

• AL390

300°C to 2500°C

Features

- Highly Accurate due to digital linearization of the output
- Temperature range from 300°C....2500°C
- Spectral range 3.9 μm
- Four wire form with Analog output 4...20mA or 0...20mA or 0...10V
- Serial communication RS-232/RS-485/RTU Modbus Serial Interface(User Selectable)
- Response time 60 ms
- Very good stability
- Laser Targeting for precision targeting
- User friendly Software

Standard Scope of Supply

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

Optional

- Mechanical& Electrical Accessories
- Extra Cable lengths

Applications

- Measurement Through Flames & Combustion Without Influencing The Measurement.

• AL390

Highly Accurate Non-Contact Pyrometer With Analogue Output and Digital Interface



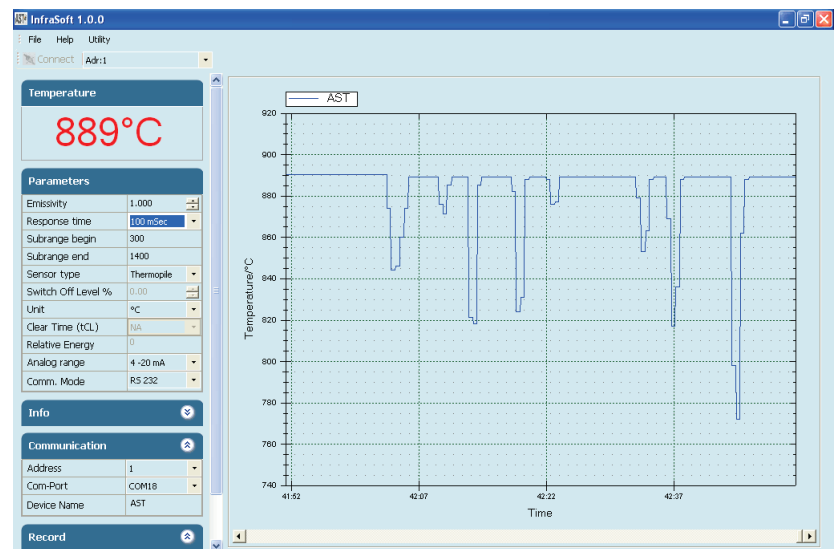
AL390 IR Pyrometer model provides the advantage of noncontact temperature measurement of metallic surfaces and in flame heated furnaces i.e through flames and flue gas. At a wavelength of 3.9um hot furnaces gases and clean burning gas flames are quite transparent and therefore permit temperatures of substances to be measured as well during heating up process in industrial furnaces with the use of infrared Pyrometer AL390. This format combines the high accuracy of digital signal processing with the simple connection. AL390 IR Pyrometer is used for target temperature ranging from 300°C to 2500°C. The electronic assembly is protected by IP65 rugged stainless steel housing. AL390 IR Pyrometer is provided with USB 2.0 for parameter setting & Data Logging.

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)



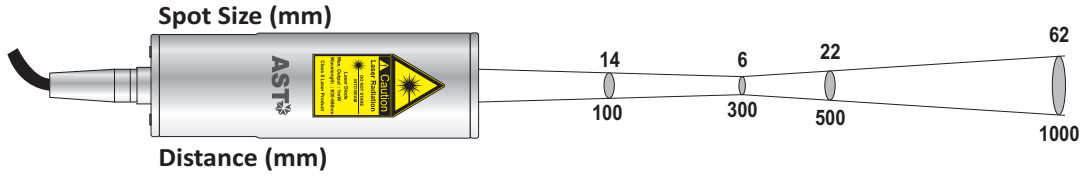
Technical Specifications

| | |
|--|---|
| Model | AL390 |
| Temperature Range (Analog sub-range adjustable) | 300°C....1400°C 400°C....2500°C |
| Spectral Range | 3.9 μm |
| Photodetector Type | Thermopile |
| Distance to Spot Size Ratio | 50:1 |
| Emissivity (ε) | 0.1....1.2 adjustable |
| Response Time | 60 msec adjustable upto 10sec |
| Accuracy | T < 500°C ,± 1.5% of measured value T ≥ 500°C, ± 1% of measured value (The instrument must be at constant ambient temperature for minimum 25-30 mins in power on condition) |
| Repeatability | 0.3% 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 |
| 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 |

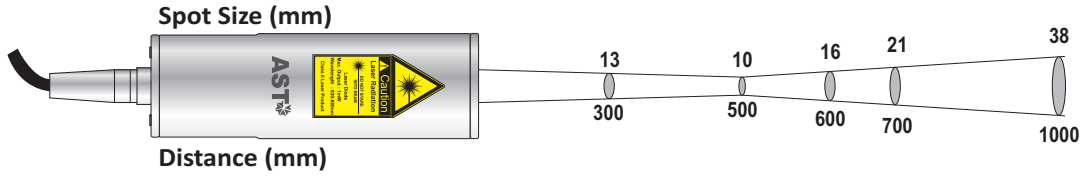
Spot Sizes

Optics 300

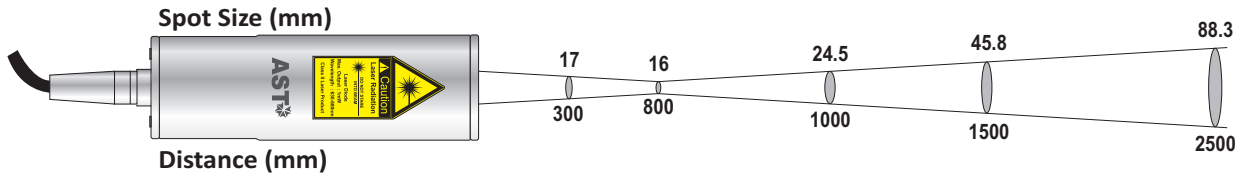
FOV 50 : 1



Optics 500



Optics 800



Accessories

Water Cooling Jacket
(Reference no: 8000-08)



