

ICon-TD5100**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.



ICON-TD5100

TECHNICAL DATA

Nominal Supply Voltage	AC 90 to 260 V
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 > 2.5 Mio cycles
Thermal Protection	+85°C (+185°F), manual reset
Sensor Input	Selectable sensor type.
Temperature Range	RTD (Pt100) -99°C to +850°C (-146°F to +1562°F) (2-wire, 3-wire, or 4-wire) RTD (Pt1000) -99°C to +850°C (-146°F to +1562°F) (2-wire, 3-wire, or 4-wire) NI120 -50°C to +250°C (-58°F to +482°F)

TECHNICAL DATA (continued)

Temperature Range	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)
	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	
Optional	Limiter Function, Delta T, switched-off.	
Functions	Gradient, Sequential Control, Heater Check, Password protection, Heating or Cooling function, Timeout,	
Controller Display	LCD Graphic	
Controller Operation	3 colored LED for indicating operating state.	
	set temperature point via front display menu options.	
	optional configuration via handheld unit (sold separately)	
Signal Output	potential-free, dual action contact max. 50 mA, 45 V	
	If temperature is within range	
	(Green LED indication)	
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, Japanese	
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 60 mm (5.95 x 4.92 x 2.36 in) or	
	151 x 125 x 90 mm (5.95 x 4.92 x 3.54 in)	
Housing Material	depending on type	
	Polycarbonate with clear lid UL94-V0	
	Lid closed/opened via hinges; no tools required.	

CONFIGURATIONS

ICON-TD5130 with 6-pole connector socket

(2-wire, 3-wire, 4-wire RTD)

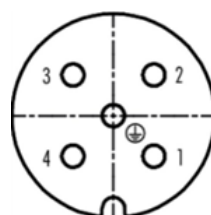
Brown	Phase L	PIN 1
Blue	Neutral N	PIN 2
White	Sensor RTD 4	PIN 3
Red	Sensor RTD 3	PIN 4
Red	Sensor RTD 2	PIN 5
White	Sensor RTD 1	PIN 6
Green-yellow	Ground	PE



ICON-TD5150 with 4-pole connector socket

Brown	Phase L	PIN 1
Blue	Neutral N	PIN 2
Red	Sensor RTD, TC +	PIN 3
White	Sensor RTD, TC –	PIN 4
Green-yellow	Ground	PE

custom sockets and arrangements on request



ORDER INFORMATION

Part Number	Series	Description
1235-05378073	ICon-TD5100	Basic Model with Cable Glands 2x M16, 2x M12

Other types and configurations on request



Ansprechpartner Österreich
HENNLICH GmbH
Wiesenharterstraße 13 | 4774 St. Marienkirchen

+43 7712 3163-0
elektrowaerme@hennlich.at
www.hennlich.at



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www.chromalox.com | isopad.info@chromalox.com

