

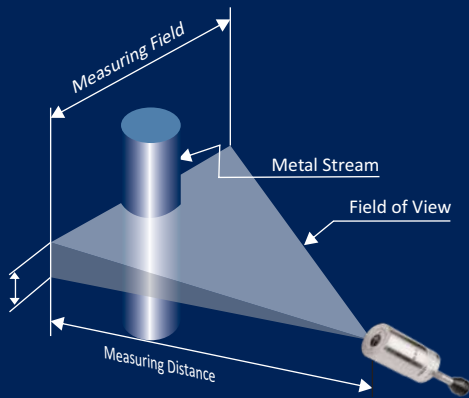


• IR-CAST 2C

700°C to 1700°C

Features

- Rectangular field of view for molten metal.
- Wide temperature ranges from 700°C to 1700°C.
- Spectral range 0.7 μm1.15 μm
- Fast response time within milliseconds
- Two Color model
- Through the lens view finder sighting options
- Analog output options available like 0...20mA, 4...20mA and 0...10V
- Bluetooth V2.0 and RS-232/RS-485 Serial interface
- User friendly PC software for communication



Standard Scope of Supply

- Pyrometer with Through the lens(TL) sighting
- Analog output 4...20mA, 0..20mA, 0..10V
- Bluetooth V2.0
- 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

- Molten Metal

• IR-CAST 2C

Highly Accurate Two Color Online Infrared Non-Contact Pyrometer with Rectangular FOV for Casting Applications



IR-CAST 2C is a highly accurate digital two colour Rectangular measuring field IR pyrometer for non contact temperature measurement specially used in foundries for molten metal. 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 factors such as dust, vapour or smoke etc.

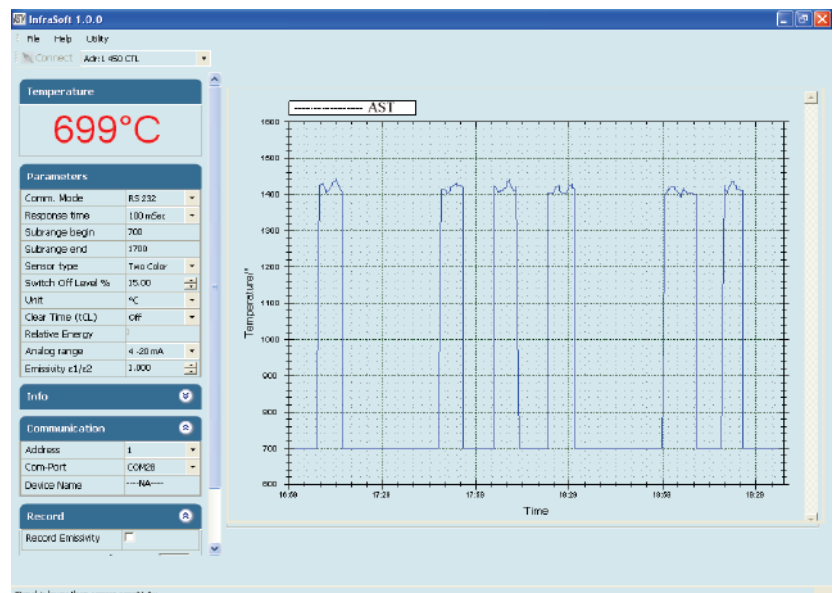
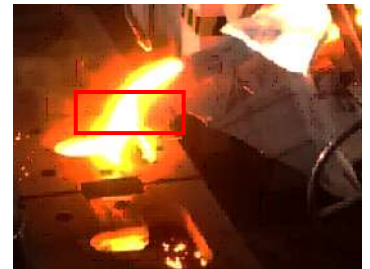
If the target is within this rectangular area, it gives an accurate temperature reading even when liquid moves within this area.

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)



Technical Specifications

Model	IR-CAST 2C
Temperature Range (Analog sub-range adjustable)	700°C....1700°C
Spectral Range	0.7....1.15 μm
Photodetector Type	Si/Si
Distance to Spot Size Ratio	D _v = 166:1 (V = Vertical) D _h = 33:1 (H = Horizontal)
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	Through The Lens (TL)
Analog Output	0-20mA, 4-20mA, 0-10V (User selectable)
Digital Output	Bluetooth V2.0 RS-232/RS-485 (User selectable) *At a time only one digital output possible
Operating Temp. Range	0°C.....70°C 0°C.....200°C (With water cooling jacket)
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
Power Supply	24V DC
Power Consumption	Max 2.5 watt
Laser Power	<1 m watt
Protection Class	IP65
Housing	Stainless Steel
Isolation	Power supply,*Digital output and Analog output are galvanically isolated against each other * Not applicable for USB 2.0 digital output
Operating Humidity	10-95%, Non-Condensing Conditions
Weight & Dimensions	600g Dia= Ø 49.5 mm; Length=118mm

Spot Sizes

Manufactured working distances WD (mm)	Spot Sizes (mm)		
	700° - 1700°C		Measuring Field
	FOVV 166:1	FOVH 33:1	
350	2.1	10.5	
500	3	15	
700	4.2	21	
1000	6	30	
2000	12	60	
3000	18	90	
5000	30	150	
Aperture (A)	4		

Accessories

Water Cooling Jacket
(Reference no: 8000-08)



Adjustable Mounting Stand
(Reference no: 8000-07)



Air Purge Unit
(Reference no: 8000-04)



Adjustable Mounting Support
(Reference no: 8000-05)



