

# PRECISION HEATED PLATES – Compact Design Glove Box – Antechamber - Vacuum Applications Remote Control - Max. Temperature 200 °C Model family: HTP-MB1-200

## Description.

THERMANSYS HTP-MB1-200 Precision Heated Plates family was designed to provide accurate and uniform surface temperature control. Ideal choice for applications requiring heating under Vacuum or inert atmosphere.

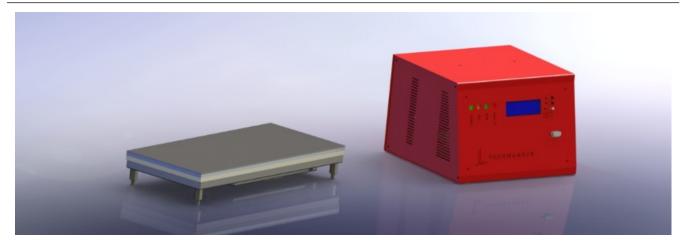
HTP-MB1-200 series is specially designed to save valuable area inside controlled atmosphere chambers. The heated surface area is equal with the device footprint.

Controlled and monitored through a flexible conduit by a remote control box the heated plate body can operate inside closed Vacuum chambers or other controlled atmosphere containers. A special Vacuum (and pressure) sealing feedthrough is available for such applications providing leak free passage of the interconnection conduit into the chamber. Ideal choice for Glove boxes, and Glove Box Antechambers.

The outer shell of the heated plate body is made of corrosion-free stainless steel ASTM 304. The heated body is also made from stainless steel ASTM 304. All the materials of construction including insulation are specially selected to be compatible with Vacuum applications up to 10<sup>-3</sup> torr (mmHg).

HTP-MB1-200 series design protect the internal electrical components against possible liquid spillage on top of the heated surface.

Suitable for many applications including Electronics/Semiconductors, Pharmaceuticals/Cosmetics, Plastics, Agricultural and other.





Compact design allows valuable space saving inside Vacuum or controlled atmosphere chambers.



Vacuum (and pressure) sealing feed-through

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e-mail: <u>info@thermansys.com</u> <u>www.thermansys.com</u> Information and data contained in this document was considered correct at the time of publication.

Thermansys<sup>®</sup> is reserving the right to make modifications as a result of design improvements.

### Specifications.

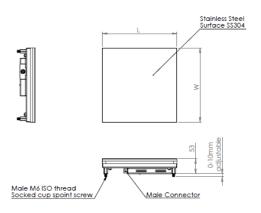
- Temperature control range, 5 °C above ambient to 200 °C. Monitoring resolution 0.1 °C.
- Operating Power: 230VAC 50/60Hz.
- Pt100 type temperature sensor.
- Temperature control setting resolution 0.1 °C. Typical control fluctuation ±0.1 °C PID control.
- Burst firing insures silent operation and compliance with EMC standards.
- Heater galvanic isolation relay. Heater failure, thyristor failure, temperature sensor failure, alarms and interlocks.

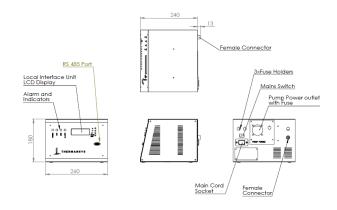
### **Optional features:**

- Remote, touch screen computer (10.0in Tablet PC), running the specially designed PYROLOGISM 2.0 software.
   Add suffix TSC
- Vacuum (and pressure) sealing feed-through for operation inside sealed chamber, Vacuum ratting 10<sup>-3</sup> torr (mmHg), pressure ratting 0.5 bar Gauge
  - ✓ Feedthrough flange: DN25 CF/ DN40 CF Add suffix: FT25CF/ FT40CF
  - ✓ Feedthrough flange:DN25KF/DN40 KF

    Add suffix FT25KF/FT40KF

# Ordering Information.





DRAWING 1. HTP-MB1-200 Precision Heated Plates DRAWING 2. HTP-CPU-A3 unit Dimensions

Compliant with Low Voltage Directive 2006/95/EC (harmonized referenced standard EN 61010-1: 2001 and EN 61010-2-010:2003) and EMC Directive 2004/108/EC (harmonized referenced standard EN 61326-1:2006)

**TABLE1. HTP-MB1-200 Precision Heated Plates Models** 

Model Part Number  HTP-MB1	Max. Temp. °C x Heat up time* (min)	Heated Surface dimensions Lh x Wh (mm) see drawing 1	Surface Uniformity % set point (Center and up to 30mm from edges)	Surface Uniformity % set point (Edges)	External dimensions Le x We (mm) see drawing 1	Nominal Heater Max. Power (W)
-L18W18-200	200 x 20	180x180	< 0.5	<2	180x180	800
-L26W26-200	200 x 20	260x260	< 0.5	<2	260x260	1000
-L30W18-200	200 x 20	300x180	< 0.5	<2	300x180	1200
-L30W30-200	200 x 20	300x300	< 0.5	<2	300x300	1600
-L40W18-200	200 x 20	400x180	< 0.5	<2	400x180	1600
-L40W30-200	200 x 20	400x300	< 0.5	<2	400x300	1800
-L40W40-200	200 x 20	400x400	< 0.5	<2	400x400	2000

<sup>\*</sup> Hot plate working with no load..

#### **Ordering Example:**

HTP-MB1-L40W18-200: This Part Number includes one HTP-MB1-200 Precision Heated Plate having 400x180mm heated surface.



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