

Highly Accurate on-line Infrared non-contact Pyrometer In Small, Short wavelength for temperature measurement of metallic surfaces, graphite or ceramics between 75°C and 700°C

€ 75°C to 700°C

A150

A150 is a specially designed highly accurate digital IR Pyrometer operating at the near end of the infrared spectrum and is therefore an excellent choice for measurement of ferrous and non ferrous metals above 75°C because the emissivity of un-oxidized metal surfaces is higher at shorter wavelengths. The parameters like Emissivity, Analog output, Sub-range, Response time and Peak picker can be preset ex-works or adjusted via software. This enables the instrument to be adapted for various measuring tasks.

A150 Infrared Pyrometer is provided with USB 2.0 connector with cable. The infrared 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, Laser, RS-232/RS-485 output). The pyrometer has solid body in stainless steel housing which provides high operation safety even in rough industrial environment. Variety of working Distances with fixed focus available for different applications.



Technical specifications

Model	A150
Temperature Range (Analog sub-range adjustable)	75°C....700°C
Spectral Range	2 μm to 2.6 μm
Photodetector Type	Extended InGaAs
Distance to Spot Size Ratio	50:1
Emissivity (ε)	0.1....1.0 adjustable
Response Time	2 msec adjustable upto 10 sec
Accuracy	Upto 400°C: 3°C >400°C: 0.5% of measured value in °C + 1°C
Repeatability	0.1% of reading in °C + 1°C
Sighting Options	Laser Pilot Light (PL)
Analog Output	0-20mA, 4-20mA, 0-10V (User selectable)
Digital Output	USB 2.0 RS-232/RS-485 (User selectable) *At a time only one digital output possible
Operating Temp. Range	0°C.....70°C 0°C.....200°C (With water cooling jacket)
Storage Temp. Range	-20°C...70°C
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
Power Supply	24V DC ±1V, Ripple must be less than 50 mV
Power Consumption	Max 2.5 watt
Laser Power	<1 m watt
Protection Class	IP65
Housing	Stainless Steel
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 Dia= Ø 49.5 mm; Length=118mm

Features

- Wide temperature ranges from 75°C to 700°C.
- Spectral range 2 μm...2.6 μm
- Laser targeting
- Fast response time within milliseconds
- Analog output options available like 0...20mA, 4...20mA, 0...10V
- Digital USB2.0 output and RS-232/RS-485 Serial interface
- User friendly PC software for communication

Standard Scope of Supply

- Pyrometer with Laser pilot light(PL)
- Analog output 4...20mA, 0..20mA, 0..10V
- Digital USB 2.0 output with USB Cable
- Digital Interface RS-232 & RS-485(user selectable),
- 5 mtr long connection cable with connector,
- 1.5 mtr. Communication Cable,
- Calibration certificate, Software & Operation manual.

Optional

- Mechanical and Electrical Accessories
- Extra Cable Lengths

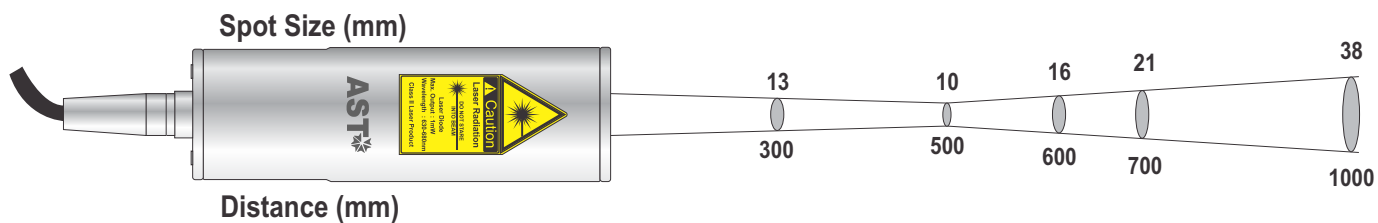
Applications

- Induction Heating
- Casting
- Annealing
- Welding
- Forging
- Sintering
- Melting
- Rolling mills
- Hardening

Spot Sizes

Manufactured working distance WD (mm)	350	500	700	800	1000	1500	2000	2500	3000	5000	Aperture(A)
Spot Size (50:1) (mm)	7	10	14	16	20	30	40	50	60	100	18

Optics 500

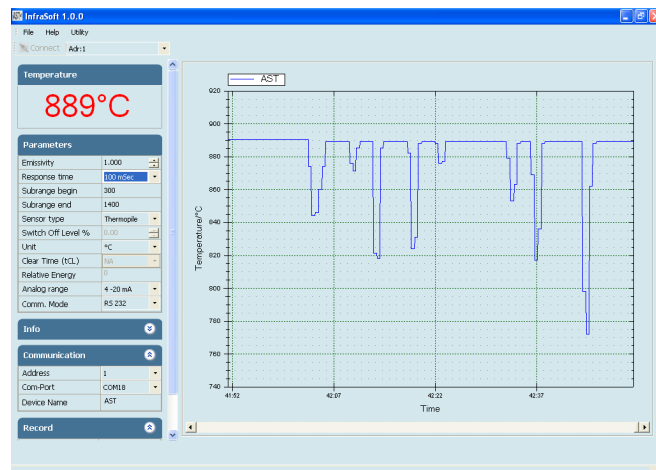


Software "Infrasoft"

