

# 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.



<b>DC</b> 10 ... 30 V									
Power supply	2-, 3-, 4-wire technology	Pt100 / Ni100	Menu-driven programming	Galvanic isolation	Temperature range	High protection level	Min / Max value detection	DIN front bezel	LED display

### 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** <sup>1)</sup>

### Delivery specification

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

Accessories			Order-No.
<b>Adapter front bezel, 72 x 36 mm</b>	For cut-out 68 x 33 mm to cut-out 45 x 22.2 mm, for counters 48 x 24 mm, as set	black and silver anodised	<b>162704 Set</b>
<b>Adapter front bezel, 48 x 48 mm</b>	For cut-out 45 x 45 mm to cut-out 45 x 22.2 mm, with clip mounting for counters 48 x 24 mm	black	<b>T008883</b>
<b>Adapter front bezel, 60 x 50 mm</b>	For cut-out 54 x 29 mm to cut-out 45 x 22.2 mm, with screw mounting and gasket for counters 48 x 24 mm	black	<b>N003001</b>
<b>Transparent cover, lockable, IP65</b>	For cut-out 54 x 29 mm, with screw mounting to front bezel F1B or adapter front bezel N003001, for counters with cut-out 50 x 25 mm or 45 x 22.2 mm		<b>N003002</b>
<b>Sealing cover type K1, IP65</b>	Suitable for front plate 60 x 50 mm with screw mounting of electromechanical counters and via adapter front bezel N003001, for counters 48 x 24 mm		<b>G008301</b>
<b>Mounting frame with cut-out 50 x 25 mm</b> via separate adapter 45 x 22.2 mm	For snap-on mounting on 35 mm top-hat DIN rail, for counters 53 x 28 mm and via separate adapter (T008180) for counters 48 x 24 mm	chromated	<b>G300004</b>

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](http://www.kuebler.com/accessories).

<sup>1)</sup> Stock types

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

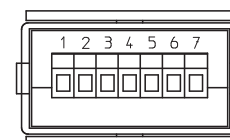
Electrical characteristics	
Power supply	10 ... 30 V DC, galvanically isolated with integrated reverse polarity protection
Current consumption	max. 40 mA
Circuit type	2-wire, 3-wire and 4-wire technology, programmable
EMC	Emitted interference EN 55011 class B Immunity to interference EN 61000-6-2

Mechanical characteristics	
Housing	front panel mount 48x24 mm acc. to DIN 43700; RAL 7021, dark grey
Protection	IP65 (front side)
Weight	approx. 50 g
Connections	screw terminal, pitch 5.08 mm, 7 pin

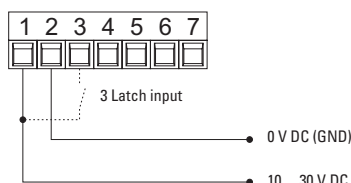
Measuring signal inputs	
Measuring rate	5 measurements / second
Input	Pt100 resistance thermometer Ni100 resistance thermometer with sensor breakage monitoring
Control inputs	HIGH 4 ... 30 V DC LOW 0 ... 2 V DC
Supply current	1 mA
Supply line	2-wire max. 20 Ω, programmable 3-wire, 4-wire max. 20 Ω, no 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 Ni100 < 0.2 % for the whole measuring range at an operating temperature of 20°C
Temperature drift	0.1 K/K <sub>Ambient</sub>

## Terminal assignment

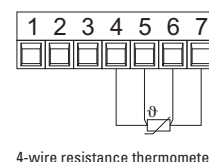
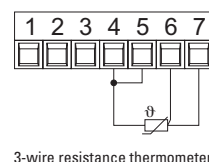
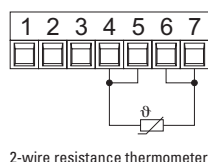
1	2	3	4	5	6	7
10 ... 30 V DC	0 V DC (GND)	Latch input	Pt100/Ni100	Pt100/Ni100	Pt100/Ni100	Pt100/Ni100



