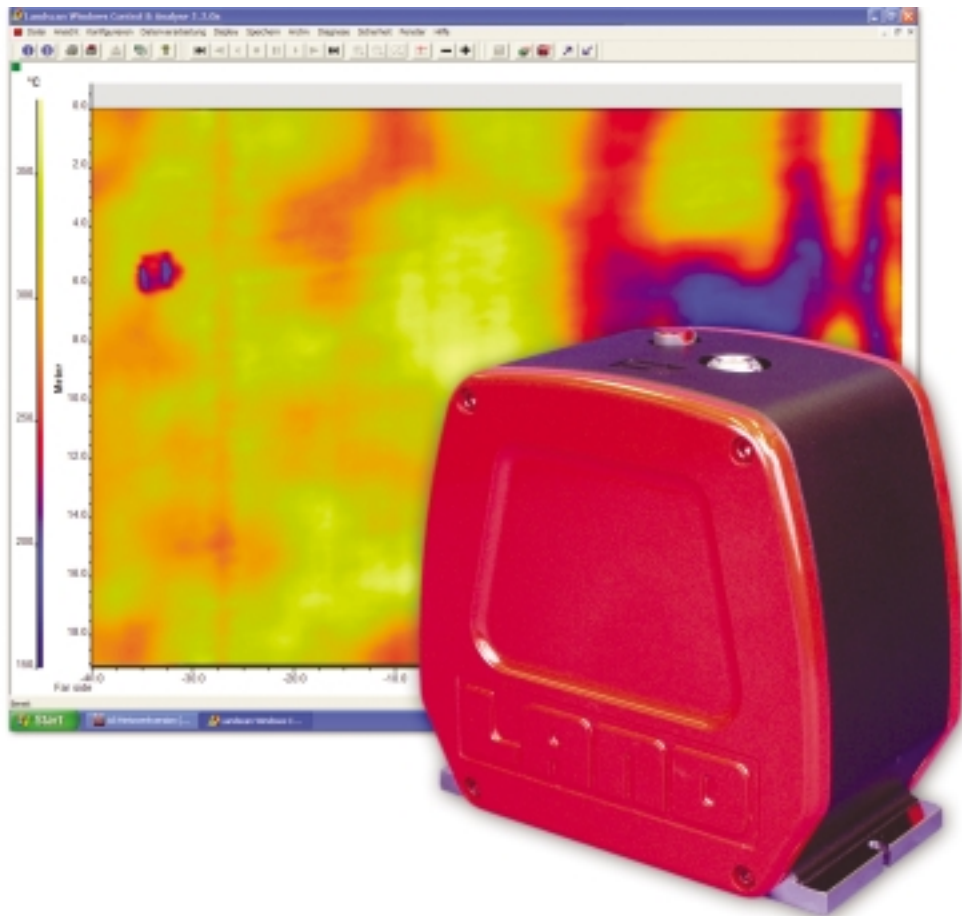


# LAND

instruments international



## **LANDSCAN** LSP Infrared Linescanners

A new series of compact high  
precision linescanner heads



The new compact LSP infrared linescanners provide affordable, highly accurate process imaging and temperature measurement in a wide range of applications from 20 to 1100°C/68 to 2012°F.

Choice of signal processors used to interface with process control computers and for preprocessing of data with the Windows-based Landscan Control & Analyse WCA processing software.



The new LANDSCAN LSP high speed, wide angle infrared linescanning systems are designed for today's exacting demands for precision temperature measurement, process imaging and control.

#### LSP Series Linescanner Heads

The LSP series head is extremely compact and has a minimized depth and base 'footprint' for installation in restricted spaces, designed to reduce heat absorption. A built-in laser targeting system aids alignment on to the target. LSP systems have extensive storage, display and analysis capabilities, processing temperature data from multiple sensor heads, and database and archive files simultaneously.

