

GENERAL

ALIATEMP The ATT10001H Series two-wire input temperature transmitter is a high performance device that receives Thermocouple / RTD / W / 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

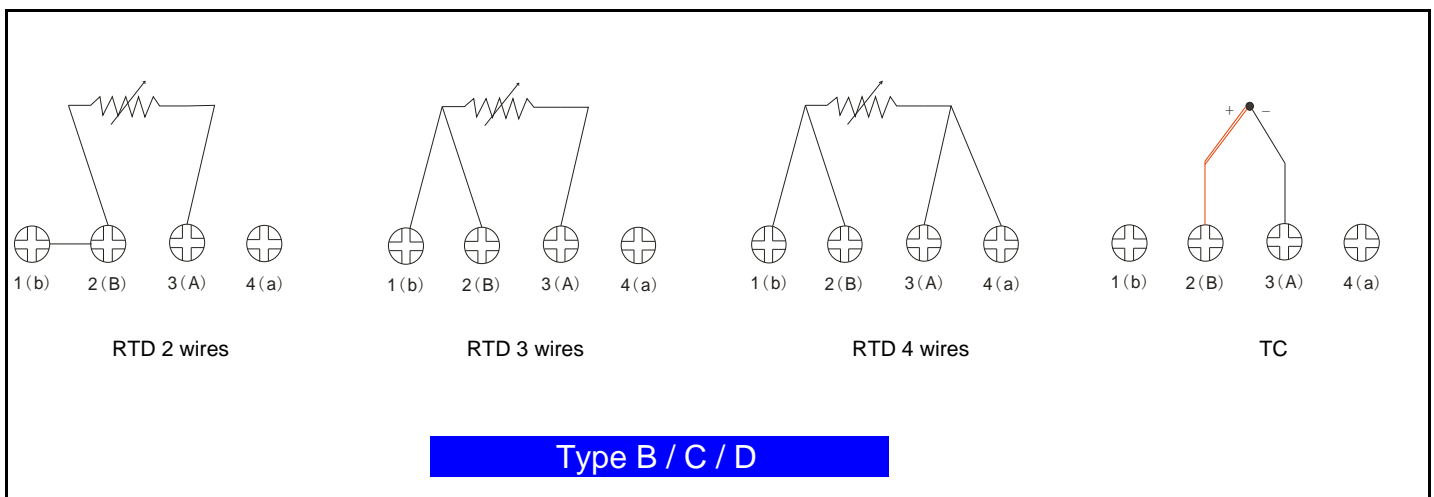
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|-----------------------|------------------------------------------------------------------------------|------------------------------------------------|----------------------------------------------|
| ● Inputs | : Universal Input | ● Display | : Backlit LCD rotatable to any angle |
| Thermocouple | : T/C (K, S, B, E, J, T, R, N)..... | ● Display Function | : 5 Digits programmable & 0-100% Bargraph |
| RTD | : CU50 / PT100, 2 / 3 / 4 wires..... | ● Display Unit | : °C / °F / °R / °K |
| mV | : -128~128 mV / -1000~1000 mV..... | ● Setting Method | |
| Resistance | : 0-600 Ω / 0-5000 Ω | B Type | : USB + PC software (windows system) |
| ● Accuracy | : +/-0.1% of span | C Type | : HART signal |
| ● Stability | : +/-0.1% of span for 2 years | D Type | : HART signal & keypad |
| ● Temperature Effect | : +/-0.1% of span per 10 °C | ● Current Output | : 4-20 mA 2 wires with HART Signal |
| ● CJC Compensation | : +/-0.5 °C | Load | : Rohm = (VDC-9) * 50 |
| ● Simulation Output | : 4-20 mA | ● Power Supply | : 9-36 VDC |
| ● Material | | ● Digital Communication | : HART Protocol |
| Wetted Parts | : S.S. 304 / S.S. 316 / Has. C / Tantalum etc. | ● Cable Entry | : M20 Conduit Threads / 1/2" NPT (Female) |
| Housing | : Low copper aluminum alloy (Sprayed with light blue polyurethane paint) | ● Damping | : 0-32 Seconds |
| Module Housing | : Flame-resistant PC | ● Response Time | : 100 ms |
| Name / Tag Plate | : Stainless Steel 304 / Stainless Steel 316 | ● Turn on Time | : 2 Seconds with minimum damping |
| ● Process Connection | : Threads / Flanges | ● Zero Calibration | : Automatic zero calibration by press-button |
| ● Over Temp. Limit | : 120% of Full Scale | ● Isolation | : Input / Output / GND isolated to 480 VDC |
| ● Mounting | : Direct mounting or bracket on 2" Pipe | ● Power Supply Effect | : +/-0.005 of Span per V |
| ● Humidity Limit | : 0-100% Relative Humidity | ● Weight | |
| ● Ambient Temperature | : -25~85 °C | : 60 g (Converter only) with display | |
| ● Vibration Effect | : +/-0.05% of URL per g to 200 Hz in any axis | : 30 g (Converter only) without display | |
| ● EMI / RFI Effect | : Follow SAMA PMC 33.1 from 20-1000 MHz and for field strengths up to 30 V/m | ● Protection Class | |
| | | : IP67 (Standard) | |
| | | : Intrinsically Safe, Eex ia IIC T5 (Standard) | |
| | | : Explosion proof, Ex d IIB T5 | |
| | | ● Sensor Connection | : M27 * 2 (Female) |



