



ICon-TD7100

DIGITAL TEMPERATURE CONTROLLER

The temperature controller series offers a wide range of features, intuitive functions, and an extremely long service life. The FAT (fast adaptive tuning) algorithm continually adjusts to the control loop thus ensuring precise control. The setting of PID parameters and the execution of an autotuning procedure are not required. All functions can be quickly accessed and changed in the plain-text menu. The integrated hybrid relay system ensures a long service life with low losses in the controller. The additionally installed cut-off relay minimizes the risk of damage should the hybrid relay fail. The self-optimizing FAT control algorithm makes sure that the target temperature is reached quickly while avoiding overshoots. The two in-dependent universal sensor inputs allow easy connection of a variety of common resistance temperature sensors as well as thermocouples. The limiter module provides additional protection and flexibility in the control strategy. The electronics are protected against over-current and overheating. The multi-color LED provides highly visible, simple signaling of the various operating modes.



TECHNICAL DATA

Thermal Protection

Temperature Range

Nominal Supply Voltage AC 90 to 260 V [IEC] | AC 100 to 240 V [UL]

Nominal Current max. 10 A via internal fuse

max. 16 A via external fuse

Switching Capacity max. 2600 VA internal

max. 3840 VA external

Power Switch Hybrid Relay > 5.0 Mio cycles

+85°C (+185°F), manual reset

Sensor Input 2x independent selectable sensor types

RTD (Pt100) -99°C to +850°C (-146°F to +1562°F)

RTD (Pt1000) -99°C to +850°C (-146°F to +1562°F)

NI120 -50°C to +250°C (-58°F to +482°F)

NTC10K -20°C to +250°C (-4°F to +482°F)

NTC100K 0°C to +250°C (+32°F to +482°F)

Type K -200°C to +1350°C (-328°F to +2462°F)

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TECHNICAL DATA (continued)

Temperature Range Type J -200°C to +1200°C (-328°F to +2192°F)

Type E -200°C to +1000°C (-328°F to +1832°F)

Type N -200°C to +1300°C (-328°F to +2372°F)

Controller Type FAT (Fast-Adaptive-Tuning)

Setpoint Accuracy ±3K Standard or configurable ±0.5K to ±20K

(Green LED indication)

Optional Limiter Function, Delta T, switched-off.

Functions Gradient, Sequential Control, Heater Check, Password

protection, Heating or Cooling function, Timeout,

Controller Display LCD Graphic

3 colored LED for indicating operating state.

Celsius or Fahrenheit Display

Controller Operation set temperature point via front display menu options.

optional configuration via handheld unit (sold separately)

Signal Output potential-free, dual action contact max. 2A, 250 V / 220 DC

> 2.5 Mio load free cycles

Output Functions Range reached, Error, Limiter active, Heater active, Alarm.

Ambient Operating Range -20°C to +50°C (-4°F to +122°F)

Relative Humidity < 90%, non-condensing

Ingress Protection Rating IP65 according to IEC 60529 (lid closed, connectors locked)

Electrical Protection

Class I according to IEC 61140

Shutdown Relay

Cuts off heating circuit on failure.

Languages

English, Spanish, French, German

Unit Weight

0.5 kg (1.1 lbs.) with cable glands

0.7 kg (1.5 lbs.) with connector sockets

Housing Dimensions 151 x 125 x 90 mm (5.95 x 4.92 x 3.54 in)

Housing Material Polycarbonate with clear lid UL94-V0

Lid closed/opened via hinges; no tools required.

OPTIONAL ANALOG MODULE

Analog Output 0 ... 10 V (1 kOhm) or 4 ... 20 mA (510 Ohm)

Analog Input 0 ... 10 V (2.6 kOhm) or 4 ... 20 mA (120 Ohm)

Logic Output 15 VDC, 20 mA, SSR

Logic Input 3.3 VDC, < 0.1 mA, potential-free switch

Acoustic Signal Buzzer

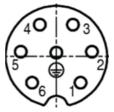
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CONFIGURATIONS

ICON-TD7130 with 6-pole connector socket

Brown	Phase L	PIN 1
Blue	Neutral N	PIN 2
Red	Sensor B +	PIN 3
White	Sensor B -	PIN 4
Red	Sensor A +	PIN 5
White	Sensor A -	PIN 6
Green-yellow	Ground	PE



custom sockets and arrangements on request

ORDER INFORMATION

Part Number	Series	Description
1235-05378075	ICon-TD7100	Basic Model with Cable Glands 2x M16, 2x M12
		No supply cable provided.

Other types and configurations on request





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