

UPT Infrared Pyrometer Options for use with Induction Heating Systems

The Single Color options are smaller sensors originally designed to work with our S and W power supplier. They provide basic measurement but required calibration of emissivity of the part at temperature. They are OK for basic monitoring and process control but are the least accurate.

The Dual Color options are general use for all power supplies. They are reasonable accurate for most situation's, have an IP65 housing for rough environments and automatically compensate for emissivity.

The Dual Wave option is the most accurate and good for application where parts change significantly or with low emissivity (like copper) or parts with lots of scaling. These also allow peak detection for moving parts.

The Dual Color and Dual wave also have a fiber optic option to allow siting the IR sensor much closer to the coil.

The non-fiber heads need to be placed away from the coil making installation a little more challenging.

All pyrometers are measurement only. The optional temperature controller can be added to any option.

Other temperature ranges and optics can be provided as custom quote. Contact Engineering for more details.

All fiber optic systems are non-stock items and are customized to order. Lead times are typically 4-6 weeks but special options may take longer.

Model / Part	Description and Features	Price
IR-SC-0009	<p>Single Color Infrared Pyrometer (500C, 932F)</p> <p>Low cost option for IR sensing. Requires manual emissivity adjustment so for parts so it's only accurate at the temperature the emissivity has been adjusted for. Not ideal for low emissivity parts or parts that oxidize while heating. Good for basic process control and monitoring.</p> <ul style="list-style-type: none"> • Small Sensing Head • Manual Adjustable Emissivity • External display module (separate from temperature controller to display temperature and provide 4-20mA output for temperature controller) • Temperature Ranges from 0 to 500°C, 0.5% repeatability • Very fast response time ~ 15ms • Laser target built in • 0.5" spot size at 7" (15 mm spot size at 200 mm) <i>other optics are available – please review your requirements with your salesperson</i> • Control Enclosure : Includes mounting IR panel meter and power supply 	Quoted Upon Request
IR-SC-0024	<p>Single Color Infrared Pyrometer High Temperature (1350C, 2462F)</p> <p>Low cost option for IR sensing. Requires manual emissivity adjustment so for parts so it's only accurate at the temperature the emissivity has been adjusted for. Not ideal for low emissivity parts or parts that oxidize while heating. Good for basic process control and monitoring.</p> <ul style="list-style-type: none"> • Small Sensing Head • Adjustable Emissivity • External display module • Temperature Ranges from 0 to 1350°C • Very fast response time ~ 15ms • Laser target built in • 0.24" spot size at 5.9" (6mm spot size at 150 mm) <i>other optics are available – please review your requirements with your salesperson</i> • Single color, manual emissivity setting • Control Enclosure : Includes mounting IR panel meter and power supply 	Quoted Upon Request

Model / Part	Description and Features	Price
IR-DC-1125	<p>Two Color Infrared Pyrometer 1100F-2500F</p> <p>The dual color system will read to about 10F of the true temperature, as long as oxide conditions are not too severe. It does not handle surface oxides and scaling as well as the Dual Wave option</p> <ul style="list-style-type: none"> • Automatic emissivity compensation vs. single color which require manual setting and adjustment. • Dual-Color pyrometer <ul style="list-style-type: none"> ○ Sensor body in NEMA-4X (IP65) Enclosure, ○ 0.85-1.1/1.1um wavelengths, ○ Adjustable peak hold ○ Temperature Range: 1100-2500F ○ 0.24" diameter @ 12in distance (other options are available) • Digital remote Interface Module <ul style="list-style-type: none"> ○ Digital display ○ 2 analog (0/4-20mA) outputs, ○ 2 relay outputs, ○ 1 TTL Output ○ 1 RS232/485 output ○ Menu and diagnostics 	Quoted Upon Request
IR-DC-F-1125	<p>Two Color Infrared Pyrometer, Fiber Optic 1100F-2500F</p> <p>The dual color system will read to about 10F of the true temperature, as long as oxide conditions are not too severe. It does not handle surface oxides and scaling as well as the Dual Wave option</p> <ul style="list-style-type: none"> • Automatic emissivity compensation vs. single color which require manual setting and adjustment. • Dual-Color pyrometer <ul style="list-style-type: none"> ○ Sensor body in NEMA-4X (IP65) Enclosure, ○ 0.85-1.1/1.1um wavelengths, ○ Adjustable peak hold ○ Temperature Range: 1100-2500F • 6Ft fiber optic cable to allow closer siting of IR measurement near RF coil. <ul style="list-style-type: none"> ○ Includes aiming light. • Digital remote Interface Module <ul style="list-style-type: none"> ○ Digital display ○ 2 analog (0/4-20mA) outputs, ○ 2 relay outputs, ○ 1 TTL Output ○ 1 RS232/485 output ○ Menu and diagnostics 	Quoted Upon Request

