

CODIX 554 for temperature sensors and sensors in the mV range with 2 limit values



Now 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 W, 0...100 mV and -100... +100 mV
- auxiliary power supply output for measuring transducer/sensor
- SET key for limit values reset
- Display Hold input or limit values reset input
- easy operation and programming thanks to large keys
- Inputs
 - thermocouples
 - millivolt, resistance thermometer with 2, 3 or 4-wire measurement
- Outputs
 - 2 limit values with programmable hysteresis and programmable signal behaviour, relays with change-over contact or optocoupler
- Key-lock input
- optional serial interface

Technical Data

| | | |
|--|---|----------|
| Display | 5-digit display, red 7-segment LED's; height 14,2 mm | |
| 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 voltage | EN61010 Part 1; overvoltage category 2, Test voltages level 2 | |
| EMV | Interference resistance EN61000-6-2 | |
| 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 | |
| Measurement ranges | | |
| Thermocouples | Ranges | Accuracy |
| Type B | 400,0 °C ... 1820,0 °C | ± 1,5 °C |
| E | -200,0 °C ... 1000,0 °C | ± 0,5 °C |
| J | -210,0 °C ... 1200,0 °C | ± 0,5 °C |
| K | -200,0 °C ... 1372,0 °C | ± 0,5 °C |
| N | -200,0 °C ... 1300,0 °C | ± 0,5 °C |
| R | -50,0 °C ... 1760,0 °C | ± 1,0 °C |
| S | -50,0 °C ... 1767,0 °C | ± 1,0 °C |
| T | -210,0 °C ... 400,0 °C | ± 0,5 °C |
| Resolution | 0,1 °C (0,1 °F) | |
| Cold-junction-compensation | internal or external (programmable) | |
| Input for resistance thermometers | | |
| Resistance thermometer | Ranges | Accuracy |
| Type Pt100 | -200,0 °C ... 800,0 °C | ± 1,0 °C |
| Pt1000 | -200,0 °C ... 800,0 °C | ± 1,0 °C |
| Resolution | 0,1 °C (0,1 °F) | |
| Type | 2 wire, 3 wire and 4 wire technology, programmable | |
| Current | 800 µA at Pt100; 80 µA at Pt1000 | |
| Input for resistance | | |
| Resistance | Ranges | Accuracy |
| Resistance | 0 ... 400 Ω | ± 0,2 Ω |
| Resistance | 0 ... 4000 Ω | ± 2,0 Ω |
| Resistance | 14 Bit | |
| Measurement mode | 2 wire, 3 wire and 4 wire technology, programmable | |
| Current | 800 µA at 400 Ω 80 µA at 4000 Ω | |

Voltage measurement

| | 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 | ca. 220 g |
| Protection | IP 65 |
| Ambient temperature | -20 ... +65 °C |
| Storage temperature | -40 ... +85 °C |

Digital input

| | |
|--------------------------------|---|
| Input MPI* | Function of the input depends on set-up |
| 1. Function: Display-Hold | to stop the instantaneous value |
| 2. Function: Reset-Alarm Latch | Reset the alarm value |
| Input KEY | Keypad lock-out of alarm settings |

Alarm 1/Alarm 2

| | |
|-------------------|--|
| Relais | with volt-free changeover contacts, can be setup as normally closed or normally open |
| Switching voltage | 250 V AC/300 V DC |
| Switching current | max. 3 A AC/DC, min. 30 mA DC |
| Switching power | 2000 VA / 50 W |
| | oder NPN-optocoupler with open collector and open emitter |
| Switching power | 30 V DC / 15 mA |

