

RTD Signal Conditioners

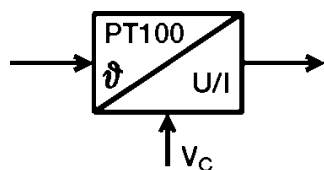
WAVEANALOG RTD

- 3-wire technology
- Configurable temperature range
-200°C...+800°C
- Configurable output current range
0...20 mA/4...20 mA
- Cross-connectable voltage supply
via cross-connectors

Approvals:



Block diagram



Ordering data	
Screw connection	
Tension clamp connection	
Input/output	
Technical data**	
Input signal	
Temperature range	-200°C...+800°C
Supply current	1.45 mA
Conductor resistance	≤ 50 Ω
Output signal	
Load resistance	≤ 500 Ω
Accuracy at Tu=23°C	± 0.5% of measurement range
Temperature coefficient	
Measurement range ≥ 200 K	≤ 200 ppm/°C (typ. 80 ppm/°C)
100 K ≤ measurement range < 200 K	≤ 250 ppm/°C (typ. 100 ppm/°C)
40 K ≤ measurement range < 100 K	≤ 500 ppm/°C (typ. 200 ppm/°C)
General	
Voltage supply	24 VDC ±20% (19.2...28.8 VDC)
Power consumption	< 48 mA at I _{out} = 20 mA
Current carrying capacity of cross-connection	≤ 2 A
Operating temperature	0°C...+55°C
Storage temperature	-20°C...+85°C
Standards/specifications	EN 50178, IEC 751
EMC standards	EN 50081, EN 50082, EN 55011
Dimensions W/L/H	12.5/92.4/112.5 (49/3.64/4.43) mm (in.)
Approvals	CE, UL, CSA
Dimensions and accessories see	Page 356 + 366

* without balancing

** Tu = 23°C single module

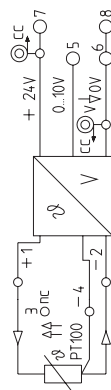
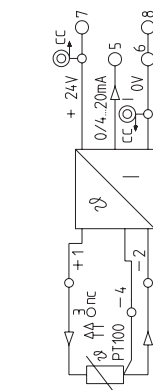
PT100/3

0(4)...20 mA



PT100/3

0...10 V



Type	Part No.	Type	Part No.
WTS4 PT100/3 C	8432150000*	WTS4 PT100/3 V	8432090000*
WTZ4 PT100/3 C	8432160000*	WTZ4 PT100/3 V	8432130000*
PT100/3/0(4)...20 mA		PT100/3/0...10 V	
Technical data**		Technical data**	
Input signal		Input signal	
Temperature range	-200°C...+800°C	Temperature range	-200°C...+800°C
Supply current	1.45 mA	Supply current	1.45 mA
Conductor resistance	≤ 50 Ω	Conductor resistance	≤ 50 Ω
Output signal		Output signal	
Load resistance	≤ 500 Ω	Load resistance	≥ 1 kΩ
Accuracy at Tu=23°C	± 0.5% of measurement range	Accuracy at Tu=23°C	± 0.5% of measurement range
Temperature coefficient		Temperature coefficient	
Measurement range ≥ 200 K	≤ 200 ppm/°C (typ. 80 ppm/°C)	Measurement range ≥ 200 K	≤ 200 ppm/°C (typ. 80 ppm/°C)
100 K ≤ measurement range < 200 K	≤ 250 ppm/°C (typ. 100 ppm/°C)	100 K ≤ measurement range < 200 K	≤ 250 ppm/°C (typ. 100 ppm/°C)
40 K ≤ measurement range < 100 K	≤ 500 ppm/°C (typ. 200 ppm/°C)	40 K ≤ measurement range < 100 K	≤ 500 ppm/°C (typ. 200 ppm/°C)
General		General	
Voltage supply	24 VDC ±20% (19.2...28.8 VDC)	Voltage supply	24 VDC ±20% (19.2...28.8 VDC)
Power consumption	< 48 mA at I _{out} = 20 mA	Power consumption	< 38 mA at I _{out} = 10 mA
Current carrying capacity of cross-connection	≤ 2 A	Current carrying capacity of cross-connection	≤ 2 A
Operating temperature	0°C...+55°C	Operating temperature	0°C...+55°C
Storage temperature	-20°C...+85°C	Storage temperature	-20°C...+85°C
Standards/specifications	EN 50178, IEC 751	Standards/specifications	EN 50178, IEC 751
EMC standards	EN 50081, EN 50082, EN 55011	EMC standards	EN 50081, EN 50082, EN 55011
Dimensions W/L/H	12.5/92.4/112.5 (49/3.64/4.43) mm (in.)	Dimensions W/L/H	12.5/92.4/112.5 (49/3.64/4.43) mm (in.)
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Dimensions and accessories see	Page 356 + 366	Dimensions and accessories see	Page 356 + 366

Switch position/setting options

Tmin	1	2	3	Span	4	5	6
0°C	■	■	■	40...50°C	■	■	■
-10°C	■	■	■	50...75°C	■	■	■
-20°C	■	■	■	75...110°C	■	■	■
-40°C	■	■	■	110...165°C	■	■	■
-60°C	■	■	■	165...245°C	■	■	■
-80°C	■	■	■	245...360°C	■	■	■
-100°C	■	■	■	360...540°C	■	■	■
-200°C	■	■	■	540...800°C	■	■	■

Output ¹⁾	
Range	7
0...20 mA	■
4...20 mA	■

¹⁾ only modules with current output

■ = on
□ = off