

Highly Accurate Digital Pyrometer with Extended Sensor Head, Laser light, Inbuilt LCD & Keypad for Parameterization for Temperature measurement of Metals

CE 50°C to 600°C

AST E150 PL

E150 PL is highly economic digital IR pyrometer with extended sensor head and separate electronic box for non-contact temperature measurement of metals, ceramics and graphite etc in temperature ranges between 50°C and 600°C.

E150 PL IR Pyrometer is a two piece measurement systems containing one extended sensor head and one electronic box. The electronic box comes with Inbuilt 4 digit LCD display which offers many signal processing features. The Keypad on the electronic box helps in setting parameters like Emissivity, Analog Sub range, Set point, Hysteresis (Hyst), Analog Output, Unit of temp(°C or F), Response Time, Peak Picker and Sensor address etc. The sensor head is unaffected by electromagnetic interferences.

E150 PL Infrared Pyrometer is provided with USB 2.0 output & PC Software for communication. The pyrometer can be powered through USB port, in this case no external power supply is required. 24V DC is required for operation of Analog output 4...20mA, 0...20mA, 0... 10V, Laser, RS-232/RS-485 and Relay output.

Technical specifications

| Model | E150 PL |
|---|---|
| Temperature Range(Analog sub-range adjustable) | 50°C...500°C 100°C...600°C |
| Spectral Range | 2.3....2.6 µm |
| Photodetector Type | Extended InGaAs |
| Distance to Spot Size Ratio | 20 : 1, 40 : 1 |
| Emissivity (ε) | 0.1....1.0 adjustable |
| Response Time | 2 msec adjustable upto 10 sec |
| Accuracy | ±0.5% of the measured value ±2°C |
| Repeatability | 0.1% of reading in °C ±1°C |
| Sighting Option | Laser Pilot Light(PL) |
| Analog Output | 0-20mA, 4-20mA, 0-10V(User Selectable) |
| Digital Output | USB 2.0 output RS - 232 / RS - 485 interface card (Optional) *at a time only one digital output possible |
| Operating Temp. Range | Electronic Box and Sensor Head upto 70°C |
| Storage Temp. Range | -20°C....70°C |
| Relay Output | Relay output with hysteresis 60V DC / 42V AC RMS, 0.4A |
| Adjustable Parameters and Features via Software | Emissivity, Response Time, Clear Time(Peak Picker), Analog Output, Analog Scale(sub range), Unit of Temperature(°C/°F), Communication mode(Comm. mode), Record Feature etc. |
| Adjustable Parameters and Features via Keypad | Emissivity, Set Point, Hysteresis (Hyst), Analog Sub Range, Analog Output, Unit of temperature, Sensor address, Response Time, Clear Time (Peak Picker) etc. |
| Power Supply | 12V to 28V DC with reverse polarity protection |
| Power Consumption | Max 2.5 watt |
| Laser Power | <1 m watt |
| Protection Class | IP65 |
| Housing | Sensor Head : Stainless Steel Electronic Box : Zinc |
| Isolation | Power supply, * Digital output and Analog output are galvanically isolated against each other *Not applicable for USB 2.0 digital output |
| Operating Humidity | 10-95%, Non-Condensing Conditions |
| Weight & Dimensions | 600g 112.5mmx82.5mmx33mm (L x W x H) |

*Accuracy and repeatability applicable at ambient temperature 23°C ±5°C



Features

- Wide temperature ranges from 50°C to 600°C.
- Spectral range from 2.3 µm....2.6 µm
- Inbuilt LCD Display and Keypad for parameterisation
- Fast response time within milliseconds
- Laser Targeting light for precision targeting
- Analog output options available like 0...20mA, 4...20mA and 0...10V
- USB2.0 Digital output and RS-232/RS-485 Serial interface
- Relay output
- User friendly PC software for communication

Standard Scope of Supply

- Pyrometer with LCD Display
- Keypad for parameterizing
- Extended Sensor head with 3 mtr cable
- Laser Targeting Light
- Analog output 4...20mA, 0...20mA, 0... 10V
- USB 2.0 Digital output, USB cable
- Relay Output
- Calibration certificate, Software & Operation manual

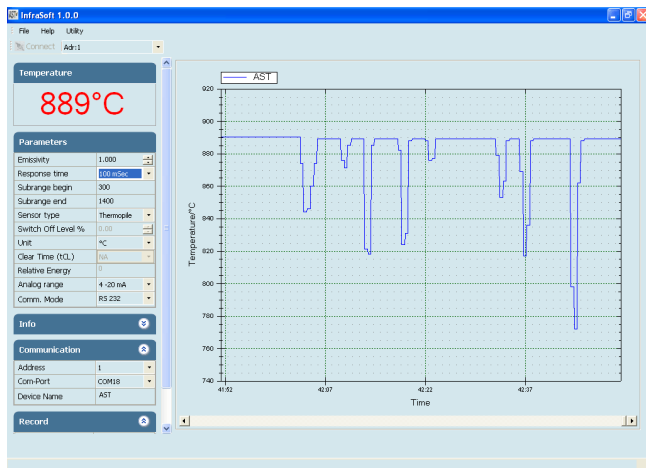
Optional

- Mechanical & Electrical Accessories
- RS-232 / RS-485 Interface card
- Extra Sensor Head Extension Cable Lengths

Applications

- Induction heating
- Casting
- Annealing
- Welding
- Forging
- Sintering
- Melting
- Rolling

Software "Infrasoft"



Spot Sizes

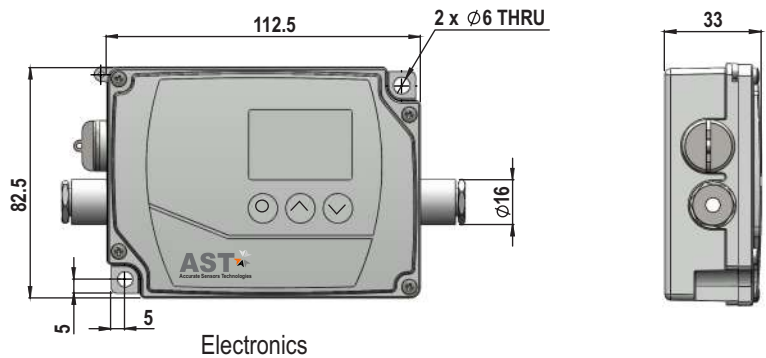
| Manufactured Working Distances WD (mm) | Spot Sizes (mm) | |
|--|--------------------------------|---------------------------------|
| | E150 50°C - 500°C (20:1) | E150 100°C - 600°C (40:1) |
| 200 | 10 | 5 |
| 300 | 15 | 7.5 |
| 600 | 30 | 15 |
| Aperture(A) | 5 | 5 |

Pyrometer Drawing



Sensing Head

*all dimensions in mm



Electronics

Accessories

Water Cooling Jacket Incl. Air Purge Unit-Sensor Head (Reference No: 8000-01)



Air Purge Unit-Sensor Head (Reference No: 8200-01)



Adjustable Mounting for Sensor Head (Reference no: 8200-03)



Converter RS-232 ↔ RS-485 (Reference no: 9000-03)



Power supply Input 110/230V AC
Output 24 V DC, 0.7Amp.
(Reference No. 9000 - 02)



AST

Accurate Sensors Technologies

Misgav Industrial Park, Misgav 20174 Israel
Ph. : +972-4-9990025, Fax : +972-4-9990031
E-mail : info@accuratesensors.com
www.accuratesensors.com



We measure accurate temperature in extreme conditions