

Compact, On-Line Infrared Non-Contact Pyrometer in two wire technology.

CE 300°C to 2100°C

• T2-250 • T2-450

T2-250 and **T2-450** are rugged and compact IR Pyrometers of class T series especially designed in two wire technology to provide high performance and low maintenance of non contact temperature measurement in demanding industrial environments.. The models are designed for wide range of temperature measurements from 300°C till 2100°C.

The IR thermometer has IP65 stainless steel housing which protects the onboard electronics and assures high operational safety in harsh industrial environment.This enables the sensor to withstand and function easily in ambient temperatures upto 70°C easily. The instrument has inbuilt special Laser targeting light for precision targeting of the object.

It is offered in spectral range of 1.0µm, 1.6µm thereby reducing the errors of temperature reading on surfaces with low or varying emissivity's. The compact model is useful for temperature measurement of metal surfaces at high temperatures. The common applications of the pyrometer are Forging, Rolling, Sintering, Annealing and Welding etc.

The compact size is an added advantage for easy installation into production lines and confined spaces. Variety of working Distances with fixed focus available for different applications.

T2-250 and **T2-450** compact IR Pyrometer models are provided with TTL output. Using the USB interface and Software pyrometer can be connected to PC for parameter setting and data logging.



USB Interface

T 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 | T2-250 | T2-450 |
|---|---|--|
| Temperature Range (Analog sub-range adjustable) | 300°C....1300°C 500°C....1500°C | 600°C....1600°C 700°C....2100°C |
| Spectral Range | 1.6 µm | 1.0 µm |
| Photodetector Type | InGaAs | Si |
| Distance to Spot Size Ratio | 100:1(300°C....1300°C) 200:1(500°C....1500°C) | 100:1(600°C....1600°C) 200:1(700°C....2100°C) |
| Emissivity (ε) | 0.1....1.0 adjustable | |
| Response Time | 50 msec adjustable upto 10 sec | |
| Accuracy | ± 0.8% of the measured value + 1°C | |
| Repeatability | 0.4% of the measured value | |
| Sighting Option | Laser Pilot Light | |
| Analog Output | 4-20mA, Load Independent Current, Linear temperature Output Max Load:Max500Ω at 24V,Max200Ωat 18V | |
| Digital Output | TTL output | |
| Operating Temp. Range | 0°C.....70°C | |
| Storage Temp. Range | -20°C...70°C | |
| Adjustable Parameters and Features via Software | Emissivity, Response Time, Analog Output, Analog Scale (Sub Range), Unit Of Temperature(°C/°F) etc | |
| Power Supply | 12 V to 25 V DC Stabilized (5 to 25 V DC for Laser Targeting light (I≤30 mA) (Can be powered from USB interface, in this case analog output will not work) | |
| Power Consumption | For Laser Targeting Max 0.75 watt For Device Max 0.625 watt | |
| Laser Power | <1 m watt | |
| Protection Class | IP65 | |
| Housing | Stainless Steel | |
| Operating Humidity | 10-95%, Non-Condensing Conditions | |
| Weight & Dimensions | 250g Dia=Ø25mm;Length=140mm | |

Features

- Two wire technology for easy electrical connection
- Wide temperature range 300°C....2100°C
- Spectral range 1.0...1.6 µm
- Laser Light for precision targeting of the measuring object
- 50 ms response time adjustable upto 10 sec
- Analog output 4-20 mA
- Digital TTL output
- Small spot sizes

Standard Scope of Supply

- Pyrometer with 3 mtr. long connection cable
- Analog output 4...20mA
- TTL output
- Calibration certificate, Software & Operation manual

Optional

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

Applications

- Forging
- Rolling
- Annealing
- Welding
- Forging
- Sintering
- Melting
- Rolling mills
- Hardening

Spot Sizes

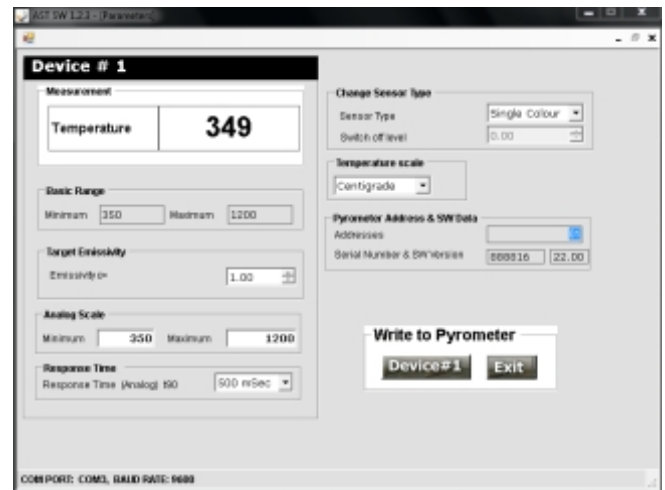
| Manufactured working distances WD (mm) | Spot Sizes (mm) | | | |
|--|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| | T2-250 300°C - 1300°C (100:1) | T2-250 500°C - 1500°C (200:1) | T2-450 600°C - 1600°C (100:1) | T2-450 700°C - 2100°C (200:1) |
| 250 | 2.5 | 1.2 | 2.5 | 1.2 |
| 600 | 6.0 | 3.0 | 6.0 | 3.0 |
| 1400 | 14.0 | 7.0 | 14.0 | 7.0 |
| Aperture(mm) | 6 | 6 | 6 | 5 |

Software "MT500"

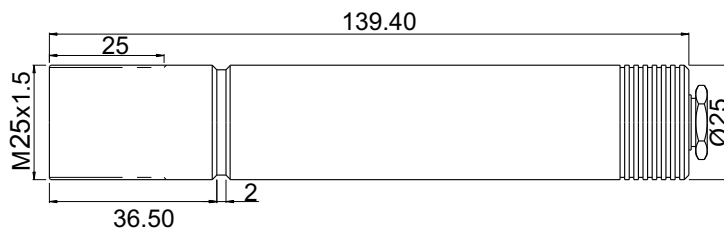
AST "MT500" software is under standard scope of supply. It offers communication between the pyrometer and the software is implemented via USB Interface card. It comes with parameter settings features.

Some of the parameters adjustable via software are





- Emissivity
- Response Time
- Analog Sub Range
- Unit Of Temperature(°C/°F)



Pyrometer Drawing



Accessories

| Air purge unit Reference No. 8200 - 01 | Adjustable Mounting Reference No. 8200 - 03 | Power Supply Unit (Reference no: 9000-02) | Temperature Indicator (Reference no: 9000-01) |
|---|---|--|---|
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