1-2-3 Go!

Need a flexible, durable and visual line of infrared pyrometers for use in harsh industrial environments?

FLUKE
Process Instruments

The innovative Endurance® Series of single color and ratio pyrometers meets all requirements of modern industry!

1 FLEXIBLE

Need a flexible pyrometer that is easy to install?

- Fiber optic and integrated sensing head models with multiple wavelengths and broad temperature ranges allows you to cover your whole process with fewer units
- Two color models measure down to 250 °C (482 °F)
- Single color models measure down to 50 °C (122 °F)
- All Endurance sensors are powered either through Power over Ethernet (PoE) or using DC power
- Interface to various BUS systems including Ethernet, Profinet, RS-485
- Analog input to control E-Slope, emissivity or ambient background compensation
- Isolated analog output
- PC based Endurance setup and monitoring software
- Backwards compatibility to existing *Modline 5R, Modline 7, Marathon MR* and *Marathon MM* installations reduces your upgrade installation costs

2 DURABLE

Lower your maintenance costs with "set it and forget it" reliability!

- Best-in-class 4 year warranty
- Reduce installation costs with robust, galvanically isolated inputs/outputs
- IP65 (NEMA4) rated housings can withstand ambient temperatures up to 65 °C (149 °F) or up to 315 °C (600 °F) using cooling accessories
- Dirty lens alarm – avoid unneeded periodic lens cleaning checks
- Field calibration available using Endurance calibration software and customer black bodies
- Rugged accessories to withstand harsh environments

3 VISUAL

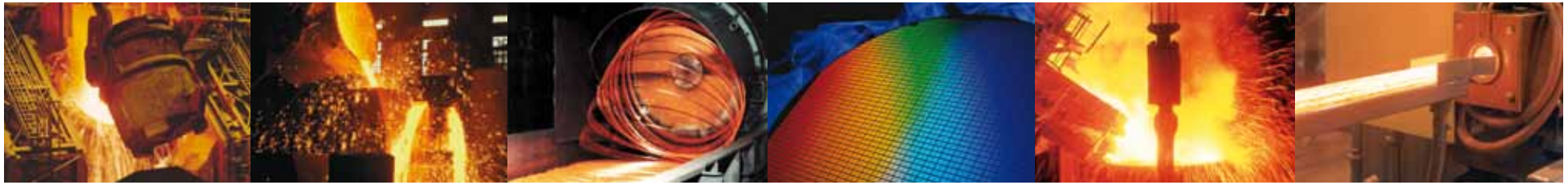
See the process! See and understand the data!

- Multiple lens and sighting options for *different* mounting distance and sighting needs
- On-board camera video sighting via Ethernet to make sure the unit is always sighted properly – for remote and control room viewing
- On-board laser sighting to verify process alignment when sensor is in hard to reach areas – for local viewing
- On board LED sighting to allow you to see the actual spot size projected on the target
- Endurance PC software allows for setup and archiving historical data for traceability and process troubleshooting
- Built-in web server for remote viewing
- By interfacing Endurance sensors to the Spot Scan Accessory, you can measure over a larger target object instead of a single spot

More value for you ...

- **Improve product quality**
- **Ensure product uniformity**
- **Increase productivity**
- **Reduce reject rates**
- **Maximize throughput**
- **Minimize energy cost**
- **Allow traceability of product quality**

Fluke Process Instruments Endurance - Value for your Application...



Application:	Feature:	Value:
Primary metals		
■ Hot strip mills ■ Continuous casting ■ Blast furnace ■ Melting processes ■ Sintering	■ Multiple interface options ■ Durable IP65 (NEMA4) rated stainless steel housing can withstand ambient temperatures up to 65 °C (149 °F) or up to 315 °C (600 °F) using cooling accessories ■ Dirty lens alarm ■ Rugged accessories to withstand high temperatures	■ Reduce installation time by selecting from a variety of interfaces ■ Reduce replacement cost with hardened sensor ■ Reduce periodic maintenance of checking sensor window for cleanliness ■ Minimize maintenance costs by using accessories that were designed for industrial applications
Secondary metals		
■ Induction heating ■ Foundries ■ Heat treating/annealing ■ Forming ■ Forging ■ Vacuum furnaces ■ Welding	■ Multiple sighting options ■ Backwards compatibility to existing installations ■ Match function – Takes the guesswork out of setting the emissivity	■ Sensor designed for local or remote sighting, using camera, laser or visible through-the-lens sighting ■ Lower installed cost by using existing cables and accessories ■ Reduce installation time by getting the sensor emissivity right within seconds
Carbon		
■ Graphite production	■ Wide temperature ranges for measurement down to 50 °C (122 °F) and up to 3200 °C (5800 °F)	■ Improved process control
Semiconductor		
■ Silicon production	■ Accurate and precision measurement capability	■ Measurement resolution of 0.1°C meets the needs of the semiconductor industry
Other		
■ Rubber and thick plastic	■ Low temperature measurement down to 50 °C (122 °F)	■ Improved accuracy using the shortest wavelength sensor allows temperature measurement down to 50 °C (122 °F)