# **Temperature display**



# **CODIX** 531 for Pt100 and Ni100 resistance thermometers



#### Your benefit

- 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

#### Input range

Resistance thermometer

### More advantages

- compact and low-price temperature display
- easy programming and operation
- modern industrial design
- 5 measurements/second

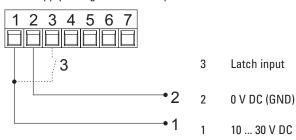
#### **Technical data**

Supply voltage:	10 30 V DC, galvanically isolated with
	integrated protection against incorrect polarity
Current consumption:	max. 40 mA
Display:	5-digit display, red 7-segment LED`s;
	height 8 mm
Measuring rate:	5 measurements/second
Display refresh:	1 2 times per second
Data backup:	EEPROM
Housing:	housing for control panel 48 x 24 mm
	acc. to DIN 43 700; RAL 7021, dark grey
Ambient temperature:	−20 +65 °C
EMC:	according to EC EMC directive 89/36/EEC
Interference emissions:	EN 61 000-6-4/EN 55011 Class B
Interference resistance:	EN 61000-6-2
Protection:	IP65 (front)
Weight:	app. 50 g
Circuit type:	2-wire, 3-wire and 4-wire connection
	technique, programmable

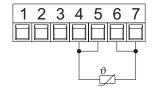
Input:	Pt100-Resistance thermometer
	Ni100-Resistance thermometer
	with sensor breakage monitoring
Control inputs:	High: 4 30 V DC
	Low: 0 2 V DC
Supply current:	1 mA
Supply line:	2-wire: max 20 $\Omega$ , programmable
	3-wire, 4-wire: max 20 $\Omega$ , no balancing
	required
Temperature ranges:	Pt100 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 ambient temperature of 20 °C
	Ni100 < 0.2 % for the whole measuring range
	at an ambient temperature of 20 °C
Temperature drift:	0.1 K/K <sub>Ambient</sub>
Connection technique:	screw terminal, pitch 5.08 mm, 7 poles

## **Electrical connection**

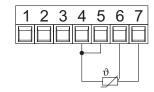
Connection supply voltage and Latch input



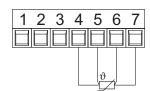
# Resistance thermometer Pt100/Ni100 2-wire resistance thermometer



#### 3-wire resistance thermometer



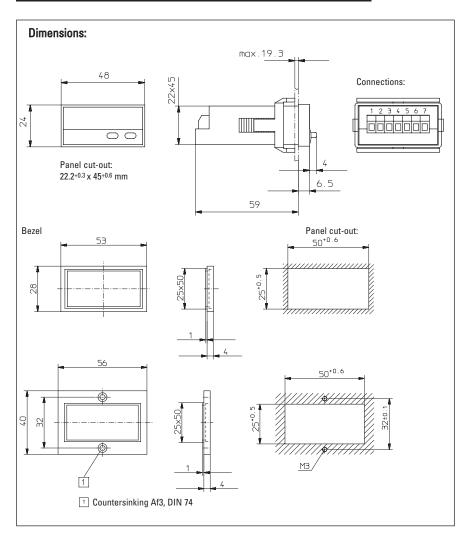
#### 4-wire resistance thermometer



# **Temperature display**



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## Connections:

- 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

#### Fields of application

- · Cabinet cooling
- Bakery plants
- Drying plants/ovens
- Packaging machines
- Machine tools and plastic processing machines
- Chemical and pharmaceutical plants
- Food and drink processing machines
- Semiconductor industry
- Power supply and air conditioning
- · Paper machines
- Glass production machines

#### **Delivery includes:**

Digital display

Panel mounting clip

Bezel for clip mount, panel cut-out 50 x 25 mm

Bezel for screw mount, panel cut-out

50 x 25 mm

Seal

Tack dry symbols

Multilingual operating instructions

Accessories see page 39