Display & Parameterizer P-120
(Reference no: 9001-01)



Converter RS-232 ↔ RS-485
(Reference no: 9000-03)



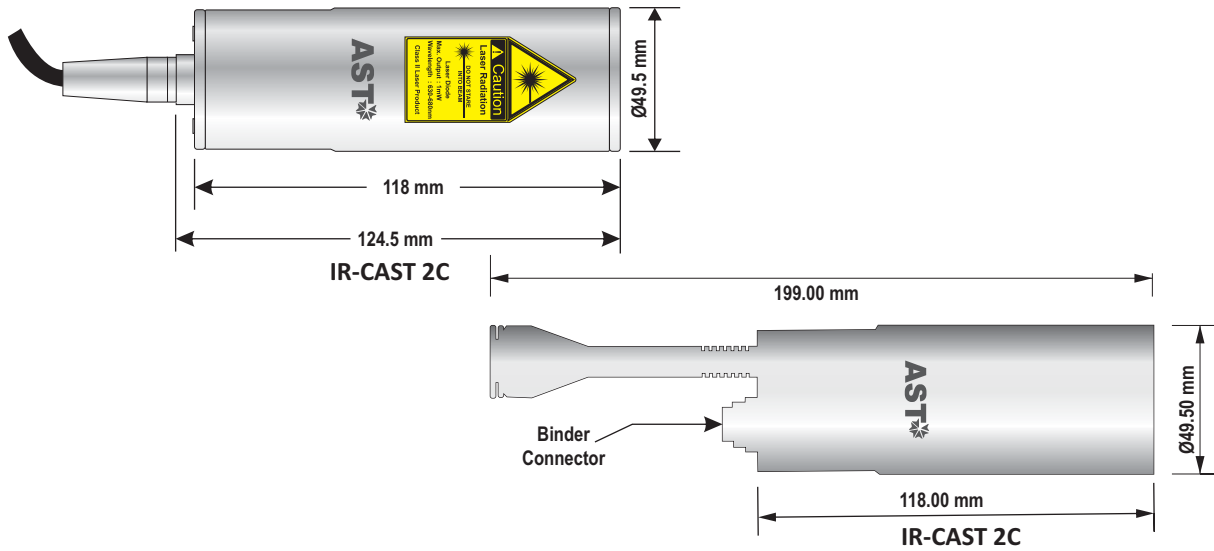
Power supply Input 110/230V AC
Reference No. 9000 - 02
Output 24 V DC, 0.7Amp.



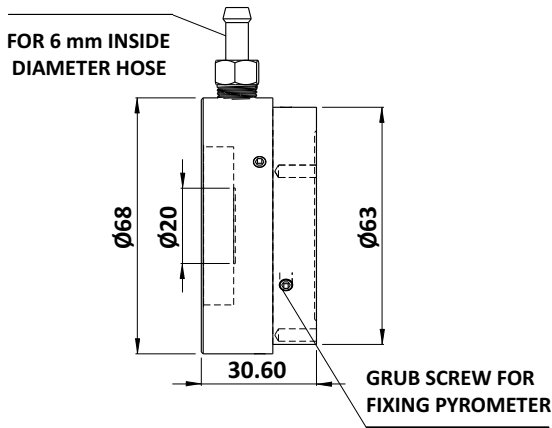
Temperature Indicator
(Reference no: 9000-01)



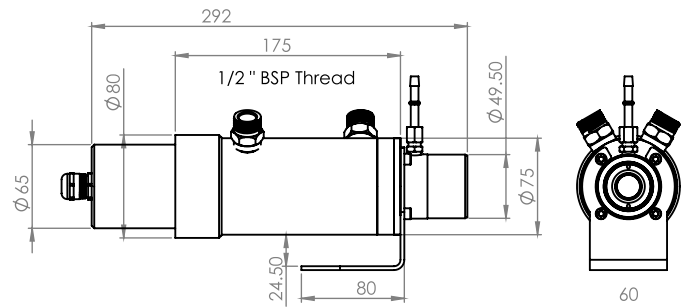
Pyrometer Drawing



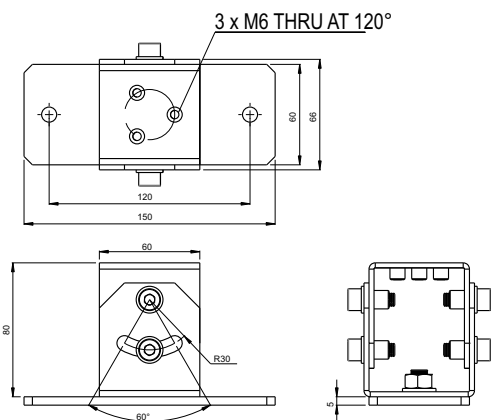
Pyrometer Accessories Drawings



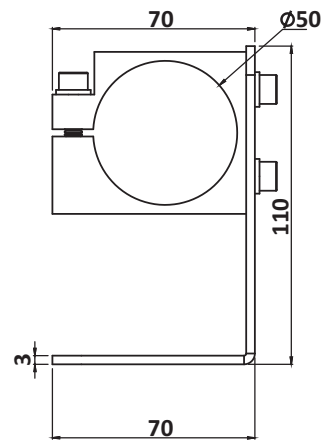
Air Purge Unit
(Reference no: 8000-04)



Water Cooling Jacket
(Reference no: 8000-08)



Adjustable Mounting Stand
(Reference no: 8000-07)



Mounting Clamp
(Reference no: 8000-05)

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