

Main specifications	Other Specifications
<p>▼ Sensor input type</p> <ol style="list-style-type: none"> 1. RTD Pt100 (2 / 3 / 4wire) 2. Thermocouple (Type B, E, J, K, N, R, S,T) 3. Resistor (Ω) 4. Millivolt <p>▼ Sensor position</p> <p>Horizontal type / Vertical type</p> <p>▼ Process connection</p> <p>1/2" -14NPT (F) Other specifications available upon request</p> <p>▼ Electrical connection</p> <p>1/2" -14NPT (F) with M3.5 screw terminals</p> <p>▼ Temperature range</p> <p>Please refer to table 1</p> <p>▼ Ambient temperature</p> <p>-40 to 85°C (without condensing) -30 to 80°C (with LCD module)</p> <p>▼ Ambient temperature</p> <p>-40 to 85°C (without condensing)</p> <p>▼ Ambient humidity</p> <p>5~100%RH</p> <p>▼ Protection level</p> <p>IP67</p> <p>▼ Hazardous location certifications (options)</p> <p>Maker standard (IP67) Flameproof Exd II CT6 Intrinsic safety Ex ia II CT5 ATEX flameproof FM & FM Canada explosion-proof FM & FM Canada intrinsic safety</p>	<p>▼ Electronics housing</p> <p>Epoxy coated aluminum</p> <p>▼ Signal output</p> <p>Analog: 4-20mA Digital: HART communication</p> <p>▼ Power supply</p> <p>Voltage range: 12 to 45VDC Voltage rating: 24VDC\pm30%</p> <p>▼ Loop load</p> <p>0 to 1500Ω for operation 250 to 550Ω for HART comm.</p> <p>▼ Insulation</p> <p>Input / output isolated to 500Vrms (707VDC)</p> <p>▼ Accuracy</p> <p>Please refer to table 1</p> <p>▼ Sealing O-ring</p> <p>Buna-N</p> <p>▼ Stability</p> <p>RTD: \pm0.12% F.S. / 2 years Thermocouple: \pm0.12% F.S. / 1 year</p> <p>▼ Repeatability</p> <p>\pm0.05%F.S.</p> <p>▼ Ambient temp. effect</p> <p>\pm0.05% F.S./10°C</p> <p>▼ Power supply effect</p> <p>\pm0.005% F.S./V</p> <p>▼ Weight</p> <p>1.2kg (standard set)</p>

Smart Temperature Transmitter

Model: STT-2100

Introduction

STT-2100 is a microprocessor-based high performance transmitter, which has flexible sensor input and output, automatic compensation of ambient temperature and process parameters, configuration of various parameters, communication with HART protocol.



Due to the variety of customization, the picture is only for reference, please confirm the actual item with our sales. (If there is any change on specification, please take the latest version as standard.)