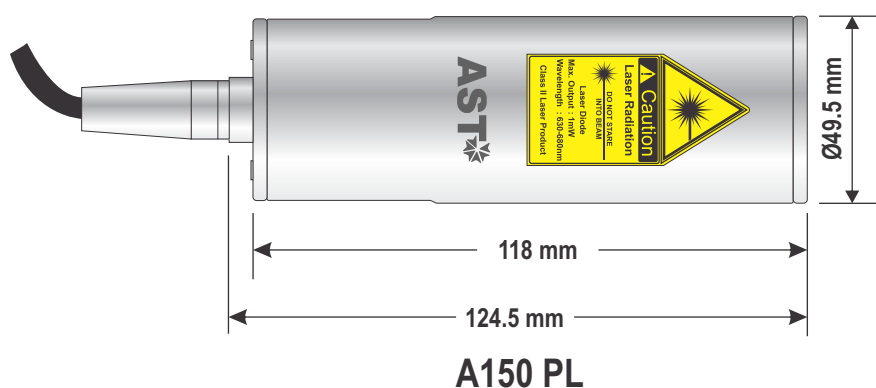
AST "Infrasoft" software is under standard scope of supply. It offers possibilities of connecting three pyrometers simultaneously for parameter setting, view real time graph, offline graph and to evaluate measuring data. Communication between the pyrometer and the software is implemented via a cable connected between the pyrometer and the PC serial port. It comes with record feature, spot size calculator and parameter settings features.

Some of the parameters adjustable via software are



- Emissivity, Response Time,
- Clear Time(Peak Picker),
- Analog Output,
- Sub Range,
- Unit Of Temperature(°C/°F),
- Communication mode(Comm.mode).



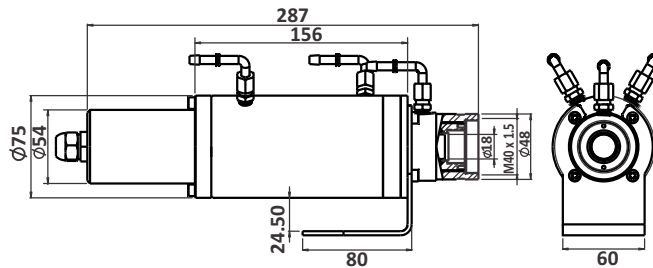
Pyrometer Drawing



Accessories

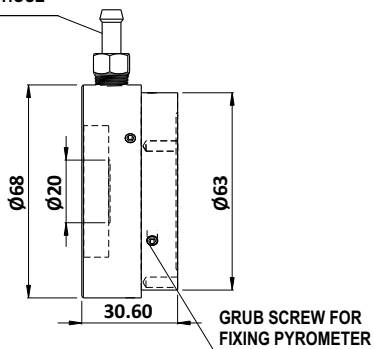
<p>Water Cooling Jacket with Adjustable Flange (Reference no: 8000-02 for PL) (Reference no: 8000-06 for TL)</p> 	<p>Adjustable Mounting Stand (Reference no: 8000-07)</p> 	<p>Air Purge Unit (Reference no: 8000-04)</p> 	<p>Adjustable Mounting Support (Reference no: 8000-05)</p> 
<p>Display & Parameterizer P-120 (Reference no: 9001-01)</p> 	<p>Converter RS-232 ↔ RS-485 (Reference no: 9000-03)</p> 	<p>Power Supply Unit (Reference no: 9000-02)</p> 	<p>Temperature Indicator (Reference no: 9000-01)</p> 

Pyrometer Accessories Drawings

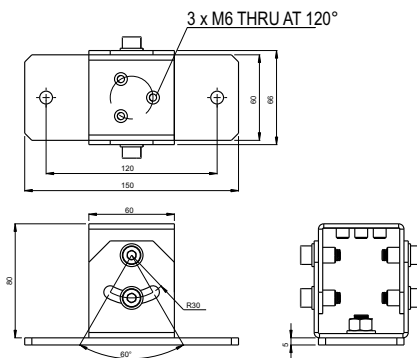


Water Cooling Jacket with Adjustable Flange PL
(Reference no: 8000-02)

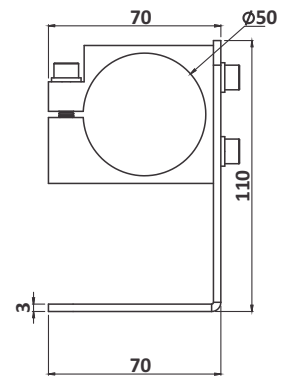
FOR 6 mm INSIDE DIAMETER HOSE



Air Purge Unit
(Reference no: 8000-04)



Adjustable mounting stand
(Reference no: 8000-07)



Mounting Clamp
(Reference no: 8000-05)



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