

Specifications

| Thermal Imager FTI-800E                  |                                                          |                                        |
|------------------------------------------|----------------------------------------------------------|----------------------------------------|
| Measurement range                        | -20 to 120°C / -4 to 250°F                               |                                        |
| Spectral response                        | nominal 8 to 14 μm                                       |                                        |
| Frame rate                               | 7.5 frames per second                                    |                                        |
| Image pixels                             | 320 x 240                                                |                                        |
| Detector type                            | Uncooled amorphous silicon focal plane array             |                                        |
| Field of view                            | 16° x 12°                                                | 32° x 24°                              |
| Focusing range                           | 1 m to infinity<br>39 in to infinity                     | 0.5 m to infinity<br>19 in to infinity |
| System temperature measurement accuracy  | ± 1.5°C / ± 3°F                                          |                                        |
| System thermal resolution<br>(rms value) | < 0.08°C<br>< 0.15°F                                     |                                        |
| Ambient temperature range                | Suitable for outdoor operation in all ambient conditions |                                        |
| Sealing                                  | IP 65 / NEMA 4                                           |                                        |
| Vibration                                | 0.5mm, 10 to 60Hz; 3g, 60 to 300Hz                       |                                        |
| CE Certification                         | EN 61326: 1999 B                                         |                                        |
| <b>Industrial Housing</b>                |                                                          |                                        |
| Dimensions                               | 258 x 305 x 330mm / 10 x 12 x 13in                       |                                        |
| Weight                                   | 20kg / 44lb (with imager installed)                      |                                        |
| <b>Pan &amp; Tilt</b>                    |                                                          |                                        |
| Pan range                                | 365°                                                     |                                        |
| Tilt range                               | + 20° to -90° from horizontal                            |                                        |
| Ambient temperature range<br>(Operating) | - 40 to 60°C<br>-40 to 140°F                             |                                        |
| Dimensions                               | 255 x 181 x 223mm<br>10 x 7 x 9in                        |                                        |
| Weight                                   | 6.5kg / 14lb                                             |                                        |
| Sealing                                  | IP 67 / NEMA 4                                           |                                        |

LAND

Coal Pile Fire Monitor  
Fixed Thermal Imaging Systems



Non-Contact Temperature  
Measurement Solutions

An AMETEK Company

Land Instruments International Ltd • Dronfield S18 1DJ • England • Tel: +44 (0) 1246 417691 • Fax: +44 (0) 1246 410585  
Email: [infrared.sales@landinst.com](mailto:infrared.sales@landinst.com) • [www.landinst.com](http://www.landinst.com)  
AMETEK Land, Inc. • 150 Freeport Rd. • Pittsburgh, PA 15238 • U.S.A. • Tel: +1 (412) 826 4444 •  
Fax: +1 (412) 826 4460 • Email: [irsales@ametek.com](mailto:irsales@ametek.com) • [www.landinstruments.net](http://www.landinstruments.net)

For a full list of international offices please visit [www.landinst.com/infrared/contacts](http://www.landinst.com/infrared/contacts)



# Intelligent Systems

## System Overview

The storage of coal in large piles carries with it a risk of spontaneous combustion. Increased demand on coal reserves has led to alternative, more volatile, types of coal being used more frequently. There are many industry guidelines for safe storage of coal in piles, including recommendations for pile angles, compression and surface smoothing. Even strict adherence to these guidelines may, in some circumstances, not be enough. An early warning system to prevent the onset of fire remains the best and most reliable solution.

