

TC2 • CO10
CO11 • CO12

PRECISION RESISTIVE HEATER KIT TC2
AND CO10 SERIES OVENS

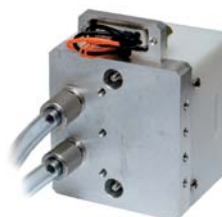


In combination with temperature controller, CO10 series ovens are designed specifically for tuning and conditioning the periodically poled bulk devices (PPLT, PPLN & PP-MgO:LN) and other nonlinear crystals. The oven is designed to hold the crystal with dimensions of 30×16×1 mm. Custom made oven is also available. The crystal heater provides temperature stabilization for crystals with an accuracy of 0.1°C. The crystal temperature can be changed from 50°C to 200 °C.

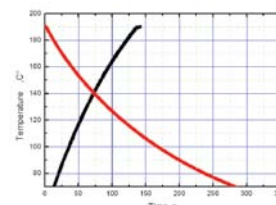
- Crystal's temperature stabilization
- Fast temperature control using active cooling
- External temperature is kept low by insulation – no need for gloves
- No alignment is required when crystal is removed and replaced
- 4 screws to remove to exchange crystals
- Crystals can be replaced without removing the oven from the experiment
- LabVIEW based software included

APPLICATIONS

- Fast temperature tuning of generated wavelengths in periodically oriented and noncritical phase-matching nonlinear crystals
- Temperature tuning of Bragg grating wavelengths
- Thermostat of tuning temperature



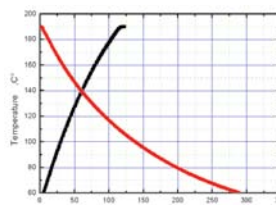
Oven CO10



Heating-Cooling diagrams of CO10



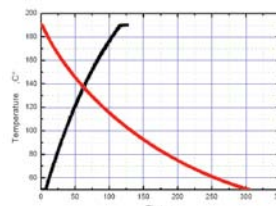
Oven CO11



Heating-Cooling diagrams of CO11



Oven CO12



Heating-Cooling diagrams of CO12

SPECIFICATIONS

Code	Description, features	Price, EUR
Thermocontroller TC2	Thermocontroller for CO10, CO11, CO12 fast temperature tuning PPLN crystall ovens	926
CO10	Water cooled fast temperature control oven for PPLN crystals	1494
CO11	Air cooled fast temperature control oven for PPLN crystals	1468
CO12	Cooled by mounting on heat transferring body fast temperature control oven for PPLN crystals	1661

Model	CO10	CO11	CO12
Resolution, °C		0.1	
Long term stability, °C		±0.1	
Basic accuracy, °C		±0.5	
Temperature sensor type		PT1000	
General specifications:			
controllability	manual or via RS232 port		
mains	90-264 VAC; 50/60 Hz		
max power consumption, W	45		
TC2 controller dimensions (H×W×D), mm	67×155×160		
weight, kg	1.5		
operating temperature	-15 °C to +35 °C		
storage temperature	-40 °C to +70 °C		
connectors	15-pin D-sub receptacle or 9-pin D-sub plug		
Temperature control range, °C	50-200	60-200	70-200
Cooling type	Water	Air	Heatsink
Heating time, s	130	120	110
	(50-190 °C)	(60-190 °C)	(70-190 °C)
Cooling time (190 °C -50/60 °C), s	305	290	290
Cooling temperature change velocity, °C/s *	1.1-0.25	1.0-0.1	1 -0.1
Heating temperature change velocity, °C/s *	1.5-0.7	1.5-0.7	1.5-0.7
Set heater temperature, °C	50	60	70
Dimensions (H×W×D), mm	85×71×65	95×71×65	91×90.5×56

* Depends on temperature.