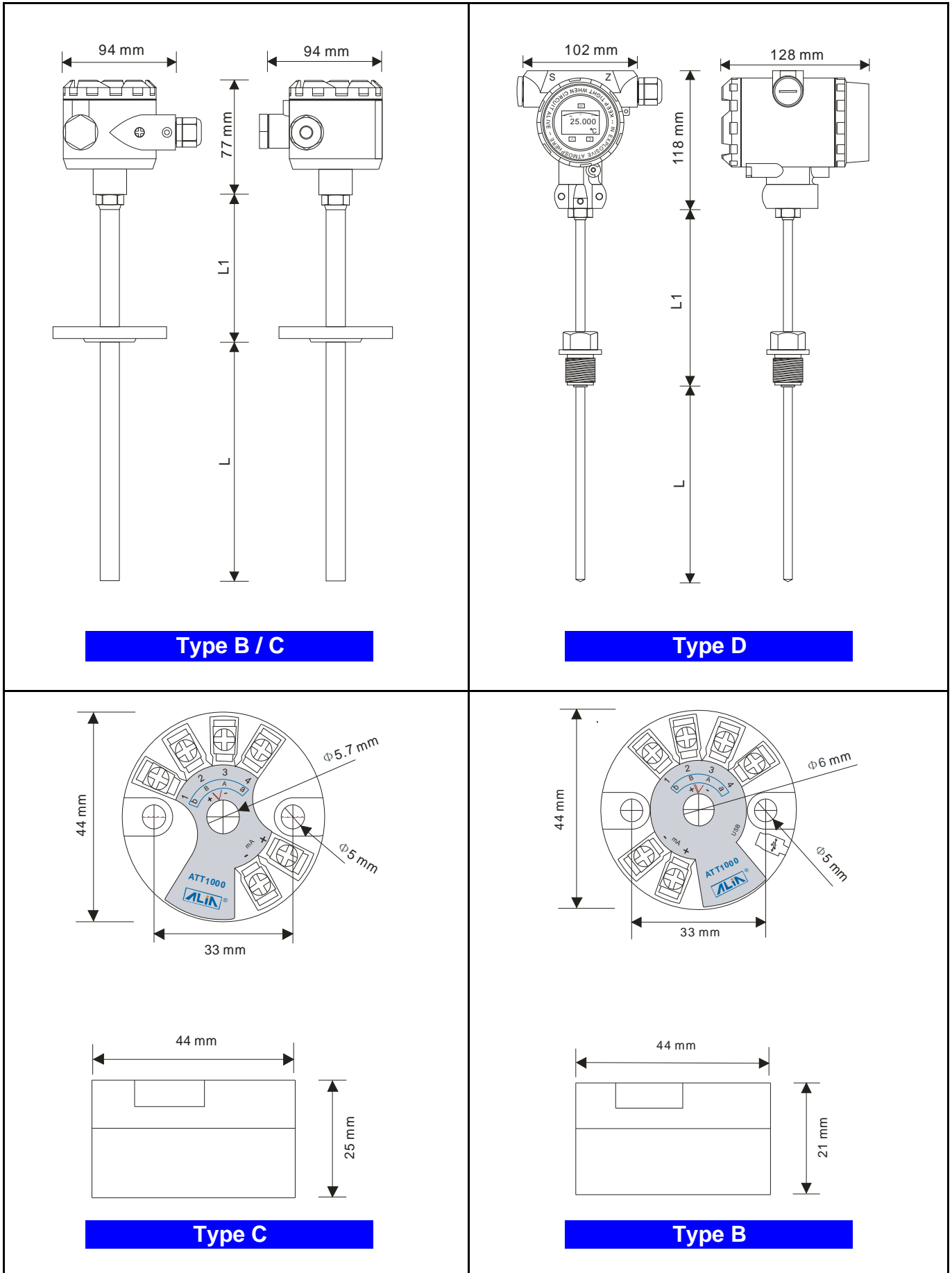
MEASURING RANGE

Input Type		Range (°C)		Range (°F)		Standards	Apply to ATT1000
T/C	K	-200.0	to 1372.0	-328.0	to 2501.6	IEC 584-1 (ITS-90)	Type B Type C Type D
	S	0.0	to 1768.0	32.0	to 3214.4	IEC 584-1 (ITS-90)	
	B	100.0	to 1820.0	212.0	to 3308.0	IEC 584-1 (ITS-90)	
	E	-200.0	to 1000.0	-328.0	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	-200.0	to 400.0	-328.0	to 752.0	IEC 584-1 (ITS-90)	
	R	0.0	to 1768.0	32.0	to 3214.4	IEC 584-1 (ITS-90)	
	N	-200.0	to 1300.0	-328.0	to 2372.0	IEC 584-1 (ITS-90)	
	DIN L	-200.0	to 900.0	-328.0	to 1652.0	DIN 43710	Type D
	DIN U	-200.0	to 600.0	-328.0	to 1112.0	DIN 43710	
W5Re26	0.0	to 2000.0	32.0	to 3632.0	ASTM E 988-96		
GOST L	-200.0	to 800.0	-328.0	to 1472.0	GOST R 8.585-2001		
RTD	CU10	-50.0	to 250.0	-58.0	to 482.0	Edison Copper Winding No.15	Type D
	CU50	-50.0	to 200.0	-58.0	to 392.0	GOST 6651-94(0.00426)	Type B, D
	CU50	-185.0	to 200.0	-301.0	to 392.0	GOST 6651-94(0.00428)	Type D
	CU100	-50.0	to 200.0	-58.0	to 392.0	GOST 6651-94(0.00426)	Type B, D
	CU100	-185.0	to 200.0	-301.0	to 392.0	GOST 6651-94(0.00428)	Type D
	PT50	-200.0	to 550.0	-328.0	to 1022.0	GOST 6651-94(0.00391)	Type C, D
	PT50	-200.0	to 550.0	-328.0	to 1022.0	IEC751 (ITS-90)(0.00385)	Type D
	PT100	-200.0	to 850.0	-328.0	to 1562.0	IEC751 (ITS-90)(0.00385)	Type B, C, D
	PT100	-200.0	to 645.0	-328.0	to 1193.0	JIS 1604(0.003916)	Type D
	PT100	-200.0	to 550.0	-328.0	to 1022.0	GOST 6651-94(0.00391)	
	PT200	-200.0	to 850.0	-328.0	to 1562.0	IEC751 (ITS-90)(0.00385)	Type D
	PT500	-200.0	to 850.0	-328.0	to 1562.0	IEC751 (ITS-90)(0.00385)	Type C, D
