

GENERAL

ALIATEMP ATT1000 two-wire input temperature transmitter is a high performance device that receives Thermocouple/RTD/ohm/mV input and output mA with HART communication protocol.

Three internal keys to set parameter. Zero span calibration can be achieved either by HART or keypad.

FEATURES

- Updating time of output current in 90 ms
- Backlit LCD display rotatable to any angle
- Two years stability of 0.1%
- Accuracy +/-0.1% of Span
- 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

- Inputs : Universal Input
- Thermalcouple : T/C (K, S, B, E, J, T, R, N)
RTD : CU50 / PT100, 2/3/4 wire
mV : -128 to +128mV / -1000 to +1000mV
Resistance : 0-600 Ω / 0-5000 Ω
- Accuracy : +/- 0.1% of span
- Stability : +/- 0.1% of span for 2 years
- Temperature Effect : +/- 0.1% of span per 10 °C
- CJC compensation : +/- 0.5 °C
- Simulation Output : 4-20 mA
- Material
Wetted Parts : SUS304 / SUS316 / Has. C / Tantalum etc
Housing : Low copper aluminum alloy (Sprayed with light blue polyurethane paint)
Module Housing : Flame-resistant PC
Name / Tag Plate : Stainless Steel 304 / Stainless Steel 316
- Process Connection : Threads / Flanges
- Over Temp. Limit : 120% of Full Scale
- Mounting : Direct mounting or bracket on 2" Pipe
- Humidity Limit : 0 to 100% Relative Humidity
- Ambient Temperature : -25 to +85 °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

