 grade. 0.5 grade
- Turn-down: 100:1
- Drift (Micro) : 0.02% FS/year
Standard: 0.025% FS/year
- Relative humidity: 0~100% RH
- Start time: 2 seconds after power up
- Storage temperature: $-40^{\circ}\text{C} \sim 100^{\circ}\text{C}$;
- Damping time: 2s
- Flange: 316SS
- Filled fluid: Silicon oil or inert oil
- Nuts and Bolt: Stainless steel
- Isolating Diaphragm: 316LSS/Hastelloy C/Tantalum. etc..
- O ring material: Fluorine rubber, nitrile rubber, PTFE
- Transmitter Housing: Aluminum with epoxy resin coat



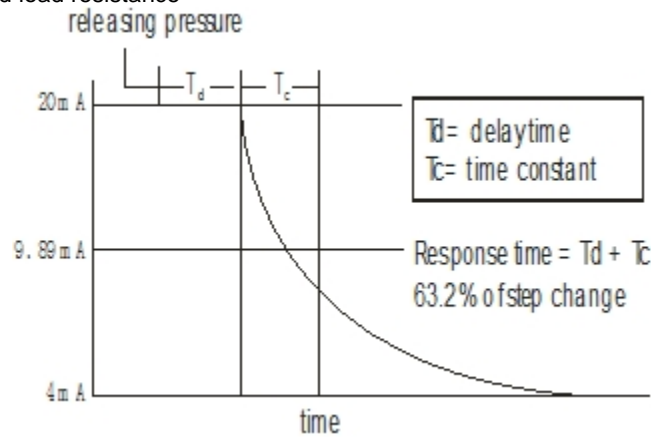
- Approvals: ExdIICT6
ExialICT4
- Output signal: 4~20 mA DC two wire
- Working Voltage : (16.4 ~45) VDC,
(16.4 ~30) VDC intrinsic safety type
- Communications distance: 2 km when using CEV cable
Load capacity: below 0.22 μF
Load induction: below 3.3 mH
Space with power line: above 15 cm
Resolution: 0.05% of range
- Field indication: LCD
- Effect of environmental temperature: zero drift: 0.5% FS/ 50°C
Range drift: 0.7% FS/ 50°C
- Effect of power voltage variation $\pm 0.005\%$ FS/V
- Protection: IP67
- Weight: 3.5 kg (options is not included)



