LED Temperature Controllers – Codix 554, for temperature and mV sensors with 2 limit values

Available with serial interface

Your benefit

- Programmable input characteristic 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
- 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 thermometers 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 [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		
EMC:	Immunity to interference: EN55011 class B		
Device safety:	design to:	EN61010 Part 1	
	protection:	Class: 2	
	application area:	Soiling Level 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 [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-internal or external (programmable) compensation			

Input for resistance thermometers

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, progr.		
Current	800 µA at Pt100; 80 µA at Pt1000		

Input for resistance

	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 µAat 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	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 is dependent on set-up
1. Function: Display-Hold	to stop the instantaneous value
2. Function: Reset-Alarm Latch	Reset the alarm value
Input KEYKeypad lock-out of alarm settings	
Alarm 1/Alarm 2	
Relay	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

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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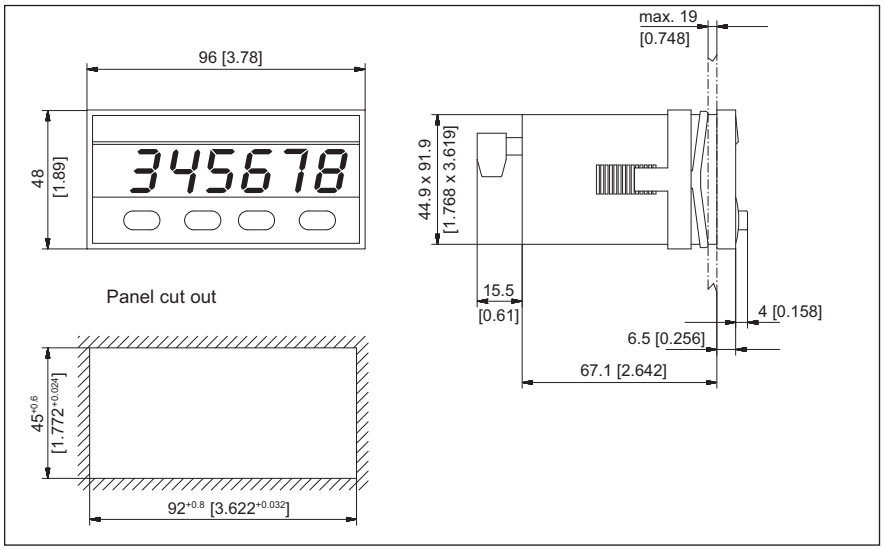
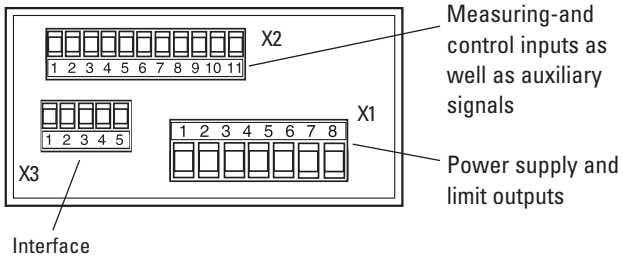
Dimensions:

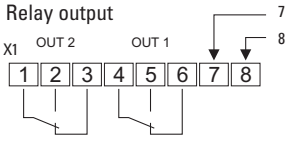


Electrical Connections

Rear side view



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

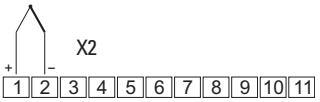
X3 1 2 3 4 5

	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 and readout of values via PC

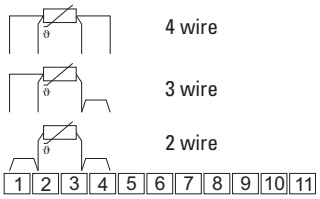
Inputs

Thermocouples

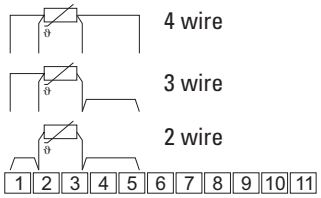


1	Positive leg of thermocouples
2	Negative leg of thermocouples

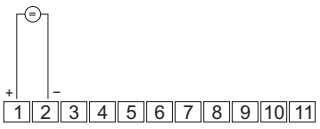
Resistance measurement
Pt1000 or 0 ... 4000 Ω



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, 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*

Replacement parts:

11-pin screw terminal	RM 3.81 1 ... 11:	N100356
8-pin screw terminal	RM 5.08 1 ... 8:	N100573
5-pin screw terminal	RM 3.81 1 ... 5: m	N100339

* Standard stock models

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You will find more about our products on the Web.
The operating instructions are available for
free download at http://www.kuebler.com

Application: