## METRAVI

# NON CONTACT INFRA-RED TEMPERATURE CONTROLLER

IT-91

#### INTRODUCTION

The IR thermometer is capable of non-contact (infrared) temperature measurements at the touch of a button. The built-in laser pointer increases target accuracy while the backlight LCD and handy push-buttons on the panel meter combine for convenient, ergonomic operation.

The Non-contact Infrared Thermometer can be used to measure and control the temperature of objects' surface that is improper to be measured by traditional (contact) thermometer (such as moving object, the surface with electricity current or the objects which are uneasy to be touched.).

It has relay contacts to control the temperature.

#### **FEATURES**

- Precise non-contact measurements
- High distance to target ratio measures smaller surface areas at greater distances
- Wide temperature range
- Emissivity Digitally adjustable from 0.10 to 1.0
- Backlight LCD display
- Built-in laser pointer
- Automatic selection range and Display Resolution 0.1°C(0.1°F)
- · Heating and Cooling mode control output
- · Relay Output for temperature control

#### Wide Range Application:

Food preparation, Safety and Fire inspectors, Plastic molding, Asphalt, Marine and Screen printing, measure ink and Dryer temperature, HVAC/R, Diesel and Fleet maintenance.

#### **SPECIFICATIONS**

 Model
 Temperature range
 D: S

 IR-91
 -50 to 900°C (-58 to 1652°F)
 50:1

Display resolution <1000 0.1°C (0.1°F) >=1000: 1°F

#### Accuracy for targets :

Assumes ambient operating temperature of 23 to 25 °C (73 to 77°F)

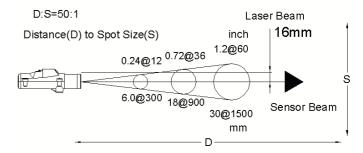
-50 to 20°C (-58 to 68°F) :  $\pm$  5°C ( $\pm$ 9°F)

20 to 500°C (68 to 932°F) :  $\pm 2.5\%$  of reading + 2.5°C ( $\pm 4.5$ °F); 500 to 900°C (932 to 1632°F) :  $\pm 3.0\%$  of reading + 3° ( $\pm 5.4$ °)



#### **Distance & Spot Size**

As the distance (D) from the object increases, the spot size (S) of the area measured by the unit becomes larger. The relationship between distance and spot size for each unit is listed below. The focal point for each unit is 914mm (36"). The spot sizes indicate 90% encircled energy.



Response time : less than 1 second

Spectral response : 8~14um

**Emissivity** : Digitally adjustable from 0.10 to 1.0

Over range indication : LCD will show "----".

**Polarity** : Automatic (no indication for positive polarity);

Minus (-) sign for negative polarity

Diode laser : output <1mW,Wavelength 630~670nm,

Class 2(II) laser product : 0 to 50°C (32 to 122°F)

 $\begin{array}{lll} \textbf{Operating temp.} & : & 0 \text{ to } 50^{\circ}\text{C } (32 \text{ to } 122^{\circ}\text{F}) \\ \textbf{Storage temp.} & : & -20 \text{ to } 60^{\circ}\text{C } (-4 \text{ to } 140^{\circ}\text{F}) \\ \end{array}$ 

 $\textbf{Relative humidity} \hspace{1.5cm} : \hspace{0.5cm} 10\% \text{~~}90\% \text{RH operating, ~~} \text{~~}80\% \text{RH storage}$ 

Power supply : 230V AC 50HZ or 12~24V DC

Maximun input voltage

 (relay)
 : 5A/30V DC
 5A/250V AC (50/60HZ)

 Line length
 : 2m(standard) 3m 5m 10m

Weight : 288g (panel)

185(IR sensor)

**Size** : 72 77 98mm(panel)

43 49 130(IR sensor)

Safety : " CE " Comply with EMC

\*Technical Specifications & Appearance are subject to change without prior notice

### THE QUALITY LEADER

www.metravi.com