Model / Part	Description and Features	Price
IR-DW-0721	<p>Dual Wave Infrared Pyrometer 700F-2100F Most Accurate System - The dual wave system will read to about 3F of true temperature, and is 20 times less sensitive to surface oxides and scale compared to the Two Color Option.</p> <ul style="list-style-type: none"> • Automatic emissivity compensation vs. single color which require manual setting and adjustment. • Dual-wavelength pyrometer <ul style="list-style-type: none"> ○ Sensor body in NEMA-4X (IP65) Enclosure, ○ 1.15/1.45um wavelengths, ○ Adjustable peak hold ○ Temperature Range: 700-2100F ○ 0.48" Diameter focal at 12" (other options are available) • Digital remote Interface Module <ul style="list-style-type: none"> ○ Digital display ○ 2 analog (0/4-20mA) outputs, ○ 2 relay outputs, ○ 1 TTL Output ○ 1 RS232/485 output ○ Menu and diagnostics 	Quoted Upon Request
IR-DW-F-0721	<p>Dual Wave Infrared Pyrometer, Fiber Optic 700F-2100F Most Accurate System - The dual wave system will read to about 3F of true temperature, and is 20 times less sensitive to surface oxides and scale compared to the Two Color Option.</p> <ul style="list-style-type: none"> • Automatic emissivity compensation vs. single color which require manual setting and adjustment. • Dual-wavelength pyrometer with 6 ft. quartz fiber optic cable <ul style="list-style-type: none"> ○ Sensor body in NEMA-4X (IP65) Enclosure, ○ 1.15/1.45um wavelengths, ○ Adjustable peak hold ○ Temperature Range: 700-2100F • 6Ft fiber optic cable to allow closer siting of IR measurement near RF coil. <ul style="list-style-type: none"> ○ Includes aiming light. • Digital remote Interface Module <ul style="list-style-type: none"> ○ Digital display ○ 2 analog (0/4-20mA) outputs, ○ 2 relay outputs, ○ 1 TTL Output ○ 1 RS232/485 output ○ Menu and diagnostics 	Quoted Upon Request

Model / Part	Description and Features	Price
IR-DW-0309	<p>Dual Wave Infrared Pyrometer 300F-900F Most Accurate System - The dual wave system will read to about 3F of true temperature, and is 20 times less sensitive to surface oxides and scale compared to the Two Color Option.</p> <ul style="list-style-type: none"> • Automatic emissivity compensation vs. single color which require manual setting and adjustment. • Dual-wavelength pyrometer <ul style="list-style-type: none"> ○ Sensor body in NEMA-4X (IP65) Enclosure, ○ 2.4 um wavelengths, ○ Adjustable peak hold ○ Temperature Range: 300F-900F ○ 0.48" Diameter focal at 12" (other options are available) • Digital remote Interface Module <ul style="list-style-type: none"> ○ Digital display ○ 2 analog (0/4-20mA) outputs, ○ 2 relay outputs, ○ 1 TTL Output ○ 1 RS232/485 output ○ Menu and diagnostics 	Quoted Upon Request
IR-DW-F-0309	<p>Dual Wave Infrared Pyrometer, Fiber Optic 300F-900F Most Accurate System - The dual wave system will read to about 3F of true temperature, and is 20 times less sensitive to surface oxides and scale compared to the Two Color Option.</p> <ul style="list-style-type: none"> • Automatic emissivity compensation vs. single color which require manual setting and adjustment. • Dual-wavelength pyrometer with 6 ft. quartz fiber optic cable <ul style="list-style-type: none"> ○ Sensor body in NEMA-4X (IP65) Enclosure, ○ 2.4 um wavelengths, ○ Adjustable peak hold ○ Temperature Range: 300F-900F • 6Ft fiber optic cable to allow closer siting of IR measurement near RF coil. <ul style="list-style-type: none"> ○ Includes aiming light. • Digital remote Interface Module <ul style="list-style-type: none"> ○ Digital display ○ 2 analog (0/4-20mA) outputs, ○ 2 relay outputs, ○ 1 TTL Output ○ 1 RS232/485 output ○ Menu and diagnostics 	Quoted Upon Request

Model / Part	Description and Features	Price
IR-DW-0309W	<p>Dual Wave Infrared Pyrometer 300F-900F for small target Most Accurate System - The dual wave system will read to about 3F of true temperature, and is 20 times less sensitive to surface oxides and scale compared to the Two Color Option.</p> <ul style="list-style-type: none"> • Automatic emissivity compensation vs. single color which require manual setting and adjustment. • Dual-wavelength pyrometer <ul style="list-style-type: none"> ○ Sensor body in NEMA-4X (IP65) Enclosure, ○ 2.4 um wavelengths, ○ Adjustable peak hold ○ Temperature Range: 300-900F ○ 0.32" (8.1mm) diameter focal at 8". Only needs 20% field of view of heated section to get accurate readings, peaking on the hottest spot within the field of view. Can focus on target as small as 2.03mm • Digital remote Interface Module <ul style="list-style-type: none"> ○ Digital display ○ 2 analog (0/4-20mA) outputs, ○ 2 relay outputs, ○ 1 TTL Output ○ 1 RS232/485 output ○ Menu and diagnostics 	Quoted Upon Request
TC-CL-01	<p>Optional Temperature Controller</p> <ul style="list-style-type: none"> • For use with any of the IR Pyrometers above • Allows close loop control of the Induction Heating Unit 	Quoted Upon Request