

Temperature control unit with LED display

KT-LED-96-2R-24VDC

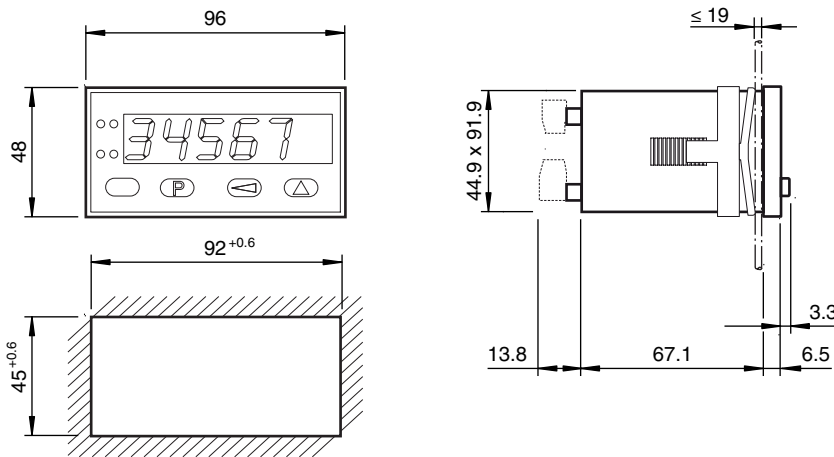


- Galvanic isolation
- Polarity reversal protected
- Degree of protection IP65 (front only)

Temperature control unit with LED display and 24 VDC supply voltage



Dimensions



Technical Data

General specifications	
Data storage	10 ⁶ storage cycles or 10 years, EEPROM
Programming	keypad-driven menu
Indicators/operating means	
Type	5-digit 7-segment LED display, red
Display value	digit height 14.2 mm
Display interval	-19999 ... 99999 with suppression of leading zeros
Decimal point	0 to max 1 fractional digit
Reset	manually or external
Electrical specifications	
Fusing	250 mA/T
Operating voltage	U _B 10 ... 30 V DC galvanically isolated
Power consumption	P ₀ max. 2 W
Input 1	
Input type	measurement for thermoelements B, E, J, K, N, R, S, T
Resolution	0.1 °C (0.1 °F)

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Refer to "General Notes Relating to Pepperl+Fuchs Product Information".

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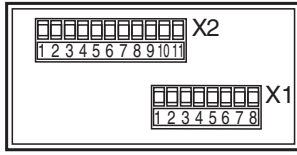
Technical Data

Compensation (reference junction CJC)	internal or external (programmable)
Input 2	
Input type	Measurement input for resistance thermometer type Pt100, Pt1000
Resolution	0.1 °C (0.1 °F)
Connection	2-, 3- and 4-wire connection technology, programmable
Current	800 µA at Pt100 80 µA at Pt1000
Input 3	
Input type	Measurement input for resistance measurement
Resistor	0 ... 400 Ω 0 ... 4000 Ω
Resolution	14 Bit
Connection	2-, 3- and 4-wire connection technology, programmable
Current	800 µA at 400 Ω 80 µA at 4000 Ω
Input 4	
Input type	Millivolt measurement input with automatic zero adjustment
Voltage range	0 ... 100 mV DC -100 ... 100 mV DC
Resolution	14 Bit
Input resistance	min. 2 MΩ
Measuring frequency	approx. 1 measurement per sec.
Input 5	
Input type	Digital inputs, Input MPI: Display hold or reset limit value latch Input KEY: Keyboard lock
Signal voltage	
High	4 ... 30 V DC
Low	0 ... 2 V DC
Minimum pulse duration	min. 5 ms
Output 1	
Output type	2 limit value outputs, relay with floating changeover contact
Switching voltage	250 V AC / 300 V DC
Switching current	max. 3 A AC/DC min. 30 mA DC
Switch power	50 W / 2000 VA
Output 2	
Output type	Auxiliary power output for signal converter/measurement sensor, galvanically isolated
Output voltage	10 V DC ± 3 %, 30 mA,
Compliance with standards and directives	
Directive conformity	
EMC Directive 2004/108/EC	EN 61000-6-2:2005
Standard conformity	
Emitted interference	DIN EN 55011:2009, Class B
Ambient conditions	
Ambient temperature	-20 ... 65 °C (-4 ... 149 °F)
Storage temperature	-40 ... 85 °C (-40 ... 185 °F)
Relative humidity	≤ 75 % (noncondensing)
Mechanical specifications	
Degree of protection	IP65 (front)
Mass	approx. 212 g
Dimensions	96 mm x 48 mm x 90.7 mm

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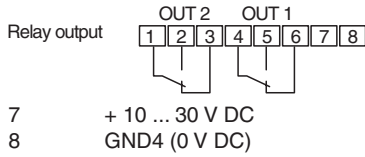
Connection

Wire assignment



X1: Pin Function

Power supply and alarm outputs



X2: Pin Function

Thermocouples

- 1 Positive sensing arm
- 2 Negative sensing arm

Resistance thermometer

- 1 Pt100 or 0 ... 400 Ω
- 2 Pt1000 or 0 ... 4000 Ω

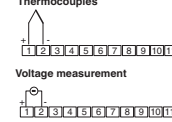
Voltage measurement

- 1 Voltage input (V)
- 2 GND 1 (analog)

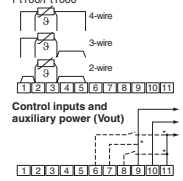
Control inputs and auxiliary power (Vout)

- 6 Keypad lock-out "Key"
- 7 GND2 Key/MPI
- 8 MP-input "Reset-alarm-latch/ Display-Hold"
- 9 GND3 (for Vout)
- 10 Vout + 10 V/30 mA
- 11 n.c.

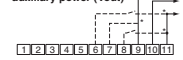
Electrical connection X2



Resistance thermometer



Control inputs and auxiliary power (Vout)



* Alternatively connect directly to DC power supply (galvanic isolation of control and measurement inputs)