



# Accurate Sensors Technology



Highly Accurate On-Line Infrared Non-Contact Pyrometers for Aluminum

105 to 900°C (221 to 1652°F) • 200 to 1640°C (392 to 2984°F) •  
250 to 1850°C (482 to 3362°F) • 360 to 2500°C (680 to 4532°F)

AST A5-EX

AST A5-EX is a specially designed IR Pyrometer for non-contact temperature measurement of aluminum.

AST A5-EX is a Multi-wavelength plug-and-play pyrometer that uses an application-specific database derived from years of experience in real applications.

AST A5-EX uses special algorithms to accurately calculate the actual temperature and emissivity of the surface.

AST A5-EX can hold multiple databases so that a single instrument can easily switch between applications like Molten metal, Extruded profiles, Rolled aluminum surfaces, Continuous casting, Aluminum billets, Slabs, etc.

It has a laser pointer that is aligned in line with the detector so that it ensures both laser and detector are aimed into the same spot. This helps precise aiming even in long distances.

AST A5-EX offers Bluetooth communication with Android smartphones or laptops to view the measured temperature and adjust parameters and data for logging.



## Features

- Simple to use - No calibration required
- High accuracy - (1%) in real site conditions
- Capable of measuring targets with variable emissivity
- Measures through smoke, dust, water vapor etc.
- Temperature ranges - see the table on next page.
- Temperature range for measurement in front of a blackbody, when measuring a shiny body minimum temperature will be higher.
- Rugged design
- Wide range of built-in functions
- AST NET SW software for PC
- AST Pyrometer Android Application via Bluetooth

## Standard Scope of Supply

- Integrated laser pilot light
- Digital Interface RS-232
- Analog Output: 0...20mA or 4...20mA or 0-10V
- Calibration certificate, PC Software & Operation

## Optional

- Mechanical and Electrical Accessories
- RS485, CanBus, USB, Bluetooth Alarm

## Applications

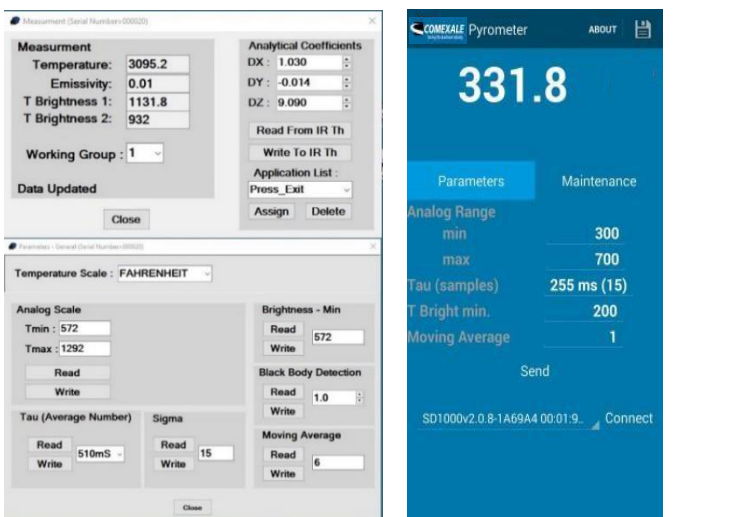
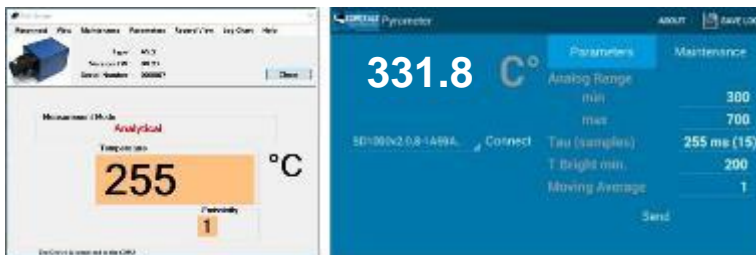
- Aluminum Extrusion Profiles & Billets
- Aluminum Rolling
- Aluminum Casting
- Aluminum Forging
- Aluminum Continuous Casting

