

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

CE 400°C to 1500°C

AL45 are special pyrometers which provides the advantage of measurement of flames and combustion gases that include CO₂.

The narrow spectral range of about 4.43µm, in the CO₂ absorption band enables the measurement of flames and hot combustion gases.

This format combines the high accuracy of digital signal processing with the simple connection. **AL45** IR Pyrometer is used for target temperature ranging from 400°C to 1650°C. The electronic assembly is protected by IP65 rugged stainless steel housing. **AL45** IR Pyrometer is provided with USB 2.0 for parameter setting & Data Logging.

Technical specifications

Model	AL45
Temperature Range (Analog sub-range adjustable)	400°C....1650°C
Spectral Range	about 4.43 µm (absorption band for hot CO ₂)
Photodetector Type	Thermopile
Distance to Spot Size Ratio	40:1
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 Option	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



Features

- Measurement of flames and combustion gases that include CO₂.
- Highly Accurate due to digital linearization of the output
- Temperature range from 400°C....1650°C
- Spectral range of about 4.43 µm (absorption band for hot CO₂)
- Four wire form with Analog output 4...20mA or 0...20mA or 0...10V
- Serial communication RS-232/RS-485
- 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
- 5 mtr long connection cable with connector
- Calibration certificate, Software & Operation manual

Optional

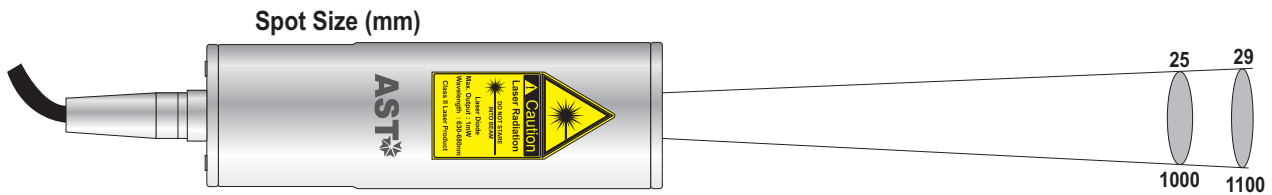
- Mechanical & Electrical Accessories
- Extra Cable lengths
- 1.5 mtr. Communication Cable

Applications

- Measurement of flame temperature.
- Measurement of flames and combustion gases that include CO₂

Spot Sizes

Optics 1000

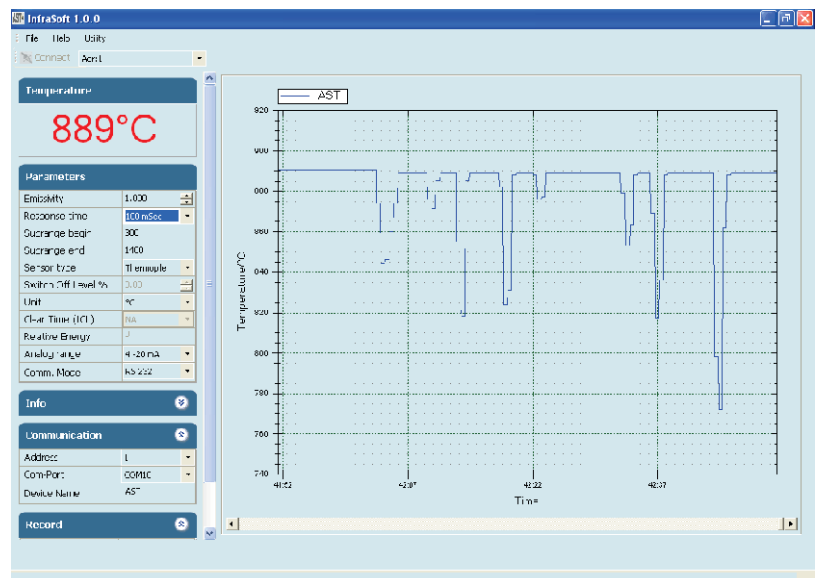


Software "Infrasoft"

