Extremely small and light temperature source

- Quick check of pyrometers 100 up to ca. 1150 ± 50°C
- Use in infrared measurements on site without pyrometer removal
- Determination of optical losses in infrared measurements through windows or lenses and automatic compensation in conjunction with an M3 or H3 pyrometer

- Common applications: laser hardening, laser welding, additive manufacturing

- Target temperature in a maximum of 3 minutes
- Small and light for fast positioning
- Versions with
  - switch for quick use between 1100 and 1200°C maximum temperature
  - control unit for continuously temperature adjustment or control pyrometer for high temperature stability

- Measuring opening with adjustable aperture and support for light power measuring device (power meter)
- For Sensortherm pyrometers with fast single-point calibration to a target temperature
Ready in Only 3 Minutes

The HE1200 is an unsurpassed fast and very small temperature source that can be used to check pyrometers in a few minutes, for example directly at the furnace. Also, optical losses in measurements through windows or lenses can be quickly determined, e.g. when coupling the pyrometer into a processing optics.

**Application**

- **Comparison measurement**
  - Heating unit with control pyrometer for quick comparison measurement on site at the plant.
  - Advantage: it is not necessary to remove time-consuming mounted optical fibers and optics.

- **Measurement with single-point adjustment**
  - Use Metis M3 or H3 pyrometer, connect to PC and start standard software SensorTools.
  - Align the HE1200 to the pyrometer’s measuring point and heat to application temperature (= adjustment temperature).
  - Start the single-point adjustment function, enter the adjustment temperature and start the procedure.
  - After a short time the pyrometer is adjusted to the optical system.
  - A light power measuring device (power meter) can be connected via a slot.

**Technical Data**

<table>
<thead>
<tr>
<th>Temperature</th>
<th>with rotary switch: fixed to ca. 1100-1200°C with control unit: adjustable ca. 100-1150±50°C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Warm-up / cool-down</td>
<td>ca. 3 min / ca. 5 min</td>
</tr>
<tr>
<td>Measuring area</td>
<td>10 mm / 0,4”</td>
</tr>
<tr>
<td>Front meas. opening</td>
<td>Adjustable aperture 0.9-12 mm</td>
</tr>
<tr>
<td>Rear meas. opening</td>
<td>12 mm for fiber optics OL12</td>
</tr>
<tr>
<td>Power supply</td>
<td>230 V AC, 500 W max.</td>
</tr>
<tr>
<td>Serial interface</td>
<td>RS485 (on both pyrometer connectors)</td>
</tr>
<tr>
<td>Housing</td>
<td>Heating unit: aluminum, black anodized</td>
</tr>
<tr>
<td>Weight</td>
<td>ca. 2 kg with rotary switch, ca. 3.7 kg with control unit</td>
</tr>
<tr>
<td>Ambient temperature</td>
<td>Heating unit: 0–70°C Control unit: 0–40°C</td>
</tr>
<tr>
<td>Connection cables</td>
<td>2 m power cord, 3 m connection cable to heating unit</td>
</tr>
<tr>
<td>Rel. humidity</td>
<td>Non-condensing conditions</td>
</tr>
<tr>
<td>CE label</td>
<td>According to EU directives for electromagnetic immunity</td>
</tr>
</tbody>
</table>

**Reference numbers**

- HE1200-10    HE1200 with on / off switch
- HE1200-20    HE1200 with control unit
- HE1200-30    HE1200 with control unit, AL12-02 (12-pin pyrometer connection cable, 2.5 m, straight plug on both sides), UM8000-01 (90°-mirror for optics connection), DK4000 (interface converter RS485⇔USB)
- HE1200-40    As HE1200-30 but with 17-pin pyrometer adapter connection cable for pyrometers with 17-pin connector
- HE1200-50    As HE1200-30 but with AL12-02 and AL07-02
- M3 pyrometer Control pyrometer with fiber optics
- Optional:   Device protection case

Sensortherm reserves the right to make changes in scope of technical progress or further developments.

Sensortherm-Datasheet_HE1200_Portable_Temperature_Source (Dec. 04, 2018)