

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

**300 to 1000°C (572 to 1832°F) • 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 specially designed IR Pyrometers for non-contact temperature measurement of aluminium.

AST A5-IN is a Multi-wavelength plug and play pyrometer use application specific data base derived from years of experience in real application. AST A5-IN use special algorithms to accurately calculate both the actual temperature and emissivity of the surface.

AST A5-IN can hold multiple data base so that single instrument can be easily switched between multiple application like Molten metal, Extruded profiles, Rolled aluminum surface, Continuous casting, Aluminum billets, Slabs etc.

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

AST A5-IN offer Bluetooth communication so that it can communicate with Android smart phones or laptop for viewing the measured temperature and for adjusting the parameters / selection of data base and data logging.



Features

- Simple to use - No calibration required
- High accuracy - (within 1%) in real site conditions
- Capable of measuring targets with variable emissivity
- Measures through smoke, dust, water vapor etc.
- Temperature ranges - see table at the beginning of the next page.
- Temperature range for measurement in front of black body, when measuring a shiny body minimum temperature will be higher
- Rugged design
- Full range of accessories
- 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
- Calibration certificate, PC Software & Operation Manual

Optional

- Mechanical and Electrical Accessories
- Analog Output: 0...20mA or 4...20mA or 0-10V or K type T/C
- Extra Cable Lengths
- RS422, RS485, OpenBus, USB, Bluetooth

Applications

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

Software

AST NET sw AST Pyrometer

◆ Measurement Readout ◆ Parameterization ◆ Datalogging

The screenshot displays the AST NET software interface. It features a main measurement readout showing 255°C. Below this, there are several windows for parameterization and settings. One window shows 'Analytical Coefficients' with values for DX, DY, and DZ. Another window shows 'Measurement' parameters like Temperature (3095.2), Emissivity (0.01), and T Brightness. A third window shows 'Parameters' for the pyrometer, including Analog Range (min 300, max 700), Tau (255 ms), T Bright min (200), and Moving Average (1). The interface is designed for easy navigation and data logging.

Technical Specifications

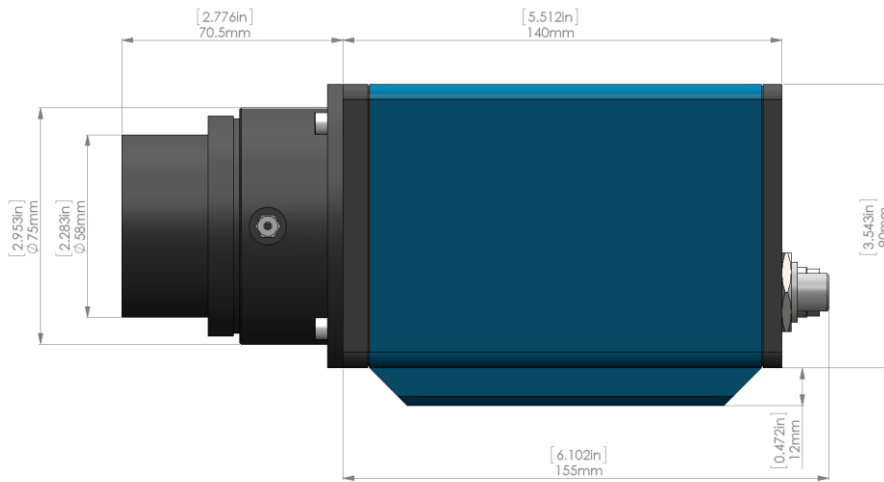
Specification	Model A5-IN	
Temperature Range (Analog sub-range adjustable)	300 - 1000°C	572 - 1832°F
	350 - 1300°C	662 - 2372°F
	380 - 1500°C	716 - 2732°F
	440 - 2000°C	824 - 3632°F
Spectral Range	1.3...1.6 μm	
Photodetector Type	InGaAs	
Distance to Spot Size Ratio	100:1	
	200:1	
Emissivity	0.1 -1.0	
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, K Type T/C	
Digital Output	RS-232, RS-422, 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	
Protection Class	IP65	

Spot Sizes

Measuring Distances [mm] / [in]	A5-IN Spot Sizes [mm] / [in]			
	FOV 1:100	FOV 1:200		
	300 - 1000°C 572 - 1832°F	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 & Parameterizer
(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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We measure accurate temperature in extreme conditions