

## Specifications LFA L52 LT/1250/1600/2000/2400/2800

|                             | LFA L52 LT/1250/1600/2000/2400/2800                                                                                                |
|-----------------------------|------------------------------------------------------------------------------------------------------------------------------------|
| <b>Temperature range</b>    | -100 up to 500°C<br>RT up to 1250/1600°C<br>RT up to 2000/2400/2800°C                                                              |
| <b>Heating rate</b>         | 0.01 up to 50 K/min (LT/1250/1600)<br>0.01 up to 100 K/min (2000/2400/2800)                                                        |
| <b>Thermal Diffusivity</b>  | 0.01 up to 2000 mm <sup>2</sup> /s                                                                                                 |
| <b>Thermal Conductivity</b> | 0.1 up to 4000 W/(m·K)                                                                                                             |
| <b>Accuracy</b>             | Thermal diffusivity ± 2.4 %<br>Specific Heat ± 5 %                                                                                 |
| <b>Repeatability</b>        | Thermal diffusivity ± 1.9 %<br>Specific Heat ± 3 %                                                                                 |
| <b>Flash source</b>         | Nd:YAG-Laser up to 25 J/pulse<br>Variable pulse energy: Software controlled<br>Pulse width: 50 up to 5000 µs                       |
| <b>IR-detector</b>          | InSb (LN <sub>2</sub> cooled): ≥ RT<br>MCT (Peltier cooled): ≥ RT<br>MCT (LN <sub>2</sub> cooled): -125 °C up to 500 °C            |
| <b>Atmosphere</b>           | Vacuum, inert, reducing, oxidizing                                                                                                 |
| <b>Vacuum</b>               | Up to 10 <sup>-3</sup> mbar (2-stage rotary pump)<br>Up to 10 <sup>-5</sup> mbar (turbo molecular pump)                            |
| <b>Data acquisition</b>     | 2.5 MHz                                                                                                                            |
| <b>Gas control</b>          | Manual or MFC gas dosing systems                                                                                                   |
| <b>Sample holders</b>       | For round, square, powders, pastes, laminates, liquid samples, mechanic pressure and in-plane Customized sample holders on request |
| <b>Sample size</b>          | ø 3/ 5/ 6/ 8/ 10/ 12.7/ 25.4 mm, or 3x3/ 5x5/ 6x6/ 10x10/ 20x20 mm <sup>2</sup><br>(from 0.01 mm up to 6 mm height)                |
| <b>Sample numbers</b>       | Up to 3 samples (2000/2400/2800)<br>Up to 6 samples<br>18 on request (LT/1250/1600)                                                |
| <b>Further options</b>      | PLH upgrade for thin film measurement, Separated electronics in protected environments,<br>Fiber or free space laser option        |