

# ARC IMAGER

RADIOMETRIC THERMAL  
PROCESS IMAGING



0 to 1000 °C / 32 to 1832 °F



**LAND**  
**AMETEK®**  
PROCESS & ANALYTICAL INSTRUMENTS



QUALITY CUSTOMER SOLUTIONS

# ARC IMAGER

RADIOMETRIC THERMAL PROCESS IMAGING

**AMETEK LAND HAS BEEN MANUFACTURING PRECISION MEASURING EQUIPMENT SINCE 1947.**

**We are specialists in non-contact temperature measurement and combustion monitoring with applications across diverse industries such as steel and glass making, power generation and cement manufacture.**

As part of AMETEK Process & Analytical Instruments Division since 2006, our customers benefit from the worldwide AMETEK sales and service team.

**ARC is a range of General Purpose Thermal Process Imagers** which are rugged enough to withstand heavy industrial applications, while compact enough for use in research and development and automation. ARC is a high resolution radiometric thermal imager providing detailed thermal images with unsurpassed temperature accuracy.

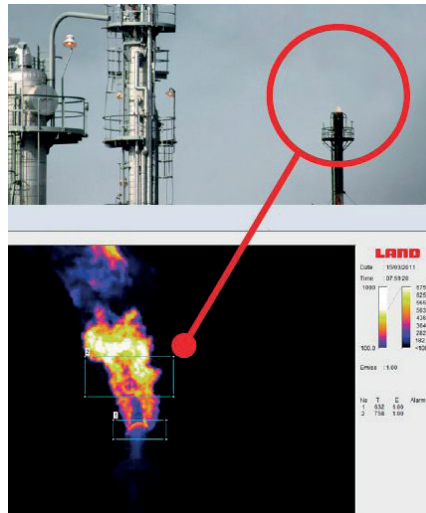
ARC is available with two temperature ranges (0 to 500 °C / 32 to 932 °F and 100 to 1000 °C / 212 to 1832 °F), four lenses, two frame rates and three software variants to meet exact user requirements.

Sophisticated data-processing is performed within the ARC Imager. Connection to an I/O module is made

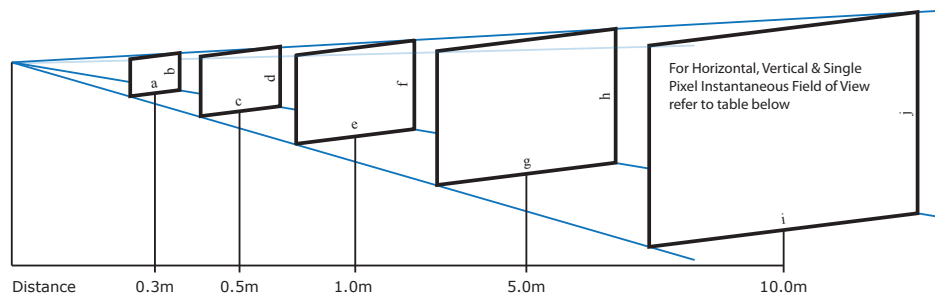
via standard industrial Ethernet, offering stand-alone operation for a smarter image. ARC is supplied as standard with ARC Viewer software, which enables visualisation of the thermal data, while Viewer+ offers configuration of the Smart Camera features and LIPS allows full analysis, recording and playback of thermal data.

The range of four lenses enables viewing of any target, at any distance with outstanding image clarity. Coupled with this is the wide ambient temperature operating range making ARC suitable for everything from bench top monitoring to the most demanding industrial applications

ARC uses remote motorised focus allowing quicker installation and safer and convenient operation.



## FIELD OF VIEW LENS OPTION



	0.3m			0.5m			1.0m			5.0m			10.0m		
	a	b	IFOV	c	d	IFOV	e	f	IFOV	g	h	IFOV	i	j	IFOV
11°	-	-	-	0.09 m	0.07 m	0.25mm	0.19 m	0.144 m	0.50mm	0.96 m	0.72 m	2.50mm	1.92 m	1.44 m	5.0mm
22°	0.12 m	0.09 m	0.30mm	0.19 m	0.15 m	0.50mm	0.39 m	0.29 m	1.0mm	1.94 m	1.46 m	5.00mm	3.89 m	2.92 m	10.0mm
44°	0.24 m	0.18 m	0.63mm	0.40 m	0.30 m	1.05mm	0.81m	0.61 m	2.10mm	4.04 m	3.03 m	10.5mm	8.08 m	6.06 m	21.0mm
60°	0.35 m	0.26 m	0.90mm	0.58 m	0.43 m	1.50mm	1.15 m	0.78 m	3.00mm	5.77 m	4.33 m	15.0mm	11.55 m	8.66 m	30.0mm

ARC IMAGER

# SPECIFICATION & DESIGN



## 1: VIEWING ANGLE

11°, 22°, 44° or 60° angle provides thermal view, 384 x 288 resolution

## 2: OPTIONAL ATEX AND CLASS/DIVISION ENCLOSURES

Suitable for hazardous area applications

## 3: IP65/NEMA 4 X SEALING

Maintains performance in any environment

## 4: REMOTE MOTORISED FOCUS

Quicker installation, safe and convenient operation

## 5: STANDARD INDUSTRIAL ETHERNET

Direct connection to a range of I/O modules for simple, stand-alone operation

## 6: MONITORING SOFTWARE

Image view with basic temperature data (Viewer), plus smart feature configuration (Viewer+), image recording, profiles, areas of interest, alarms

