

# 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

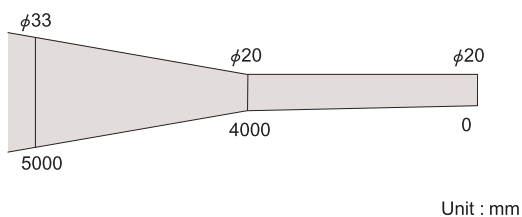
Measuring temperature range

I : Single color medium temperature type  
300 to 1000°C

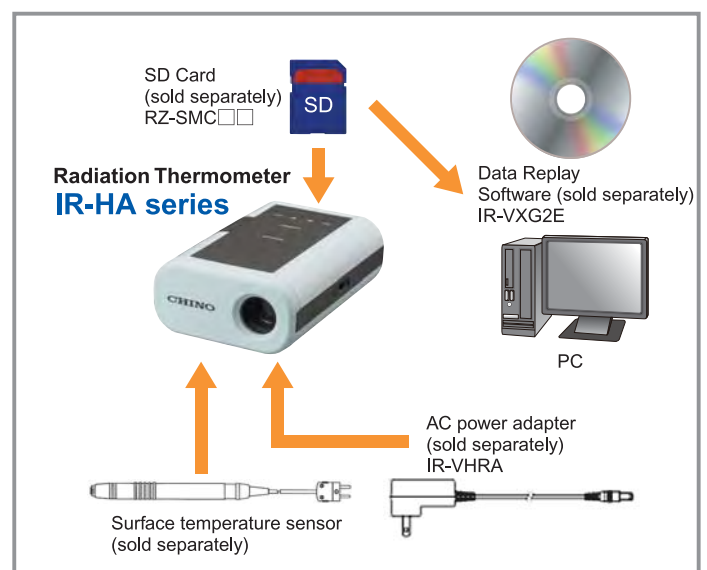
S : Single color high temperature type  
600 to 2000°C

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

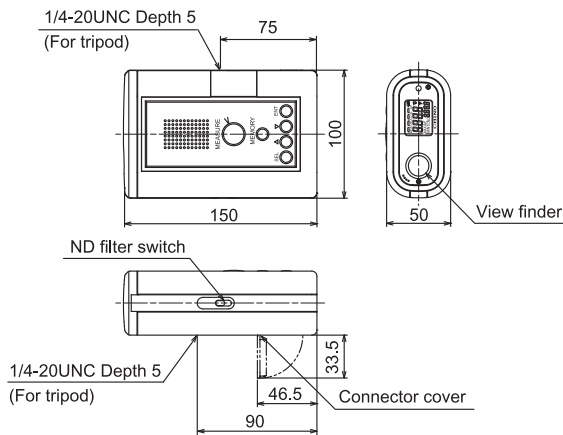


## SPECIFICATIONS

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

## EXTERNAL DIMENSIONS

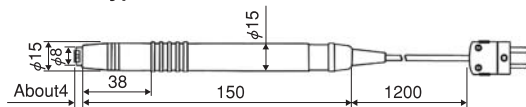
### ● IR-HA



Unit : mm

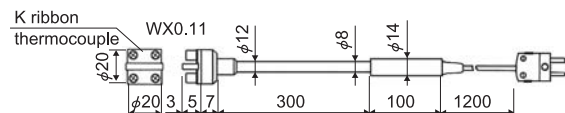
## THERMOCOUPLES

### ● 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)

Unit : mm

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