



# Accurate Sensors Technologies

Digital pyrometer in two color with mono fiber optic cable

CE 800°C.....3200° C

**AST A450C FO/PL** is highly accurate digital two color pyrometer with fiber optic for non contact temperature measurement. This is specially designed for applications under rough condition .This can be used in areas with high ambient temperature (upto 250°C)without cooling or in areas where strong electromagnetic interference can influence a correct measurement because the fiber and sensor head do not contain electronics part.

Temperature measurement is not affected by any parameter which affect the amount of energy reaching pyrometer. This makes the a ratio pyrometer inherently more accurate.The ratio technique may eliminate, or reduce error in emissivity, surface finish ,and energy absorbing materials, such as water vapor ,dust between the pyrometer and the target .The main parameter such as emissivity ratio, response time can be set .These parameter as well as the additional parameters such as sub range ,maximum value storage and address can be adjusted via PC.

**AST A450C FO-PL** is provided with USB 2.0 connector with cable. The pyrometer can be powered through USB port. In this case no external power supply is required (+24V DC requires for operation of analog output, laser,RS-232 / RS-485 output )

## Applications

- Induction heating
- Melting
- Welding
- Casting
- Forging
- Annealing
- Sintering
- Rolling mill
- Rotary kilns
- Pouring stream

## AST A450C FO-PL



### Standard Scope of Supply

**AST A450C FO-PL** with Laser Targeting Light , USB Output, 2.5 M Long fiber optic Cable, USB Cable, 5M Connection Cable.

### Features

- Highly accurate 0.5 % of measured value +1°C
- Wide temperature range- 800°C...3200°C
- Analog and Digital output
- High Optical Resolution
- Laser targeting light
- U.S.B. Output
- Small Spot sizes
- Analog output 0...20mA or 4...20mA
- Digital interference RS232 or RS 485
- Fiber optics and optical head withstand to 250°C
- Rugged mono fiber optics

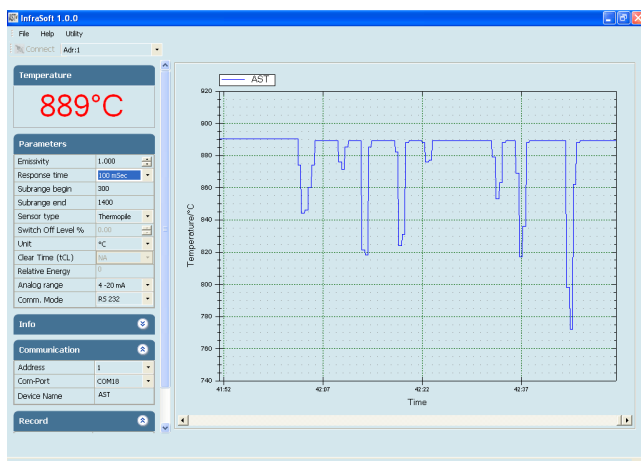


*We Measure Temperature Accurately even in extreme conditions*



# Technical Specification

<b>Model</b>	<b>AST A450C FO/PL</b>
Measured Temperatures Range (Analog sub-range adjustable)	800 °C - 2500 °C & 1000 °C - 3200 °C
Emissivity Range Emissivity Slope	0.1.....1.0 adjustable 0.75.....1.25 slope adjustable
Spectral Range, $\mu\text{m}$	0.7.....1.15 $\mu\text{m}$
Photodetector Type	Si/Si
Response Time	20msec. Adjustable upto 10S
Accuracy	+/-0.5% of the measured value + 1°C
Repeatability	0.1 % of reading in °C +1°C
Analog Output	4.....20mA or 0 - 20mA or 0 - 10 V User Selectable
Digital Output	USB 2.0, RS-232 / RS-485(Isolated) (User Selectable)
Power	24 V DC
Operating temperature range at fiber	Max.250°C at fiber optics cable,0....70°C at pyrometer end
Fiber Optic	2.5 meter standard (available 5, 10, 15 meter on request)
Sighting	Laser pilot light
Isolation	Power supply and digital output and analog output are galvanically isolated against each other
Operating humidity	Unlimited
Housing	Stainless steel, IP65 Ø49.5mm; L=118mm;/0.6kg
Adjustable Parameters via software	Emissivity, Emissivity slope, Analog output, Response time, Peak picker, Average, Temperature sub range, Switches between two color & single color

## Software “Infrasoft”



- Emissivity setting
- Response time setting
- Peak picker setting
- Average temperature setting
- Graphs
- Data logging

		800°C - 2500°C	1000°C - 3200°C
Optical Head	Working Distance (mm)	Spot Size(mm)	Spot Size(mm)
 Optical Head - I	120	1.2	1.2
	260	2.6	2.6
	700	7	7
 Optical Head - II	90	0.5	0.5
	200	1	1
	600	3	3
	4500	24	24