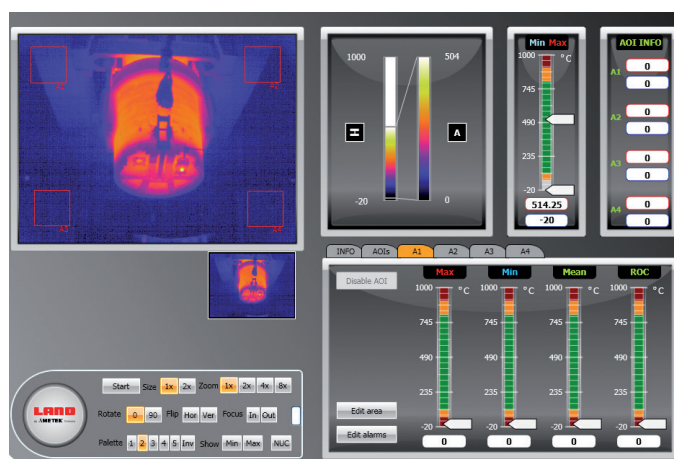


ARC HOUSING

## TYPICAL APPLICATIONS

Automation	Process Control
Machine Vision	Flare Stack Monitoring
Coal Pile Hot Spot Detection	Medical
Critical Vessel Refractory	Petrochemical
Food	Minerals

## VIEW OF LADLE



## FEATURES & BENEFITS

**High resolution radiometric thermal imager** - detailed thermal images with unsurpassed temperature accuracy

**4 Lens options** - view any target, at any distance with outstanding clarity

**Wide ambient temperature operating range** - install just about anywhere

**A smarter image** - 4 areas with min, max, mean and noise filter, individual emissivities, 4 alarms (high low) per area - all configurable from Viewer+ software

**Viewer software as standard** - user-friendly monitoring software enables visualisation of thermal data

# ARC IMAGER

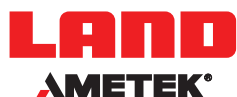
RADIOMETRIC THERMAL PROCESS IMAGING

## SPECIFICATIONS

Measurement Range	
<b>ARC-8-FOV-500-Rate:</b>	0 to 500 °C / 32 to 932 °F
<b>ARC-8-FOV-1000-Rate:</b>	100 to 1000 °C / 212 to 1832 °F
<b>Spectral Response:</b>	8 to 14 µm
Frame Rate	
<b>LF Models:</b>	7.5 Hz
<b>HF Models:</b>	30 Hz
<b>Image Pixels:</b>	384 x 288
<b>Accuracy:</b>	±2% or ±2 °C
<b>Sealing:</b>	IP 65 / NEMA 4X
<b>Software:</b>	ARCViewer, ARCViewer+, LIPS
<b>Field of View (Horizontal):</b>	11°, 22°, 44° or 60°
<b>Focus Range:</b>	0.3 m > infinity (22°, 44° or 60°) / 0.5 m > infinity (11°)
<b>Dimensions:</b>	85 x 85 x 276 mm / 3.5 x 3.5 x 11 in (including lens)
<b>Weight:</b>	1.8 kg / 4 lbs
<b>Ambient Range:</b>	-20 to 60 °C / -4 to 140 °F
<b>Operating Humidity:</b>	5 % to 95 % (non-condensing)
<b>Power Supply:</b>	9 to 30 Vdc
<b>EMC:</b>	EN 61326

DISCOVER HOW OUR BROAD RANGE  
OF NON-CONTACT TEMPERATURE  
MEASUREMENT AND COMBUSTION &  
EMISSIONS PRODUCTS OFFER A  
SOLUTION FOR YOUR PROCESS

WWW.LANDINST.COM | WWW.AMETEK.COM



**Land Instruments International**  
Stubley Lane, Dronfield  
S18 1DJ  
United Kingdom

Tel: +44 (0) 1246 417691  
Email: land.enquiry@ametek.com  
[www.landinst.com](http://www.landinst.com)

**AMETEK Land - Americas**  
150 Freeport Road,  
Pittsburgh, Pennsylvania, 15238  
United States of America

Tel: +1 (412) 826 4444  
Email: land.enquiry@ametek.com  
[www.ametek-land.com](http://www.ametek-land.com)

**AMETEK Land China Service**  
Part A1 & A4, 2nd Floor Bldg. 1  
No. 526 Fute 3rd Road East,  
Pilot Free Trade Zone 200131  
Shanghai, China

Tel: +86 21 5868 5111 ext 122  
Email: land.enquiry@ametek.com  
[www.landinst.com](http://www.landinst.com)

**AMETEK Land India Service**  
Divyasree N R Enclave, Block A,  
4th Floor, Site No 1, EPIP Industrial Area  
Whitefield, Bangalore- 560066  
Karnataka, India

Tel: +91 - 80 67823240  
Email: land.enquiry@ametek.com  
[www.landinst.com](http://www.landinst.com)