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Control Units



TEC Controllers

Multi TEC Control & Single TEC Control

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 a USB interface for easy robotic integration.

They can be either operated manually by using the touch screen (e.g. for testing), or through a 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.



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

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.

| Product | Part No. | Device Control | Dimensions W x D x H (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 |



8900029: MTC Compact

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 righthand 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, CPLC HT 2-TEC | 2400125-9 |
| Yellow Slot Module | 2400211 | Thermoshake AC, Teleshake 95 AC, Teleshake AC | 2400211-9 |



MTC / STC controlled devices:

- ◆ Thermoshake, CPAC Ultraflat
- ◆ HeatPAC, Teleshake 95
- ◆ CPAC Microplate, IMP

Main specifications

| Specifications | 8900029 / 8900030 MTC Compact / MTC | 8900031 STC |
|-----------------------------------|--|----------------------|
| Individually controlled devices | 1-6 | 1 |
| Weight | 5.3 kg | 3.3 kg |
| Input | 100-240 Vac 50/60 Hz | 100-240 Vac 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 | 24 V, 4.5 A | 24V , 4.5 A |
| Output yellow Slot Module 2400211 | 24 V, 4.5 A | 24 V, 4.5 A |
| Accuracy Temperature | ±0.5 K | ±0.5 K |
| 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) |



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.

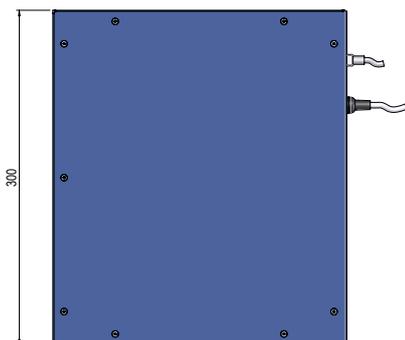
| Product | Part No. | Dimensions W x D x H (mm) | Weight | Temperature range |
|---------|----------|------------------------------|--------|-------------------|
| IMP | 7901000 | 87.5 x 128 x 14.9 | 100 g | 4 °C to 60 °C |



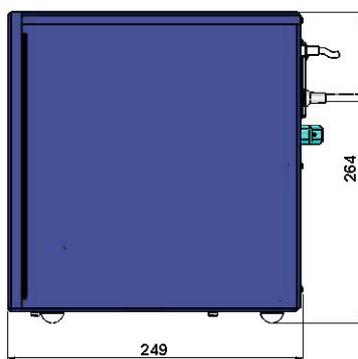
7901000: INHECO Measurement Plate (IMP)

Drawings

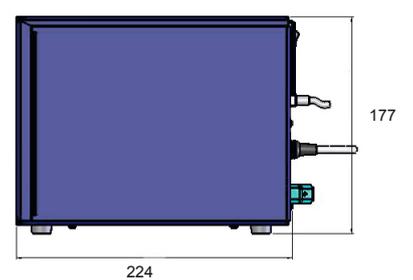
8900029: MTC Compact



8900030: Multi TEC Control (MTC)



8900031: Single TEC Control (STC)



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