#### Benefits

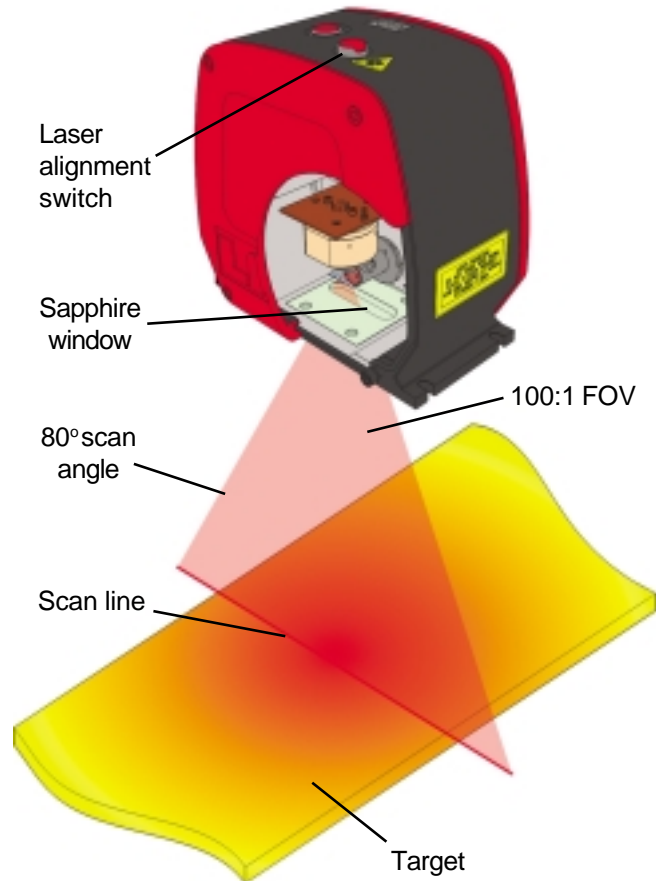
- Improved product quality and operating profitability
- Closer control of heating and manufacturing processes
- Detect product defects and heating problems quickly
- Reduced set-up time and scrap rate
- Automated quality monitoring

#### Features

- Compact size with a robust sapphire window
- Wide scan 80° angle
- Scan speed of 10 to 100Hz (adjustable)
- 100:1 field of view (95% energy)
- Built-in Class 2 laser to define scan plane and angle
- Single cable connection between scanner and processor
- Choice of signal processing units
- Powerful, versatile, software system with single and multiple channel digital/analog input and outputs
- Wide range of protection and mounting accessories

# LANDSCAN

## LSP series of high precision, compact infrared linescanners



#### Landscan Control Signal Processors

The new Landscan Control processors (LSC-B and LSC-R) are 19in rack mount units and Landscan Control Compact (LSC-C) is an economic wall/back-of-panel mount unit, each providing serial and Ethernet outputs of temperature data. These processors can interface to local process control systems or Landscan Configuration Professional and Landscan WCA software.

Refer to the Landscan Processors brochure for further information on the signal processors and options available.

#### Process Control

The outputs from the linescanner head are transmitted to a Landscan signal processor operating on the new Windows based Landscan Control and Analyse (WCA) software system which can be used in process control applications.

Refer to the Landscan Software brochure for further information on Landscan WCA.



## LSP5 Series Infrared Linescanners

LSP5 series infrared linescanners have a temperature range from 150 to 750°C/302 to 1382°F and 500 to 1100°C/932 to 2012°F, designed for forming, annealing and tempering in the float, automotive and container glass industries.

The LSP5FL linescanner is specifically designed for use in the hostile environment of the float glass line, available with dedicated ruggedised protection mountings and assemblies.

### Applications

- Float glass
- Automotive glass
- Holloware
- Glass forming
- Glass toughening/tempering
- Annealing

## LSP6 Series Infrared Linescanners

LSP6 series are low temperature linescanners designed for a wide range of process imaging and control applications in the range 20 to 600°C/68 to 1112°F.

