

# LEAFLET for Harmonia

**Dual channel** heating controller for **endotherm** based reaction like cultivation in bioreactors in size 0.5-50 litre / thermal mass. Such as the CellVessel SUB from [www.cercell.com](http://www.cercell.com)

Product, model name	Harmonia
Purpose	Heating
Degree resolution	15 bit - 0,03 °C
Hephaestus cabinet size	U2
Power supply	110-230 VAC, 10 amp
Weight, kilo	3,5

## Design

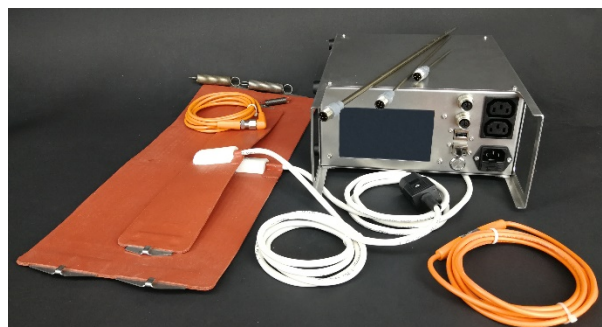
Dual and independent channel controller with build-in CPU able to work in stand-alone setup or chained with other Cronus components. Designed for electrical heating elements operating at either 110 or 230 VAC. Elements freely selected like heating rods or flexible blankets.

## In & Out electrical requirement - front panel mounted:

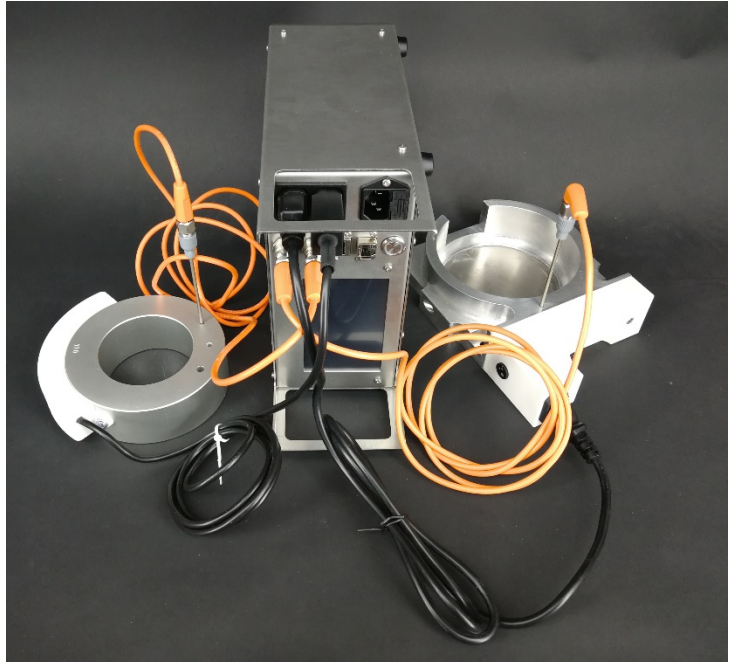
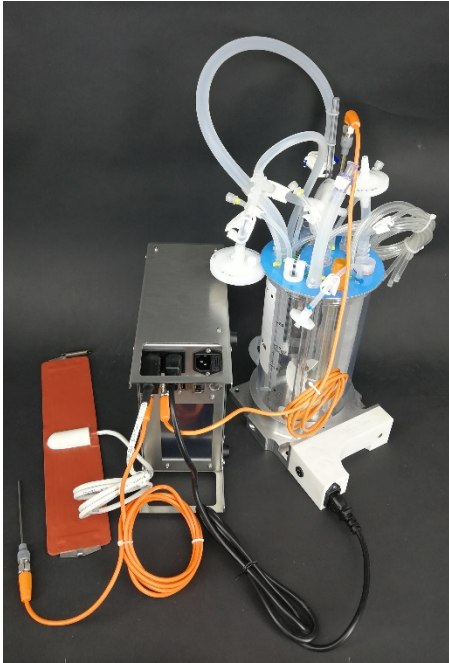
- 1 x 110 - 230 VAC power inlet, IEC standard male with ground, fuse tray, red button breaker
- 2 x 110 - 230 VAC controlled power outlet, IEC female with ground – one each channel
- 2 x Pt100 sensor input via each a 4 leg RKF connector
- 1 x USB socket
- 1 x RJ45 socket

## Communication:

- 5" TFT display for readout
- USB port for USB adapter/Wi-Fi connection and 5 VDC / 1 amp charging
- RJ45 for LAN, ModBus via IP/TCP



*Harmonia in U2 Hephaestus Stainless Steel cabinet. Designed for two independent channels both seen on display. Shown with optional, selectable Electrical-Heating-Blankets.*



*Harmonia in U2 Hephaestus Stainless Steel cabinet. Designed for two thermocouples, cables and two Electrical-Heating-Blanket or Heating-Support-Foot. To the right shown with selectable Heating-Support-Foot of which one is for 500 ml SUBs and one for 3200 ml SUBs.*

Harmonia supplied with:

- 2 x Omega OD 3 mm Pt100 sensors available in length 100, 150, 200 250 mm
- 2 x thermocouple cable with M12 RKF connector

Available from august 2015 on [www.cronus-pcs.com](http://www.cronus-pcs.com)

Photos show upgrade 2019