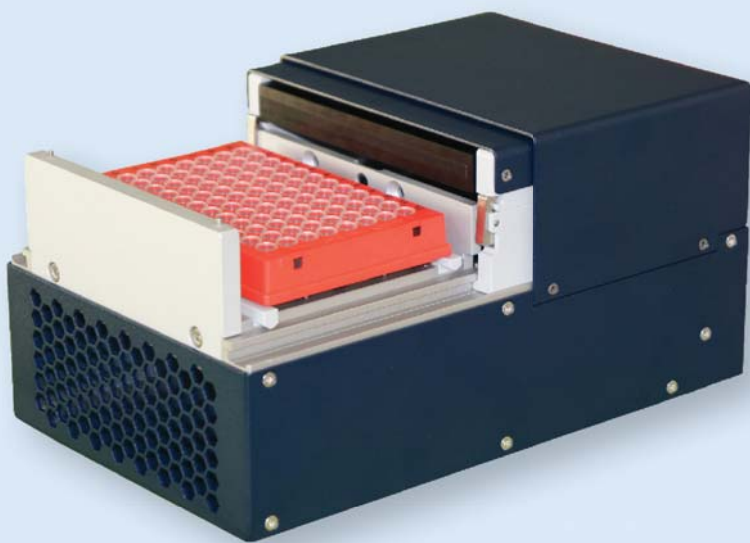




# Thermal Cycling

ODTC® - On Deck Thermal Cycler



## ⊕ Benefits

- ▶ Dedicated on-deck cycler
- ▶ Top thermal performance
- ▶ Ultra fast runs
- ▶ Horizontal lid movement
- ▶ Unique compact design

## ⊕ Function

- ▶ 
- ▶ 
- ▶ 
- ▶ 
- ▶ 

# Thermal Cycler for Fully Automated Applications

The world's first thermal cycler dedicated for use on deck of robotic workstations



## ODTC® - On Deck Thermal Cycler

### Application Areas

- **End-point PCR:** easily combine PCR setups of workstation providers & ODTC® to merge two steps of the PCR workflow in a single instrument.
- **NGS library preparation:** the excellent temperature uniformity ensures high quality libraries as a basis for successful NGS.
- **Sanger sequencing:** prepare the Sanger sequencing reactions and perform the Sanger sequencing on a compact instrument.
- **Hybridization**

Any molecular biological workflow which needs repeated heating or cooling steps and a lid to prevent evaporation of the processing liquid, can be realized with the combination of the ODTC® and a liquid handling workstation.



ODTC® open

### Top Performance

The thermal performance of the ODTC® is comparable or even better than “state of the art” thermal cycler available on the market. The ODTC keeps its top temperature uniformity even with unequally filled wells, e.g. some full & some empty wells. This extraordinary performance is achieved by the innovative new 3-D vapor chamber technology (VCM®). For details see table of thermal specifications (opposite page).



Bio-Rad Auto-Sealing Lid

### Free sealing options

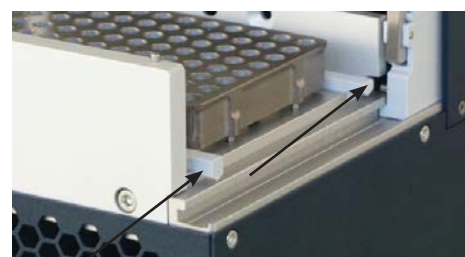
The flexible design of the ODTC® allows the use of various sealing options:

- Pre-sealed plates
- Sealing mat integrated inside ODTC®, opens with lid, easily exchangeable
- Robotic manageable sealing lid, e.g. Bio-Rad Auto-Sealing Lid, etc.

Based on the workflow and requirements to prevent cross contamination, the user is free to choose any of the 3 options.

### Perfect Integration

- **Leaves a lot of space on deck:** the ODTC® is the most compact on-deck thermal cycler on the market. Height <125mm; footprint similar to 3 PCR plates
- **Gripper & pipettor can move freely:** the horizontally opening lid is optimal for liquid handling systems
- **Smooth removals of plates:** the plate ejection mechanism is adjustable to the plate type.
- **Pipetting between cycle steps:** outstanding temperature uniformity with open lid allows pipetting without removing the plate from the cycler mount.



ODTC® plate ejection mechanism

## Order information

The ODTC® will be available through liquid handling workstation providers. They need to be contacted for questions regarding integration, installation, prices, quotes, and delivery time. INHECO can provide contact details of workstation suppliers.

## Main Specifications

Thermal Specifications of ODTC® 96	
Temperature Accuracy	±0.3°C
	±0.10°C at 55°C
	±0.10°C at 72°C
Temperature Uniformity (over one plate)	±0.15°C at 95°C
	Exceptional temperature uniformity even with partial filled PCR plate and also with open lid
Melting uniformity	@95°C ca. 0.25°C, temperature curve similar to high resolution melting
Heating rate average	4.4°C/sec
Cooling rate average	2.2°C/sec
Max heating rate	> 5°C/sec
Max cooling rate	> 3°C/sec
Runtime	Minimized due to VCM® technology
Temperature Range	+4°C to 99°C



ODTC® closed

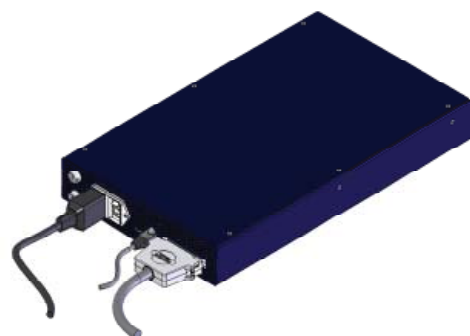
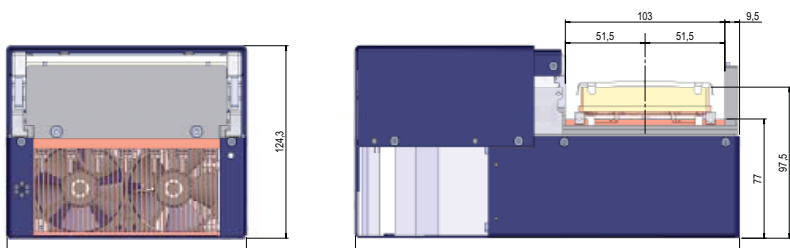
Mechanical Specifications of ODTC® 96	
Plate/disposable format	96 PCR plate (384 PCR in development)
Plate ejection	Automated plate ejection
Heated lid	opens by horizontal move to avoid interference with gripper or pipettor
ODTC® Dimensions (WxDxH)	155 mm x 248 mm x 124 mm Minimized height for use on deck
ODTC® cable length	3m



ODTC® top view with disposable

Specifications of ODTC® Controller	
Interface	Web Based Protocol, XML Files SiLA, Ethernet (RJ45 connector)
Dimensions (WxDxH)	240 mm x 399.5 mm x 58 mm
AC Input	100-240 V / 50-60 Hz (1250W)
DC Output	24 V / (1200W)

## Drawings ODTC®



ODTC® Controller

**INHECO GmbH**  
Fraunhoferstrasse 11  
82152 Martinsried  
Germany

Tel.: +49 89 89 95 93-101  
Fax: +49 89 89 95 93-149  
sales@inheco.com  
www.inheco.com