## Continuous Monitoring

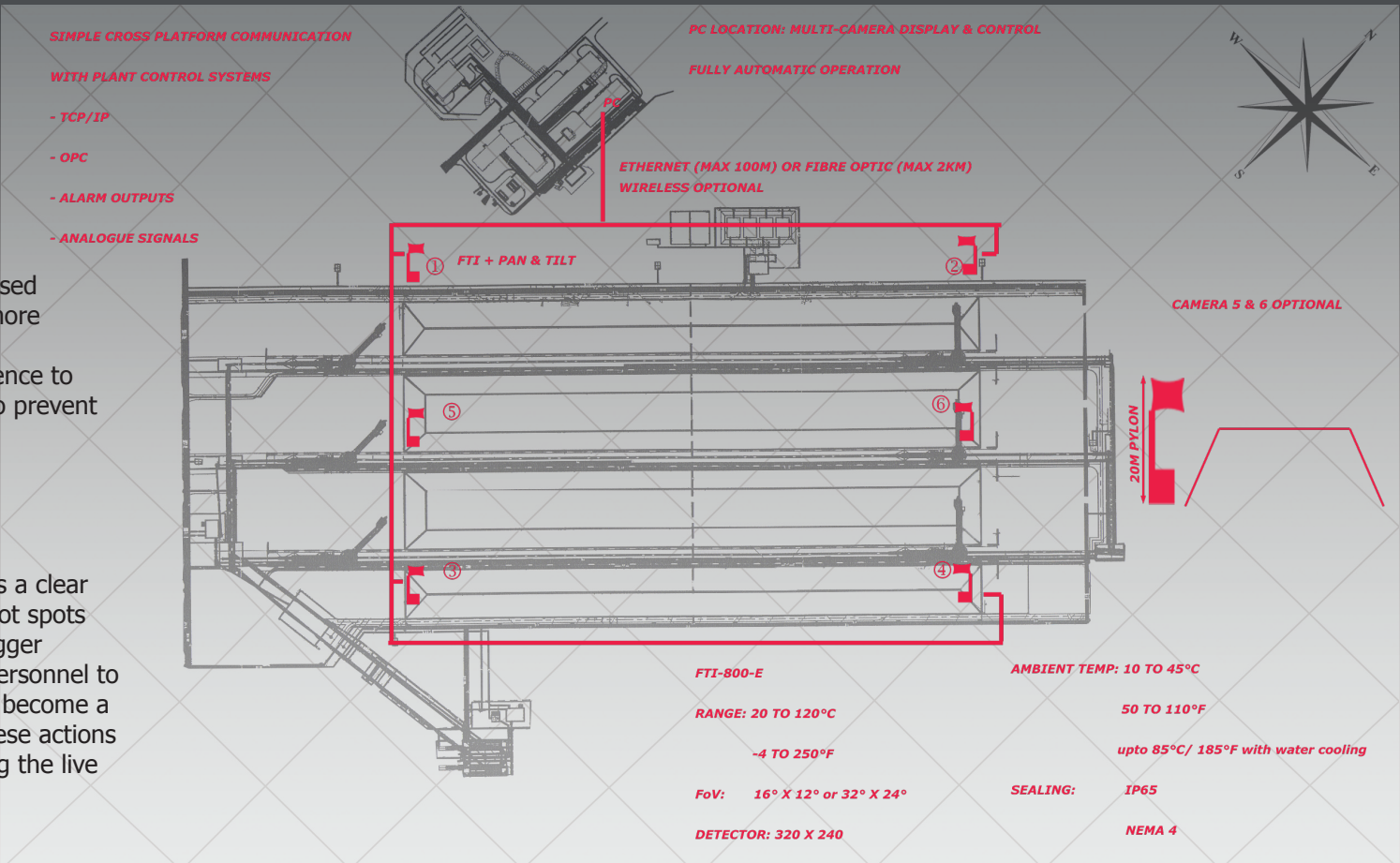
In the case of large or remote storage areas, a continuous and fully automated monitoring system is the only option. A Coal Pile Fire Monitor located at a suitable viewing point can successfully provide an effective solution to these requirements.

## High Resolution Imaging

The Coal Pile Fire Monitor is designed to provide hot spot detection in the harshest environments while providing the connectivity required for simple plant integration.

## Preventative Action

The Coal Pile Fire Monitor provides a clear display and alarm outputs when hot spots are detected, these alarms will trigger preventative action by the plant personnel to ensure that the hot spot does not become a dangerous fire - the success of these actions can be immediately assessed using the live thermal image.



## Designed For Your Plant

Every plant has different needs and legal requirements from a monitoring system; to meet these needs, each Coal Pile Fire Monitor is designed and implemented by our experienced team of application engineers. This is backed up by a trained team of regional commissioning and service engineers to provide on-site support.

Contact LAND today to discuss how the Coal Pile Fire Monitor could be configured for your requirements.

