



Thermo-Electric Cooler (TEC) Control Units

Multi TEC Control & Single TEC Control



⊕ Benefits

- ▶ Controller & power supply in one
- ▶ Flexible configurations
- ▶ Easy integration
- ▶ Stand alone or integrated use

⊕ Function

- ▶ Temperature control
- ▶ Shaking control
- ▶ Ambient temperature/humidity measurement
- ▶ Power supply

TEC Control Units

Plug & play control unit required for heating/cooling & shaker devices.

Multi TEC Control & Single TEC Control

Product Description

The Multi TEC Control (MTC), the MTC Compact and the Single TEC Control (STC) are plug & play temperature and shaking frequency controller for the use with CPAC, HeatPAC, Heated Lid, Thermoshake and Teleshake 95. The MTC & STC include a touch screen, a wide range power supply for worldwide use and an USB interface for easy robotic integration.

They can be either operated manually by using the touch screen (e.g. for testing), or through an USB interface in automated systems. The soft- and firmware of the controller allows programming of complex temperature and shaking sequences. The MTC compact is without a touch screen and smaller in size for automation projects with limited space. The control units come with a DLL and a firmware command set for seamless integration into liquid handling workstations.

Application Areas

The MTC / STC / MTC Compact are used to control INHECO's heating/cooling/shaking units in automated liquid handling systems. The purpose of the controlled devices is to form temperature controlled ANSI/SLAS format positions with direct and easy access by robotic grippers and pipetting heads. The MTC / STC / MTC Compact are prepared for use in customer IVD applications.

Variants

3 variants are available, which differ in the number of devices that can be controlled. The MTC and MTC Compact control up to 6 different units (e.g. CPAC, HeatPAC, Heated Lid and Shakers) simultaneously and independently. The STC is for control of one unit.



8900030: Multi TEC Control (MTC)
8900031: Single TEC Control (STC)



8900029: MTC Compact

Product	Part No.	Device Control	Dimensions W x D x H (in mm)
MTC Compact	8900029	up to 6 individually	300 x 260 x 100
Multi TEC Control	8900030	up to 6 individually	185 x 249 x 264
Single TEC Control	8900031	1	147 x 224 x 177

Slot Modules

The MTC / STC / MTC Compact have to be equipped with controller cards/slot modules for the connection with the heating/cooling/shaking units. Three types are available: blue, black and yellow.

The slot module color/type is indicated next to the slot module as shown on the right handed picture. The connected thermoelectric unit must have the same colored plug sleeve. Slot modules can easily be installed and exchanged by the user. Pre-installation by INHECO free of charge can also be ordered.



Multi TEC Control (MTC) with three inserted slot modules and two connected devices with corresponding color

Product	Part No.	Slot used for	Pre-install Part No.
Blue Slot Module	2400128	CPAC	2400128-9
Black Slot Module	2400125	CPAC HT 2-TEC, Teleshake 95, Thermoshake, HeatPAC, Heated Lid	2400125-9
Yellow Slot Module	2400211	Thermoshake AC	2400211-9

Main Specifications

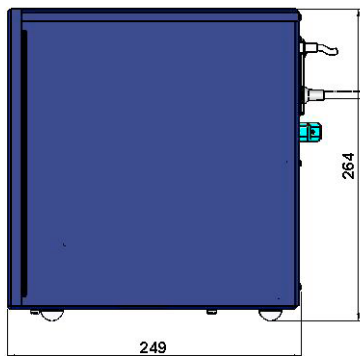
Specification	8900029 / 8900030	8900031
	MTC Compact / MTC	STC
Individually controlled devices	1-6	1
Weight	5.3 kg	3.3 kg
Input	100-240 Vax. 50/60 Hz	100-240 Vax. 50/60 Hz
Output blue Slot Module 2400128	12-14 Vdc, 4.5 A	12-14 Vdc, 4.5 A
Output black Slot Module 2400125	24V, 4.5A	24V, 4.5A
Output yellow Slot Module 2400211	24V, 4.5A	24V, 4.5A
Accuracy Temperature	±0.5°C	±0.5°C
Ambient temperature at max. power	+15°C to +32°C	+15°C to +32°C
Interface	USB (1.1 or 2.0)	USB (1.1 or 2.0)



- MTC / STC controlled devices:
- ▶ Thermoshake, CPAC Ultraflat
 - ▶ HeatPAC, Teleshake 95
 - ▶ CPAC Microplate, IMP

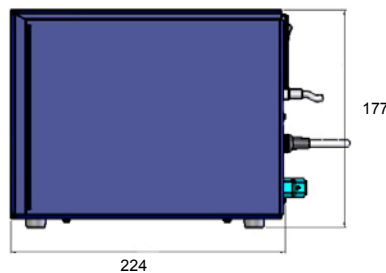
Drawings

8900030: Multi TEC Control (MTC)



Side view

8900031: Single TEC Control (STC)



Top view



8900030 Multi TEC Control:
Easy access to install
Slot Modules

Verification Plate

INHECO offers a compact and precise measurement plate (IMP) in ANSI/SLAS (formerly SBS) format for verification of temperature and/or shaking performance. The IMP can be used on heating, cooling, shaking devices and inside incubation chambers. We refer to the IMP brochure for more information.

Product	Part No.	Dimension W x D x H (mm)	Weight	Temp. Range
IMP	7901000	87.5 x 128 x 14.9	100 g	+4°C to 60°C



7901000: INHECO Measurement Plate (IMP)

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