

THERMAL IMAGING CAMERAS



Thermal Imaging Cameras and systems designed for temperature measurement of dedicated industrial applications

LumaSense thermal imaging cameras and systems accurately measure temperature and operate by using reliable infrared technology. These high-tech instruments can precisely determine the object temperature and the temperature distribution even on small and fast moving objects.

Thermal imaging cameras and systems perform an essential control function in major manufacturing industries. By monitoring the temperature, users can

control entire factory production processes as well as ensure highest quality standards.

Not only does LumaSense provide standard solutions, our thermal imaging instruments are flexible and capable of customer-specific adaptations to demands, special applications, and customer requirements. Due to our combination of highly skilled professionals and expert knowledge of the market, LumaSense can also provide exceptional customer support!

Thermal Imaging Solutions

LumaSense Technologies owns over 50 years of experience and has established an extensive customer base, enabling us to build up a complete product portfolio of thermal imaging systems tailored to the market and virtually meeting all needs of the industry.

We realize the importance of providing solutions to industry partners and understand the significance of delivering reliable customer service that adds value. We developed a professional services organization which focuses on delivering consistent, sustainable world-class customer support. This means keeping your assets reliable and functioning, as well as providing you with the knowledge and expertise required to solve complex problems quickly.

Proper temperature control is critical to production efficiency, product quality, and environmental compliance. Ensure correct integration and deployment of our solutions with our extensive installation services. Our ServiceSense™ Field Support Services are designed to keep your systems performing with minimal downtime. We also offer a wide range of services including calibration, repair, maintenance contracts, extended warranties, and

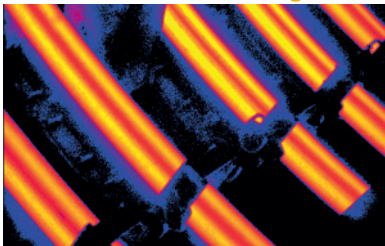
spare parts to keep your assets accurate and reliable for the long-term.

Our experts are ready to collaborate with you to deliver the right sensing solutions with the best performance and a long, reliable life. You expect the highest quality from your investments in LumaSense technology; therefore, our promise is to:

- Deliver high-value customer care.
- Keep your assets reliable and working.
- Provide you the knowledge and expertise required to solve complex problems quickly.
- Service to prevent unplanned downtime and keep you running safely.

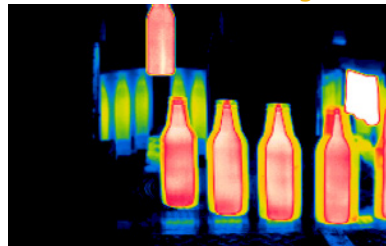
Industrial Applications

Steel Industry



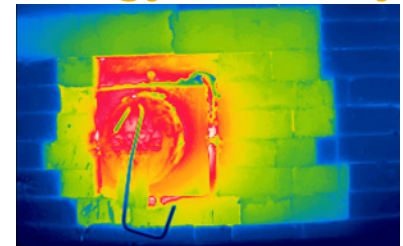
Process monitoring steel production

Glass Industry

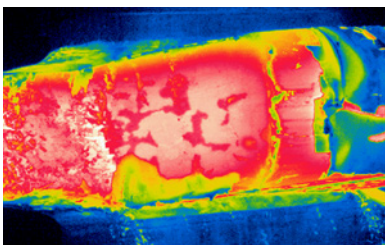


Glass container and forms

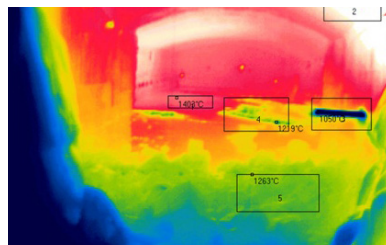
Energy Efficiency



Furnace maintenance



Hot forming



Glass furnace

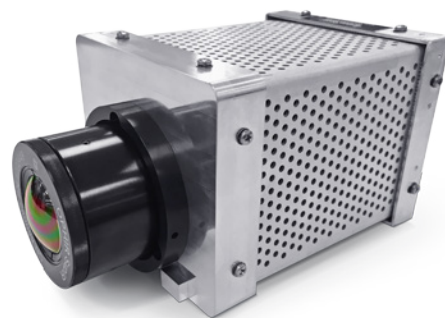


Combustion monitoring

Fixed Thermal Imaging Cameras

LONG WAVE INFRARED

Temperature Range	MCL640: Range 1: -40 to 120 °C Range 2: 0 to 500 °C MCL640HT: 200 to 1600 °C
Resolution	640 x 480 pixels
Wavelength	8 to 14 μm
Measuring Accuracy	±2 °C or ±2% of reading
Frame Frequency	9 Hz or 50 Hz



