

# Miniature Digital On-Line Infrared Non-Contact Pyrometer for Low Temperature Applications

0°C to 1000°C

## AST ML SERIES

**AST ML SERIES** is a rugged and compact IR Pyrometer especially designed for low temperature application needs, ranging from 0°C...1000°C. The highly recommended and OEM favourite model is perfectly suitable for demanding industrial environment because of the compact size, and low maintenance.

**AST ML SERIES** is particularly a tough competitor due to its high performance at very attractive economy range. **AST ML SERIES** model can replace the already installed contact probes with the K type or J type thermocouple output along with standard 2 wire 4...20mA, 0..5V/0..10V analog outputs, J & K type thermocouple, Sensing head usable upto 180°C ambient Temperature. **AST ML SERIES** IR pyrometer comes along with digital TTL Output and Alarm Output for variety of applications in process industries.



USB Interface

AST ML Series is provided with TTL output. Using the USB interface **Infralink** and Software pyrometer can be connected to PC for parameter setting and data logging.

### Technical specifications

Model	ML-2W/2WH, ML-10V/10VH, ML-K/KH, ML-J/JH
Temperature Range (Analog sub-range adjustable)	0°C to 1000°C
Spectral Range	8 - 14 μm
Photodetector Type	Thermopile
Distance to Spot Size Ratio	15:1, 2:1
Emissivity (ε)	0.1 to 1.2 adjustable
Response Time	60 msec adjustable upto 10 sec
Accuracy	± 2% of measured value or ± 3°C whichever is greater
Repeatability	± 0.5% of measured value or ± 1°C whichever is greater
Analog Output	<b>2 Wire</b> : 4 - 20mA (ML-2W/2WH) <b>4 Wire</b> : 0 - 10V/0 - 5V - Switchable (ML-10V/10VH) K type thermocouple (ML-K/KH) J type thermocouple (ML-J/JH)
Digital Output	TTL Output
Alarm Output	24 V DC, Load < 100mA(Transistor) (Not Applicable for ML-2W/2WH Model)
Operating Temp. Range	Electronics : 0°C....70°C Sensing Head : 0°C....120°C(Without H Model) or 0°C....180°C(With H Model)
Storage Temp. Range	-20°C...70°C
Adjustable Parameters and Features via Software	Emissivity, Response Time, *Analog Scale (Sub Range), Unit Of Temperature(°C/°F), #Alarm Set point, Peak Picker, Valley Picker *Not applicable for J and K type #Not Applicable for ML-2W/2WH Model
Power Supply	18V DC to 24V DC
Power Consumption	Max 0.5 watt (Normal Mode)
Protection Class	IP54
<b>Cable Length</b> Head to Electronics After Electronics	0.5 m (Standard) upto 15 m as per order 0.5 m (Standard) upto 3 m as per order
Dimensions	Electronics : (LxWxH) 43x22x11 mm Sensing Head : M12 x 1, Dia Ø14.5mm, L=35mm

### Features

- Rugged and compact (Very Small Size)
- Temperature range 0°C to 1000°C
- Spot Size 15:1, 2:1
- Fast Response
- TTL Output and Service Software
- Analog Output
- Bi-color status LED Indication (Blue, Red)
- Usable upto 180°C Ambient Temperature.
- Variety of Accessories
- Alarm Output
- Analog output range 5V/10V Switchable (ML-10V/10VH model)

### Standard Scope of Supply

- Pyrometer with 0.5 mtr. long connection cable
- TTL output
- Alarm output (Not applicable for ML-2W/2WH model)
- Analog output (Select any one while ordering)
- Calibration certificate, Software & Operation Manual.

