

## CODIX 551 for thermocouples and sensors in mV range



Available with serial interface and set-up software EzControl!



### Your benefit

- Programmable input characteristics curve with up to 24 control points for 0...400/4000 Ω, 0...100 mV and -100... +100 mV
- MIN/MAX value acquisition and data backup in case of Power Off
- Auxiliary power supply output for measuring transducer/sensor
- Display Hold input
- Easy operation and programming thanks to large keys
- Inputs thermocouples millivolt, resistance thermometer with 2, 3 or 4-wire measurement
- Optional serial interface

### Technical Data

Display	5-digit display, red 7-segment LED's; height 14.2 mm [0.559"]	
Display range	-19999 ... 99999, with leading zeros suppression	
Out of range - Indication	Under-range uuuuu / Over range ooooo	
Data storage	EEPROM, 1 Million storage cycles or 10 Years	
Test voltages	EN 61010 Part 1 ; overvoltage category 2, level 2	
EMC	Interference emissions EN 55011 Class B Interference resistance EN 61000-6-2	
AC power supply	90 ... 260 V AC / max. 6 VA external fuse 100 mA/T	
DC power supply	10 ... 30 V DC / max. 2 W/galvanically isolated/ with inverse polarity protection external fuse 250 mA/T	
Mains Hum Filter	digital filter 50 Hz or 60 Hz, programmable	
<b>Measurement ranges</b>		
Thermocouples	Ranges	Accuracy
Type B	400.0 °C ... 1820.0 °C [ 752 °F... 3308 °F]	±1.5 °C [± 2.85 °F]
E	-200.0 °C ... 1000.0 °C [-328 °F... 1832 °F]	±0.5 °C [± 0.9 °F]
J	-210.0 °C ... 1200.0 °C [-346 °F... 2192 °F]	±0.5 °C [± 0.9 °F]
K	-200.0 °C ... 1372.0 °C [-328 °F... 2501 °F]	±0.5 °C [± 0.9 °F]
N	-200.0 °C ... 1300.0 °C [-328 °F... 2372 °F]	±0.5 °C [± 0.9 °F]
R	-50.0 °C ... 1760.0 °C [ -58 °F... 3200 °F]	±1.0 °C [± 1.8 °F]
S	-50.0 °C ... 1767.0 °C [ -58 °F... 3212.6 °F]	±1.0 °C [± 1.8 °F]
T	-210.0 °C ... 400.0 °C [-346 °F... 752 °F]	±0.5 °C [± 0.9 °F]
Resolution	0.1 °C [0.1 °F]	
Cold-junction-compensation	internal or external (programmable)	
<b>Input for resistance thermometers</b>		
Resistance thermometer	Ranges	Accuracy
Type Pt100	-200,0 °C ... 800,0 °C [-328 °F... 1472 °F]	±1.0 °C [± 1.8 °F]
Pt1000	-200.0 °C ... 800.0 °C [-328 °F... 1472 °F]	±1.0 °C [± 1.8 °F]
Resolution	0,1 °C [0.18 °F]	
Type	2 wire, 3 wire and 4 wire technology, programmable	

Current 800 µA at Pt100; 80 µA at Pt1000

<b>Input for resistance</b>		
	Ranges	Accuracy
Resistance	0 ... 400 Ω	± 0.2 Ω
Resistance	0 ... 4000 Ω	± 2.0 Ω
Resistance	14 Bit	
Type	2 wire, 3 wire and 4 wire technology, programmable	

Current 800 µA at 400 Ω  
80 µA at 4000 Ω

<b>Voltage measurement</b>		
	Ranges	Accuracy
Voltage	0 .. +100 mV DC	< 0.1% v. Mb ± 1 Digit
Voltage	-100 .. +100 mV DC	< 0.1% v. Mb ± 1 Digit
Resolution	14 bit	
Input resistance	> 2 MΩ	

### Further data for measurement input

A/D transducer	Dual-Slope
Measuring speed	approx. 1 measurement/sec
Zero adjustment	automatically
Weight	approx. 220 g [7.76 oz]
Protection	IP 65
Ambient temperature	-20 ... +65 °C [-4 °F ... 149 °F]
Storage temperature	-40 ... +85 °C [-40 °F ... 185 °F]

