

Temperature control unit with LED display

KT-LED-96-2R-24VDC

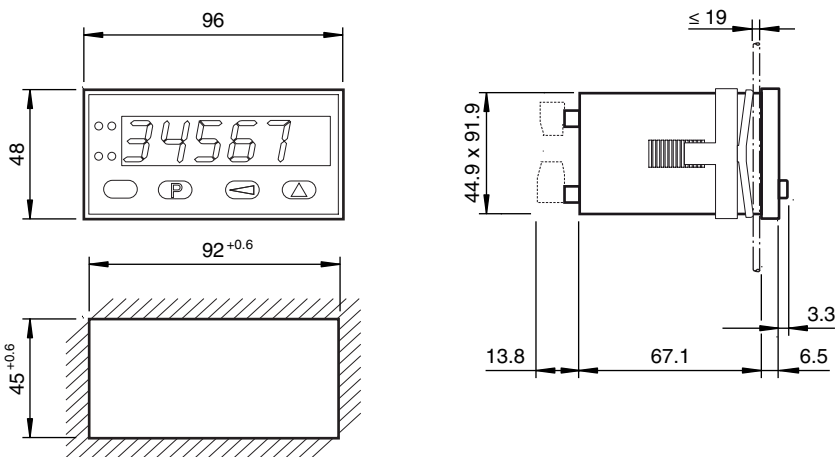


- Galvanic isolation
- Polarity reversal protected
- Degree of protection IP65 (front only)

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
Functional safety related parameters	
MTTF _d	350 a
Mission Time (T _M)	10 a
Diagnostic Coverage (DC)	0 %
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

Release date: 2020-03-23 Date of issue: 2020-03-26 Filename: 215128_eng.pdf

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

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Technical Data

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)
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)

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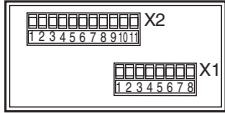
 **PEPPERL+FUCHS**

Technical Data

Mass	approx. 212 g
Dimensions	96 mm x 48 mm x 90.7 mm

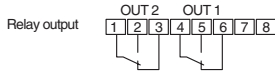
Connection

Wire assignment



X1: Pin Function

Power supply and alarm outputs



7 + 10 ... 30 V DC
8 GND4 (0 V DC)

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

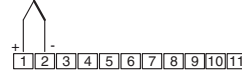
- 1 Voltage input (V)
- 2 GND 1 (analog)

Control inputs and auxiliary power (Vout)

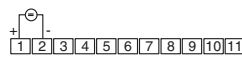
- 6 Keypad lock-out "Key"
- 7 GND2 Key/MPI
- 8 MP-input "Reset-alarm-latch/Display-Hold"
- 9 GND3 (for Vout)
- 10 Vout + 10 V/30 mA
- 11 n.c.

Electrical connection X2

Thermocouples

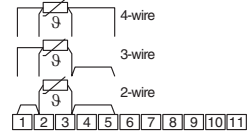


Voltage measurement

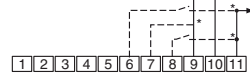


Resistance thermometer

Pt100/Pt1000



Control inputs and auxiliary power (Vout)



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