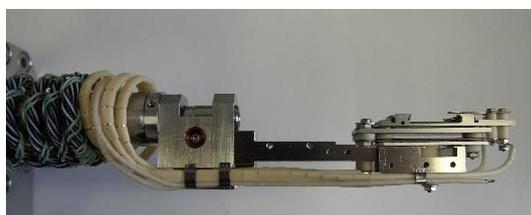


## E-Beam Heater with Thoria Coated Filament Upgrade Package For Standard Scienta Omicron Manipulators

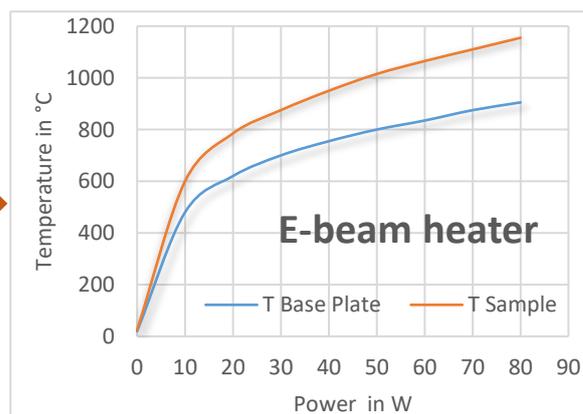
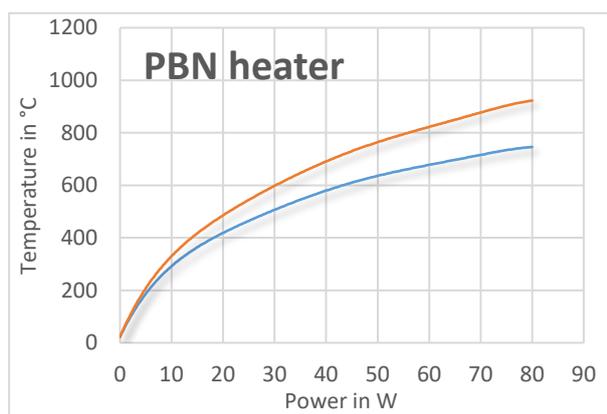


Scienta Omicron manipulators can easily be upgraded with an **E-Beam Heater Package** to let your system **benefit** from its special functionality compared to a standard PBN heater. Containing all required parts, the **package** comes pre-assembled for easy on-site implementation.



### Benefits:

- Max. sample temperature: 1100°C @70 W
- Faster temperature ramping: 32 K/s @2.3 A
- Local heating of sample directly



The direct electron bombardment of the electron beam heating is very local. While the sample heats up, surrounding parts keep comparably cool. Even more as the filaments emits electrons at several 100mA already. As a consequence, chamber pressure increases are kept minimal and pressure as well as sample temperature recover on a faster time scale.

### Package:

- Pre-assembled E-Beam heater with in-vacuum wiring and ceramics
- 6 Pin Amphenol current feedthrough and corresponding crimp connectors
- E-Beam heater power supply with temperature controller and ex-vacuum cable
- Ex-vacuum cable for direct heating

On request, an in-vacuum thermocouple and corresponding feedthrough can be added to the package. Please note that several spare parts are available to ensure maintenance and support for your e-Beam heater.

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

<https://www.scientaomicron.com/en/contact-us>

## Summary

Part Number PN06358-S

### Parts included:

- E-beam heater, in-vacuum cables and ceramics
- 6 pin Amphenol feedthrough, crimp connectors
- E-beam heater power supply with temperature controller, cable
- Cable 6 pin to banana plug for DH heating

### Prerequisites:

Applicable to standard Scienta Omicron manipulators with

- PBN resistive heater facility
- No cooling or IN<sub>2</sub> cooling (no He cooling)
- Only one sample stage
- Only one (primary) rotational axis
- Up to one DH brush
- Scienta Omicron standard sample plates
- No further specials like 4 contact sample stage, special non-magnetic or oxygen resistive head, silicon diode, ...
- Type LEMO thermocouple feedthrough

### Options:

- E-Beam heater including support arm ready to be mounted on manipulator rotary drive shaft with 9.5 mm diameter
- Adapter arm for manipulators with tungsten wire heater
- Power supply for direct heating