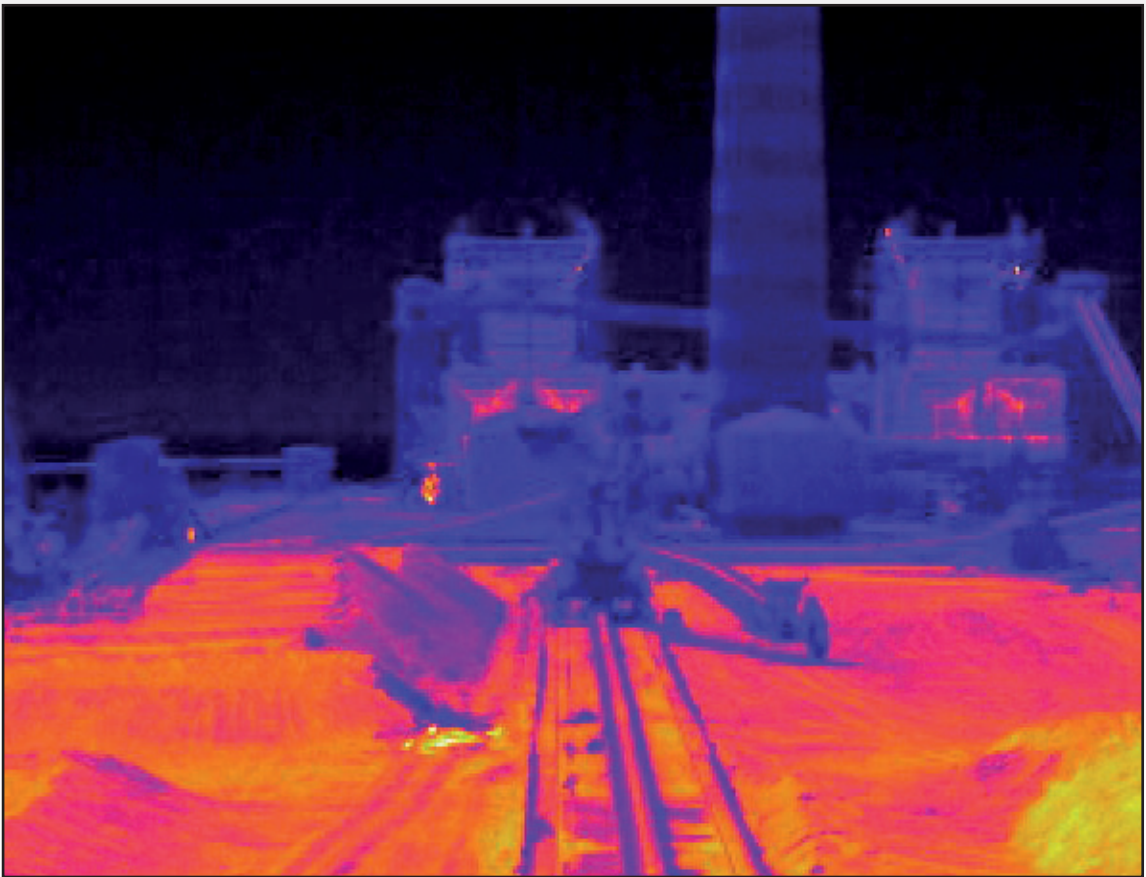
## Coal Fire Detection



The Coal Pile Fire Monitor is part of a range of Coal Fire Detection Systems which are designed to monitor for the conditions in which serious fires and explosions can occur. By monitoring different parameters (temperature, CO, CO<sub>2</sub>) the systems can prevent expensive repairs and downtime as well as helping to ensure the safety of personnel, plant and equipment.

- Mill Fire Detector - CO monitor for early detection and advance warning of mill fires.
- Hot Spot IR - scanning temperature measurement for detection of hotspots on a conveyor.

Contact Land for further information on Coal Fire Detection and Monitoring Systems.



Typical thermal image of a coal pile

## Features and Benefits

- ◆ Early hotspot detection using a thermal imager.
- ◆ Simple alarm to initiate preventative action.
- ◆ Designed to cover large storage areas.
- ◆ Simple installation and fully automatic operation.
- ◆ Designed for harsh environments, ensuring ultimate measurement reliability and availability.

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