

General Features:

- Universal input, support RTD PT100,Cu50,Cu100, TC type T,E,J,K,N,R,S,B
- 2 wires 4-20mA output
- Input and range configurable via handheld device
- Built-in auto cold junction
- Standard DIN rail mount
- Very high accuracy
- Over range, input break detection and alarm



- TT-311, 1 input 1 output(4-20mA)
- TT-312, 2 input 2 outputs(4-20mA)
- TT-313, 2 inputs 2 outputs(4-20mA)

Ordering Information

- TT-311** 1 input 1 output, 1 sensor can be connected, and 1 4-20mA output
- TT-312** 1 input 2 outputs, 1 sensor can be connected, and 2 4-20mA output
- TT-313** 2 inputs and 2 outputs, 2 sensors can be connected, 2 4-20mA output

Technical Specifications

General Specifications

	TT-311	TT-312	TT-313
Sensor type	Pt100,Cu50,Cu100,T,E,J K,N,R,S,B	Pt100,Cu50,Cu100,T,E,J K,N,R,S,B	Pt100,Cu50,Cu100,T,E,J K,N,R,S,B
Cold end junction compensate range	-20°C~+60°C	-20°C~+60°C	-20°C~+60°C
Compensate accuracy	±1°C	±1°C	±1°C
Output	4-20mA	4-20mA	4-20mA with Hart
Load resistance	$RL \leq (Ue-12)/0.021$	$RL \leq (Ue-12)/0.021$	$RL \leq (Ue-12)/0.021$
Over range alarm value	IH=21mA IL=3.9mA	IH=21mA IL=3.9mA	IH=21mA IL=3.9mA
Input break output current value	21mA	21mA	21mA
Power supply	20~32VDC	20~32VDC	20~32VDC
Accuracy(ambient 20°C)	0.1% F.S	0.1% F.S	0.1% F.S
Temperature drift	0.01% F.S/°C	0.0075% F.S/°C	0.0075% F.S/°C
Response time	1ms to 90% of maximum output	0.5ms to 90% of maximum output	0.5ms to 90% of maximum output
Input/output isolation strength	1500VAC 1min	1500VAC 1min	1500VAC 1min
Input/output impedance	≥100MΩ 500V	≥100MΩ 500V	≥100MΩ 500V
EMC standard	IEC 61326-1	IEC 61326-1	IEC 61326-1
Working temperature	-20°C~+60°C	-20°C~+60°C	-20°C~+60°C
Mounting	IEC 61326-1	IEC 61326-1	IEC 61326-1
Dimension	-20°C~+60°C	-20°C~+60°C	-20°C~+60°C

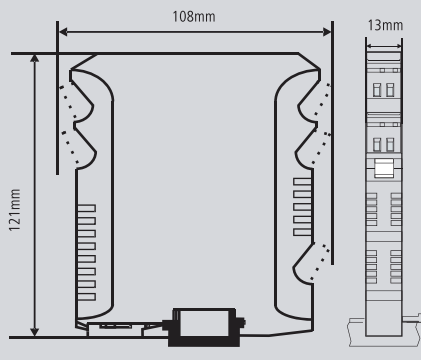
Input signal and range

Thermocouple

- B (400 ~ 1800°C)
- S (0 ~ 1600°C)
- K (0 ~ 1300°C)
- E (0 ~ 1000°C)
- T (-200.0 ~ 400.0°C)
- J (0 ~ 1200°C)
- R (0 ~ 1600°C)
- N (0 ~ 1300°C)

RTD

- Cu50 (-50.0 ~ 150.0°C)
- Cu100 (-50.0 ~ 150.0°C)
- Pt100 (-200.0 ~ 650.0°C)



Dimension

Wiring diagram

