

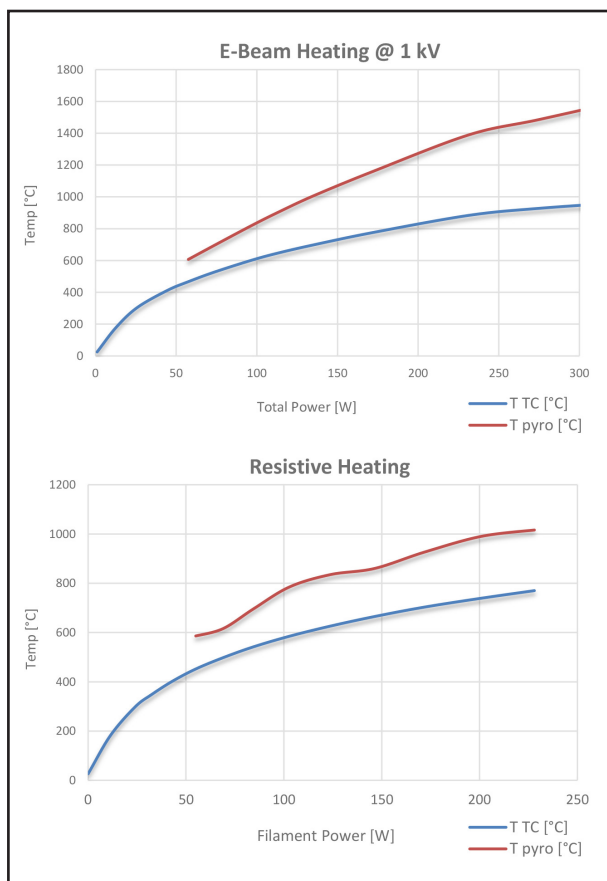
E-BEAM HEATER UPGRADE PACKAGE, HIGH TEMPERATURE VERSION

For Standard Scientia Omicron Manipulators

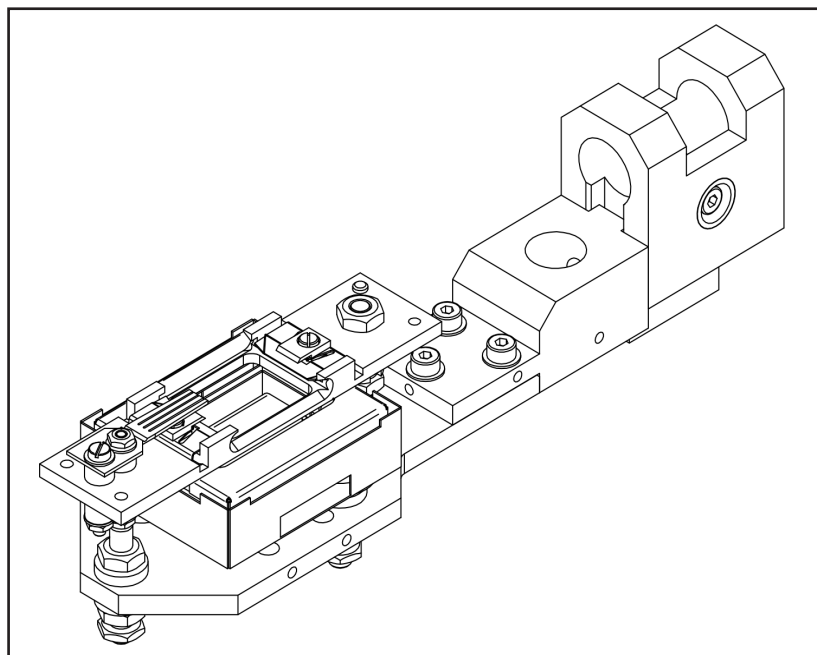
Scientia Omicron manipulators can easily be upgraded with a high-temperature heater stage (HTHS) for radiative (RH) or e-beam (EBH) heating to let your system benefit from higher sample temperature achievable compared to a standard PBN or e-beam heater with thoriated filament. The set up allows for either radiative or e-beam heating, continuously, with identical temperature limits! Containing all required parts, the package comes pre-assembled for easy on-site implementation.

Technical Specifications:

- W-Filament; Max $I_{fil} = 10$ A.
- Max. sample temperature 1400 °C / 1670 K @ 300 W.
- Higher heating rates in EBH mode; sample acceptor stays on ground potential, while heater filament floats on negative HV.
- RH mode (250 W) for better control at low temperatures.
- Sample acceptor made from Molybdenum and multi-layer radiation shield made of Ta foil.
- Direct current heating (DH) in conjunction with SO's DH sample plates.
- Dual mode power supply: RH mode with PID control loop for filament current and EBH mode with PID control loop for high voltage.



Heater stage temperature vs heating power for resistive and e-beam heating, typical diagram.



For more installation support, please ask for our skilled Scientia Omicron service personnel. Please contact your local Scientia Omicron representative for more information.

Technical Data

Part number:

- PN07422-S

Parts included:

- Heater stage, in-vacuum cables and ceramics
(Orientation of DH brush needs to be specified with order)
- 6 pin and 4 pin feedthrough for EBH, RH and DH, crimp connectors
- High voltage power supply for EBH and RH; cable set for heater stage
- 4 pin feedthrough for thermocouple, in-vacuum TC module, cable

Prerequisites:

- SO manipulator with rotary drive shaft of 9.5 mm in diameter
- No LN₂ or lHe cooling
- Only one (primary) rotational axis
- SO standard sample plates

Options:

- LN₂ cooling – for details contact SO Service
- Power supply for direct heating

How to contact us:

Europe and other regions:
services@scientiaomicron.com

North America:
services-NA@scientiaomicron.com

China:
services-CN@scientiaomicron.com

Japan:
services-JP@scientiaomicron.com

or please visit www.ScientaOmicron.com
 for more information.

