Accurate Sensors Technologies
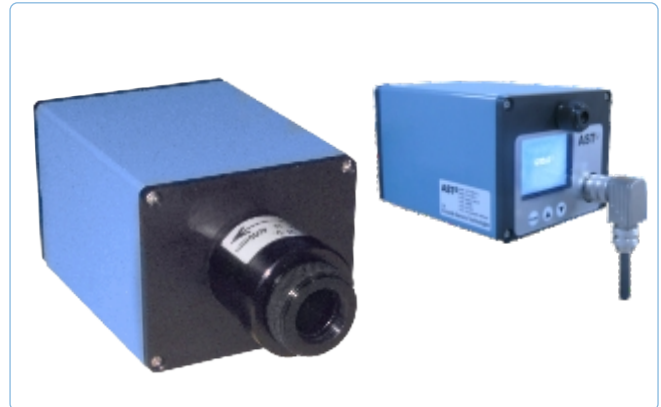
Highly Accurate On-line Two Color Infrared Focusable Non-contact Pyrometers

CE **800°C to 3000°C**   **A450C+**

A450C+ is a highly accurate digital two color IR Focusable pyrometer to provide high performance and low maintenance of non contact temperature measurement in demanding industrial and R&D environments.   The Pyrometer   measures the temperature of an object by calculating the ratio of the energies at two different wavelength bands. The ratio technique eliminates and reduces errors in temperature measurement caused by changes in Emissivity, Surface finish and energy absorbing materials such as Water vapour etc.

The IR pyrometer parameters can be selected via the key pads on the back panel. The settings are displayed on the large colour video LCD (55.5 (W) x 47.9 (H) x 3.17 ((D). In the measuring mode real time temperature and emissivity is displayed. In Pyrometers with video module real time colour video, measuring temperature and emissivity is displayed on the LCD screen. A450C+ have focusable optics for optimal match of the instrument for various applications. The pyrometers are equipped with user selectable RS-232 and RS-485; analog outputs 0/4….20, 0…10V.
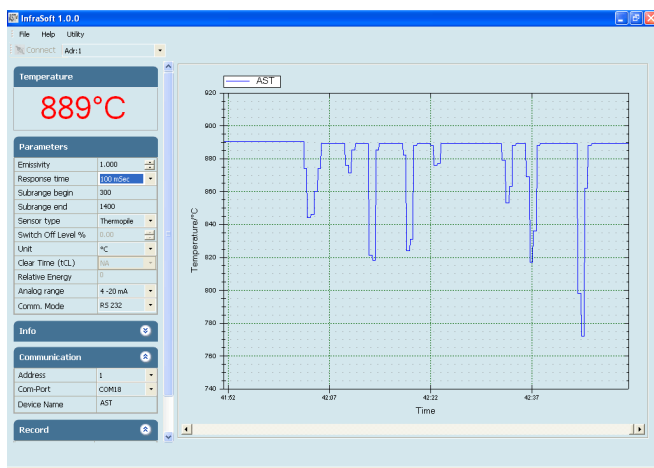
Software "Infrasoft"

AST "Infrasoft" software is under standard scope of supply.It offers possibilities of connecting three pyrometers simultaneously for parameter setting, view real time graph, offline graph and to evaluate measuring data. Communication between the pyrometer and the software is implemented via a cable connected between the pyrometer and the PC serial port. It comes with record feature, spot size calculator and parameter settings features.

Some of the parameters adjustable via software are

- Emissivity, Response Time
- Clear Time(Peak Picker)
- Analog Output
- Sub Range
- Unit Of Temperature(°C/°F)
- Communication mode(Comm.mode)

Features

- Wide temperature ranges from 800°C to 3000°C
- Focusable Optics
- Fast Response Time
- Spectral range 0.7 µm....1.15 µm
- Integrated LCD Display & Parameterizing Keys
- Two Color model
- Laser targeting, Through The lens view finder sighting options
- Analog output options 0...20mA, 4...20mA and 0...10V
- RS-232/RS-485 Serial interface
- User friendly PC software for communication

Standard Scope of Supply

- Pyrometer with Focusable optics, LCD Display & Parameterizing Keys
- Laser pilot light(PL)/Through the lens(TL) sighting(user can select while ordering)
- Analog output 4...20mA, 0..20mA, 0..10V
- Digital Interface RS-232 / RS-485(user selectable)
- 5 mtr long connection cable with connector
- 1.5 mtr. Communication Cable
- Calibration certificate, Software & Operation manual

