

**Highly Accurate - Online Infrared Non-Contact Pyrometer for Aluminum**  
**350 to 1300°C (662 to 2372°F) • 380 to 1500°C (716 to 2732°F) •**  
**440 to 2000°C (824 to 3632°F)**

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

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

AST A5-IN 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-IN 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-IN 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

- 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, OpenBus USB, Bluetooth Alarm

### Applications

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

### Software

The software interface for the AST Pyrometer is shown in two parts. The top part displays the 'AST NET SW' interface with a 'Measurement Readout' showing 255°C and a 'Parameterization' window with various settings like 'Analytical Coefficients' (DX: 1.030, DY: -0.014, DZ: 9.090) and 'Working Group: 1'. The bottom part shows the 'AST Pyrometer' interface with a large digital display showing 331.8°C and a 'Parameters' table:

Parameter	Value
Analog Range min	300
Analog Range max	700
Tau (samples)	255 ms (15)
T Bright min.	200
Moving Average	1

## Technical Specifications

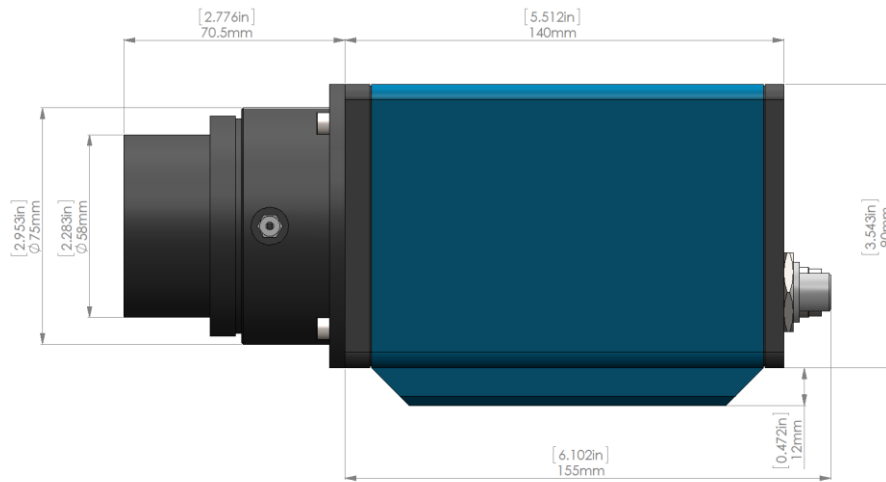
Specification	Model A5-IN	
Temperature Range (Analog sub-range adjustable)	350 - 1300°C 380 - 1500°C 440 - 2000°C	662 - 2372°F 716 - 2732°F 824 - 3632°F
Spectral Range	1.3...1.6 μm	
Photodetector Type	InGaAs	
Distance to Spot Size Ratio	100:1 200:1	
Protection Class	IP65	
Response Time	Adjustable from 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, Alarm	
Digital Output	RS-232, RS-485, USB, Bluetooth	
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-IN Spot Sizes [mm] / [in]		
	FOV 1:100	FOV 1:200	
	350 - 1300°C 662 - 2372°F	380 - 1500°C 716 - 2732°F	440 - 2000°C 824 - 3632°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	

We measure accurate temperature in extreme conditions

# 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)



**AST**   
Accurate Sensors Technologies

Misgav Industrial Park, Misgav 2017400 Israel  
Ph.: +972-4-9990025, Fax: +972-4-9990031  
E-mail: [ast@accuratesensors.com](mailto:ast@accuratesensors.com)  
[www.accuratesensors.com](http://www.accuratesensors.com)



We measure accurate temperature in extreme conditions