PT1000	-200.0	to 850.0	-328.0	to 1562.0	IEC751 (ITS-90)(0.00385)	Type D	
Ohm		0.0 Ω	to 600.0 Ω				Type C, D
		0.0 Ω	to 5000 Ω				
mV		-128.0 mV	to 128.0 mV				Type C
		-1024 mV	to +1024 mV				
		-120.0 mV	to 120.0 mV				Type D
		-1000 mV	to +1000 mV				

WIRING DIAGRAM



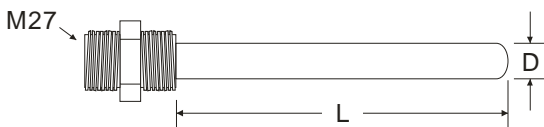
➤ DIMENSIONS



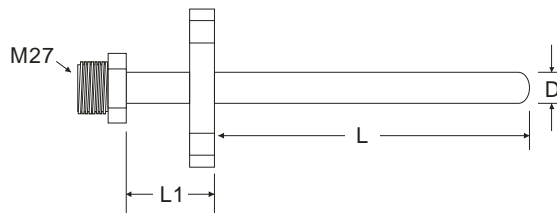
MODEL SELECTION GUIDE

ATT10001H Series							
Example: ATT10001H-DH-NN6X + PT100 / Class A / Has.C / 8.0 / 100 mm / 1/2" NPT / 50 mm / -50~300 °C							
ATT10001H-	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 / S.S. 304
	6						2" Mounting Bracket / S.S. 316
Name Plate Material	N						Stainless Steel 304
	6						Stainless Steel 316
Protection Class	N						Intrinsically Safe, Eex ia IIC T5 (Standard)
	X						Explosion Proof, Ex d IIB T5
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	S.S. 304, S.S. 316, Inconel600, Has. C, PTFE, Ceramic etc.						
Sensor OD (D)	3.2 / 4.0 / 4.8 / 5.0 / 6.0 / 8.0 / 9.5 / 12 / 15 mm						
Sensor Length (L)	50-1500 mm						
Process Connection	1/2", 3/4", 1", 1-1/2" (15 mm, 20 mm, 25 mm, 40 mm)						
Screw / Flange	NPT, BSP, ANSI 150#, PN10, JIS 10K etc.						
Extension Length (L1)	0-1000 mm (Temp.>120 °C, L1>100 mm; Temp.>300, L1>150 mm...)						
Temperature Range	-200~1800 °C (Please make sure your temperature equal to 4-20 mA)						

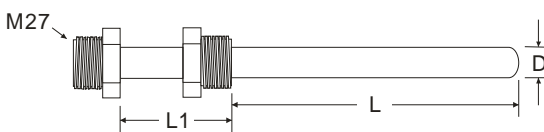
Note 1: Type B transmitter needs to be set by Alia Software & USB Cable.



Screw End without Extension



Flange End with Extension



Screw End with Extension