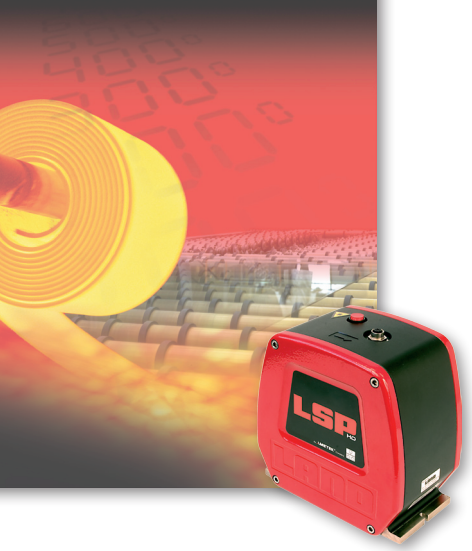


LAND

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

LSP$_{HD}$ 60
20 to 250 °C / 68 to 482 °F

LSP$_{HD}$ 61
50 to 400 °C / 122 to 752 °F

LSP$_{HD}$ 62
100 to 600 °C / 212 to 1112 °F

Compact, high performance linescanners which provide high definition thermal imaging from a combination of fast scan speeds and high resolution optics. The real-time processed data is provided via an industrial ethernet connection which is plug and play, installed by means of a single cable connection, which reduces installation time and costs.

+industry leading 150 Hz scan speed
1000 samples at all scan frequencies+

Key Benefits

+ **Process Investigation**
  Displays can be used to identify and analyse problems e.g. refractory linings on torpedo cars, hotspot detection on conveyors.
+ **Process Development**
  Process modelling to improve process control
+ **Quality Control**
  Accurate thermal records are a critical aspect of product quality information
+ **Process Control**
  Provide real time thermal displays of the product in different display formats.

Key Applications

+ Non-wovens - Paper rolls, webs, coated paper
+ Conveyors - coal, coke, clinker, grains
+ Cement - Rotary Kilns, Dryers
+ Steel - Torpedo cars, Coated steel
+ Thermoforming, Plastic extruders, Galvanising lines (top position)

LSP$_{HD}$ - Key Features

+ High resolution, optical system
+ Designed for operation in harsh industrial environments
+ Plug and play installation via a single Ethernet cable connection
+ Range of data output formats

Photos (Top to bottom): Coke Conveyor, Damage on a superclendar roll

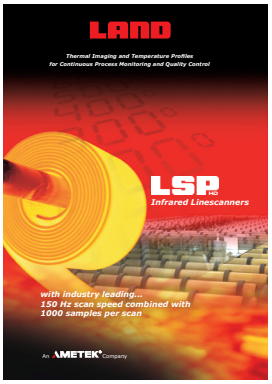
Performance Specifications LSP$_{HD}$ 60 (P/No. 804804) / LSP$_{HD}$ 61 (P/No. 804805) / LSP$_{HD}$ 62 (P/No. 804806)			
Temperature Range:	**LSP$_{HD}$ 60** 20 to 250 °C / 78 to 482 °F	**LSP$_{HD}$ 61** 50 to 400 °C / 122 to 752 °F	**LSP$_{HD}$ 62** 100 to 600 °C / 212 to 1112 °F
Wavelength:	3 to 5 µm	3 to 5 µm	3 to 4.2 µm
Measurement Accuracy(1):	±2°C / 3.6°F		
Repeatability:	<0.5°C / <0.9°F		
Temp. Resolution typical:	< 2 °C / < 3.6 °F	< 1 °C / < 1.8 °F	< 1 °C / < 1.8 °F
Drift with ambient temp:	≤ 1° indicated / 10° ambient	≤ 1° indicated / 10° ambient	≤ 2° indicated / 10° ambient
Emissivity:	0.20 to 1.00		
Speed of Response:	≤ 10 µs	≤ 5 µs	≤ 5 µs
Scan angle:	80° (software adjustable to 40°)		
Scan Speed:	10 to 150 Hz (User adjustable in 1 Hz steps)		
Samples/scan:	1000		
Field of View:	12mm / 0.5 in for target distance less than 1200mm / 47.2 in 100:1 for target distance greater than 1200mm / 47.2 in *static to 95% radiance* 300:1 for target distance greater than 1200mm / 47.2 in *static to 50% radiance*		
Focus Distance:	Fixed Focus at 1200mm / 47.2 in		
Connection:	Industrial Ethernet via M12 Connector / Power over Ethernet		
Signal Processing:	Up to 14 user configurable zones with min. / max. / average / quantile / average threshold		
Inputs/Outputs:	PoE (IEEE 802.3at) enabled TCP/IP Industrial Ethernet		
Ambient Temperature	5 to 60°C / 41 to 140°F (specified) 5 to 70°C / 41 to 158°F (operating)		
Dimensions (w x h x d):	206 x 209 x 100 mm / 8.1 x 8.2 x 3.9 inches		
Alignment Laser:	Class 2, maximum output 1.0 mW at 635 nm, IEC60825-1:2001 / Indicating scan plane & extent		
Environmental Sealing:	IP65		
EMC:	EN 61326 Class A; Low Voltage Directive EN61010-1		

Notes: (1) Applies 5 to 95% of range

LSP$_{HD}$ Overview

A complete overview of the entire product range, including the key features and benefits of all models.

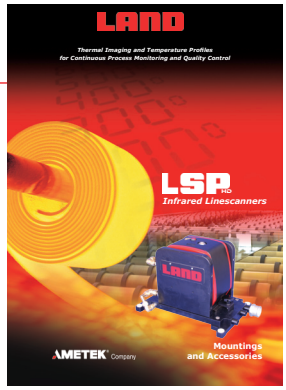
Ref **LSP$_{HD}$** Overview 0310



LSP$_{HD}$ Mountings and Accessories

A complete overview of the entire range of mountings and accessories for the entire **LSP$_{HD}$** product range

Ref. **LSP$_{HD}$** M&A 0310



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Non-Contact Temperature Measurement Solutions

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LASER RADIATION
DO NOT STARE INTO BEAM
CLASS 2 LASER PRODUCT
1mW MAX OUTPUT AT 635nm
IEC 60825-1:2001

An AMETEK® Company

UKAS CALIBRATION 0034

Applies in the UK

LABORATORY ACCREDITATION BUREAU ACCREDITED ISO/IEC 17025:2005

REGISTERED ISO 9001 MANAGEMENT SYSTEM

Applies in the USA

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Continuous product development may make it necessary to change these details without notice.