

## Specifications - Configurations

Temperature Range	Model Reference	Model Reference	Model Reference
	25 mm Focal Length Lens	50 mm Focal Length Lens	75 mm Focal Length Lens
600 to 1000°C / 1112 to 1832°F	FTI-E 1000-10-25	FTI-E 1000-10-50	FTI-E 1000-10-75
800 to 1400°C / 1472 to 2552°F	FTI-E 1000-14-25	FTI-E 1000-14-50	FTI-E 1000-14-75
1000 to 1800°C / 1832 to 3272°F	FTI-E 1000-18-25	FTI-E 1000-18-50	FTI-E 1000-18-75
1400 to 3000°C / 2552 to 5432°F	FTI-E 1000-30-25	FTI-E 1000-30-50	FTI-E 1000-30-75

### Optical Performance

Lens Type	25 mm Focal Length Lens	50 mm Focal Length Lens	75 mm Focal Length Lens
Field of View (h x v)	14.4° x 10.8°	7.2° x 5.4°	4.8° x 3.6°
Focus Range	600 mm (2') to infinity (manual focus)		
IFOV	0.40 mrad	0.20 mrad	0.13 mrad
Window material	Glass	Glass	Glass

### Close-up Lens options

Close-up Lens Ref.	G1	G2	G3	G4	G5
Focal Range mm/inch	100 to 123 / 4 to 4.85	120 to 160 / 4.7 to 6.3	150 to 215 / 5.9 to 8.5	200 to 340 / 7.8 to 13.4	250 to 495 / 9.8 to 19.5

### Imager Performance

FTI-E 1000 Scene Radiation Range	(see above) based on blackbody temperature
System Temperature Measuring Accuracy	0.5% (K) up to 1600°C/2912°F and 1% (K) above
Spectral Range	0.78 to 1.1 µm
Detector	Silicon focal plane array
Detector array format	656 x 494
Frame Frequency	30 Hz (Gigabit Ethernet)
<b>Physical &amp; Environmental</b>	
Dimensions (w x h x d)	81 x 114 x 215 mm / 3.2 x 4.5 x 8.5 inches
Weight kg / lbs	1.76 kg / 3.88 lbs
Operating Temperature Range	0 to 50°C / 32 to 122°F (non-condensing)
Storage Temperature Range	-20° to 80°C / -4 to 176°F
Operating Humidity	0 to 90 % Non-Condensing
Sealing	IP65 / NEMA 4 (with Phoenix Ethernet connector)
Vibration	3g between 10 and 30 Hz
<b>EMC Emissions and Immunity</b>	
FTI-E 1000 Interfaces	Separate sockets / lead for power and data connection
Power range	12 to 30 V dc, 3 Watts
Data Out	Digital data over Gigabit Ethernet (RJ-45)
Mountings	Two ¼" UNC mounting holes spaced 25mm apart allow it be mounted to a large range of accessories
<b>Software</b>	Complete Land Image Processing Software (LIPS)package for PC
<b>Standard Accessories</b>	Power Supply, Cables, Software, Close-up Lenses

# LAND

Thermal Imaging and Temperature Measurement for Continuous Process Monitoring and Quality Control

## FTI-E 1000



Near Infrared Fixed Thermal Imaging and Temperature Measurement Camera

# LAND

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Non-Contact Temperature Measurement Solutions



An AMETEK Company

Applies in the UK

Applies in the USA

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# FTI-E 1000

NIR Fixed Thermal Imaging and Temperature Measurement Camera

**Fixed Thermal Imager for high temperature measurement and thermal imaging.**

**Direct Ethernet cable connection to PC running LIPS NIR for display, recording, alarms, analysis and manipulation of thermal images.**

