

Precise Digital Thermometer TC400



- ◆ 5-digit LED display
- ◆ 4-wire thermoresistance input
- ◆ Isolated input
- ◆ Compensating measuring method
- ◆ Measure resistance and temperature
- ◆ Resolution up to 0.01 °C
- ◆ Device and sensor calibration
- ◆ Automatic "zero drift" elimination
- ◆ Optional digital interface

TC400 is a microprocessor process-indicator especially suited for precise temperature measurement using standard thermoresistive sensors. The device features a 4-wire isolated input that can accept signals from various platinum, copper or nickel thermoresistances. A 5-digit bright LED display indicates RTD resistance or corresponding temperature, depending on programmable display mode. Device software allows two different types of calibration: separately (as for resistance) and together with RTD (as for temperature).

An optional RS232 serial digital interface is available allowing a connection to PC. The high measurement precision and the communication option make TC400 an excellent choice for both laboratory and industrial measurement as well as testing and calibration procedures.



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Technical specifications

Input (4-wire)		Power supply
<i>Thermoresistive linear</i>	Cu50, Cu53, Cu100	<i>Supply voltage</i> 220 VAC ± 10%
<i>Thermoresistive nonlinear</i>	Pt46, Pt50, Pt100	<i>Consumption</i> Max. 3 VA
<i>RTD resistance at 0 °C</i>	By request	Operating conditions
<i>Norm</i>	DIN, GOST or other by request	<i>Operating temperature</i> -10 to 65 °C
<i>Input range I</i>	-50.00 to +200.00 °C	<i>Operating humidity</i> 0 to 85 %RH
<i>Input range II</i>	-50.0 to +850.0 °C	Display and keyboard
<i>Input signal type selection</i>	Keyboard selectable	<i>Digital display</i> 5 digit LED - 14mm
<i>Isolation</i>	Optical, 1500 VAC	<i>Display resolution</i> 1, 0.1 or 0.01 - keyboard selectable
Accuracy		<i>Keyboard</i> 3 membrane keys
<i>Measurement error*</i>	0.02 % from span	Design and materials
<i>Non-linearity</i>	0.01 % from span	<i>Case material</i> Plastic
<i>Temperature drift</i>	0.005 % from span for 1 °C	<i>Mounting</i> In panel cut-out 93x45 mm
Digital interface (optional)		<i>Wiring</i> Screw terminals
<i>Output type</i>	RS232, isolated	<i>Dimensions</i> 96 x 48 (front) x 110 mm
<i>Output function</i>	Connection to PC	<i>Weight</i> Max. 350 g
		<i>Protection front/terminals</i> IP-54 / IP-20

* If ambient temperature is within the range from 10 to 40 °C

Ordering code



TC400 - G2.G3.G6.G9

Code	Feature or option	Code values
G2	Display type	B - LED, C - LED - bright
G3	Input range	C - minus 50.0 to 850.0 °C, D - minus 50.00 to 200.00 °C
G6	Nonlinear input type ⁽¹⁾	BA - Pt46 (GOST), BB - Pt50 (w=1.385), BC - Pt50 (w=1.391), BD - Pt100 (w=1.385), BE - Pt100 (w=1.391)
G9	Interface ⁽²⁾	X - none, A - isolated RS 232

⁽¹⁾ Linear input conversion is always included in device software

⁽²⁾ Contact COMECO for availability!

For detailed instructions on ordering coding see chapter "ORDERING CODES"!