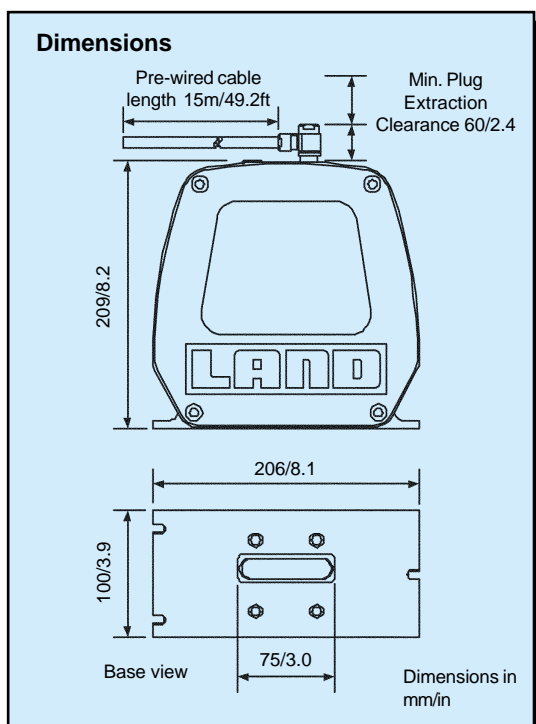
### Applications

- Thermoforming
- Torpedo car/ladle safety
- Building products
- Paper and webs
- Non-wovens
- Rotating kilns
- Conveyor belt protection
- Coating processes
- Cold rolling

## LSP71 Infrared Linescanners

LSP71 is specifically designed for process imaging and temperature control of hydrocarbon thin plastics from 50 to 350°C/122 to 662°F.

LSP71 has a narrow spectral response specially selected for measurement of a wide range of thin plastics sheet, such as: PVC, polycarbonate, polypropylene, polyethylene, PET, cellulose acetate and polystyrene.



## Specifications

Type	LSP5FL	LSP50	LSP52
Measurement range:	150 to 750°C/302 to 1382°F		500 to 1100°C/932 to 2012°F
Scan speed:	20Hz (preset)	50Hz (preset)	
Spectral response:	5µm		
Speed of response:	<7µs		
System accuracy:	±2°C/3.6°F		±3°C/5.4°F
Temp. resolution (noise)			
<15% range:	2°C/3.6°F		2.5°C/4.5°F
>15% range:	1°C/1.8°F		2.5°C/4.5°F
Drift with ambient temp:	≤2° indicated/10° ambient		≤3° indicated/10° ambient

Type	LSP60	LSP61	LSP62
Measurement range:	20 to 250°C/68 to 482°F	50 to 400°C/122 to 752°F	100 to 600°C/212 to 1112°F
Scan speed:	50Hz (preset)		
Spectral response:	3 to 5µm		3 to 4.2µm
Speed of response:	≤10µs	≤5µs	
System accuracy:	±2°C/3.6°F		±3°C/5.4°F
Temp. resolution (noise)			
<15% range:	3°C/5.4°F		2°C/3.6°F
>15% range:	1.5°C/2.7°F		1°C/1.8°F
Drift with ambient temp:	≤1° indicated/10° ambient		≤2° indicated/10° ambient

Type	LSP71
Measurement range:	50 to 350°C/122 to 662°F
Scan speed:	50Hz (preset)
Spectral response:	3.4µm
Speed of response:	≤10µs
System accuracy:	±2°C/3.6°F
Temp. resolution (noise)	
<15% range:	2.0°C/3.6°F
>15% range:	1.0°C/1.8°F
Drift with ambient temp:	≤1° indicated/10° ambient

## Specifications - All LSP Types

Scan angle:	80°
Scan speed:	Adjustable, 10 to 100Hz (in 10Hz steps)
Repeatability:	±0.5°C/0.9°F
Emissivity:	0.20 to 1.00
Target width:	12mm/0.5in at distance <1200mm/47.2in; FOV 100:1 at distance >1200mm/47.2in
Ambient temperature:	5 to 60°C/41 to 140°F (specified) 5 to 70°C/41 to 158°F (operating)
Alignment:	Class 2, max. output 1.0mW at 635nm, IEC60825-1:2001
Environmental Sealing:	IP65
EMC:	EN 61320:1999 Class A (immunity and emission), IEC 1010 (safety)

*For further information please contact the appropriate office or  
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