LOAD CHARACTERISTICS

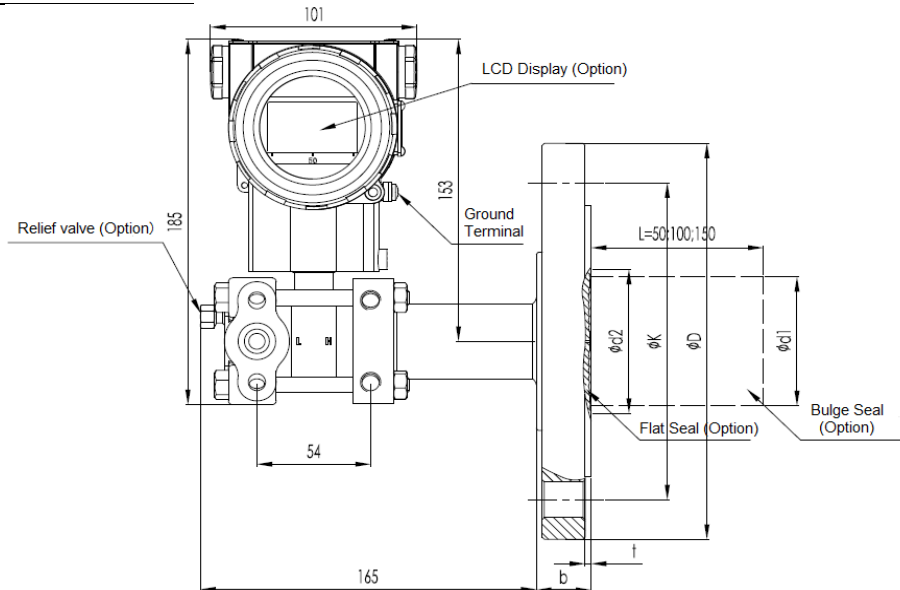


Relation between power voltage and load resistance



Typical responding time of intelligent transmitter

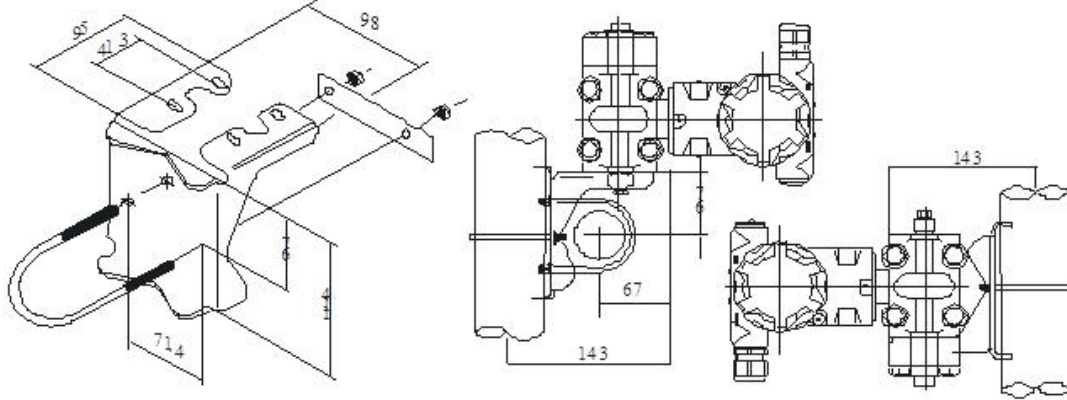
OUTLINE DIMENSION



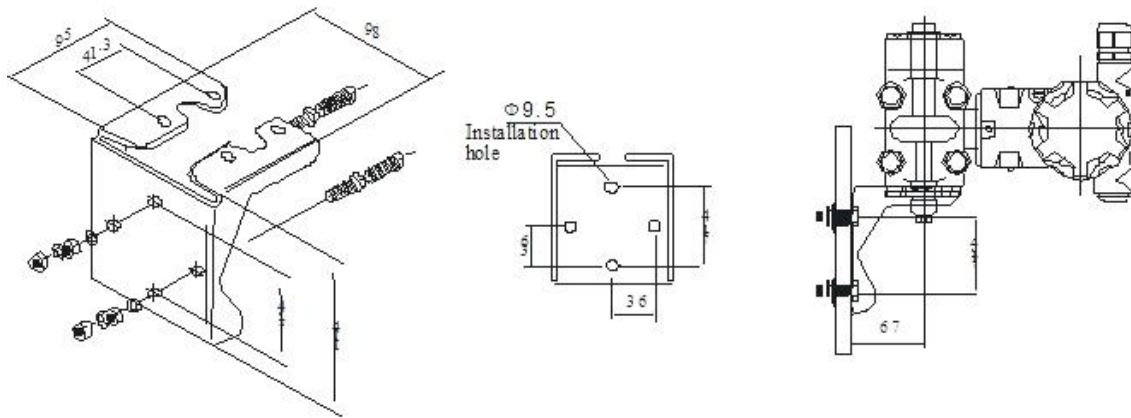


OTHER ACCESSORY

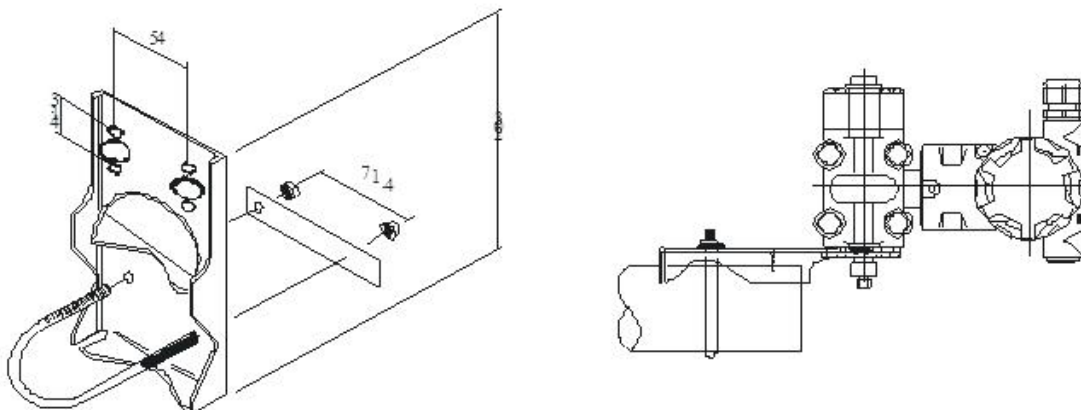
- Bending bracket for pipe installation (2" pipe)



- Bending bracket for panel installation



- Bending bracket for flat installation





Please contact your SmartMeasurement application engineer

You also need to provide the following information:

Type of fluid
Process Pressure & Temperature
Type of Electronics
Power Requirements

We need the name of your fluid, including operating density and viscosity
Working temperature, pressure measure range and connection
Output and communication
We need the name of your pipe material

Model Selection Guide

ALDPT Series													
Example: ALDPT-BALT-4-I-A00-A1-D2-M7-S-2													
ALDPT-										**	**_	**_	Description
3051 type-intelligent										BA			Transmitter Type
Single-flange Pressure/Level transmitter										LT			Transmitter Type
0~6~40KPa										4			Measuring range
0~40~200KPa										5			
0~160~1000KPa										6			
0~0.4~2.5MPa										7			
Intelligent 4~20mA DC with keystroke and HART										I			Output signal
Flange size		Insertion length		Isolation diaphragm								Wetted part	
3"		0		Φ66, 316L SST		A00							
3"		0		Φ66, Hast C		A01							
