

§ BOX TRANSDUCER § SENSOR TRANSDUCER RESISTANCE TEMPERATURE TRANSDUCER

RESISTANCE TEMPERATURE TRANSDUCER

RHTT2-82A/ RHTT2-83A (DC110V power source)

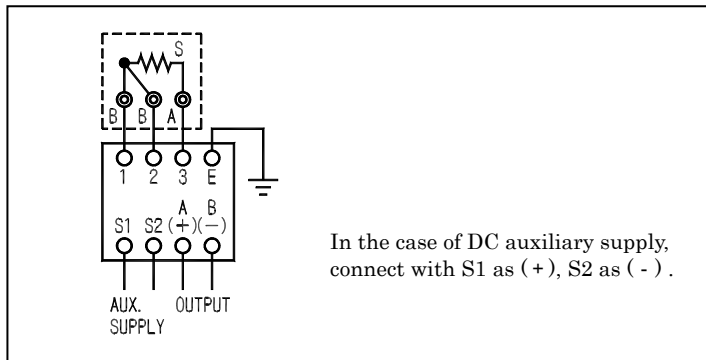
Use

With resistance value of three-wire thermal resistance according to JIS as input, convert the input to DC signal in proportion to temperature with insulation.

Features

1. Withstand voltage 2, 000V AC (between input/output/auxiliary supply/earth).
2. Impulse withstand voltage 5kV 1.2/50 μ s (electric circuit/earth), positive/ negative polarity 3 times each is guaranteed.
3. With output line surge protection (2, 000A, \pm 8/20 μ s), can transmit an output directly to a distant place.
4. Constant voltage/current output.

Connection diagram



RHTT2-82A

(120 × 56 × 130mm/800g)

Specification and performance

Kind of thermal resistance	Temperature span (specified current)	Input*		Output (load resistance)	Auxiliary supply	Common specification
①: Pt, 100 at 0	① { 100 (2mA) 50 (5mA)	A1: 0-50	C5: -20-100	①: DC0-100mV (200)	①: AC100V \pm 15%, 50/60Hz	Tolerance: \pm 0.5% Response time: 1sec. (\pm 1%) Consumption VA: AC power source: 3.5VA DC power source: 3.5W DC110V: 4.5W Weight: 800g
②: Pt, 50 at 0		A2: 0-60	C6: -20-120	②: DC0-1V (200)	②: AC110V \pm 15%, 50/60Hz	
③: Cu, 100 at 0		A3: 0-80	D1: -30-50	③: DC0-5V (1k)	③: AC200V \pm 15%, 50/60Hz	
④: Cu, 50 at 0	② { 200 (2mA) 100 (5mA) 50 (10mA)	A4: 0-100	D2: -30-60	④: DC 0-10V (2k)	④: AC220V \pm 15%, 50/60Hz	
⑤: Cu, 25 at 0		A5: 0-120	D3: -30-80	⑤: DC1-5V (1k)	⑤: DC24V \pm 15%	
⑥: Cu, 10 at 0		A6: 0-150	E1: -50-50	⑥: DC0-5mA (2k)	⑥: DC48V \pm 15%	
⑦: Cu, 50 at 25	⑤ { 50 (10mA) 200 (5mA)	A7: 0-200	E2: -50-60	⑦: DC0-10mA (1k)	⑦: DC110V (88-143V) ⑧: other than those above	
⑧: Cu, 25 at 25		A8: 0-300	E3: -50-80	⑧: DC0-5mA (2k)		
⑨: Cu, 10 at 25		B1: -10-40	E4: -50-100	⑨: DC0-10mA (1k)		
⑩: other than those above	⑥ { 100 (10mA)	B2: -10-50	E5: -50-120	⑩: DC0-16mA (600)	⑩: other than those above	
		B3: -10-60	E6: -50-150	⑪: DC1-5mA (2k)		
		C1: -20-40	F1: -70-30	⑫: DC4-20mA (500)		
		C2: -20-50	F2: -70-80	⑬: other than those above		
		C3: -20-60	G1: -100-100			
		C4: -20-80	⑭: other than those above			

Operating temperature range of thermal resistance: Pt: -200~ + 650 ; Cu: -25~ + 120 . Ni also can be manufactured.

Open of current output: even if the current output terminal is used in a state of regular open, there is no problem.

Also, a voltage of approx. 15V occurs on the output terminal.

DC110V power source: Type code is RHTT2-83A.

§ BOX TRANSDUCER § SENSOR TRANSDUCER RESISTANCE TEMPERATURE TRANSDUCER

Built-in linearizer

The resistance value of a measurement temperature resistance is not proportional to temperature. The linearizer converts a measurement temperature resistance into an output proportional to temperature.

Built-in burnout

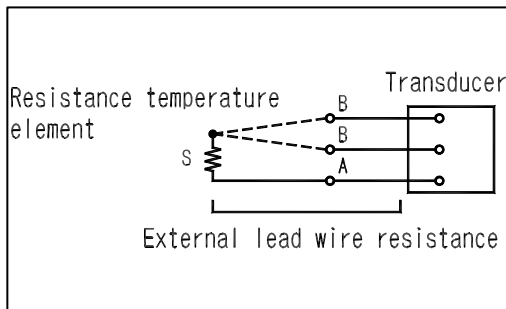
The device detects disconnection of a measurement temperature resistance and does scale-out of output to positive (+) side. Scale-out to negative side is also manufacturable if specified.

Specified current

Specified current is a current flowing into a thermal resistance. Change of resistance value can be measured by voltage drop caused by the specified current. In the case of Pt, though standard specified current is 2mA, 5mA is also manufacturable if specified.

Built-in external conducting wire resistance compensating circuit

External conducting wire resistance is the resistance value of conducting wires excluding the resistance value of element S. As the influence of external conducting wire resistance, it does compensate when resistance values of all conducting wires are equivalent, but it becomes an error when resistance values of all conducting wires are different. Generally, taking into consideration the variousness of conducting wires, use the product under ranges listed in the table below.



Thermal resistance	External conducting wire resistance	
	Input span 100	50 Input span < 100
Pt 100Ω	10 /line	5 /line
Pt 50Ω	5 /line	2.5 /line
Cu 100Ω	10 /line	5 /line
Cu 25Ω	2.5 /line	1 /line
Cu 10Ω	1 /line	-

Purchase specifications