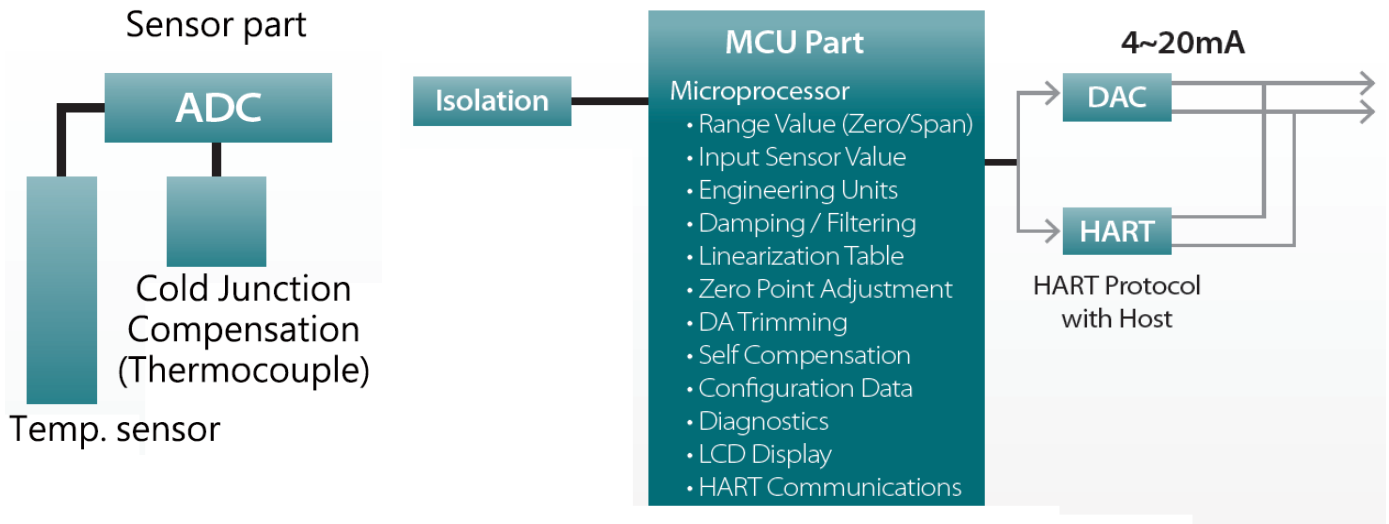
Features

- Various flexible sensor input:
RTD / Thermocouple / Resistor / Multi-volt
- Analog / Digital signal output:
4-20mA / HART communication
- Superior performance:
Excellent accuracy, long-term stability, high flexibility and reliability
- Adjustable parameters:
Sensor type, number of sensor input wires, zero/span, unit, fail-mode, trim, etc.
- Self-diagnostic function:
Sensor, A/D converter, memory, power, etc.
- With auto temperature compensation
- Various certifications available upon request

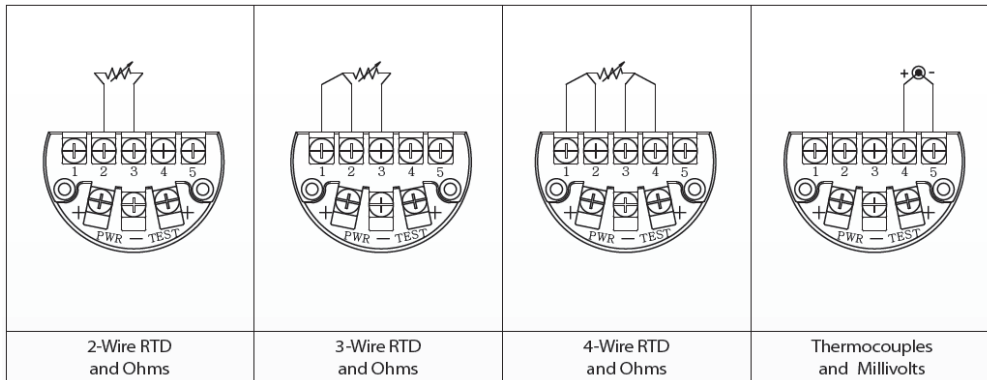
Table 1 Temperature sensor range & accuracy

Sensor type	Sensor ref.	Input range	Min. span	Digital accuracy	D/A accuracy
RTD Pt100	KSC 1603-1991	-200~650°C	15°C	\pm 0.17°C	\pm 0.03%F.S.
	JISC 1604-1981	-200~650°C		\pm 0.16°C	
Thermocouple Type B	KSC1602-1982	100~1820°C	25°C	\pm 0.77°C	
Thermocouple Type E		-200~1000°C		\pm 0.20°C	
Thermocouple Type J		-200~1200°C		\pm 0.25°C	
Thermocouple Type K		-200~1350°C		\pm 0.35°C	
Thermocouple Type N		-200~1300°C		\pm 0.40°C	
Thermocouple Type R		0~1760°C		\pm 0.60°C	
Thermocouple Type S		0~1740°C		\pm 0.50°C	
Thermocouple Type T		-200~400°C		\pm 0.25°C	
Millivolt		N/A		-10~75mV	
Ohm input	N/A	0~340 Ω	20 Ω	\pm 0.35 Ω	

