

## High Accurate Online Infrared Non-contact Pyrometers

AST 250 / AST 450

250.....3200° 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

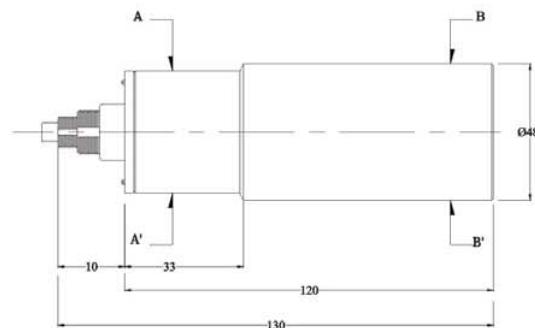
**We Measure Temperature Accurately**

even in extreme conditions



# TECHNICAL SPECIFICATION

Model	AST 250	AST 450
Measured Temperatures Range	250°-750 °C 300°-1300°C 350°-1800°C	600° -1900°C 750°-3200°C
Emissivity Range	0.1.....1 adjustable	
Spectral Range, $\mu\text{m}$	1.6 $\mu\text{m}$	1 $\mu\text{m}$
Photodetector Type	InGaAs	Si
Response Time	2msec. Adjustable upto 10S	
Accuracy & Repeatability	+/-0.3% of the measured value	
Distance to Spot size Ratio	50 : 1 (250° -750°C)	50 : 1 (600° -1900°C)
	100 : 1 (300° -1300°C)	200 : 1 (750° -3200°C)
	200 : 1 (350°-1300°C)	
Outputs	Serial communication : RS 232 Isolated - or optional RS422-or RS485 accordingly to PO Analog output: 4-20mA or (0-20mA / 0-10V) optional	
Power	18-30V DC	
Sighting	Laser pilot Light, Class II Built-in, Axial	
Laser Power	<1mW (with external switch)	
Protection class	IP65	
Operating temperature range	0°C +50°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,	



## ACCESSORIES



Water cooling Jacket and air purge unit  
Reference No. 8000 - 01



Cooling Jacket with Adjustable flange  
Reference No. 8000 - 02



Adjustable mounting stand  
Reference No. 8000 - 03



Air purge  
Reference No. 8000 - 04



Adjustable Mounting support  
Reference No. 8000 - 05



Temperature Indicator with retransmission  
output 4..20mA, Relay out put  
Reference No. 9000 - 01



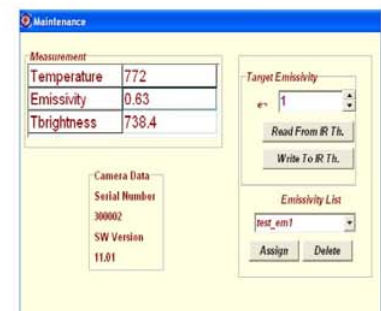
Power supply, Input 110 / 230 V AC,  
Output 24 V DC, 0.75Amp, Relay output  
Reference No. 9000 - 02



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

## SOFTWARE SD 3000

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





## Selection Guide Pyrometer

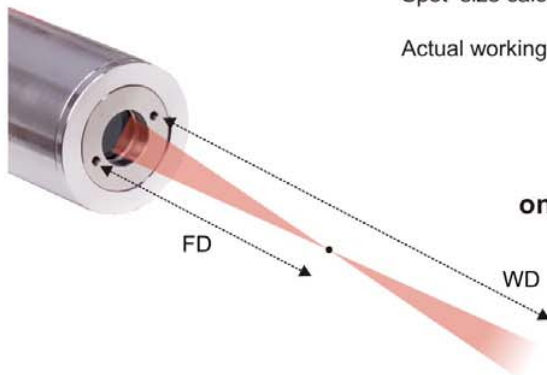
AST 250 0 2 5 0 - 0 7 5 0 1										1
1	2				3	4				1
MODEL	TEMPERATURE	FIELD OF VIEW	ANALOG OUTPUT		DIGITAL O/P					
	250.....750°C	50 : 1	4....20mA	1	RS 232	1				
AST 250	300.....1300°C	100 : 1	0...20mA	2	RS 485	2				
	350.....1800°C	200 : 1	0...10V	3	RS 422	3				
AST 450	600.....1900°C	50 : 1								
	750.....3200°C	200 : 1								

## Optics

Long distance Optic - 1	AST 250 250.....750°C	AST 250 300.....1300°C	AST 250 350.....1800°C	AST 450 600.....1900°C	AST 450 750.....3200°C
Focus Distance FD (mm)	Spot Size (mm) (S)				
300	6	3	1.5	6	1.5
500	10	5	2.5	10	2.5
700	14	7	3.5	14	3.5
1000	20	10	5	20	5
1500	30	15	7.5	30	7.5
2000	40	20	10	40	10
2500	50	25	12.5	50	12.5
3000	60	30	15	60	15
5000	100	50	25	100	25
Aperture (A)	18	18	18	18	18

Spot size calculation beyond the focus distance

Actual working distance / FD x ( S +A ) - A



**Special optics are available  
on request for specific application**

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