Temperature control unit with LED display

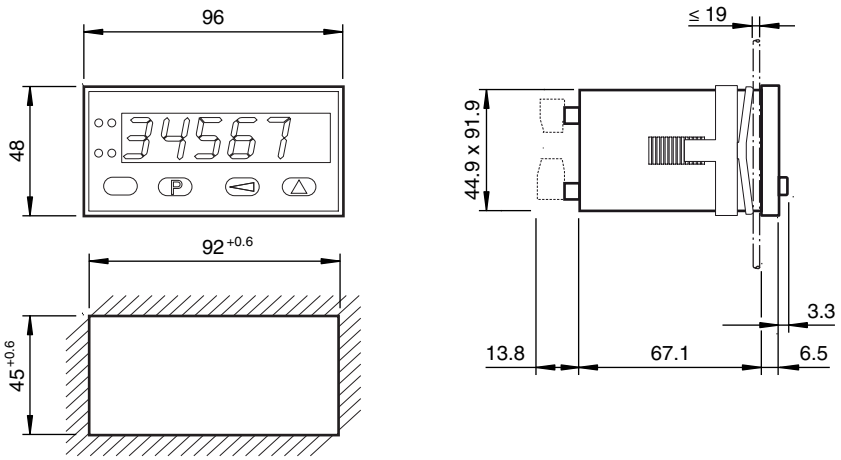
KT-LED-96-2R-24VDC

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

Temperature control unit with LED display and 24 VDC supply voltage

CE

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)

Release date: 2023-11-21 Date of issue: 2023-11-21 Filename: 215128_eng.pdf

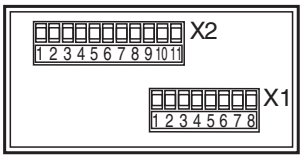
Technical Data

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

Release date: 2023-11-21 Date of issue: 2023-11-21 Filename: 215128_eng.pdf

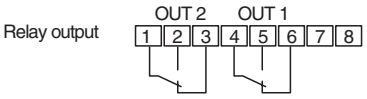
Connection

Wire assignment



X1: Pin Function

Power supply and alarm outputs



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

X2: Pin Function

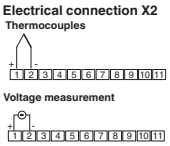
Thermocouples
1 Positive sensing arm
2 Negative sensing arm

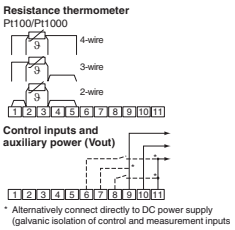
Resistance thermometer
1 Pt100 or 0 ... 400 Ω
2 Pt1000 or 0 ... 4000 Ω

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





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

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