

AST 250/AST450

Highly Accurate On line Infrared Non-contact Pyrometer

CE 260.....2500° C

AST 250 and AST 450 are specially designed high accurate digital pyrometers to provide high performance and low maintenance of non contact temperature measurement in demanding industrial environments. The emissivity, sub range or response time and peak picker can be preset ex works or adjusted through software. This enables the instruments to be adapted to various measuring tasks.

These pyrometers have solid body in Stainless Steel housing which provide high operation safety even in rough industrial environment, and large variety of optics with fixed focus which can be easily used in all industrial areas.



- ❖ **Highly accurate**
- ❖ **Wide temperature ranges**
- ❖ **Fully digital**
- ❖ **Small spot sizes**
- ❖ **Fast response time**
- ❖ **Very good stability**
- ❖ **Analog and digital output**
- ❖ **User friendly software**
- ❖ **Rugged Stainless Steel Housing**
- ❖ **Variety of accessories**

Applications

Induction Heating
Casting
Annealing
Welding
Forging
Sintering
Melting
Rolling
Hardening

***We Measure Temperature Accurately
even in extreme Conditions***

TECHNICAL SPECIFICATION

Model	AST 250	AST 450
Measured Temperatures Range	350°-1800°C 300°-1300°C 260°-1600°C	600° -1900°C 750°- 2500°C
Emissivity Range	0.1.....1 adjustable	
Spectral Range, μm	1.6μm	1μm
Photodetector Type	InGaAs	Si
Response Time	2 msec. Adjustable upto 10S	2 msec. Adjustable upto 10S
Accuracy & Repeatability	+/-0.3% of the measured value	
Distance to Spot size Ratio	100 : 1	100 : 1 (600° - 1900°C)
	50 : 1 (250°-750 °C)	200 : 1 (750° - 2500°C)
Analog Output	4-20mA or (0-20mA / 0-10V) optional	
Digital Output	RS 232 Isolated - optional RS422-or RS485	
Power	24V DC	
Sighting	Laser pilot Light, or through the lens sighting	
Laser Power	<1mW (with external switch)	
Protection class	IP65	
Operating temperature range	0°C +70°C , 0°C+200°C (With Cooling Jacket)	
Isolation	Power supply and digital output and analog output are galvanically isolated against each other	
Storage temperature	-20 to +70°C	
Operating humidity	Unlimited	
Dimensions/Weight	Ø50mm; L=118mm;/0.6kg	
Adjustable Parameters via software	Response time, Peak picker, Average , Temperature sub range, emissivity, interval of data storage	
Readable parameters via software	Measured temperature, temperature graph, emissivity graph, brightness temperature,	

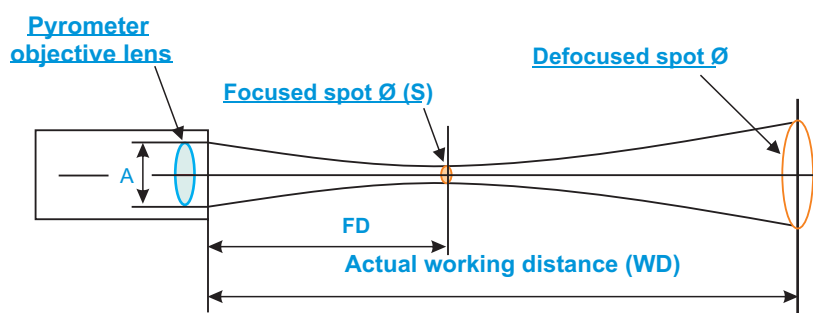
SPOT SIZES

Long distance Optic -1	AST 250 250.....750°C	AST 250 350.....1800°C	AST 450 600.....1900°C	AST 450 750.....2500°C
Focus Distance FD (mm)	Spot Size (mm) (S)			
300	6	3	3	1.5
500	10	5	5	2.5
700	14	7	7	3.5
1000	20	10	10	5
1500	30	15	15	7.5
2000	40	20	20	10
2500	50	25	25	12.5
3000	60	30	30	15
5000	100	50	50	25
Aperture (A)	18	18	18	18



Spot size calculation beyond the focus distance :

$$\text{Spot } \varnothing = \text{Actual working distance} / \text{FD} \times (\text{S} + \text{A}) - \text{A}$$



ACCESSORIES



Water cooling jacket with adjustable flange
Reference No. 8000 - 02



Adjustable Mounting stand
Reference No. 8000 - 03



Air purge
Reference No. 8000 - 04



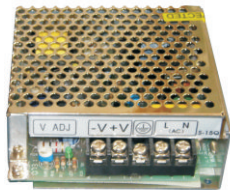
Mounting Clamp
Reference No. 8000 - 05



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



Converter, RS 485 to RS 232
Reference No. 9000 - 03



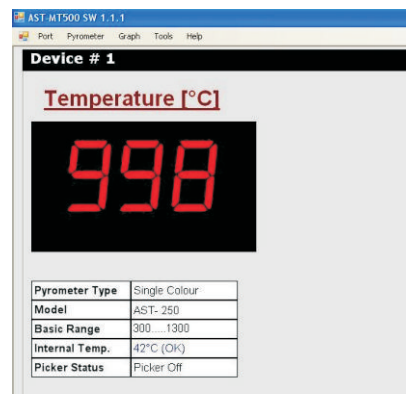
Power supply Input 110 / 230 V AC,
Output 24 V DC, 0.75Amp
Reference No. 9000 - 02



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

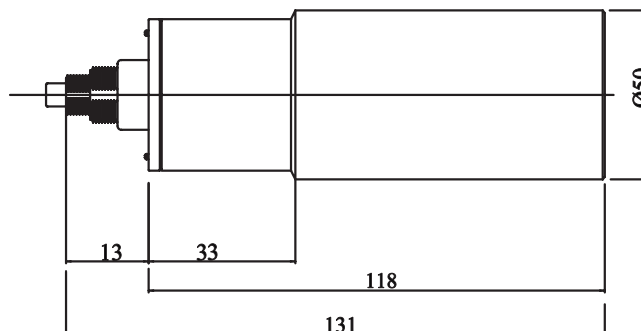
Software MT 500

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



Pyrometer Drawing

(Dimension in MM)



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