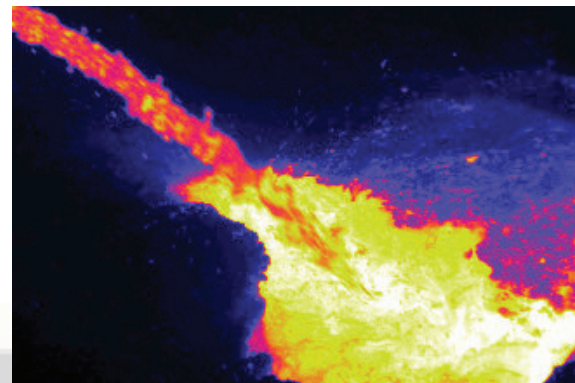
## Intelligent Design

### Features - Benefits

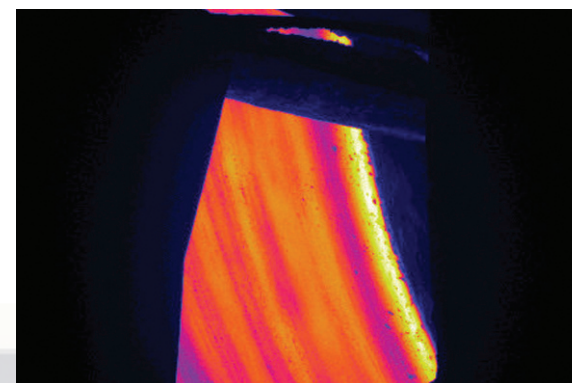
- High resolution radiometric thermal imager
  - giving detailed temperature information transmitted via a high speed digital connection
- Choice of robust housing suitable for harsh industrial environments
  - ensuring ultimate measurement reliability and availability
- Choice of 4 models ranging from 600 to 3000°C / 1100 to 5400°F, plus 3 field of view options
  - suitable for a wide range of applications
- High temperature measurement accuracy
  - enabling optimum process control
- Simple installation and ease of use
  - minimizes cost and complexity
- 2 Year Warranty
  - guarantee of reliability
- Export License Not Required
  - rapid, hassle-free shipping
- Range of 5 Close-up lenses (focal range from 100mm / 4in upwards) available
  - match your product exactly to your application

NOTE: Can directly replace an existing short wavelength, high temperature spot thermometer\*

\*Example System 4 M1 thermometer



Example Application: Liquid Metals



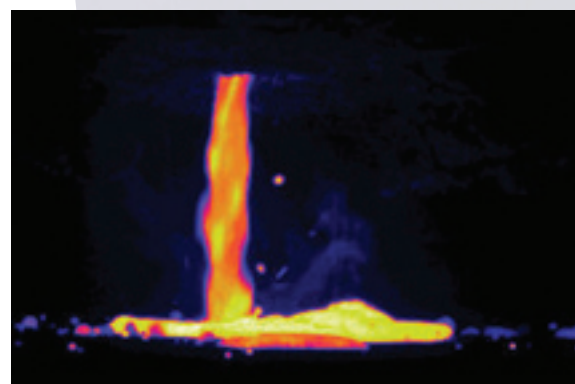
Example Application: Continuous Casting



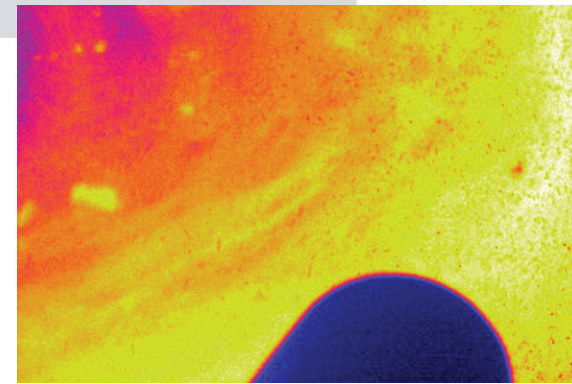
FTI-E 1000 Camera  
Standard Housing  
Explosion Proof  
Housing

## Applications

- Iron and Steel e.g. continuous caster exit
- Black Liquor Recovery Boilers
- Waste Heat Recovery Boilers
- Cement Kilns
- Pipe welding (with close focus lenses)
- Glass tanks and regenerators
- Liquid Metals
- Coating Processes
- High intensity bulb testing
- Silicon production
- plus many more...



Example Application: Ladle Pouring



Example Application: Cement Kiln

## Intelligent Imaging

The FTI-E 1000 Thermal Imaging camera is an integral part the LAND intelligent imaging solution, and is complemented by an extensive range of dedicated system peripherals.

### ● LAND Image Processing Software

On-line system providing flexible, application specific thermal analysis including

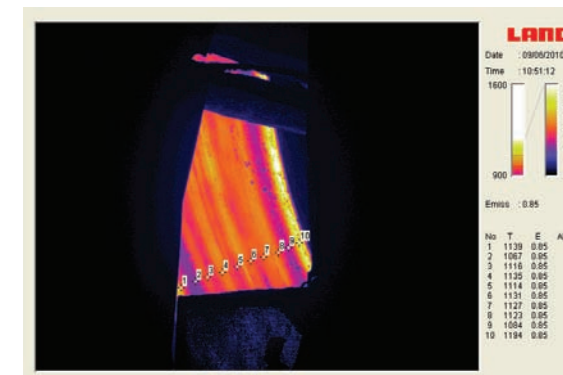
Capture live images and video

3D display

Timed image acquisition

Temperature span controls

Profile display



LIPS NIR - Point Measurement

Temperature measurement: point, rectangle, polygon, isotherm, histogram, area

Alarms - Setting up, saving and loading settings

Change image properties, color palette

Saving, storing, copying and printing views

Saving and loading config. files

Configuring digital and optional analog outputs

# LAND