Portable Radiation Thermometer
IR-HA SERIES

Can be used for measurement at various places because of improved functionality and robustness

FEATURES

● Small and light weight, easy to handle.
● Measuring value displayed on display part at the rear side of the unit and inside the view finder.
● Dust proof mechanism that enables use in the harsh environment.
● High temperature measuring objects can be also seen directly because of ND (neutral density) filter at the view finder.
● Thermocouple input equipped. Emissivity is settable by thermocouple indication.
● Easy data management by using SD card (sold separately).

Model

IR-HA NE

- Measuring temperature range
  - I: Single color medium temperature type
    300 to 1000°C
  - S: Single color high temperature type
    600 to 2000°C
  - Q: High functionality type
    (2-color type + single color wide range type)
    600 to 2000°C (2 color)
    400 to 3000°C (Single color wide range)

Measuring diameter and distance

Configuration

- SD Card (sold separately)
- RZ-SMC
- Data Replay Software (sold separately)
- IR-VX02E
- AC power adapter (sold separately)
- IR-PHRA
- Surface temperature sensor (sold separately)
# SPECIFICATIONS

<table>
<thead>
<tr>
<th>Types</th>
<th>Single color For medium temperature</th>
<th>Single color For high temperature</th>
<th>High functionality type (2 Color type + single color wide range type)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>IR-HAI</td>
<td>IR-HAS</td>
<td>IR-HAQ</td>
</tr>
<tr>
<td>Measuring system</td>
<td>Narrow band radiation thermometer</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Element</td>
<td>InGaAs</td>
<td>Si</td>
<td>Si/InGaAs</td>
</tr>
<tr>
<td>Wavelength</td>
<td>1.55μm</td>
<td>0.9μm</td>
<td>0.9/1.55μm</td>
</tr>
<tr>
<td>Temperature range</td>
<td>300 to 1000°C</td>
<td>600 to 2000°C</td>
<td>600 to 2000°C (2-color) 400 to 3000 °C (single color wide range)</td>
</tr>
<tr>
<td>Accuracy rating At c=1.0, 23±5 °C</td>
<td>± 6°C</td>
<td>Less than 1000°C: ± 6 °C 1000 to 1500°C: ± 0.6% of measured value 1500 to 2000°C: ± 1.2% of measured value</td>
<td>Less than 1000°C: ± 6 °C 1000 to 1500°C: ± 0.6% of measured value 1500 to 2000°C: ± 1.2% of measured value More than 2000°C: ± 2.4% of measured value</td>
</tr>
<tr>
<td>Repeatability</td>
<td>± 1°C</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Resolution</td>
<td>1°C</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Response time</td>
<td>0.2 s</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Emissivity compensation</td>
<td>1.900 to 0.100</td>
<td>1.200 to 0.800 (2 color emissivity ratio)</td>
<td>1.900 to 0.100 (single color: emissivity)</td>
</tr>
<tr>
<td>Display</td>
<td>LCD digital display 4-digit (in viewfinder and on front panel), ON/OFF switching</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Optics</td>
<td>Lens condensing, fixed focus system</td>
<td></td>
<td></td>
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<tr>
<td>Finder</td>
<td>Direct view finder (ND(neutral density) filter built in), ON/OFF switching</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Data storage</td>
<td>SD card 2GB or less (Sold separately), Storage folder / files can be set up to 9999, in 1 file 9999 data can be saved, Format will be CSV.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>External input</td>
<td>K thermocouple (connecting through connector) -50 to 800°C, Accuracy: ± 2°C (at 23°C ± 5°C) auto emissivity (ratio) calculation available</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Working temperature</td>
<td>0 to 50°C</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Power supply</td>
<td>AA batteries 2 pieces (rechargeable batteries can be used) or AC power adapter (sold separately)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weight</td>
<td>About 500g</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CE</td>
<td>EMC directive --- EN61326-1 Class A</td>
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</tbody>
</table>

## EXTERNAL DIMENSIONS

**IR-HA**

- 1/4-20UNC Depth 5 (For tripod)
  - 75
  - 150
  - 50 View finder
  - ND filter switch
  - Connector cover

## THERMOCOUPLES

**Pressure type Model : C510-01K**

- Element: K
- Measuring range: Max 500°C (Tip: Ceramic)
- Response time: About 1.8 seconds (90% response to 150°C aluminum block surface)

**High temperature pressure type Model: C510-02K**

- Element: K
- Measuring range: Max 800°C
- Response time: 4 seconds (90% response to 340°C aluminum block surface)

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