MID WAVE INFRARED

Temperature Range	MC320M: Range 1: 150 to 500 °C Range 2: 200 to 800 °C MC320MHT: 200 to 800 °C MC320F: 200 to 800 °C MC320FHT: 600 to 1600 °C MC320G: 200 to 800 °C MC320GHT: 400 to 1600 °C
Resolution	320 x 240 pixels
Wavelength	MC320M: 3 to 5 μm MC320MHT: 3 to 5 μm MC320F: 3.9 μm MC320FHT: 3.9 μm MC320G: 4.8 to 5.2 μm MC320GHT: 4.8 to 5.2 μm
Measuring Accuracy	±2 °C or ±2% of reading
NETD	0.06 °C at 30 °C
Frame Frequency	60 Hz (Standard) or 9 Hz (E series)



SHORT WAVE INFRARED

Temperature Range	MCS640: 600 to 3000 °C in up to 4 customer-specified ranges MCS640-HD: 600 to 3000 °C in up to 4 customer-specified ranges
Resolution	640 x 480 pixels
Wavelength	1 μm
Measuring Accuracy	±0.5% of reading in °K
NETD	1 °C at 600 °C
Frame Frequency	60 Hz

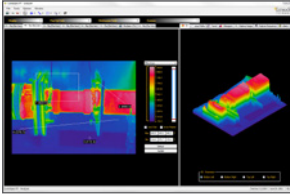


Software

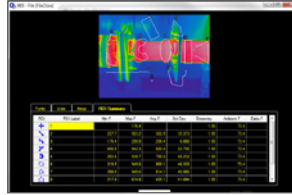
Windows-Based Thermal Imaging Software that Offers High-Speed Real-Time Data Acquisition and Image Analysis Capabilities

LumaSpec™ RT

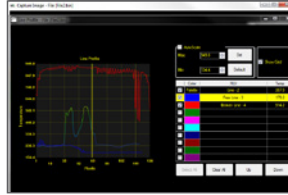
- Monitor Processes in Real-Time
- Eliminate or Reduce Downtime
- Lower Production Costs
- Save Time
- Increase Quality
- Reduce Safety Hazards



LumaSpec RT Viewer



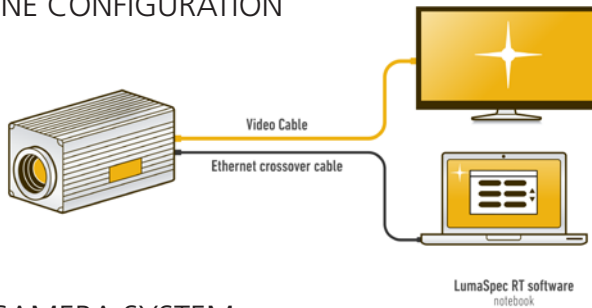
LumaSpec RT Analyzer



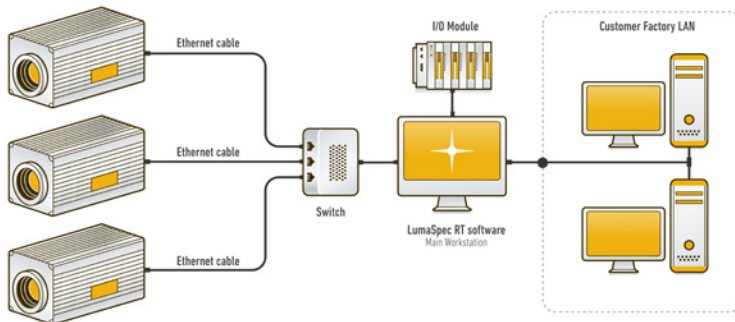
LumaSpec RT Basic

System Configurations

STANDALONE CONFIGURATION



MULTIPLE CAMERA SYSTEM



Options & Enclosures



ThermalSpec™ CVM



FlareSpec™



*FurnaceSpec™ and
BoilerSpec™*



Spyglass + lenses



ThermalSpec™ 724

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