Connection power supply and latch input



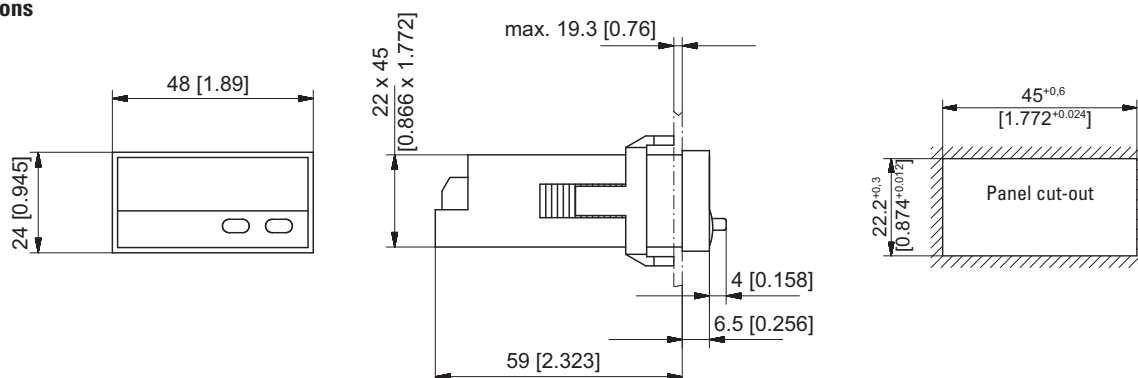
Connection resistance thermometer Pt100/Ni100



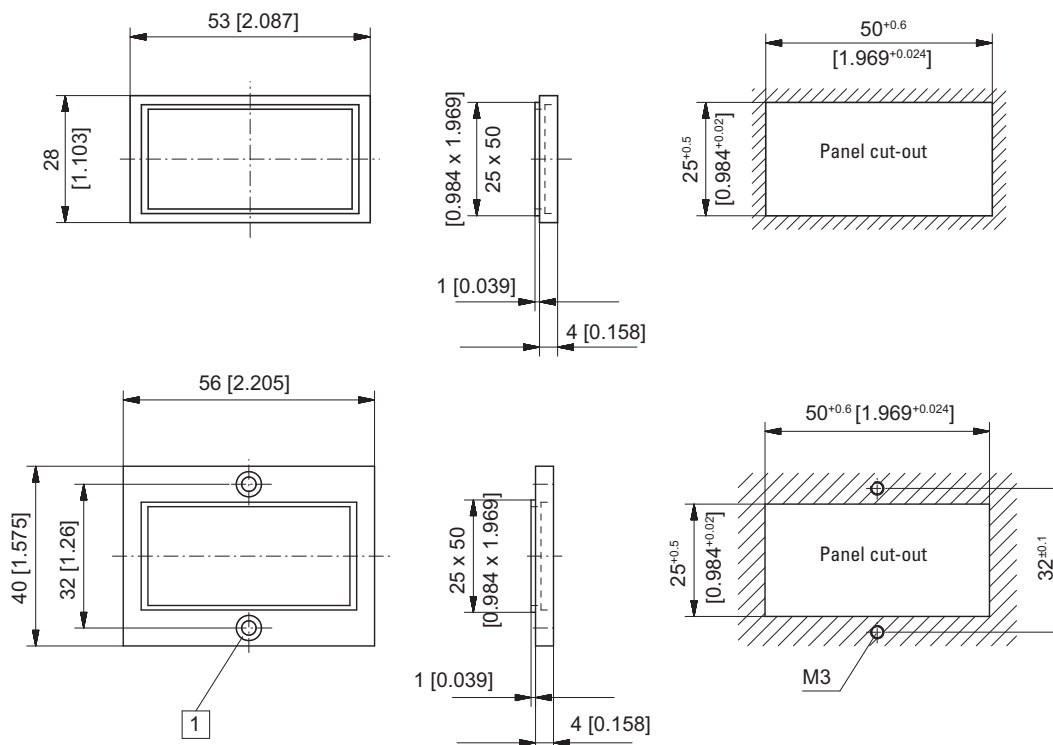
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## Dimensions



## Front bezel



1 Countersinking Af3, DIN 74