

AST A5-EX SP is specially designed IR Pyrometers for non-contact temperature measurement of aluminium.

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

AST A5-EX SP 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, Aluminium 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-EX SP 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 - (0.25%) 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, USB, Bluetooth

Applications

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

Software

AST NET sw

◆ Measurement Readout ◆ Parameterization ◆ Datalogging

AST Pyrometer

Technical Specifications

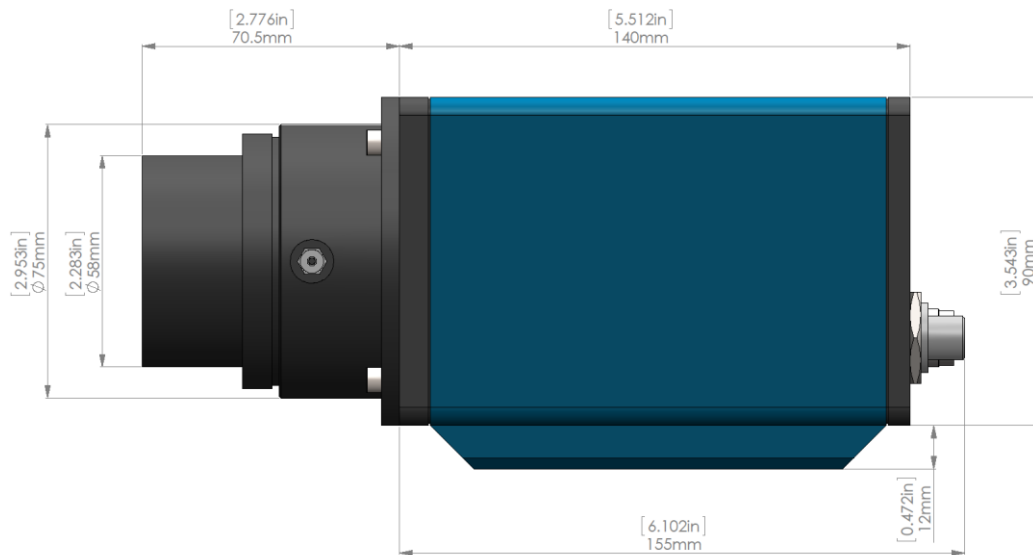
Instrument	Online Multiwavelength IR pyrometer complete in all respect to measure the temperature of heated aluminum billets & profiles during extrusion process
Sensor-Type	Multi-wavelength pyrometer
Temperature range	200°C - 600°C
Spectral Response	2.1 - 2.4 μm
Optical Resolution	200:1
Accuracy	0.25% of Reading or 2°C with E-slope offset
Repeatability	1°C
Emissivity Output	Automatic emissivity output no adjustments needed, capable to tolerate change in texture, and different aluminum alloys
Aluminum profile emissivity	Sensor detect and read emissivity below 0.1, in a range of 0.04-0.08 for aluminum profiles.
Suitability for Different Locations	Suitable for aluminum extruded profile and billet temperature with special algorithm for Aluminum profile, Aluminum billet
Response and Update Time	50ms (initial response) with 25ms update time or better
Object Aiming	Laser aiming for proper sensor alignment to target Laser is emitted from the center of optical lens for accurate alignment
Filters	Inbuilt Filters
Different Shape Profiles	Sensor suitable for all shapes / types of profiles, multicavity, multiport, tubes etc.
Digital Interface	Bi-Directional RS485 and RS232 communications
Human Interface	Built-in Menu System with P-120 Display
Certification	CE
Analog Inputs	For Remote Parameter Adjustment
Programmable Relay Alarms	Select alarm parameter and set point
Analog outputs	Output 1: Display with respect to temperature Output 2: Display with respect to real time emissivity
Ambient Temperature Limits	Sensor: 0 to 140°F / -17 to 65°C, with Water Cooling limit is 350°F / 175°C (varies with water rate and temp)
Alarm	Ambient temperature alarm from remote display
Enclosure Rating	Corrosion Resistant, Aluminum Enclosure with NEMA 4X (IP65) Rating.
Parameters Required	a. Aluminum Temperature Measurement b. Emissivity of Aluminum c. Signal Dilution d. Ambient Temperature of Sensor e. Single Wavelength Output for Diagnostic Purpose
Input Power	24V DC supply through SMPS

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

Power Supply Unit
(Reference no: 200-09)



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



Display & Parameterizer
(Reference no: P-120)



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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