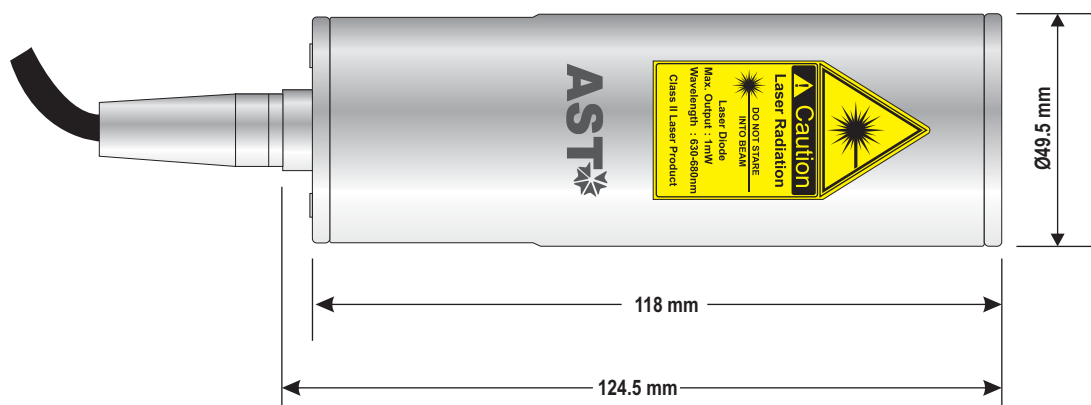
AST "Infrasoft" software is under standard scope of supply. It offers possibilities of connecting three pyrometers simultaneously for parameter setting, view real time graph, offline graph and to evaluate measuring data. Communication between the pyrometer and the software is implemented via a cable 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

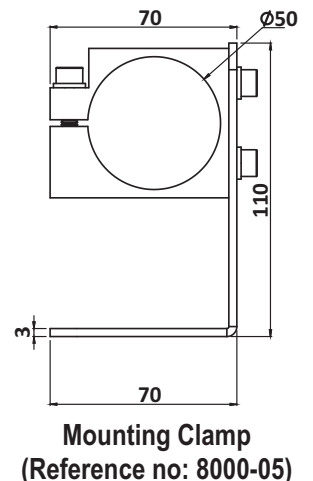
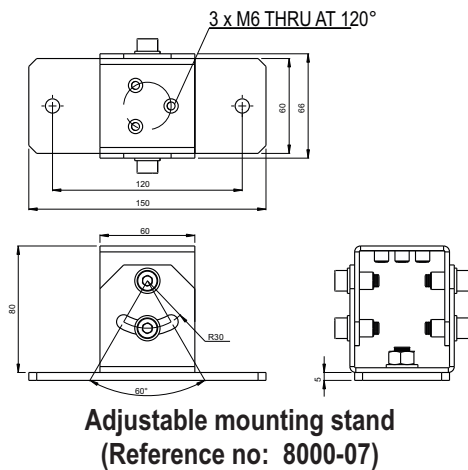
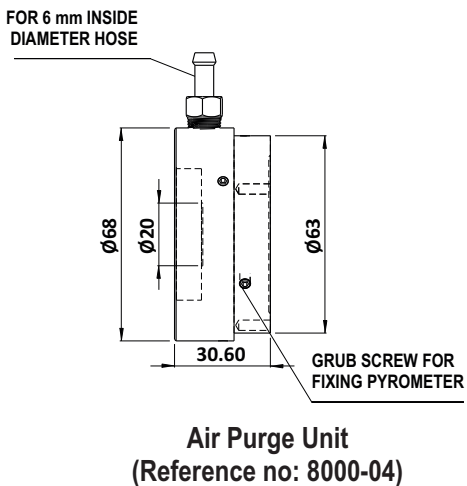
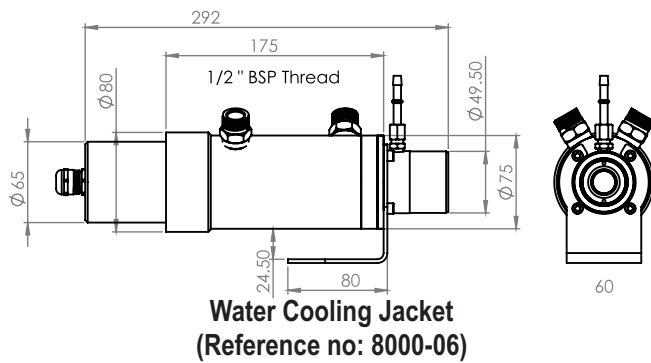


AL45

Accessories

<p>Water Cooling Jacket (Reference no: 8000-06)</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 Input 110/230V AC Reference No. 9000 - 02 Output 24 V DC, 0.7Amp.</p>	<p>Temperature Indicator (Reference no: 9000-01)</p>
			

Pyrometer Accessories Drawings



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