A250C PL/TL is a highly accurate digital two colour IR pyrometer from A series family for non contact temperature measurement. 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 two colour IR Pyrometer is used to measure the temperature in variety of applications in Forging, Annealing, Welding, Sintering, Rolling mills, Cement, Glass, Crystal growing and many application where low temperature to be measured in ratio technique.

**Technical specifications**

<table>
<thead>
<tr>
<th>Model</th>
<th>A250C PL/TL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Temperature Range (Analog sub-range adjustable)</td>
<td>350°C…1000°C, 450°C…1350°C</td>
</tr>
<tr>
<td>Spectral Range</td>
<td>1.5µm/1.6 µm</td>
</tr>
<tr>
<td>Photodetector Type</td>
<td>InGaAs/InGaAs</td>
</tr>
<tr>
<td>Distance to Spot Size Ratio</td>
<td>100:1 (350°C…1000°C), 200:1 (450°C…1350°C)</td>
</tr>
<tr>
<td>Emissivity (ε)</td>
<td>0.1…1.0 adjustable (Single color mode)</td>
</tr>
<tr>
<td>Emissivity Slope (ε₁/ε₂)</td>
<td>0.75…1.25 slope adjustable (Two color mode)</td>
</tr>
<tr>
<td>Response Time</td>
<td>100 msec adjustable up to 10 sec</td>
</tr>
<tr>
<td>Accuracy</td>
<td>± 0.5% of the measured value + 1°C</td>
</tr>
<tr>
<td>Repeatability</td>
<td>0.1% of reading in °C + 1°C</td>
</tr>
<tr>
<td>Sighting Options</td>
<td>Laser Pilot Light(PL) / Through The Lens (TL)</td>
</tr>
<tr>
<td>Analog Output</td>
<td>0-20mA, 4-20mA, 0-10V (User selectable)</td>
</tr>
<tr>
<td>Digital Output</td>
<td>Bluetooth V2.0, RS-232/RS-485 (User selectable)</td>
</tr>
<tr>
<td>Operating Temp. Range</td>
<td>0°C…70°C (With water cooling jacket)</td>
</tr>
<tr>
<td>Storage Temp. Range</td>
<td>-20°C…70°C</td>
</tr>
<tr>
<td>Adjustable Parameters and Features via Software</td>
<td>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.</td>
</tr>
<tr>
<td>Power Supply</td>
<td>12V to 28V DC with reverse voltage protection</td>
</tr>
<tr>
<td>Power Consumption</td>
<td>Max 2.5 watt</td>
</tr>
<tr>
<td>Laser Power</td>
<td>&lt;1 m watt</td>
</tr>
<tr>
<td>Protection Class</td>
<td>IP65</td>
</tr>
<tr>
<td>Housing</td>
<td>Stainless Steel</td>
</tr>
<tr>
<td>Isolation</td>
<td>Power supply,*Digital output and Analog output are galvanically isolated against each other</td>
</tr>
<tr>
<td>Operating Humidity</td>
<td>10-95%, Non-Condensing Conditions</td>
</tr>
<tr>
<td>Weight &amp; Dimensions</td>
<td>600g, Dia= Ø 49.5 mm; Length=118mm</td>
</tr>
</tbody>
</table>

**Features**

- Wide temperature ranges from 350°C to 1350°C.
- Spectral range 1.5µm/1.6 µm
- Two Color technique
- Laser targeting / 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(user selectable) Serial interface
- User friendly PC software for communication

**Standard Scope of Supply**

- Pyrometer with 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)
- Bluetooth V2.0
- 5 mtr long connection cable with connector
- 1.5 mtr. Communication Cable
- Calibration certificate, Software & Operation manual
- PC software “Infrasoft”

**Optional**

- Mechanical & Electrical Accessories
- Extra Cable Lengths

**Applications**

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

We measure accurate temperature in extreme conditions
**Software**

**AST 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).

**AST Infrasmart**

AST Infrasmart is an android application used to communicate a pyrometer with mobile devices. This application works via bluetooth after pairing with mobile.

APK file for this android application will be provided with device.

Number of parameters set through the application are:
- Emissivity
- Unit of Temperature
- Sensor Type
- Response time
- Analog Output
- Sub Range
- Clear Time
- Communication Mode
- Data Logging

**Pyrometer Drawing**

We measure accurate temperature in extreme conditions.
Accessories

|---|---|---|---|

Display & Parameterizer P-120 (Reference no: 9001-01)  
Converter RS-232 ↔ RS-485 (Reference no: 9000-03)  
Power supplyInput 110/230V AC Reference No. 9000 - 02 Output 24 V DC, 0.7Amp.  
Temperature Indicator (Reference no: 9000-01)

Pyrometer Accessories Drawings

Water Cooling Jacket with Adjustable Flange PL (Reference no: 8000-02)  
Water Cooling Jacket with Adjustable Flange TL (Reference no: 8000-06)

Air Purge Unit (Reference no: 8000-04)  
Adjustable mounting stand (Reference no: 8000-07)  
Mounting Clamp (Reference no: 8000-05)

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