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 |

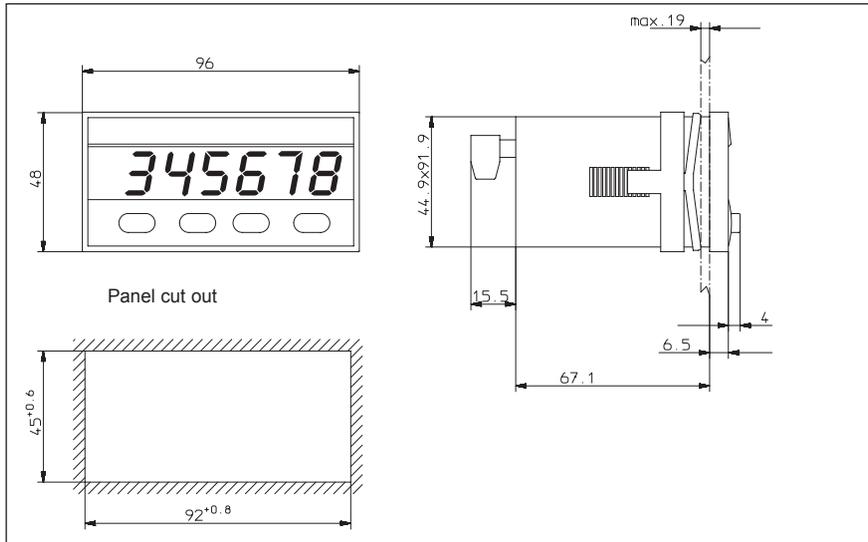
Interface

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

*Multi Purpose Input

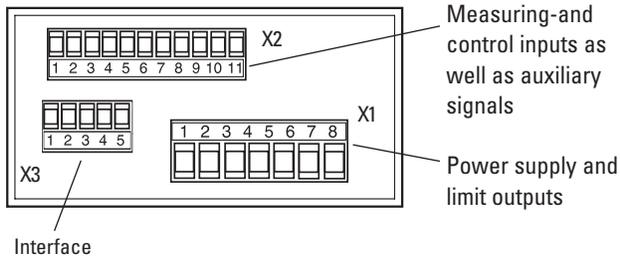
CODIX 554 for thermocouples and sensors in mV range with 2 limit values

Mounting:

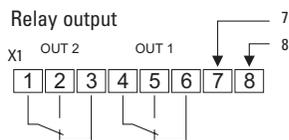


Electrical Connections

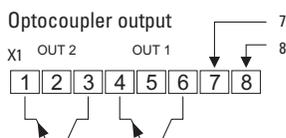
View of rear of unit



Power supply and alarm outputs



| | DC voltage | AC voltage |
|---|----------------|----------------------|
| 7 | 10 ... 30 V DC | 90 ... 260 V AC (N~) |
| 8 | GND4 (0 V DC) | 90 ... 260 V AC (L~) |



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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

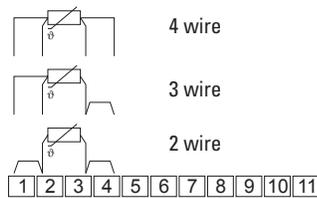
Inputs

Thermocouples

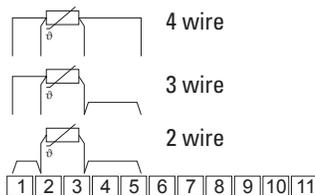


| | |
|---|-------------------------------|
| 1 | Positive leg of thermocouples |
| 2 | Negative leg of thermocouples |

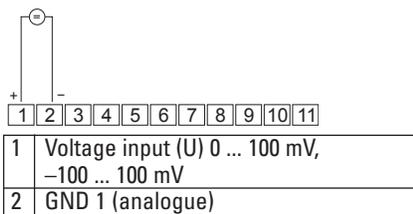
Resistance measurement Pt1000 or 0 ... 4000 Ω



Resistance measurement Pt100 or 0 ... 400 Ω



Voltage measurement 0 ... 100 mV, oder –100 ... 100 mV



Delivery includes:

- Process display
 - Screw terminal, 8-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

6.554.01X.X0X

Interface

- 0 = without interface
- 5 = RS232
- 6 = RS422
- 7 = RS485

Power supply

- 0 = 90 ... 260 V AC
- 3 = 10 ... 30 V DC

Alarm output

- 0 = relay
- 1 = optocoupler