

LAND

Arc Thermal Imaging Camera



Flare Stack Monitoring System Arc Thermal Imaging Camera

The use of flare stacks is commonplace in many industries to burn off unwanted waste gas by-products in order to prevent over-pressuring of critical plant equipment. The flammable gases released from these pressure relief valves are burnt to avoid emitting hydrocarbons into the atmosphere or where storage & transport of the gas isn't feasible.

There is a requirement to constantly monitor the flare stack for the presence of a flame and to ensure that proper combustion has taken place. Infrared thermal imaging cameras are the ideal solution due to their improved reliability over traditional methods, and their ability to be remotely mounted in a more accessible location.

Performing a visual check of the presence of a flame isn't always an option, as the flame doesn't always burn with a visible flare.

The unique heat signature produced by the flare is easily detected by the Arc Thermal Imaging camera, which provides a Flame Presence Indicator signal through a dedicated I/O Module. An optional PC allows visualisation of the flare stack.

The Arc thermal imaging camera enables accurate flare detection, even during high ambient light conditions in which current CCTV systems can be unreliable. Their spectral response enables the cameras to see through atmospheric moisture, providing accurate temperature measurement in all but the most extreme weather conditions, while the precision 11° optics coupled with the high resolution detector give outstanding image clarity, even at great installation distances.

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**Non-Contact Temperature
Measurement Solutions**

Land Instruments International Ltd • Dronfield S18 1DJ • England
Email: land.infrared@ametek.co.uk • www.landinst.com • Tel: +44 (0) 1246 417691 • Fax: +44 (0) 1246 410585

AMETEK Land, Inc. • 150 Freeport Rd • Pittsburgh, PA 15238 • U.S.A.
Email: irsales@ametek.com • www.ametek-land.com • Tel: +1 (412) 826 4444 • Fax: +1 (412) 826 4460

For a full list of international offices, please visit www.landinst.com



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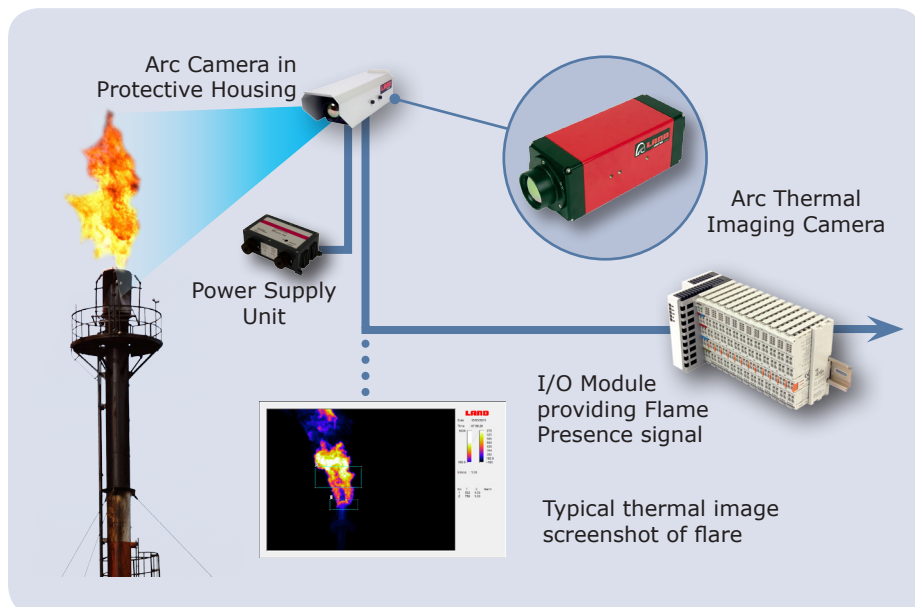
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MANAGEMENT SYSTEM

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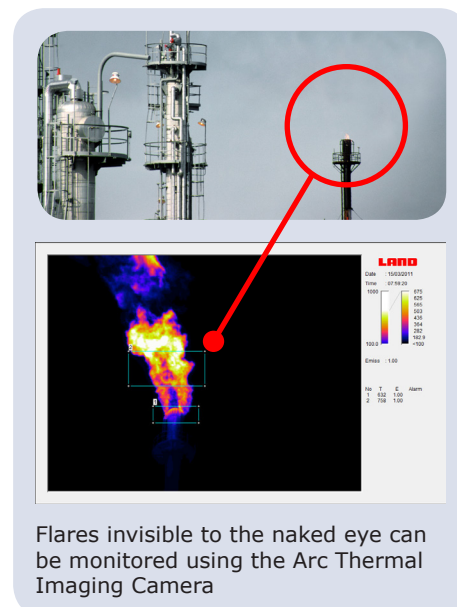
Applies in the UK

Applies in the USA

Flare Stack Monitoring System Schematic



Flare Monitoring



Protective Housing

The purged protective enclosure, with heating option, allows operation in extremes of ambient temperature - even as low as -40°C.



Features & Benefits

- High resolution radiometric thermal imager *Detailed thermal images with unsurpassed accuracy*
- 11° Lens *View the target, at any distance with outstanding clarity*
- Wide ambient temperature operating range *Install just about anywhere!*
- Remote, motorised focus *Quicker installation, safe & convenient operation*
- IP65/NEMA 4X Sealing as Standard *Maintain performance in any environment*
- Direct connection to a range of I/O Modules via standard industrial ethernet *Simple, stand-alone operation*
- Export Licence Free *Rapid, hassle-free shipping*

Specifications

Model Range		ARC-8-FOV-500-Rate	ARC-8-FOV-1000-Rate
Temperature Range		-20 to 500°C -4 to 932°F	100 to 1000°C 212 to 1832°F
Spectral Response		8 - 14µm	
Image resolution		384 x 288	
Horizontal FOV		11°	
Focus range		0.5m>infinity (11°)	
Accuracy		±2% or ±2°C	
Frame Rate	LF	7.5 Hz (export licence-free)	
Physical & Environmental			
Dimensions		85 x 85 x 276 mm / 3.5 x 3.5 x 11 in (including lens)	
Weight		1.8 kg / 4 lb	
Ambient Range		-20 to 60°C / -4 to 140°F	
Operating Humidity		5% to 95% (non-condensing)	
Sealing		IP65 / NEMA 4X	
Power I/O and EMC			
Power Supply		9 to 30 Vdc	
EMC		EN 61326	

Smart Features

Includes:

- 4 areas with min, max, mean and noise filter
- Individual emissivities
- 4 Alarms (high/low) per area

Configured with **Viewer+** Software

I/O

- A range of DIN rail mounted modules providing analog/digital inputs & outputs
- Direct connection to Arc Camera over ethernet
- Analogue output of areas of interest
- Digital outputs for high/low or warning alarm levels