Optional

- Mechanical & Electrical Accessories
- Extra Cable Lengths

Applications

- Induction Heating
- Annealing
- Welding
- Forging
- Sintering
- Melting
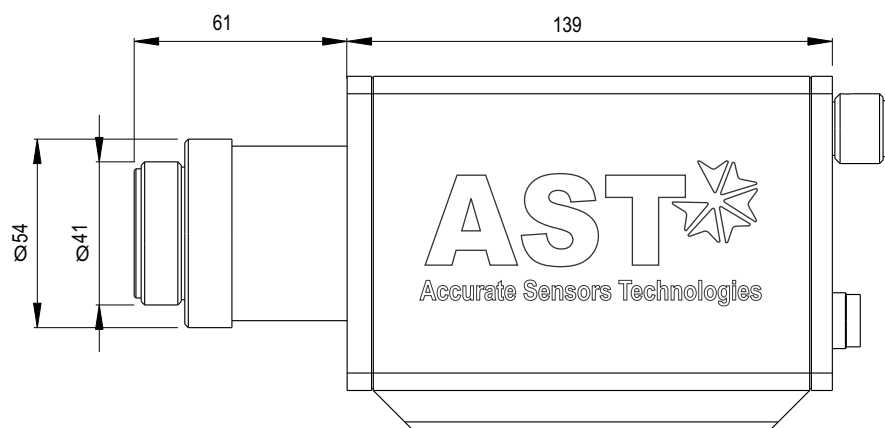- Rolling Mills
- Rolling Kilns
- Crystal growing

iSweek   www.isweek.com
Add: 16/F, Bldg. #3, Zhongke Mansion, No.1 Hi-Tech S. Rd, Hi-Tech Park South, Shenzhen, Guangdong, 518067 P.R.China
Tel: + 86-755-83289036   Fax: + 86-755-83289052   E-mail: sales@isweek.com

Technical Specifications

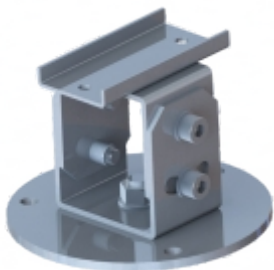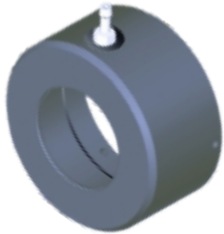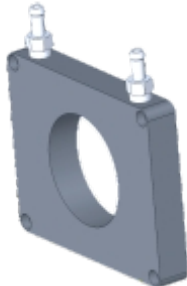| Model	A450C+
Temperature Range (Analog sub-range adjustable)	800°C - 2500°C 1000°C - 3000°C
Spectral Range	0.7….1.15 µm
Photodetector Type	Si/Si
Distance to Spot Size Ratio	200:1 (800°C…..2500°C) 400:1 (1000°C….3000°C)
Emissivity (ε)	0.1….1.0 adjustable (Single color mode)
Emissivity Slope (ε1 / ε2)	0.75…1.25 slope adjustable (Two color mode)
Response Time	20 msec adjustable upto 10 sec
Accuracy	± 0.5% of the measured value + 1°C
Repeatability	0.1% of reading in °C + 1°C
Sighting Options	Laser Pilot Light(PL), Through The Lens (TL) & Video Module
Analog Output	0-20mA, 4-20mA, 0-10V (User selectable)
Digital Output	RS-232/RS-485 (User selectable)
Operating Temp. Range	0°C…….70°C
Storage Temp. Range	-20°C…70°C
Adjustable Parameters and Features via Software	Emissivity, Emissivity Slope, Response Time, Clear Time(Peak Picker), Analog Output, Analog Scale(Sub range),Sensor type (Switches b\w 2-color or single color), Switch off level, Unit Of Temperature(°C/°F), Communication mode(Comm.mode), Record feature etc.
Adjustable Parameters and Features via Keypad	Emissivity, Emissivity Slope, Response Time, Clear Time(Peak Picker), Analog Output, Analog Scale(Sub range),Sensor type (Switches b\w 2-color or single color), Switch off level, Unit Of Temperature(°C/°F), Communication mode(Comm. mode) etc.
Power Supply	24V DC
Power Consumption	Max 5.0 watt
Laser Power	<1 m watt
Protection Class	IP65
Housing	Stainless Steel
Isolation	Power supply,Digital output and Analog output are galvanically islolated against each other
Operating Humidity	10-95%, Non-Condensing Conditions
Weight & Dimensions	600g Dia= Ø 49.5 mm; Length=118mm

Spot Sizes

Working Distances(mm)	Spot Sizes (mm)	
	A450C+ 800 - 2500°C	A450C+ 1000 - 3000°C
800	4	2
1000	5	2.5
2000	10	5
4000	20	10

isweek   www.isweek.com
Add: 16/F, Bldg. #3, Zhongke Mansion, No.1 Hi-Tech S. Rd, Hi-Tech Park South, Shenzhen, Guangdong, 518067 P.R.China
Tel: + 86-755-83289036   Fax: + 86-755-83289052   E-mail: sales@isweek.com

Pyrometer Drawing

61 139

Ø54 Ø41

Accessories

Adjustable Mounting (Reference no: 8500-03)	Airpurge Unit (Reference no: 8500-01)	Water Cooling Plate (Reference no: 8500-02)	Display & Parameterizer P-120 (Reference no: 9001-01)

Converter RS-232 ↔ RS-485 (Reference no: 9000-03)	Power Supply Unit (Reference no: 9000-02)

iSweek   www.isweek.com
Add: 16/F, Bldg. #3, Zhongke Mansion, No.1 Hi-Tech S. Rd, Hi-Tech Park South, Shenzhen, Guangdong, 518067 P.R.China
Tel: + 86-755-83289036   Fax: + 86-755-83289052   E-mail: sales@isweek.com