3"		0		Φ66, Tantalum		A02							
3"		50mm		Φ66, 316L SST		A20							
3"		100mm		Φ66, 316L SST		A40							
3"		150mm		Φ66, 316L SST		A60							
4"		0		Φ66, 316L SST		B00							
4"		0		Φ66, Hast C		B01							
4"		0		Φ66, Tantalum		B02							
4"		50mm		Φ66, 316L SST		B20							
4"		100mm		Φ66, 316L SST		B40							
4"		150mm		Φ66, 316L SST		B60							
Flange, 3" 150lb										A1			Connection
Flange, 3" 300lb										A2			
Flange, 4" 150lb										B1			
Flange, 4" 300lb										B2			
Flanged joint		Drain/vent valve		Diaphragm		Filling Liquid						Transmitter Construction material	
Cadmium plated CS		316 SST		316L SST		Silicone Oil		D1					
316 SST		316 SST		316L SST		Silicone Oil		D2					
Cadmium plated CS		316 SST		316L SST		Inert fluid		F1					
316 SST		316 SST		316L SST		Inert fluid		F2					
linear indicator (0~100% scale)										M1		Display	
LCD digital range display (liquid crystal)										M3			
LED digital range display (numeral tube)										M4			
0~100% of LCD digital range display (liquid crystal)										M5			
0~100% of LED digital range display (numeral tube)										M6			
LCD digital range display with back light										M7			
LCD digital range display without back light										M8			
Standard (without explosion proof)										S			
Isolated explosion ExdIIIBT5 or ExdIICT6										D		Approval	
Intrinsic safety ExiaIICT6 or ExibIICT6 (commonly choice)										I			
0.2%										2			
0.5%										5		Accuracy	