## Accessories

Air purge unit  
for optical head II  
Reference No. 8200 - 01



Adjustable Mounting  
for optical head II  
Reference No. 8200 - 03



Air purge unit for optical head-I  
Reference No. 8200 - 02



Adjustable mounting for optical head-I  
Reference No. 8200 - 04



Display with Parameterizer (P-120)  
Reference No. 9001 - 01



Power supply Input 110/230V AC  
Reference No. 9000 - 02  
Output 24 V DC, 0.75Amp

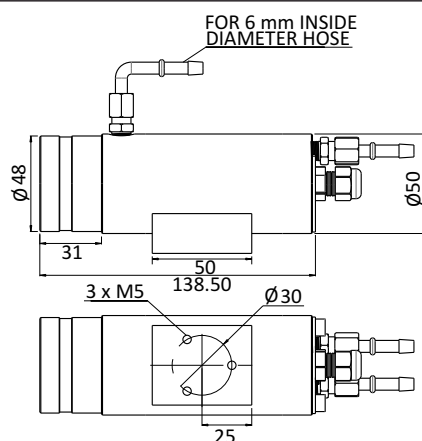
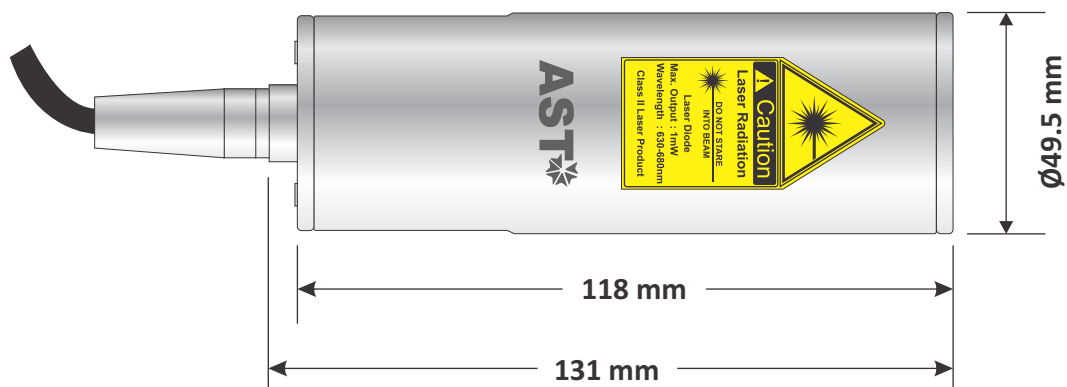


Temperature Indicator with  
retransmission output 4..20mA  
Reference No. 9000 - 01

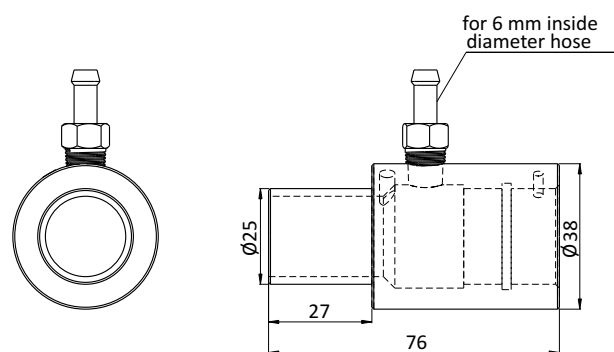


Converter Rs485 ↔ RS232  
Reference No. 9000-03

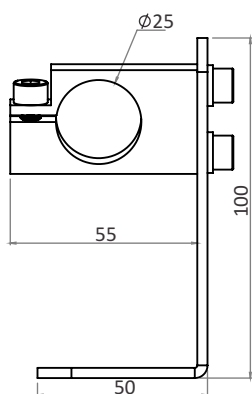




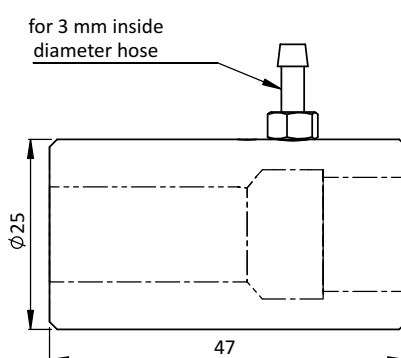
**Water Cooling Jacket & Air Purge Unit for Optical Head II**  
(Reference no: 8000-01)



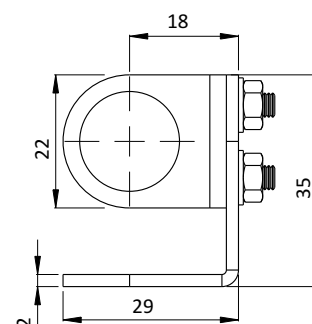
**Air Purge Unit for Optical Head II**  
(Reference no: 8200-01)



**Adjustable Mounting for Optical Head II**  
(Reference no: 8200-03)



**Air Purge Unit for Optical Head I**  
(Reference no: 8200-02)



**Adjustable Mounting for Optical Head I**  
(Reference no: 8200-04)



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