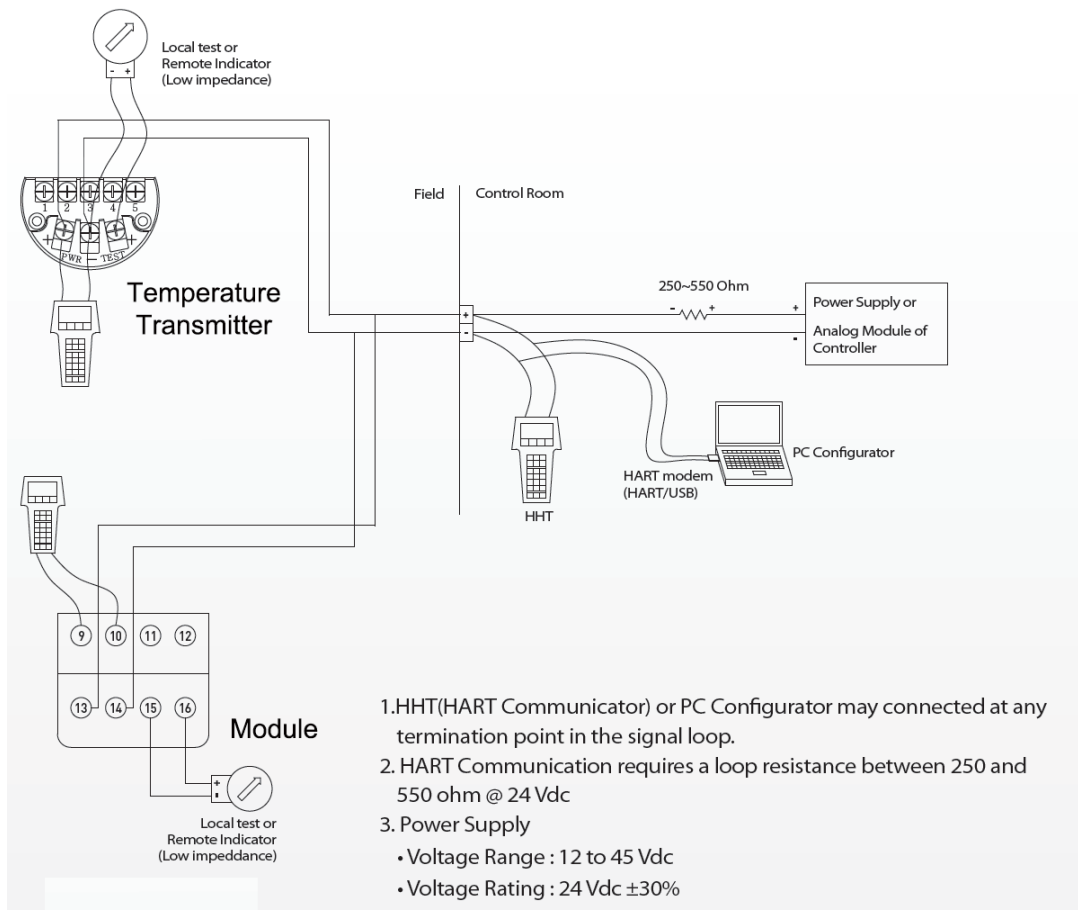
Function block diagram



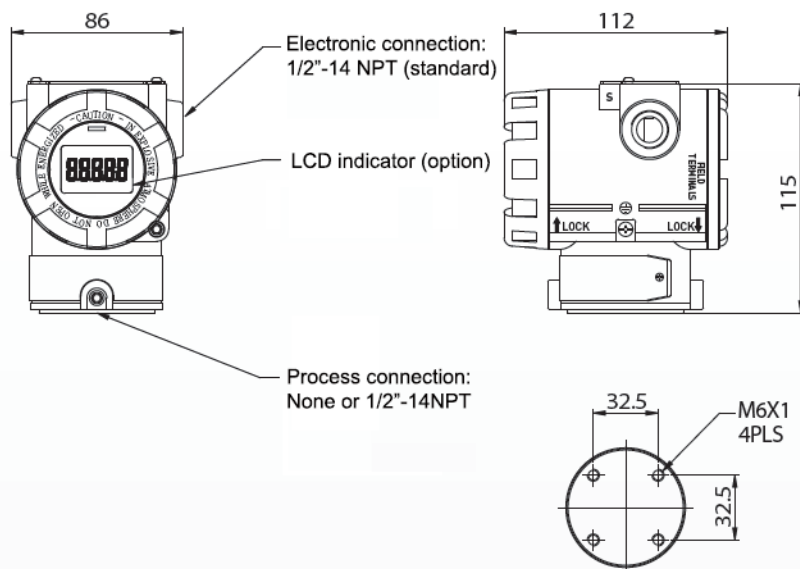
Field wiring and sensor wiring diagrams



Connection diagram of signal, power, HHT for transmitter



Dimension



How to order

STT-2100		Smart temperature transmitter			
Code	Input sensor type				
A_	RTD Pt100 _ wire (please fill the blank from following options: 2 / 3 / 4wire)				
T_	Thermocouple _Type (please fill the blank from following options: Type B, E, J, K, N, R, S,T)				
R	Resistor (Ω)				
M	Millivolt				
Code	Sensor position				
H	Horizontal type				
V	Vertical type				
Code	Process connection				
N	None				
4N	1/2" -14NPT (F)				
4G	G1/2"				
O	Other (please specify)				
Code	Electrical connection				
4N	1/2" -14NPT (F)				
4G	G1/2"				
O	Other (please specify)				
Code	Other requests				
/A	Third party notarized document				
/B	Inspection report				
/C	Stainless steel name plate				
/D	LCD indicator				
/E	Thermowell				
/F	Stainless steel bracket (angle type) with SST bolts				
/G	Stainless steel bracket (flat type) with SST bolts				
/I	Stainless steel housing				
/J	Lightening protector (external)				
/K	Certification-Maker standard (IP67)				
/L	Certification-Flameproof Exd II CT6				
/M	Certification-Intrinsic safety Ex ia II CT5				
/N	Certification-ATEX flameproof				
/O	Certification-FM & FM Canada explosion-proof				
/P	Certification-FM & FM Canada intrinsic safety				
STT-2100	TK	H	4N	4N	Order example: STT-2100-TK-H-4N-4N+/D