

LED temperature display

KT-LED-24-PT100-24VDC

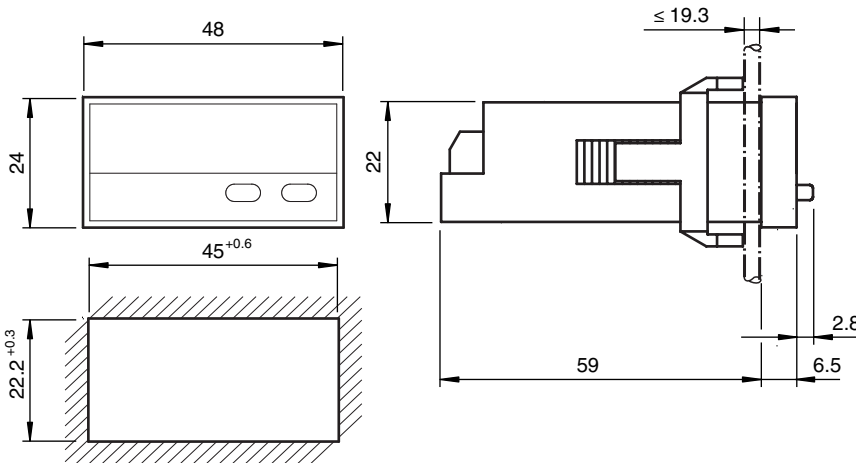


- Temperature display in °C or °F
- Resolution up to 0.1 °C
- Extremely bright, large LED indicator
- RTD types Pt100, Ni100 in 2-, 3-, or 4-wire mode
- Galvanic isolation
- Polarity reversal protected
- Degree of protection IP65 (front only)

LED temperature display for Pt100 temperature sensor, with 24 VDC supply voltage



Dimensions



Technical Data

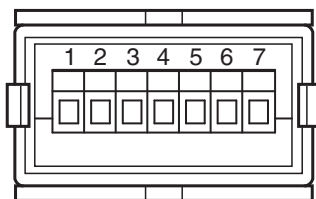
General specifications	
Data storage	EEPROM
Programming	keypad-driven menu
Indicators/operating means	
Type	5-digit 7-segment LED display, red
Display value	digit height 8 mm
Display interval	-1999.9 ... 9999.9
Decimal point	0 to max 1 fractional digit
Temperature range	Pt100 acc. DIN IEC 751: -199.9 ... 850 °C (-327.8 ... 1562 °F) Ni100 acc. DIN 43760: -60 ... 250 °C (-76 ... 482 °F)
Resolution	0.1 °C (0.1 °F) bzw. 1 °C (1 °F)
Refresh cycle of the measured value output	1 - 2 s ⁻¹
Reset	manually or external
Electrical specifications	
Operating voltage	U _B 10 ... 30 V DC galvanically isolated
Operating current	I _B max. 40 mA
Input	

Release date: 2023-11-21 Date of issue: 2023-11-21 Filename: 215125_eng.pdf

Technical Data

Suitable sensors	Pt100/Ni100 resistance thermometer, with sensor breakage monitoring
Signal voltage	Display latch, display hold for current measured value
High	4 ... 30 V DC
Low	0 ... 2 V DC
Pt 100 range (-200 ... 850 °C)	0 ... 20 Ω 2-wire: programmable 3-/4-wire: no adjustment necessary
Ni 100-range (-60 ... 250 °C)	0 ... 20 Ω 2-wire: programmable 3-/4-wire: no adjustment necessary
Current	1 mA
Counting frequency	5 measurements per second
Linearity error	Pt100 < 0.1% at 20°C ambient temperature Ni100 < 0.2% at 20°C ambient temperature
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	-25 ... 70 °C (-13 ... 158 °F)
Relative humidity	≤ 85 % (noncondensing)
Temperature drift	0.1 K/K _{environment}
Mechanical specifications	
Degree of protection	IP65 (front)
Mass	approx. 45 g
Dimensions	48 mm x 24 mm x 68.3 mm

Connection

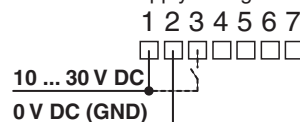


Connections

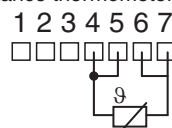
Pin	Function
1	10 - 30 V DC Supply voltage
2	0 V DC (GND)
3	Latch input
4	Pt100/Ni100
5	Pt100/Ni100
6	Pt100/Ni100
7	Pt100/Ni100

Electrical connection

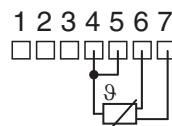
Connection supply Voltage / Latch input



2-wire resistance thermometer



3-wire resistance thermometer



4-wire resistance thermometer

