

SBA 458 Nemesis®	
Design	Two-heater system, quality check, horizontal sample arrangement
Temperature ranges of the exchangeable furnaces	<ul style="list-style-type: none"> ▪ -125°C ... 500°C ▪ RT ... 1100°C
Temperature setting range	Unlimited number of temperature steps
Thermocouples	<ul style="list-style-type: none"> ▪ Inconel®-sheathed type K (NiCr/NiAl) ▪ Fixed positions
Sample dimensions	<ul style="list-style-type: none"> ▪ □: 10 x 10 mm ▪ Ø: 12.7 to 25.4 mm ▪ ▭: Length x width: 12.7 to 25.4 mm x 2.0 to 25.4 mm ▪ Thickness: 100 nm to 3 mm, depending on the thermophysical properties
Sample geometries	Square, round, rectangular, strips
Seebeck coefficient range	<ul style="list-style-type: none"> ▪ 10 to 2000 µV/K ▪ Accuracy*: ±7% ▪ Repeatability*: ±3%
Electrical conductivity range	<ul style="list-style-type: none"> ▪ 0.05 to 150000 S/cm ▪ Accuracy*: ±5% ▪ Repeatability*: ±3%
Quality check for electrical conductivity	Prior to and during measurement
Quality check for Seebeck measurement	Prior to and during measurement
Number of readings automatically averaged	≥ 100
Atmosphere	Inert, oxidizing, reducing (max. 2% H ₂)
Vacuum-tightness	10 ⁻² mbar
Software	Based on Windows 7, 32-/64-bit

* for the most materials