



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

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 Pyrometers for non-contact temperature measurement of aluminium.

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

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

AST A5-EX can hold multiple databases 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 that is aligned in line with the detector so that it ensures both laser and detector are aimed in to the same spot. This helps precise aiming even in long distances.

AST A5-EX offer Bluetooth communication so that it can communicate with Android smartphones or laptop for viewing the measured temperature and for adjusting 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
- RS422, RS485, OpenBus USB, Bluetooth Alarm

Applications

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

Software

AST NET SW

AST Pyrometer

◆ Measurement Readout ◆ Parameterization ◆ Datalogging

The software interface for the AST Pyrometer is shown in two parts. The top part displays a measurement readout of 255 °C and a parameterization screen showing a reading of 331.8 °C. The bottom part shows a detailed parameterization screen with various settings such as Temperature Scale (FAHRENHEIT), Analog Scale (Tmin: 572, Tmax: 1292), Tau (Average Number) (510mS), and Sigma (15). The parameterization screen also shows analytical coefficients (DX: 1.030, DY: -0.014, DZ: 0.090) and a list of application lists (Press_Ext).

Technical Specifications

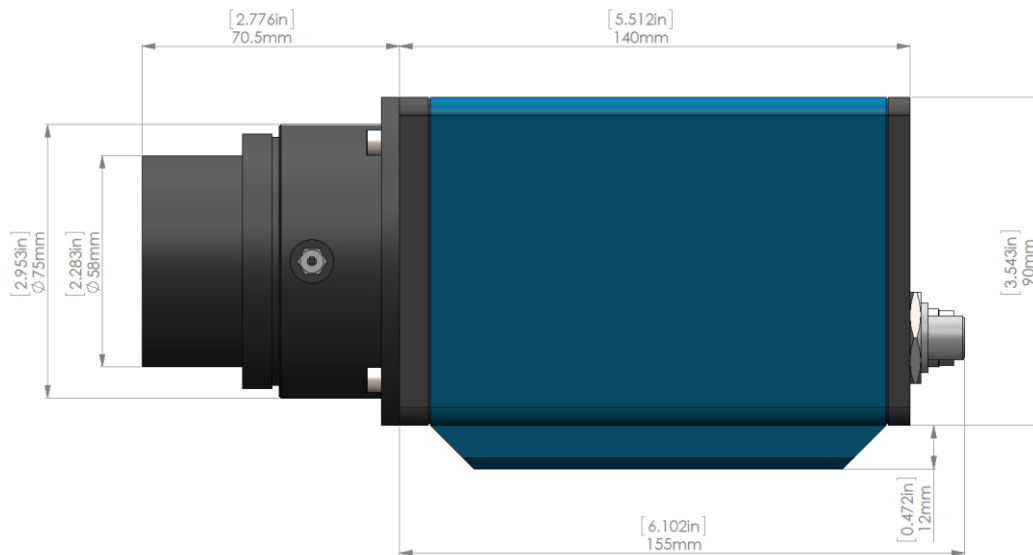
Specification	Model A5-EX	
Temperature Range (Analog sub-range adjustable)	105 - 900°C 200 - 1640°C 250 - 1850°C 360 - 2500°C	221 - 1652°F 392 - 2984°F 482 - 3362°F 680 - 4532°F
Spectral Range	2.1...2.4 μm	
Photodetector Type	InGaAs Extended	
Distance to Spot Size Ratio	100:1 200:1	
Protection Class	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, RS-422, 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		

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)



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We measure accurate temperature in extreme conditions