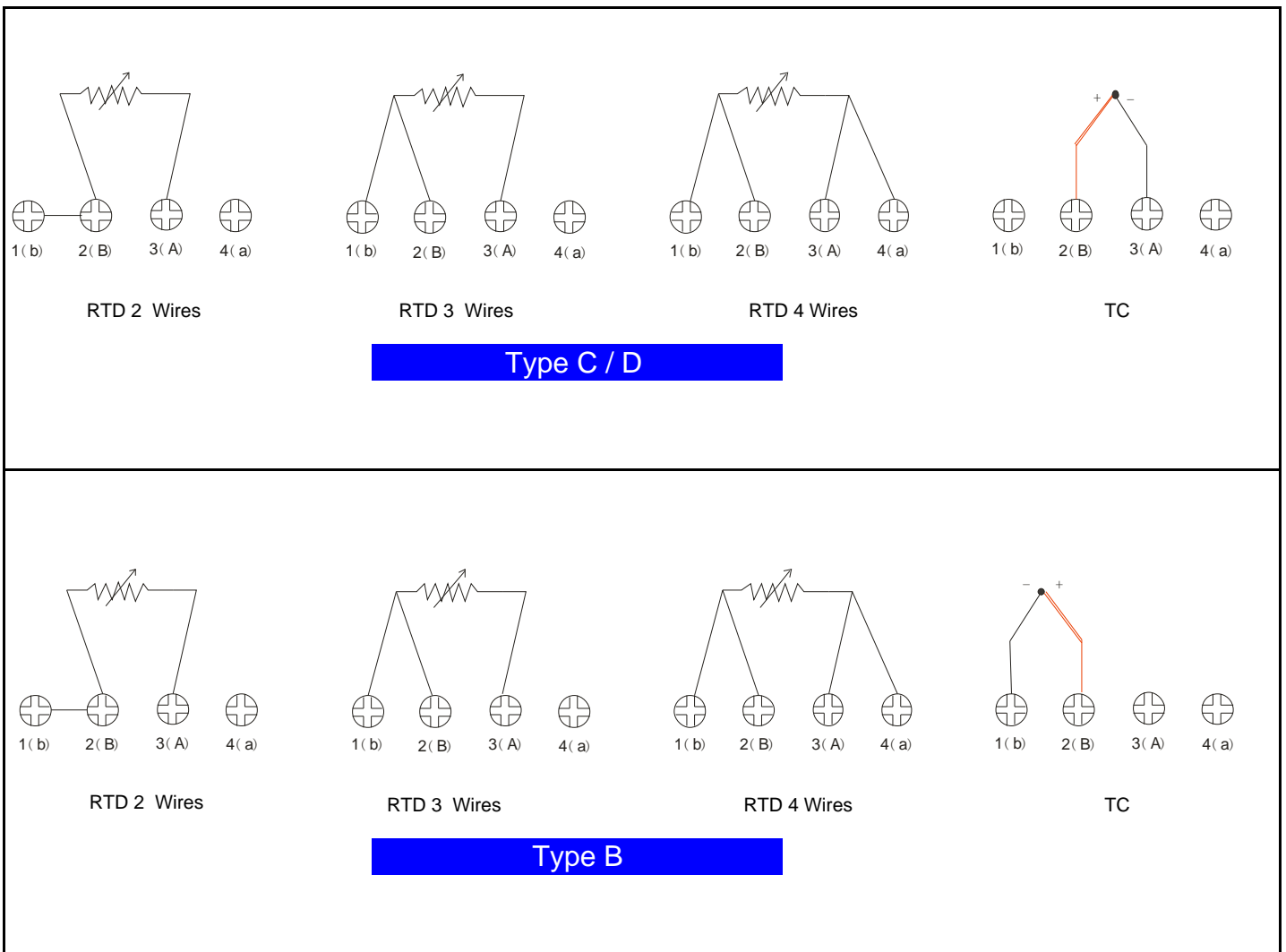


- Display : Backlit LCD rotatable to any angle
- Display Function : 5 Digits programmable & 0-100% Bargraph
- Display Unit : °C / °F / °R / °K
- Setting Method :
B Type : USB+PC software (windows system)
C Type : HART signal
D Type : HART signal & keypad
- Current Output : 4 - 20 mA 2 wires with HART Signal
- Load : Rohm = (Vdc-9) x 50
- Power Supply : 9 ~ 36 VDC
- Digital Communication : HART Protocol
- Cable Entry : M20 Conduit Threads / 1/2" NPT (Female)
- Damping : 0 - 32 seconds
- Response Time : 90 mS
- Turn on Time : 2 Seconds with minimum damping
- Zero Calibration : Automatic zero calibration by press-button
- Isolation : Input/Output/GND isolated to 480VDC
- Power Supply Effect : +/-0.005 of Span per V
- Weight : 60g (Converter only) with display
30g (Converter only) without display
- Protection Class : IP67 (Standard)
Intrinsically Safe EEx ia IIC T5 (Standard)
Explosion proof Ex D IIB T5
- Sensor Connection : M27*2 (Female)