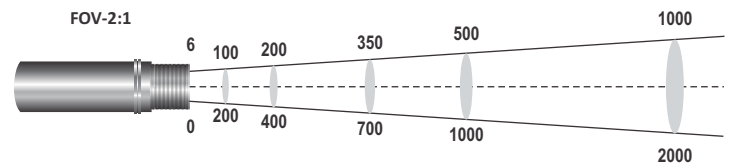
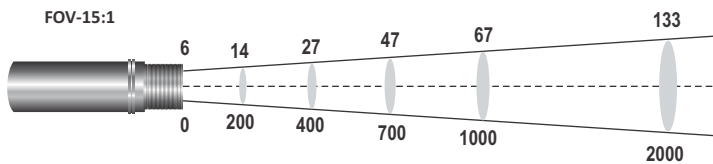
### Optional

- Extra cable lengths
- Mechanical and Electrical Accessories
- USB Interface card

### Applications

- Plastic
- Paper
- Fluids
- Rubber
- Ceramic
- Wood
- Glass
- Painted & Oxidized Surface
- Textiles

## Spot Sizes

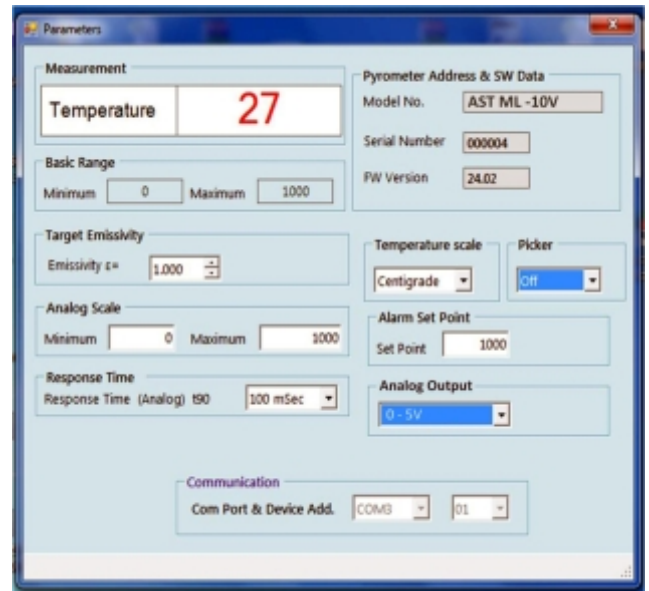


## Software "MT500"

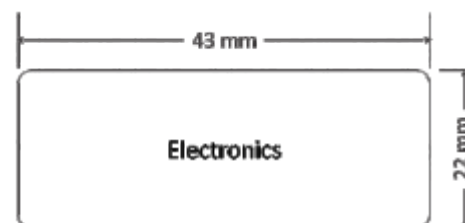
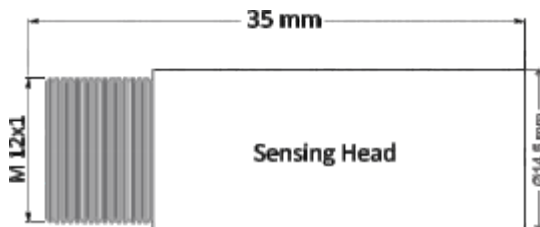
AST "MT500" software is provided with "Infralink USB Interface" accessory. It offers Communication between the pyrometer and the software, which is implemented via USB Interface dongle. Software comes with alarm set point, Parameter settings.

Some of the parameters adjustable via software are

- Emissivity
- Analog Scale (not applicable for J & K type Thermocouple)
- Response Time
- Temperature Scale ( $^{\circ}\text{C}/^{\circ}\text{F}$ )
- Picker
  - Peak
  - Valley
- Alarm Set Point (Not Applicable for ML-2W/2WH Model)
- Analog output range 5V/10V Switchable (ML-10V/10VH model)



## Pyrometer Drawing



## Accessories

"Infralink" USB Interface

Air purge unit  
Reference No. 8300 - 03

Adjustable Mounting  
Reference No. 8300 - 04

Power Supply Unit  
(Reference no: 9000-02)



**Tempsens Instruments (I) Pvt. Ltd. U# I**  
 B-188A, Road No.5, M.I.A.,  
 Udaipur-313003 (Rajsthan) INDIA  
 Ph.:+91-294-3057700 to 800  
 Fax.:+91-294-3057750  
 Email: info@tempsens.com

