

Field Mount Temperature Transmitter

RTT5000



Output Signal: 4-20mA (Two-wire System)



Accuracy: $\pm 0.1\%$



Working Temperature: (-)40 ~ 85°C



Supply Voltage: 12V ~ 35V

**Product
Datasheet**

ROCKSENSOR AT A GLANCE (ABOUT US)

Rocksensor is one of the global leaders specializing in Process Instrumentation, Research and Development and Designing of Industrial Automation Equipment. We provide highly precise pressure sensors and transmitters, flow metres, level transmitters and temperature transmitters with a prime focus to help our clients efficiently, safely and economically run complex industrial processes.

Rocksensor, headquartered in Switzerland, has its footprint in various geographical regions such as the US, Russia, South Korea, Italy, Germany, Singapore, Malaysia, Morocco, China, Taiwan, Australia, UAE, Brazil and India. Our clients come from some of the major industries such as Oil and Gas, Petrochemicals, Pharmaceuticals, FMCG, Automobiles, Water, Cement, Metal & Mining, and mainly from the Power Industry like Nuclear, Thermal, Hydro, and Solar.

Rocksensor deals in a wide range of highly accurate industrial automation instruments ensuring that even the complex industrial processes happen efficiently.

To fulfill the needs of our clients we make sure that our instruments work in even the harsh environmental conditions offering accurate recordings and communication.

We, at Rocksensor, believe in creating bonds that last a lifetime and create a success story for each and every client. Rocksensor aims to achieve a perfect fit in the global market landscape and establish our footprints across the globe.



CONTENTS

1. Technical Specifications 3

2. Wiring and Dimensions 4

KEY APPLICATION INDUSTRIES

- Oil and Gas sector
- Cement
- Metal
- Pulp and Paper
- Agriculture
- Textiles
- Chemicals
- Power
- Water
- Pharmaceutical
- Fertilizer
- Plastics and HVAC

1. Technical Specifications

1. Output signal: 4- 20mA (two-wire system)

2. Damping: 0-30 seconds

3. Input signal

Standard	Sensor	Measuring Range	Minimum Measuring Range
IEC584-1	Thermocouple B	320 ~ 1820°C	500°C
	E	(-)200 ~ 900°C	50°C
	J	(-)200 ~ 1200°C	50°C
	K	(-)200 ~ 1372°C	50°C
	R	0 ~ 1768°C	500°C
	S	0 ~ 1768°C	500°C
	T	(-)200 ~ 400°C	50°C
	N	(-)200 ~ 1300°C	50°C
IEC751 2, 3 and 4 wire	Thermal resistance Pt100	(-)200 ~ 850°C	20°C
	Thermal resistance Pt1000	(-)200 ~ 250°C	20°C
Thermal Resistance	Ω	20 ~ 400Ω	20Ω
IEC751 2, 3 and 4 wire	CU50, CU100	(-)50 ~ 150°C	20°C
		(-)50 ~ 150°C	20°C
IEC751 $\alpha=0.00385$;			

4. Supply voltage: 12V ~ 35V

5. Working environment temperature: (-)40 ~ 85°C

6. Remote transmission and storage temperature: (-)40 ~ 100°C

7. The error between zero and full scale is less than 0.1%

8. Input and output isolation, isolation voltage 1.5kvac

9. Accuracy $\pm 0.1\%$

10. Temperature influence: Pt100 is less than $(0.05\% + \text{upper limit of range} / \text{range of range} \times 0.008\%) / 10K$ Thermocouple is less than $(0.05\% + \text{range upper limit (mV)} / \text{range range (mV)} \times 0.01\% + 0.014K / \text{range range (K)} \times 100\%) / 10K$
If Pt100 (0 ~ 400°C) is less than 0.063% / 10K. If K-type thermocouple (0 ~ 1000°C) is less than 0.074% / 10K

11. Communication tools

12. Software tool: EASYTT configuration software

13. Mounting hole distance: 33mm, 36 mm

14. Electromagnetic compatibility: IEC61326-1

15. Display table

Digital Display

(1): 31/2 LCD display

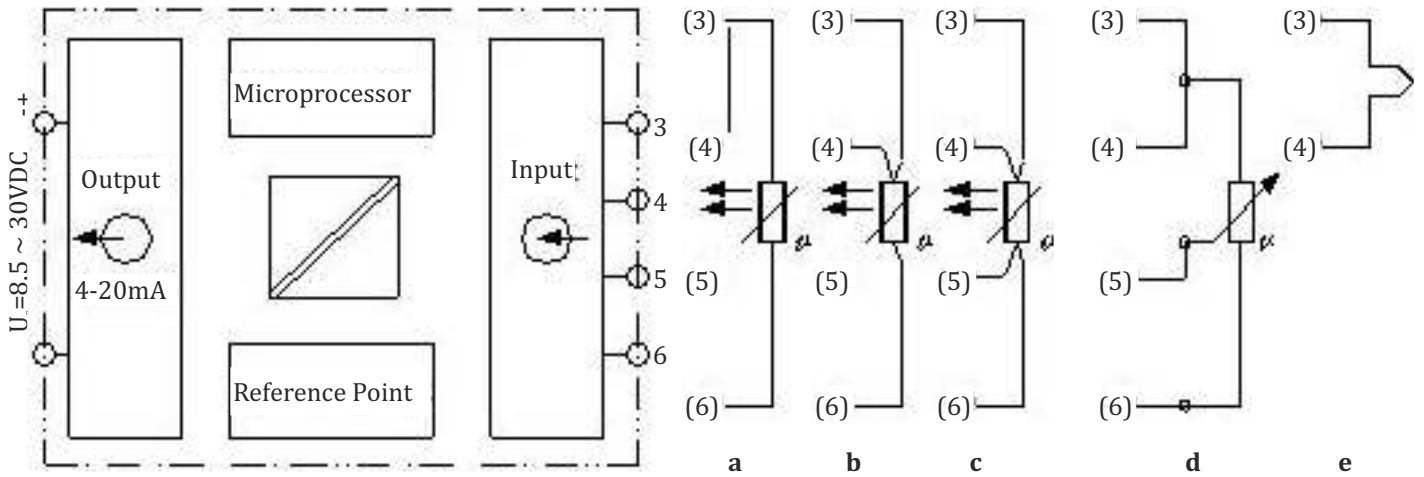
(2): Response time: 0.5s

(3): Measurement accuracy: 0.15%

(4): Working environment temperature: (-)20 ~ 70 °C

2. Wiring and Dimensions

a. Wiring Diagram



- a) Two-wire thermal resistance input
- b) Three-wire thermal resistance input
- c) Four-wire thermal resistance input
- d) Double thermal resistance input, two-wire system
- e) Potentiometer input (four-wire system)

b. Dimensions