Adjustable Mounting Stand
(Reference no: 8000-07)



Air Purge Unit
(Reference no: 8000-04)



Adjustable Mounting Support
(Reference no: 8000-05)



Display & Parameterizer P-120
(Reference no: 9001-01)



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



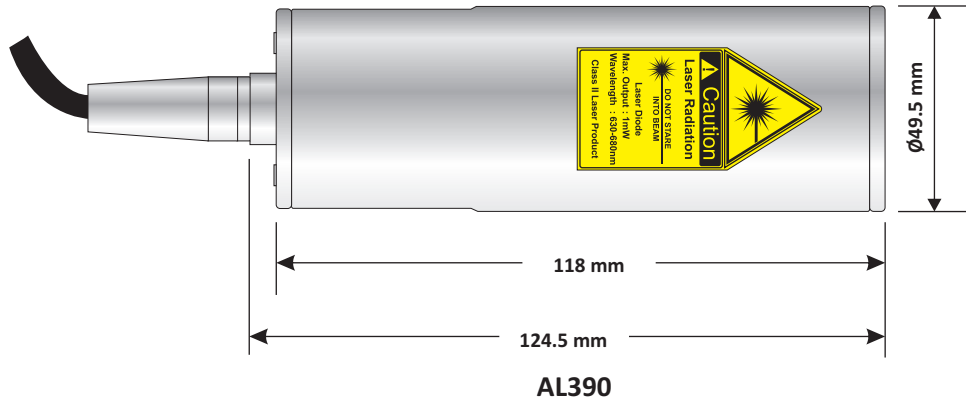
Power supply Input 110/230V AC
Reference No. 9000 - 02
Output 24 V DC, 0.7Amp.



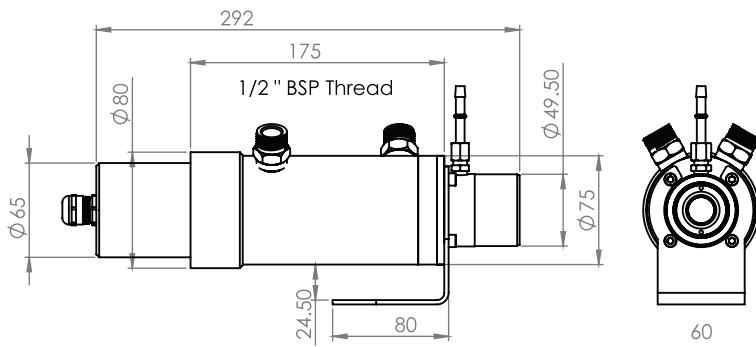
Temperature Indicator
(Reference no: 9000-01)



Pyrometer Drawing

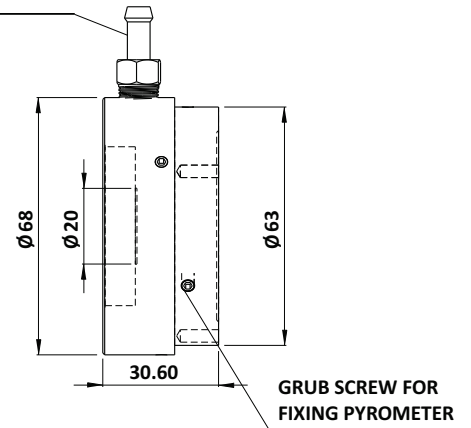


Pyrometer Accessories Drawings

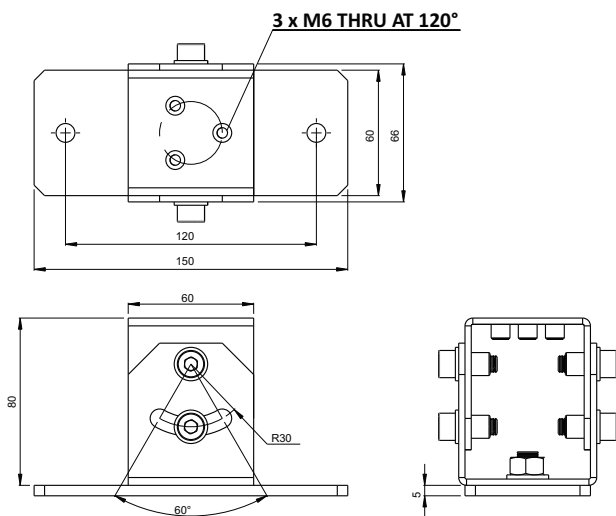


Water Cooling Jacket
(Reference no: 8000-08)

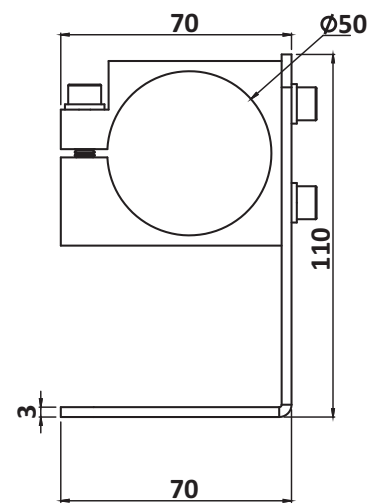
FOR 6 mm INSIDE
DIAMETER HOSE



Air Purge Unit
(Reference no: 8000-04)



Adjustable mounting stand
(Reference no: 8000-07)



Mounting Clamp
(Reference no: 8000-05)