



Highly Accurate IR Non-Contact Pyrometers with built-in scanning system for Aluminum

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

AST A5-S-EX

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

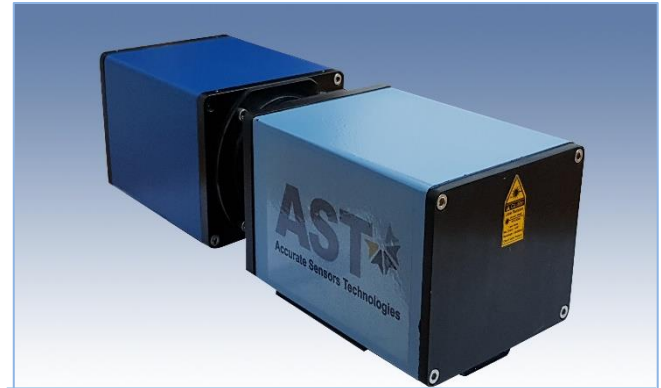
AST A5-S-EX is a Multi-wavelength plug-and-play pyrometer that uses an application-specific database derived from years of experience in a real application.

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

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

AST A5-S-EX has a laser pointer aligned in line with the detector to ensure both laser and detector look in the same spot. This helps precise aiming even in long distances.

AST A5-S-EX offers Bluetooth communication to communicate with Android smartphones or laptops to view the measured temperature and adjust the parameters/selection of database and data logging



Features

- High accuracy - (1%) in real site conditions
- Capable of measuring targets with variable emissivity
- Measuring through smoke, dust, water vapor, etc.
- Temperature range - see table at the beginning of the next page.
- Temperature range for measurement in front of a blackbody; when measuring a shiny body, the minimum temperature will be higher.
- Rugged design
- AST NET SW software for PC
- AST Pyrometer Android Application via Bluetooth
- Selection of scanning modes:
- Hottest point
- One-Shot point
- Program point
- Continuous scanning (pendulum mode)
- Adjustable scanning range up to $\pm 20^\circ$
- Adjustable scanning step from 0.1° to 5°
- Adjustable scanning time
- Minimal working distance 1 meter

Software

AST NET SW AST Pyrometer

◆ Measurement Readout ◆ Parameterization ◆ Datalogging

The software interface includes several windows:

- Measurement Readout:** Shows a large digital display of 255°C.
- Parameterization:** Shows a digital display of 336.5°C and various parameters like Analog Range (min 300, max 700), Tau (samples) 255 ms (15), T Bright min. 200, and Moving Average 1.
- Datalogging:** Shows a detailed measurement window with fields for Temperature (3095.2), Emissivity (0.01), T Brightness 1 (1131.8), T Brightness 2 (932), Working Group (1), and Data Updated.
- Parameterization (Detailed):** Shows fields for Analytical Coefficients (DX: 1.030, DY: -0.014, DZ: 9.090), Read/Write buttons for IR Th, Application List (Press_Exit), Temperature Scale (FAHRENHEIT), Analog Scale (Tmin: 572, Tmax: 1292), Brightness - Min (Read/Write 572), Black Body Detection (Read/Write 1.0), and Moving Average (Read/Write 6).

Standard Scope of Supply

- Integrated laser pilot light
- Digital Interface RS-232 & Analog Output
- Calibration certificate, PC Software & Operation Manual

Optional

- Mechanical and Electrical Accessories
- Digital Output: RS485, OpenBus, USB, Bluetooth, Alarm

Applications

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

Technical Specifications

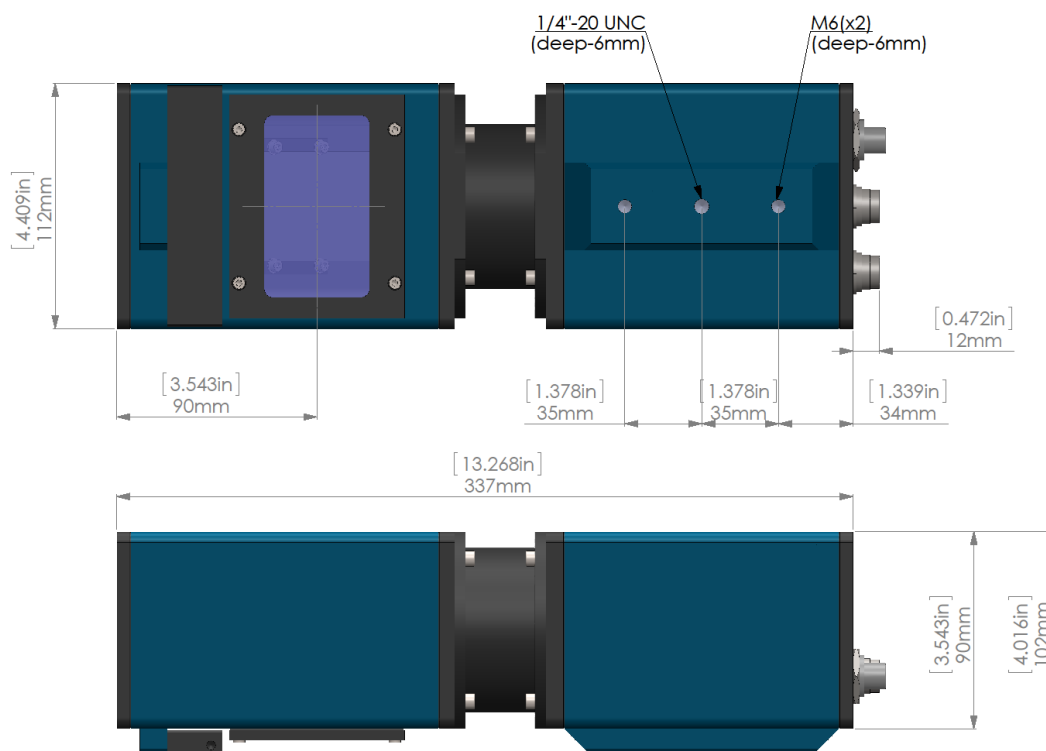
Specification	Model A5-S-EX	
Temperature Range (Analog sub-range adjustable)	105 - 900°C	221 - 1652°F
	200 - 1640°C	392 - 2984°F
	250 - 1850°C	482 - 3362°F
	360 - 2500°C	680 - 4532°F
Spectral Range	2.1...2.4 μm	
Photodetector Type	InGaAs Extended	
Humidity	IP65	
Response Time	Adjustable from 0.1 sec to 17 sec	
Default Value	0.5 sec	
Accuracy and Repeatability	±1%	
Sighting	Integrated Laser Pilot Light	
Power Supply	24VDC	
Analog Output	4-20 mA, 0-20 mA, 0-10V, Alarm	
Digital Output	RS-232, RS485, USB, Bluetooth	
Digital Display	P110	
Adjustable Scanning Range	Up to ±20°	
Adjustable Scanning Step	From 0.1 to 5°	
Number of Automatically Scanning Modes	4	
Pyrometer Scanner Overall Dimensions	355 x 110 x 105 mm	
Pyrometer Scanner Weight	3.4Kg	
Operating temperature range	0°C to +50°C / 32°F to +122°F	
Storage temperature range	-20°C to +70°C / -4°F to +158°F	

We measure accurate temperature in extreme conditions

Spot Sizes

Measuring Distances [mm] / [in]	A5-S-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		

Pyrometer Drawing



Accessories

Adjustable Mounting
(Reference no:200-08)

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

Display
(Reference no: P-110)



AS3000 Application Selector
(Reference no: 300-07)

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

Power Supply Unit
(Reference no: 300-09)



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We measure accurate temperature in extreme conditions