### Digital input

Input MPI\* Function of the input depends on set-up  
1. Function: Display-Hold to stop the instantaneous value  
Input KEY Keypad lock-out of alarm settings

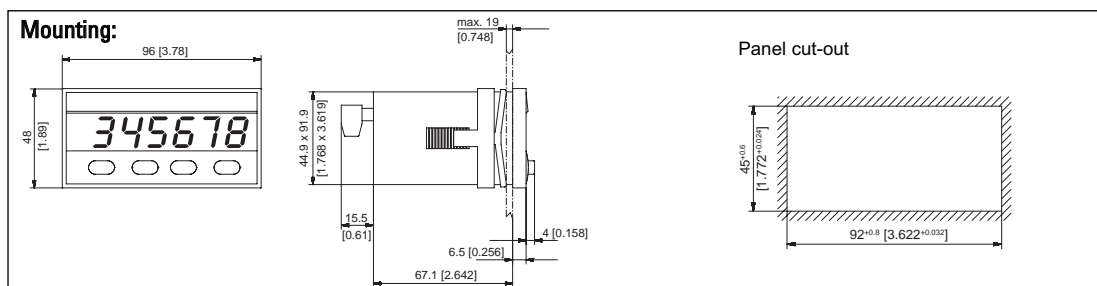
### Auxiliary power supply output for measuring transducer/sensor

**AC models** voltage output 10 V DC ±2%, 30 mA and voltage output 24 V DC ±15%, 50 mA  
**DC models** voltage output 10 V DC ±2%, 30 mA

### Interface

Available options RS232, RS485, RS422  
Baud rate 600, 1200, 2400, 4800, 9600, 19200 programmable  
Address 00 ... 99 programmable

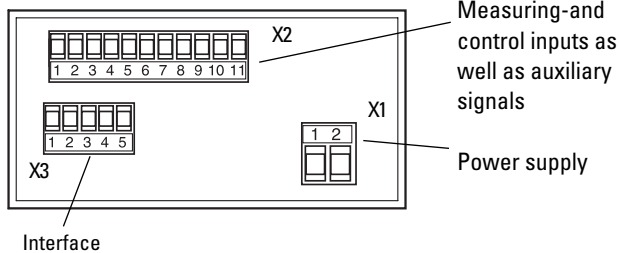
\*Multi Purpose Input



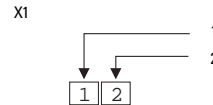
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### Electrical Connections

Rear side view



### Power supply



	DC voltage	AC voltage
1	10 ... 30 V DC	90 ... 260 V AC (N~)
2	GND4 (0 V DC)	90 ... 260 V AC (L~)

### Interfaces

X3 1 2 3 4 5

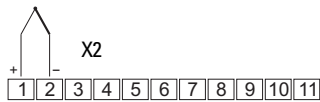
	RS232	RS485	RS422
1	GND	-	-
2	RxD	DO+/RI+	RI+
3	TxD	DO-/RI-	RI-
4	-	-	DO+
5	-	-	DO-

### Serial interface

- For data transmission and documentation
- Connection for programmable logic controllers
- Programming via PC

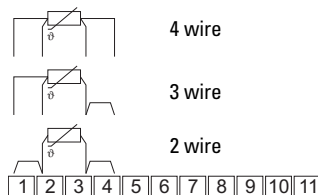
### Inputs

Thermocouples

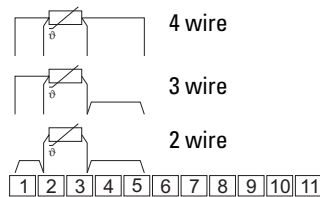


1	Positive leg of thermocouples
2	Negative leg of thermocouples

Resistance measurement  
Pt1000 or 0 ... 4000 Ω



Resistance measurement  
Pt100 or 0 ... 400 Ω



Voltage measurement 0 ... 100 mV,  
or -100 ... 100 mV



1	voltage input (U) 0 ... 100 mV, -100 ... 100 mV
2	GND 1 (analogue)

### Delivery includes:

- Process display
- Screw terminal, 2-pole, RM 5.08
- Screw terminal, 11-pole, RM 3.81
- Screw terminal, 5-pole, RM 3.81(\*)
- Clamping bracket
- Gasket
- Multilingual operating instructions
- 1 set of self-adhesive symbols

\* only with the interface option

### Order code

6.551.012.X0X

