

Temperature displays

LED temperature displays **Pt100 and Ni100 input (DC)** **Codix 531**



Cost-effective temperature display for front panel mount with bright 5-digit LED display for values in °C or °F.

For very accurate temperature measurements using Pt100 and Ni100 resistance thermometers in 2, 3 or 4-wire technology, with permanently stored characteristic curves.

Minimum and maximum value detection for temperature monitoring over long periods of time.



DC 10 ... 30 V Power supply	 2, 3, 4 2-, 3-, 4-wire technology	 Pt100 / Ni100	 Menu-driven programming	 AC/DC Galvanic isolation	 - 20° + 65° Temperature range	 IP65 High protection level	 min / max Min / Max value detection	 DIN 48 x 24	 5 LED LED display
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Product features

- Input range: resistance thermometer
- Compact and low-price temperature display
- Easy programming and operation
- Modern industrial design
- 5 measurements/second

Benefits

- Temperature display in °C or °F
- MIN/MAX value acquisition and data backup in case of power off
- Galvanic isolation with protection against incorrect polarity
- Screw terminal connection: pitch 5 mm
- Display hold input

Order specifications

Temperature display for Pt100 and Ni100 resistance thermometer

6.531.012.300 ¹⁾

Delivery specification

- Digital display
- Mounting clip
- Gasket
- Instruction manual, multilingual
- 1 set of self-adhesive symbols
- Front bezel for screw mounting (T008181) 56 x 40 mm [2.20 x 1.57"], panel cut-out 50 x 25 mm [1.97 x 0.98"]
- Front bezel for clip mounting (T008180) 53 x 28 mm [2.09 x 1.10"], panel cut-out 50 x 25 mm [1.97 x 0.98"]

Accessories	Dimensions in mm [inch]	Order-No.
Adapter front bezel, 72 x 36 [2.83 x 1.42]	For cut-out 68 x 33 [2.68 x 1.30] to cut-out 45 x 22.2 [1.77 x 0.87], for counters 48 x 24 [1.89 x 0.94], as set black and silver anodised	162704 Set
Adapter front bezel, 48 x 48 [1.89 x 1.89]	For cut-out 45 x 45 [1.77 x 1.77] to cut-out 45 x 22.2 [1.77 x 0.87], with clip mounting for counters 48 x 24 [1.89 x 0.94] black	T008883
Adapter front bezel, 60 x 50 [2.36 x 1.97]	For cut-out 54 x 29 [2.13 x 1.14] to cut-out 45 x 22.2 [1.77 x 0.87], with screw mounting and gasket for counters 48 x 24 [1.89 x 0.94] black	N003001
Transparent cover, lockable, IP65	For cut-out 54 x 29 [2.13 x 1.14], for screw mounting to front bezel F1B or adapter front bezel N003001, for counters with cut-out 50 x 25 [1.97 x 0.98] or 45 x 22.2 [1.77 x 0.87]	N003002
Sealing cover type K1, IP65	Suitable for front bezel 60 x 50 [2.36 x 1.97], for screw mounting of electromech. counters and via adapter front bezel N003001 for counters 48 x 24 [1.89 x 0.94]	G008301
Mounting frame with cut-out 50 x 25 [2.36 x 1.97] via separate adapter also for 45 x 22.2 [1.77 x 0.87]	For snap-on mounting on 35 [1.38] top-hat DIN rail, for counters 53 x 28 [2.09 x 1.10] and via separate adapter (T008180) for counters 48 x 24 [1.89 x 0.94] chromated	G300004

Suitable gaskets as well as further accessories can be found in the accessories section or in the accessories area of our website at: www.kuebler.com/accessories.

1) Stock types

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Technical data

General technical data	
Display	5 digits, red 7 segment LED display; 8 mm [0.32"] high
Display refresh	1 ... 2 times per second
Data backup	EEPROM
Operating temperature	-20°C ... +65°C [-4°F ... +149°F] (non-condensing)

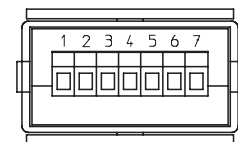
Electrical characteristics	
Power supply	10 ... 30 VDC, galvanically isolated with integrated reverse polarity protection
Current consumption	max. 40 mA
Circuit type	2-wire, 3-wire and 4-wire technology, programmable
EMC	Emitted interference EN 55011 class B Immunity to interference EN 61000-6-2

Mechanical characteristics	
Housing	front panel mount 48 x 24 mm [1.89 x 0.94"] acc. to DIN 43700; RAL 7021, dark grey
Protection	IP65 (front side)
Weight	approx. 50 g [1.76 oz]
Connections	screw terminal, pitch 5.08 mm [2"], 7 pin

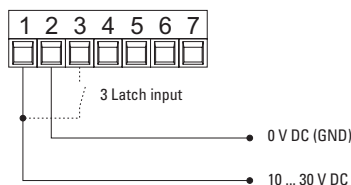
Measuring signal inputs	
Measuring rate	5 measurements / second
Input	Pt100 resistance thermometer Ni100 resistance thermometer with sensor breakage monitoring
Control inputs	HIGH 4 ... 30 V DC LOW 0 ... 2 V DC
Supply current	1 mA
Supply line	2-wire max. 20 Ω, programmable 3-wire, 4-wire max. 20 Ω, no balancing required
Temperature ranges	Pt100 acc. to DIN IEC 751 -199.9°C ... +850.0°C [-327.8°F ... +1562.0°F] Ni100 acc. to DIN 43760 -60.0°C ... +250.0°C [-76.0°F ... +482.0°F]
Resolution	0.1°C (0.1°F) or 1°C (1°F)
Linearity error	Pt100 < 0.1 % for the whole measuring range at an operating temperature of 20°C [68°F] Ni100 < 0.2 % for the whole measuring range at an operating temperature of 20°C [68°F]
Temperature drift	0.1 K/K _{Ambient}

