# AST★ Accurate Sensors Technology

**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**

**AST A5-IN** is a specially designed IR Pyrometers for non-contact temperature measurement of aluminum.
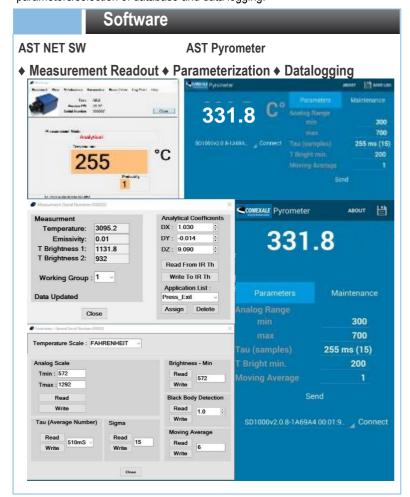
**AST A5-IN** is a Multi-wavelength plug-and-play pyrometer that uses an application-specific database derived from years of experience in a real application.
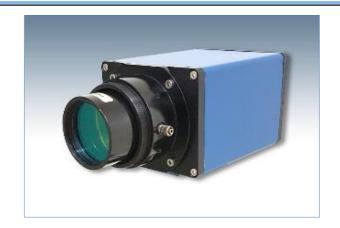
**AST A5-IN** uses special algorithms to accurately calculate both the actual temperature and emissivity of the surface.

**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.



## Software

**AST NET SW**      **AST Pyrometer**

♦ **Measurement Readout** ♦ **Parameterization** ♦ **Datalogging**



## 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
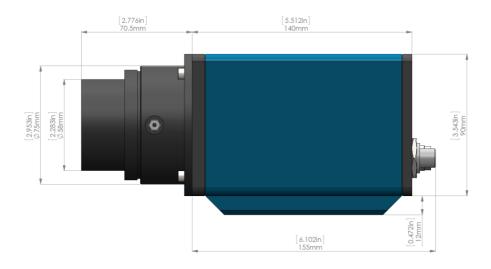- RS422, RS485, OpenBus USB, Bluetooth Alarm

## Applications

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

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## We measure accurate temperature in extreme conditions

## Technical Specifications

| Specification | Model A5-IN | |
|---|---|---|
| Temperature Range (Analog sub-range adjustable) | 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 | |
| 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-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 | |

## 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 | |

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[2.776in] 70.5mm
[5.512in] 140mm
[2.953in] Ø75mm
[2.283in] Ø58mm
[3.543in] 90mm
[6.102in] 155mm
[0.472in] 12mm

## 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

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