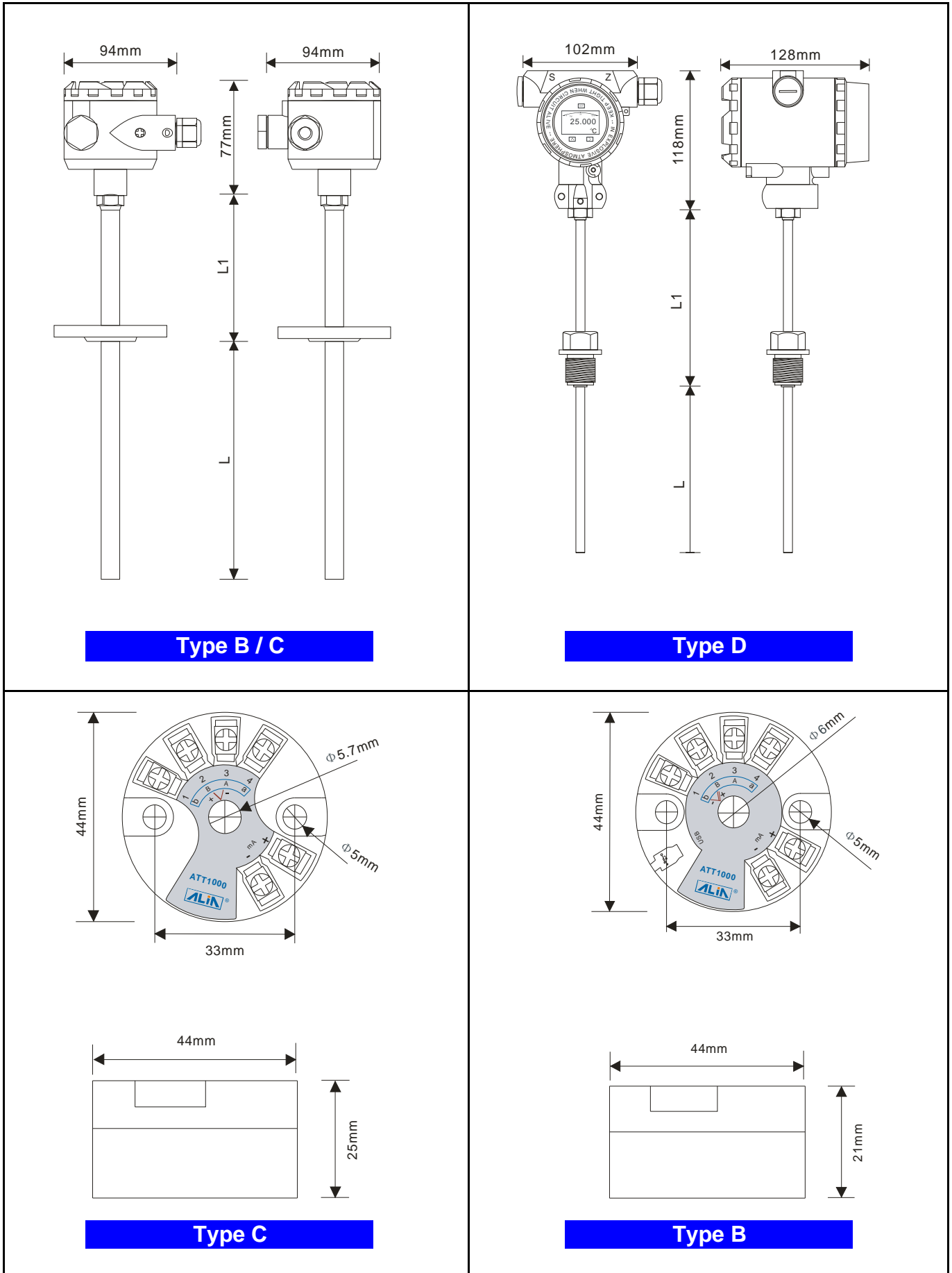
MEASURING RANGE

Input Type		Range (°C)		Range (°F)		Standards
T/C	K	-300.0	to 1400.0	-508.0	to 2552.0	IEC 584-1 (ITS-90)
	S	0.0	to 1700.0	32.0	to 3092.0	IEC 584-1 (ITS-90)
	B	0.0	to 1800.0	32.0	to 3272.0	IEC 584-1 (ITS-90)
	E	-280.0	to 1000.0	-472.0	to 1832.0	IEC 584-1 (ITS-90)
	J	-200.0	to 1200.0	-328.0	to 2192.0	IEC 584-1 (ITS-90)
	T	-270.0	to 400.0	-454.0	to 752.0	IEC 584-1 (ITS-90)
	R	0.0	to 1700.0	32.0	to 3092.0	IEC 584-1 (ITS-90)
	N	-200.0	to 1300.0	-328.0	to 2372.0	IEC 584-1 (ITS-90)
RTD	CU50	-50.0	to 200.0	-58.0	to 392.0	ITS-90
	PT100	-200.0	to 850.0	-328.0	to 1562.0	IEC751 (ITS-90)(0.00385)
	PT500	-200.0	to 850.0	-328.0	to 1562.0	IEC751 (ITS-90)(0.00385)
	PT1000	-200.0	to 850.0	-328.0	to 1562.0	IEC751 (ITS-90)(0.00385)
Ohm		0.0 Ω	to 600.0 Ω			
		0.0 Ω	to 5000 Ω			
mV		-128.0 mV	to 128.0 mV			
		-1000 mV	to +1000 mV			

