

LED temperature display

KT-LED-24-TC-24VDC

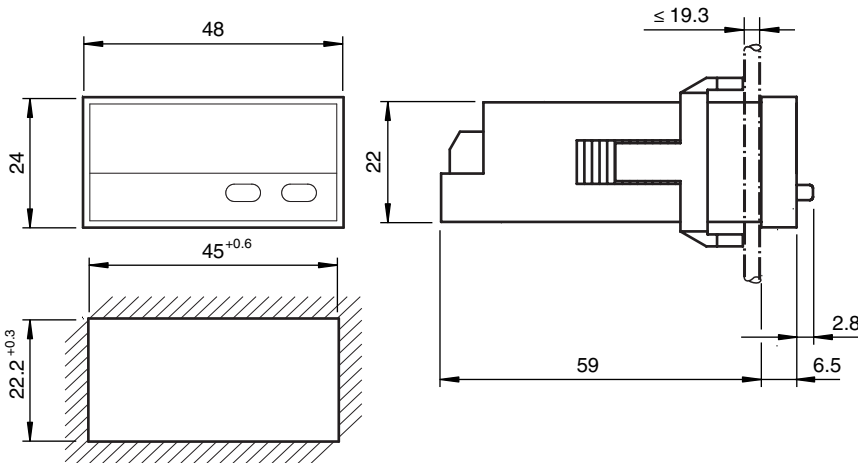


- Temperature display in °C or °F
- Resolution up to 0.1 °C
- Extremely bright, large LED indicator
- For thermocouples J, K, and N
- Galvanic isolation
- Polarity reversal protected
- Degree of protection IP65 (front only)

LED temperature display for thermocouples J/K/N, with 24 VDC supply voltage



Dimensions



Technical Data

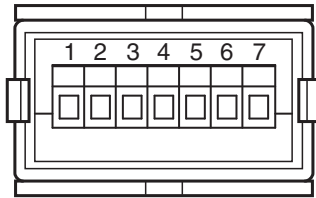
General specifications	
Data storage	EEPROM
Programming	keypad-driven menu
Indicators/operating means	
Type	5-digit 7-segment LED display, red
Display value	digit height 8 mm
Display interval	-999.9 ... 1999.9
Decimal point	0 to max 1 fractional digit
Temperature range	acc. DIN IEC 584: J (Fe-Cu-Ni): -210 ... 1200 °C (-346 ... 2192 °F) K (Ni-CrNi): -200 ... 1372 °C (-328 ... 2501.6 °F) N (NiCrSi-NiSi): -200 ... 1300 °C (-328 ... 2372 °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

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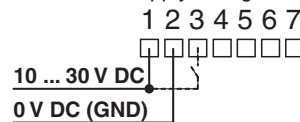
Input		
Suitable sensors		Thermocouple J, K, N, with sensor breakage monitoring
Signal voltage		Display latch, display hold for current measured value
High		4 ... 30 V DC
Low		0 ... 2 V DC
Counting frequency		5 measurements per second
Linearity error		< 0.4 % at 20°C ambient temperature
Compensation (reference junction CJC)		internal or external (programmable) Junction error: ± 1.0 °C typ./ ± 3.0 °C max.
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



Electrical connection

Connection supply Voltage / Latch input



Connections

Pin	Function
1	10 - 30 V DC Supply voltage
2	0 V DC (GND)
3	Latch input
4	not connected
5	Thermocouple "+"
6	not connected
7	Thermocouple "-"

Thermocouple Sensor

