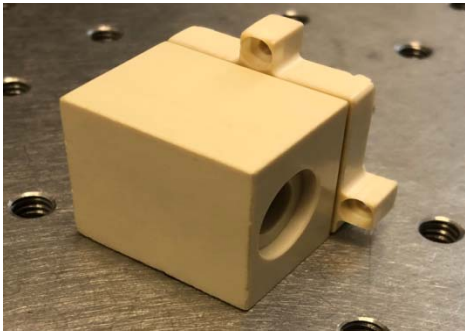




## CRYSTAL OVENS AND CONTROLLERS

mBOX™



### Features

- High heating temperature
- Broad temperature tuning range
- Exceptional long-term temperature stability
- Low-outgassing material and precision assembly
- Simple, user-friendly crystal installation
- Optional dry, low-outgassing, hermetically sealed enclosure
- Optional optical windows for enhanced integration
- Optional temperature sensors for diverse applications
- Compact, space efficient design
- Rugged, high-reliability crystal oven, and easy mounting
- Custom-engineered solutions available
- High-stability temperature controllers offered by Enlight Tech

### Applications

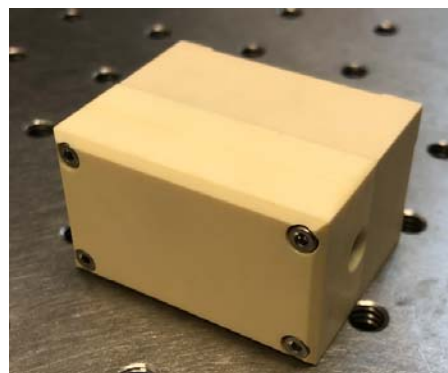
- Nonlinear frequency conversion of laser, such as SHG, THG, SFG, DFG, OPO
- Excellent for hygroscopic crystals such as BBO, LBO, CLBO

### Overview

The Enlight mBOX oven is engineered to deliver highly stable and uniform temperature control for a broad range of nonlinear crystals, including KTP, KDP, DKDP, KTA, LiNbO<sub>3</sub>, KNbO<sub>3</sub>, LBO, CLBO, and BBO. These crystals are widely used in laser frequency conversion processes such as SHG, THG, SFG, DFG, OPO, and OPA. The mBOX ensures precise phase matching while minimizing moisture absorption and reducing absorption-related losses in sensitive crystals.

Its unique mechanical design enables straightforward, reliable crystal installation. An optional precision alignment tool is available to further simplify setup and ensure optimal performance.

For demanding and specialized applications, the mBOX can be configured with a hermetically sealed enclosure that maintains a clean, dry internal environment. It also supports hermetically sealed optical windows, making it particularly well suited for hygroscopic nonlinear crystals such as BBO, LBO, and CLBO.





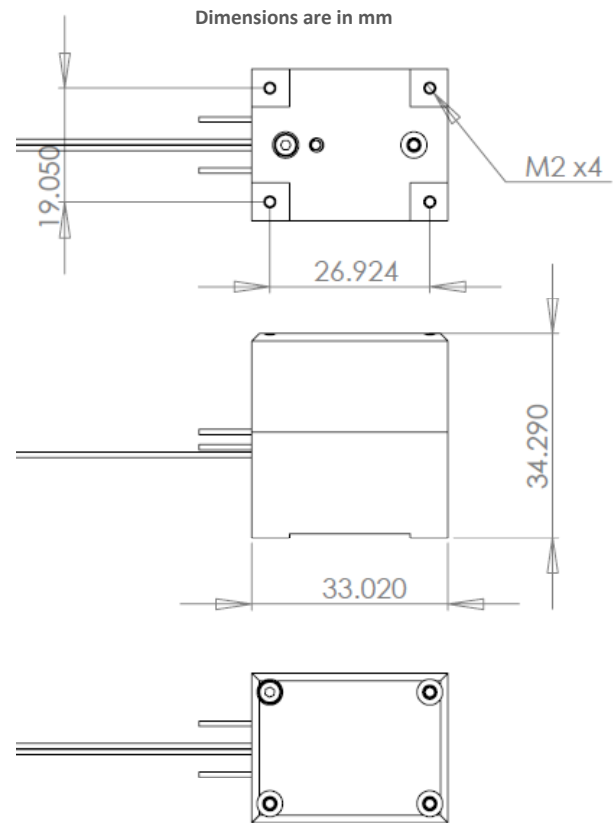
# CRYSTAL OVENS AND CONTROLLERS

**mBOX™**

## Specifications

Characteristics	mBOX-10	mBOX-20
Temperature range	From room temp to 200 degC	
Accuracy	+/-0.5 degC	
Crystal Dimension	Up to 20mm	Up to 40mm
Temp tuning step	0.05degC	
Long-term stability	+/- 0.05 degC	
Heater resistance	From 10 Ohm to 100 Ohm	
Thermo Sensor	RTD or Thermistor	
Input Voltage	DC 12-48V	
Control Interface	USB with GUI , Interlock Port	
Warm-up Time (from cold start)	Customer define slow ramping up	
Moisture Control	Optional	
Optical Window	Optional	
Alignment Tool	Optional	
Crystal Indexing	Motorized Translation stage available	

## mBOX Dimensions<sup>2)</sup>



## Outline drawing of mBOX-10

<sup>1)</sup> Due to continuous product improvements, all specifications are subject to change without notice. Parameters identified as “typical” are for reference only and do not constitute specifications; actual performance may vary between units.

<sup>2)</sup> This dimensional drawing represents a specific variant of our oven design and may not reflect the latest product revisions. For current designs, as well as alternative configurations and dimensions, please contact us.

**Enlight Tech**

3455 NE John Olsen Ave.  
Hillsboro, OR 97124