

Imagine the invisible

Industrial

Serval-640-GigE Thermography

High resolution IP67 thermography camera



For temperature measurement in the toughest conditions

System integrators around the world are looking for an easy-to-integrate thermography camera to use in their industrial installations. The Serval-640-GigE thermography camera offers accurate temperature measurements in ranges of -20 to 120°C, 50 to 400°C, 300 to 1200°C or 1000 to 2000°C. This broad range of calibrations guarantees thermography within a wide range of applications.

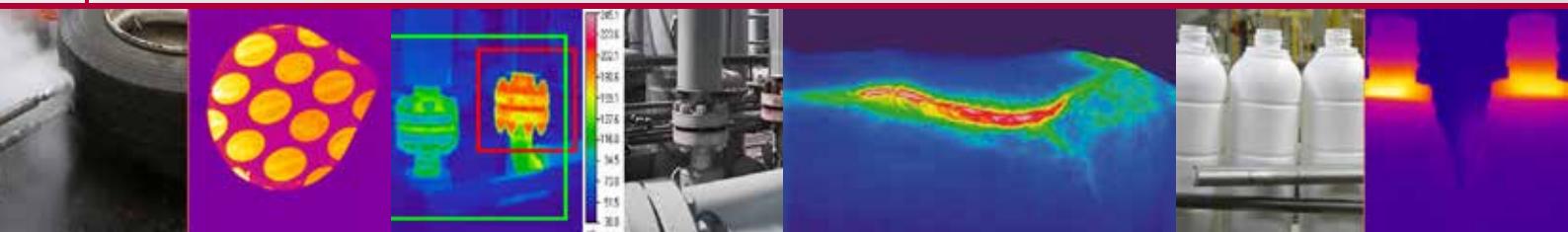
The Serval-640-GigE Thermography fulfils the growing demand for

rugged and reliable end-user ready thermography cameras. Its compact form factor provides front window protection to protect the lens, plus an optionally air purge system of the encapsulated optics to allow permanent use in dust-loaded atmospheres.

The Serval-640-GigE Thermography simply offers the best price-performance ratio on the market as a truly complete IP67 industrial thermography camera.



Designed for use in



⌘ Test bench tire heating

⌘ Monitoring of critical installations

⌘ Waste combustion

⌘ In-line quality control

Applications

- Non-contact temperature measurement in industrial automation, machine vision
- In-line process and quality control in harsh environments
- Crucial hot-spot, fire or smoke detection
- Monitoring of industrial plants

Benefits & Features

- Easy to install and service thermography camera
- Large operating temperature range at factory floor use
- On-board thermography of +/- 2 °C or +/- 2 % accuracy
- Ultra-compact industrial LWIR camera with small GigE interface
- Low cost of ownership with IP67 protection grade, optional air purge, sun shroud and I/O connection terminals

Complete and easy-to-integrate bundle

Accessories



Sunshroud

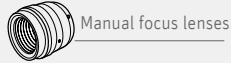


Air purge



I/O kit

Lens configurations

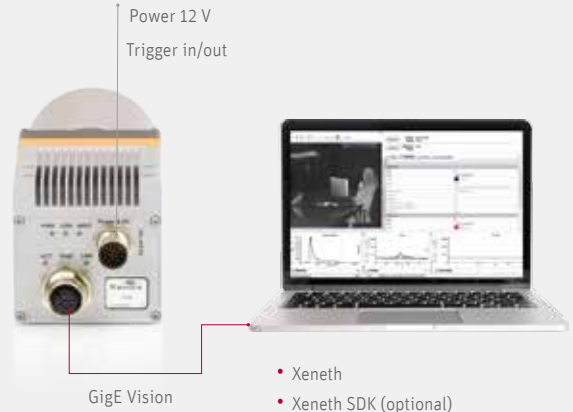


Manual focus lenses



Discover our Lens Selector Guide
www.xenics.com/LSG

Inputs



- Xeneth
- Xeneth SDK (optional)
- Xeneth LabVIEW SDK (optional)

Outputs

Specifications

Camera Specifications	Serval-640-GigE Thermography
Lens (included)	
Focal length	One fixed lens configuration per camera part number More information is included the product selector guide
Imaging performance	
Maximum frame rate	50 Hz
Window of Interest (WoI)	Minimum size 160 x 120
Thermal time constant	10 ms
Integration time range	1 μ s - 80 μ s
Integration type	Rolling shutter
A to D conversion resolution	16 bit
On-board image processing	NUC (Non-Uniformity Correction)
Interfaces	
Camera control	GigE Vision
Image acquisition	GigE Vision
Trigger	In or out (configurable)
Power requirements	
Power consumption	<5 W
Power supply	12 V
Physical characteristics	
Shock	50 G, 11 ms according to MIL-STD810G & IEC 60068-2-27
Vibration	5.4 G (5 Hz to 1000 Hz) according to MIL-STD883J & IEC 60068-2-64
Protection rating	IP-67 according to IEC 600529
Ambient operating temperature	- 40°C to 70°C
Storage temperature	- 45°C to 85°C
Dimensions (W x H x L mm ³)	55 x 55 x 122*
Weight camera head	470 g*

*Depends on lens configuration

Array Specifications	
Array type	Uncooled microbolometer (a-Si)
Spectral band	8 μ m to 14 μ m
Resolution	640 x 480
Pixel pitch	17 μ m
Sensitivity (NETD)	55 mK @ 30°C with F/1 lens
Array cooling	Uncooled
Pixel operability	> 99 %

Product selector guide

Part number	Fixed lens	NETD (mK)	Frame rate (Hz)	Interface
XEN-000545	18 mm			
XEN-000547	25 mm	55	50	GigE
XEN-000549	40 mm			

On-board thermography calibrations*

Available temperature ranges	
Option 1	-20°C to 120°C
Option 2	50°C to 400°C
Option 3	300°C to 1200°C (**)
Option 4	1000°C to 2000°C (**)

*Thermography accuracy +/- 2°C or +/- 2 % (whichever is the highest) for camera operation ambient temperatures between 10°C - 60°C
 **Use a ND filter. A calibration with a ND filter cannot be combined with another calibration without ND filter.