WIRING DIAGRAM



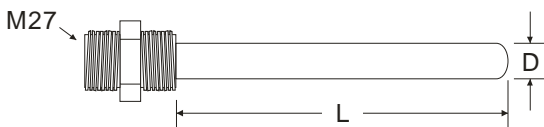
➤ DIMENSIONS



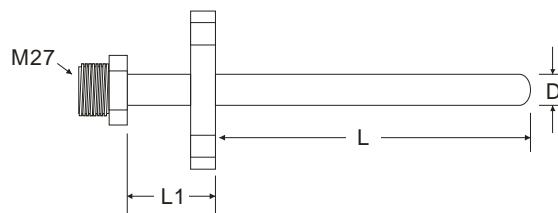
MODEL SELECTION GUIDE

ATT1000 Series							
Example: ATT1000-DH-NN6X + PT100/ ClassA/ Has.C/8.0/100mm/ 1/2" NPT/ 50mm/ -50 to +300 °C							
ATT1000-	X	X	-X	X	X	X	Description
Type	B						Transmitter Only (Computer Setting) *Note 1
	C						Transmitter Only (Hart Signal Setting)
	D						Transmitter with Display & Keypad (Hart Signal Setting)
Housing	N						Without Housing
	S						Type B / C with Housing
	H						Type D with Housing
If choose Type BN or CN, model is up to here.							
Cable Entry	-N						M20 Conduit Threads
	-P						1/2" NPT (Female)
	-Z						Other
Mounting Bracket	N						None (Direct Connection with Temperature Sensor)
	C						2" Mounting Bracket / Carbon Steel
	4						2" Mounting Bracket / SUS 304
	6						2" Mounting Bracket / SUS 316
Name Plate Material	N						Stainless Steel 304
	6						Stainless Steel 316
Protection Class	N						Intrinsically Safe
	X						Explosion Proof, Ex d IIC T6
If you need to buy Temperature Sensor from Alia, please choose extension model as below:							
Sensor Type	T/C (K, S, B, E, J, T, R, N), CU50, PT100, PT500, PT1000						
Sensor Accuracy Class	RTD (Class A, Class B), T/C (Class I, Class II)						
Wetted parts Material	SUS304, SUS316, Inconel600, Has. C, PTFE, Ceramic ...etc						
Sensor OD (D)	3.2 / 4.0 / 4.8 / 5.0 / 6.0 / 8.0 / 9.5 / 12 / 15mm						
Sensor Length (L)	50mm-1500mm						
Process Connection	1/2" , 3/4" , 1" , 1-1/2" (15mm, 20mm, 25mm, 40mm)						
Screw / Flange	NPT, BSP, ANSI 150 , PN10, JIS 10K...etc						
Extension Length (L1)	0mm-1000mm (Temp.>120 °C , L1>100mm; Temp.> 300, L1>150mm ...)						
Temperature Range	-200 °C ~ +1800 °C (Please make sure your temperature equal to 4-20 mA)						

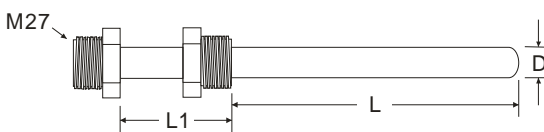
Note 1: Type B transmitter needs to be set by Alia Software & USB Cable.



Screw End without Extension



Flange End with Extension



Screw End with Extension