Terminal assignment

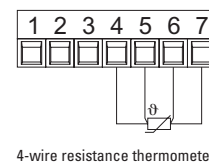
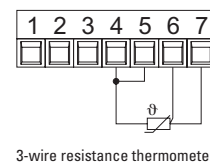
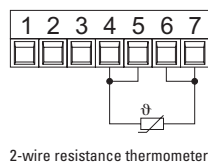
1	2	3	4	5	6	7
10 ... 30 V DC	0 V DC (GND)	Latch input	Pt100/Ni100	Pt100/Ni100	Pt100/Ni100	Pt100/Ni100



Connection power supply and latch input



Connection resistance thermometer Pt100/Ni100

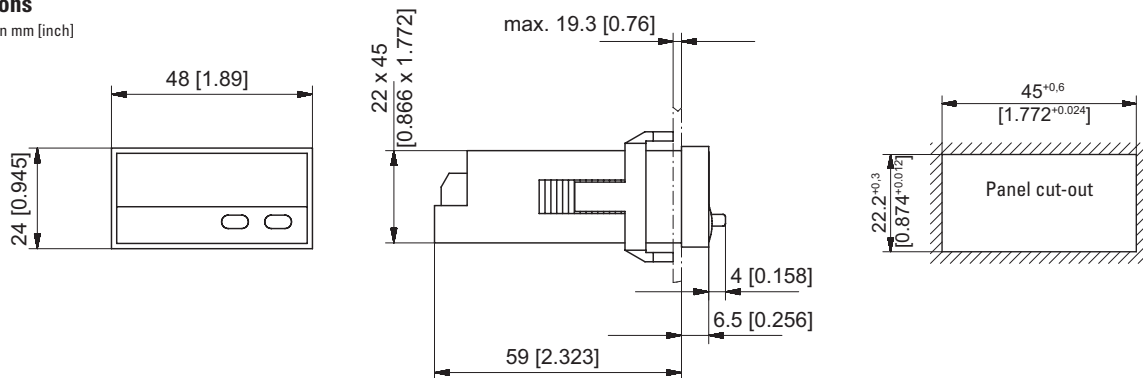


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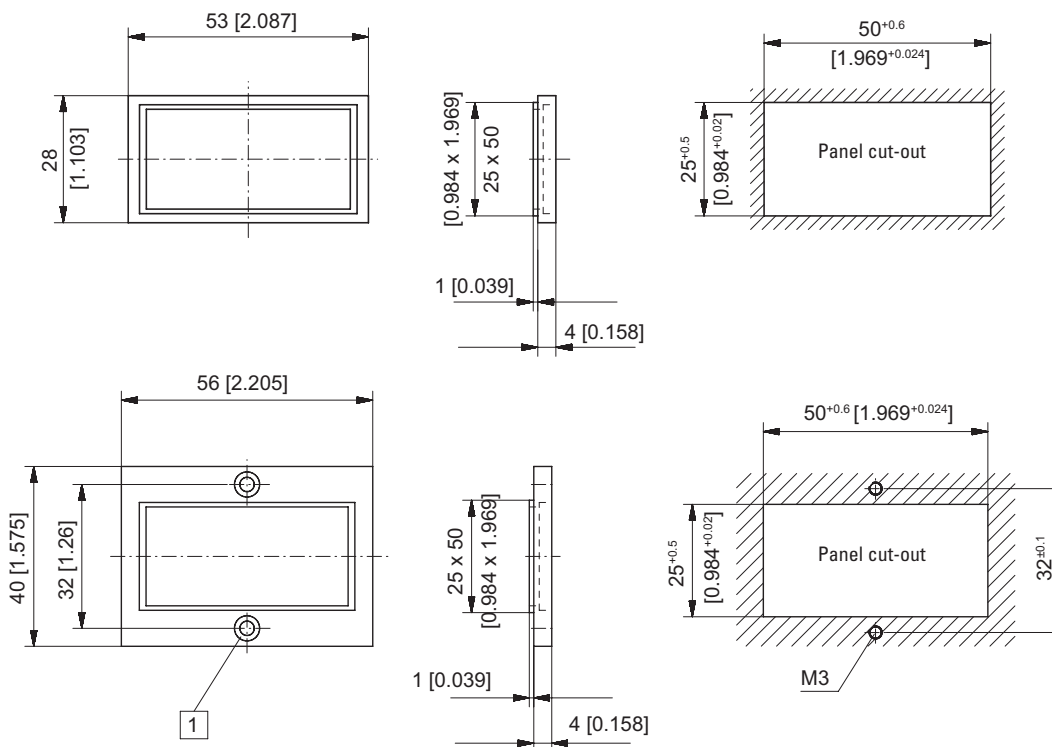
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Dimensions

Dimensions in mm [inch]



Front bezel



1 Countersinking Af3, DIN 74