IR-TA SERIES
HAND-HELD TYPE
DIGITAL INFRARED THERMOMETER

MODELS IR-TAP

The IR-TA series hand-held type thermometers are easy to use and can be applied to a variety of applications. The thermometers can quickly measure temperature of small objects from a distance without contact. The built-in laser sight helps to pinpoint a measured spot accurately.

■ FEATURES
- Temperature range: -40 to 500°C
- Spot size: φ30/1000mm
- Automatic backlit LCD display at dark places by a brightness sensor.
- Palm size, lightweight
- Automatic power off for saving battery life
- Storing data: Up to 150 data
- Stored data backed-up for battery shortage
- Conforms to CE

- Report creation of stored data by a personal computer (Data processing software package required separately)
- Maximum, minimum, average and (maximum - minimum) values displayed
- Audible buzzer alarm
- Emissivity adjustable from 0.30 to 1.90
- Traceability certificate available (For HACCP or ISO 9000)

■ SPOT SIZE/DISTANCE

![Spot Size/Distance Diagram]

Unit: mm
### GENERAL SPECIFICATIONS

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Temperature</td>
<td>-40 to 500°C</td>
</tr>
<tr>
<td>Detector</td>
<td>Thermopile</td>
</tr>
<tr>
<td>Spectral range</td>
<td>7.5 μm</td>
</tr>
<tr>
<td>Spot size/distance</td>
<td>300/1000mm (Refer to Spot size/distance)</td>
</tr>
<tr>
<td>Accuracy</td>
<td>±1% of readings ± 1 digit or ± 2°C ± 1 digit, whichever larger</td>
</tr>
<tr>
<td></td>
<td>±3°C at -30°C to 0°C, ±5°C at lower than -30°C (at ambient temperature 25°C ± 2°C)</td>
</tr>
<tr>
<td>Repeatability</td>
<td>Within ± 1°C ± 1 digit</td>
</tr>
<tr>
<td>Response time</td>
<td>0.8 second (90% response)</td>
</tr>
<tr>
<td>Display</td>
<td>3-digit LCD</td>
</tr>
<tr>
<td>Resolution</td>
<td>0.1°C at -19.9 to 99.9°C; 1°C except this range</td>
</tr>
<tr>
<td>Display renewal cycle</td>
<td>0.25 second</td>
</tr>
<tr>
<td>Target</td>
<td>Marking center of measuring spot by laser beam</td>
</tr>
<tr>
<td>Beam output</td>
<td>Red laser beam, Less than 1mW, 670 nm (JIS class 2)</td>
</tr>
<tr>
<td>Storing data</td>
<td>Up to 150</td>
</tr>
<tr>
<td>Number of memory group</td>
<td>15 memory groups</td>
</tr>
<tr>
<td>Display contents</td>
<td>Current readings, emissivity value setting, alarm setting, low battery, memory group No., year-month/day-hour/minute, stored data, calculated value of stored data, measurement unit (°C or °F)</td>
</tr>
<tr>
<td>Auto power-Off</td>
<td>Auto power-off in 30 seconds after key operation finished</td>
</tr>
<tr>
<td>Data output</td>
<td>RS-232C</td>
</tr>
</tbody>
</table>

#### Contents of data output

- For personal computer
  - Stored data output mode
    - Year/month/day-hour/minute and label at data transmitting
    - Tag, emissivity value and alarm setting (high/low limits) per group, and measured value with measured year/month/day-hour/minute
  - Stored data output mode
    - Year/month/day-hour/minute and label at printing out
    - Tag, emissivity value and alarm setting (high/low limits) per group, and measured value with measured year/month/day-hour/minute

- For printer
  - Measured value, measured year/month/day-hour/minute and tag
  - Stored data output mode
    - Year/month/day-hour/minute and label at printing out
    - Tag, emissivity value and alarm setting (high/low limits) per group, and measured value with measured year/month/day-hour/minute

- Alarm
  - High and low alarms per group
- Emissivity
  - 0.30 to 1.90 (default: 0.95)
- Display illumination
  - Automatic backlight LCD by brightness sensor
- Operating temperature
  - 0 to 50°C (No dew condensation)
- Operating humidity
  - Lower than 80%RH (No dew condensation)
- Storage temperature
  - -20 to 65°C (No dew condensation)
- Storage humidity
  - Lower than 80%RH (No dew condensation)
- Power
  - Alkaline AA (UM-3) battery, 2 pieces
- Battery life
  - About 30 hours continuous operation
- Size
  - W92 × H155 × D44 mm
- Weight
  - About 220g
- Belongings
  - Alkaline AA (UM-3) battery 2 pieces, Manual
- CE
  - EN55022 Class B, EN60082-1

### DATA PROCESSING SOFTWARE PACKAGE

- **Model:** MP9010

  - **Environment:** Windows 95 / 98 (Minimum 4MB free space)
  - **Interface:** RS-232C (by exclusive cable)
  - **Cable:** 1 m, with D-sub 9 pins female connector

### Communications function with IR-TAP

- Automatically power on
- Reading of stored data classified by groups (Maximum 15 groups), Up to 150 data
- Reading and setting of clock
- Reading and setting of parameters
  - Name of IR-TAP (Label: within 10 alphanumerical letters)
  - Name of each groups (Tag: within 10 alphanumerical letters)
  - Emissivity value, high / low alarms
- Erasing all stored data
  - Memory clear: Initializing all parameters to defaults
- Detecting function for interrupted of communications by low batteries
- All the above functions are available on a personal computer without any operation by IR-TAP

### Display function:

- Display the data of each group read from IR-TAP
- Stored data, stored data, alarm status, etc.
- Maximum value, minimum value and average value
- Display all programmed parameters of each group

### Comment adding function:

- Entering of a measuring object and a measurer to each group is possible.
- Entering a comment to each data

### File storage/read function:

- 3 kinds of file storage type are available.
  - (Exclusive type, .csv, .txt)

### Printing function:

- Printing out as a report form
- Selection of printout enabled or disabled for each group is possible.
- Format - A4 size

### Help function:

- Simple operation guidance is contained in "Help".

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**CAUTION**

- Please do not aim or direct laser toward faces.
- On measurement of targets like as glossy metal, be careful with influences by the reflection from it.

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