IR-CZH
HIGH ACCURACY 2-COLOR TYPE RADIATION THERMOMETER
FOR HIGH TEMPERATURE MEASUREMENT

For measurement of inside the high temperature furnace
Best for Baking and Sintering process of cutting-edge material!
Best for Crystal growing process!

- **MODELS**
  - **Model**
    - H: High temp. high accuracy type 1.55/0.9μm
  - **Distance factor**
    - 0: 50  2: 200  3: 300
    - 7: 200 with field diaphragm 10*
    - 8: 300 with field diaphragm 10*
    - *"7", "8" is only applicable for IR-CZH
  - **Connecting type/Option**
    - *Option is only applicable for connector type
    - N: Connector/No option
    - 5: Connector/Analog input 4 to 20mA
    - J: Connector/Contact input 1P, contact input 2P
    - T: Terminal/Option not available
  - **Sighting type**
    - Blank: View finder (standard)
    - 3: Close-up lens 300mm combination*
    - 6: Close-up lens 600mm combination*
    - L: Red color laser targeting (no view finder)
    - *Applicable for only 2 color (IR-CZQ, IR-CZH)

- **FEATURES**
  - Stability and durability is improved to continuous ultra-high temperature measurement.
  - Achieved high accuracy by calibration of metal/carbon eutectic point traced of which Japan’s first high temperature fixed point.
  - It reduces the influence of optical path obstacle such as dirty window or inserted tube of furnace by 2-color ratio measurement.
  - Small and light weight body detector/converter unit type with built-in digital temperature display and parameter setting function.
## GENERAL SPECIFICATIONS

<table>
<thead>
<tr>
<th>Models</th>
<th>IR-CZH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Optics</td>
<td>Moveable focusing lens type</td>
</tr>
<tr>
<td>Element</td>
<td>Si / InGaAs</td>
</tr>
<tr>
<td>Measuring wavelength</td>
<td>0.9 / 1.55μm</td>
</tr>
<tr>
<td>Measuring range</td>
<td>900 to 3500°C (from 500°C at single color mode)</td>
</tr>
<tr>
<td>Accuracy rating</td>
<td>Lower than 1000°C±5°C</td>
</tr>
<tr>
<td></td>
<td>1500°C to lower than 1500°C±0.5% of measured value</td>
</tr>
<tr>
<td></td>
<td>2500°C to lower than 2500°C±0.6% of measured value</td>
</tr>
<tr>
<td>Response time</td>
<td>2 to 15ms</td>
</tr>
<tr>
<td>Effective diameter of lens</td>
<td>≤10mm</td>
</tr>
<tr>
<td>Distance factor (L/D)</td>
<td>200</td>
</tr>
<tr>
<td>Display</td>
<td>Temperature display LCD 4 digits, parameter display LCD 4 digits</td>
</tr>
<tr>
<td>Analog output</td>
<td>4 to 20mA DC (isolated output)</td>
</tr>
<tr>
<td>Load resistance</td>
<td>850Ω or/and lower</td>
</tr>
<tr>
<td>Communication interface</td>
<td>RS485 measured data transmission, and each parameter transmission/reception</td>
</tr>
<tr>
<td>Contact output</td>
<td>1 point, upper/lower alarm or error signal, photo coupler Maximum 30V DC, 50mA</td>
</tr>
<tr>
<td>Working temperature</td>
<td>–10 to 60°C</td>
</tr>
<tr>
<td>Power supply</td>
<td>24V DC (allowable voltage fluctuation range 22 to 28V DC)</td>
</tr>
<tr>
<td>Power consumption</td>
<td>Maximum 2.4VA</td>
</tr>
<tr>
<td>Connection</td>
<td>Exclusive connector : IR-CZQN∑, IR-CZQ5∑, IR-CZQJ∑, Terminal connection : IR-CZQH7T</td>
</tr>
<tr>
<td>Casing</td>
<td>Aluminum</td>
</tr>
<tr>
<td>Weight</td>
<td>0.8kg</td>
</tr>
</tbody>
</table>

## EXTERNAL DIMENSIONS

- **Measurement distance adjustment ring**
- **Connector (connector type)**
- **Finder**
- **Display window**
- **Connector (terminal connection type)**
- **Lid of setting switch**
- **Neutral density filter to be attached and used with eyepiece when operator feel dazzling for high temperature of measuring object**
- **Eye piece filter : IR-ZCLF**
  Neutral density filter to be attached and used with eyepiece when operator feel dazzling for high temperature of measuring object

## CONNECTING CABLES

- **Connecting cable (connector type): IR-ZZRC**
  - Water-proof connector
  - End tips for receiver, M3
  - Shielded cable
  - Shrink tube
  - Connecting cable (connector type): IR-ZZRC
  - (Specified length)
  - L (Specified length)
  - 2m
  - 5m
  - 10m
  - 20m
  - 100m

- **Connecting cable (terminal type): IR-ZCRT**
  - Shielded cable
  - End tips for receiver, M3
  - Connecting cable (terminal type): IR-ZCRT
  - (Specified length)
  - L (Specified length)
  - 2m
  - 5m
  - 10m
  - 20m
  - 100m

## COMPATIBLE MOUNTING FIXTURE

- **Compatible mounting fixture : IR-ZCZS**
  (for compatible installation to IR-CA series)

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Specifications subject to change without notice. Printed in Japan (I) 2019.04

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