## Software

AST NET SW

AST Pyrometer

◆ Measurement Readout ◆ Parameterization ◆ Datalogging



We measure accurate temperature in extreme conditions

## Technical Specifications

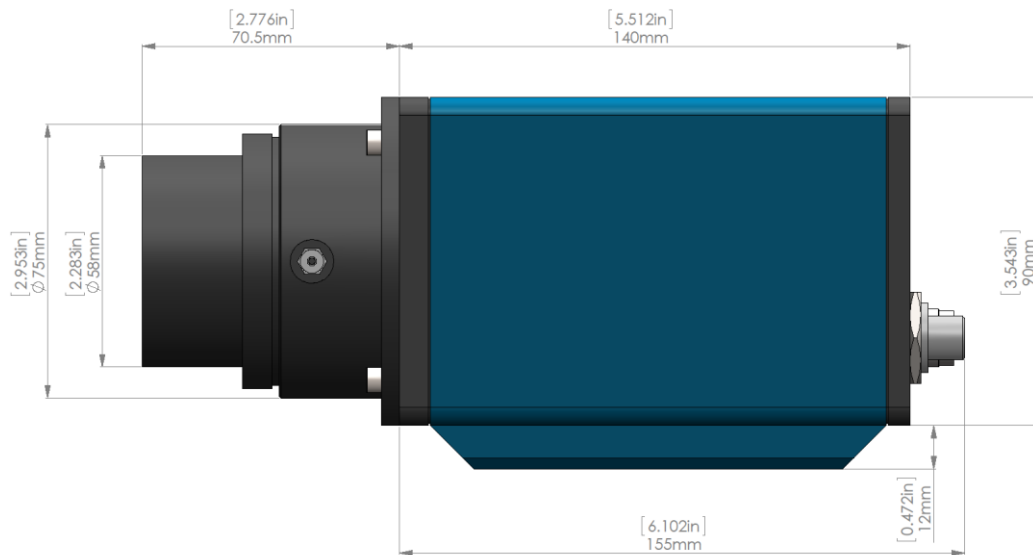
Specification	Model A5-EX	
Temperature Range (Analog sub-range adjustable)	105 - 900°C 200 - 1640°C 250 - 1850°C 360 - 2500°C	221 - 1652°F 392 - 2984°F 482 - 3362°F 680 - 4532°F
Spectral Range	2.1...2.4 μm	
Photodetector Type	InGaAs Extended	
Distance to Spot Size Ratio	100:1 200:1	
Protection Class	IP65	
Response Time	Adjustable from 0.1 sec to 17 sec	
Accuracy and Repeatability	±1%	
Sighting	Integrated Laser Pilot Light	
Power Supply	24VDC	
Analog Output	4-20 mA, 0-20 mA, 0-10V,	
Digital Output	RS-232,RS485, USB, Bluetooth, Alarm	
Digital Display	P110	
Sensor overall dimensions	215 x 110 x 105 mm / 8.46 x 4.33 x 4.13 in	
Sensor weight	~2.0Kg / ~4.4lbs	
Operating temperature range	0 to +50°C / 32 to +122°F	
Storage temperature range	-20 to +70°C / -4 to +158°F	

## Spot Sizes

Measuring Distances [mm] / [in]	A5-EX Spot Sizes [mm] / [in]			
	FOV 1:100	FOV 1:200		
	105 - 900°C 221 - 1652°F	200 - 1640°C 392 - 2984°F	250 - 1850°C 482 - 3362°F	360 - 2500°C 680 - 4532°F
500 / 20	5 / 0.2	2.5 / 0.1		
1000 / 40	10 / 0.4	5 / 0.2		
1500 / 60	15 / 0.6	7 / 0.3		
2000 / 80	20 / 0.8	10 / 0.4		
2500 / 100	25 / 1.0	12.5 / 0.5		
5000 / 200	50 / 2.0	25 / 1.0		

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# Pyrometer Drawing



## Accessories

**AS3000 Application Selector**  
(Reference no: 300-07)



**Power Supply Unit**  
(Reference no: 200-09)



**Air Purge Tube 200 mm**  
(Reference no: 200-03)



**Display**  
(Reference no: P-110)



**Adjustable Mounting**  
(Reference no: 200-01)



**Air Purge Tube Adapter**  
(Reference no: 200-02)



**Frontal Water-Cooling Plate**  
(Reference no: 200-06)



**Top Water-Cooling Plate**  
(Reference no: 200-10)



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