



AT SYSTEMS

TT-1000

Temperature Transmitter

PRODUCT DATA SHEET



SPECIFICATIONS

Measuring Range	Minimum: -100°C Maximum: +300°C Customized temperature range available on user request Check the model selection guide before ordering
Accuracy	±0.5% High accuracy model with 3-Wire Temperature sensor connection 0.5% Accuracy Sensor comes with a Class A PT-RTD 1000Ω ±1.0% Low accuracy model with 2-Wire Temperature sensor connection 1.0% Accuracy Sensor comes with a Class B PT-RTD 1000Ω
Analog Output	4~20mA corresponding to Temperature, ±0.01mA accuracy ±0.01mA resolution, maximum resistive load of 500Ω
Mechanical Connection	Standard ¼ inch Male BSPP connection Up to ½ inch of BSPP, NPS, BSPT and NPT connections Requires 24mm spanner size for mechanical installation (Refer to user manual for further information)
Maximum Operating Pressure	20 Bar at +300°C
Insertion Length	10mm Single body Non-Welded insertion length for long lasting performance Customized insertion length will be provided upon the user's request Please refer to insertion lengths in model selection guide
Heat Insulation	Cooling rings are specially designed and added into the transmitter to dissipate heat entering into the PCB housing
Power Requirement	+12 to 24 VDC (Maximum up to 40 VDC) without polarity protection +12 to 24 VDC (Maximum 40 VDC) connection shielded 2 conductor wire also available upon user request
Other Output Options	Transmitter comes with the following output options 1~5 Voltage Output RS-485 Communication
Construction Material	SS304 or SS304L SS316 or 316L Hastelloy C-276 User must mention the required material of construction before ordering
Standard Model Number	Typical standard model number Please obtain standard model and general price list from Sales Representative
Cable Length	Standard 5-meter wire is provided with the transmitter. Additional cable length available on user request
Electrical Connection	IP-68 Gland Connection
Weight	SS316: ≈155 grams approx



TT-1000 is an industrial standard temperature transmitter designed and produced by AT Systems. Temperature transmitter is used in various industrial and commercial application where accuracy and repeatability is required.

TT-1000 transmitter is fabricated with high-quality stainless steel and has an anti-clogging design which requires less maintenance while in operation.

APPLICATIONS

- Chemical industry
- Pharmaceutical industry
- Food and beverage industries
- Ammonia refrigeration systems
- Ice Block factory
- HVAC systems
- Fertilizer industry
- Textile industry
- Air compressor
- Gas compressor
- Water heaters
- Boiler feed water
- Lower pressure steam



TT-1000

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MODEL SELECTION GUIDE



TT-1000 - 1 L A 1 B C G 1

Range	
1	-100°C ~ 100°C
2	-50°C ~ 50°C
3	-50°C ~ 100°C
4	-25°C ~ 50°C
5	0°C ~ 50°C
6	0°C ~ 100°C
7	0°C ~ 200°C
8	0°C ~ 300°C
C	Custom range

Accuracy	
H	High Accuracy: ±0.5%
L	Low Accuracy: ±1.0%

Mechanical Connection	
A	1/4 inch Male BSPP
B	1/2 inch Male BSPP
C	1/4 inch Female BSPP
D	1/2 inch Female BSPP
S	1.5 inch Tri-Clamp
E	1/4 inch Male NPS
F	1/2 inch Male NPS
G	1/4 inch Female NPS
H	1/2 inch Female NPS
I	1/4 inch Male NPT
J	1/2 inch Male NPT
K	1/4 inch Female NPT
L	1/2 inch Female NPT
S	3/4" Sanitary Tri-clamp
O	Other/Customized threads

Insertion Length	
1	10mm (No Weld)
2	35mm (No Weld)
3	Customized Length (Length greater than 35mm have welded stems)



Temperature Transmitter

Wire Length	
1	5 meters
2	10 meters
3	20 meters
4	50 meters

Electrical Connection	
G	IP68, Gland Connection

Communication	
C	4 ~ 20mA Current Loop
V	1-5 Voltage Output
R	RS-485 Communication

Housing Material	
A	SS-316
B	SS-304

EXAMPLE

TT-1000 - 7 L A 2 B C G 2

0°C - 200°C

±1.0 % Accuracy

1/4" Male BSPP

35mm non-weld insertion length

SS-304

4 ~ 20mA current loop

IP68 Gland Connection

10 meters wire length

Standard Model: TT-1000-6LA1GCA1