

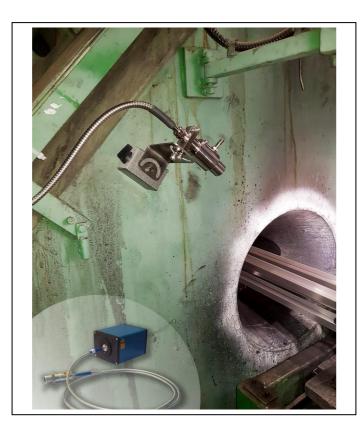
# Accurate Sensors Technology

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Highly Accurate On-Line Infrared Non-Contact Pyrometers for Aluminum.

A5-EX-FO: 300 to 1500°C (572 to 2732°F)

A5-EX-FO



AST A5-EX-FO is a specially designed IR Pyrometer for noncontact temperature measurement of aluminum.

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

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

AST A5-EX-FO can hold multiple databases so that a single instrument can easily switch between applications like Molten metal, extruded profiles, Rolled aluminum surfaces, 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 into the same spot. This helps precise aiming even in long distances.

AST A5-EX-FO offers Bluetooth communication so that it can communicate with Android smartphones or laptops for viewing the measured temperature and for adjusting the parameters/selection of database and data logging

#### Standard Scope of Supply

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

#### Optional

- Mechanical and Electrical Accessories
- RS422, RS485, OpenBus, USB, Bluetooth, Alarm
- Special filter for High power plasma

#### **Applications**

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



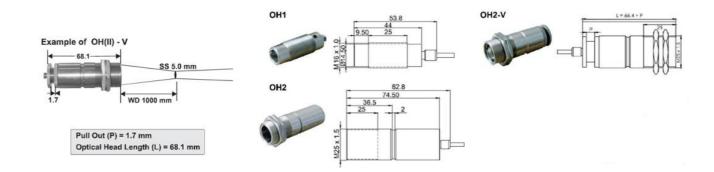
- Simple to use No calibration required
- High accuracy (1%) in real site conditions
- Capable of measuring targets with variable emissivity
- Measures through smoke, dust, water vapor, etc.
- Temperature ranges see the table on the next page.
- Temperature range for measurement in front of a blackbody: when measuring a shiny body, the minimum temperature will be higher.
- Rugged design
- Wide range of built-in functions
- AST NET SW software for PC
- AST Pyrometer Android Application via Bluetooth

## **Technical Specifications**

Specification	(Range 2.0-2.5mkm, InGaAs Extended)	
Temperature Range (Analog sub- range adjustable)	300 - 980°C 450 -1500°C 500-3000°C	
Spectral Range	2.1μ / 2.4μ	
Photodetector Type	InGaAs Extended	
Distance to Spot Size Ratio	See the table of spot sizes.	
Protection Class	IP65	
Response Time t90	Adjustable from 0.1 sec to 17 sec	
Accuracy and Repeatability	0.25% ± 2°C (3.6°F) of measured value for full range of emissivity	
Sighting	Integrated Laser Pilot Light 650-670nm	
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°C +50°C / 32°F +122°F	
Storage temperature range	-20°C +70°C / -4°F +158°F	

Optical Head	Working Distances (mm) / [in]	Spot Sizes (mm) / [in]
	90 / 3.6	1.5 / 0.059
	140 / 5,5	1.8 / 0.07
	200 / 7.9	3.0 / 0.11
Optical Head - II		
	600 / 23.6	9.0 / 0.35
	4500 /177.1	69.0 / 2.71
Optical Head - II		

### **Pyrometer Drawing**



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

Power Supply Unit (Reference no: 200-09)

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

Display (Reference no: P-110)









Air purge unit for optical head II Reference No. 8200 - 01



Air purge unit for optical head-l Reference No. 8200 - 02



Adjustable Mounting for optical head II Reference No. 8200 - 03



Adjustable mounting for optical head-l Reference No. 8200 - 04



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