

Better Images. Better Decisions. Better Process Control.

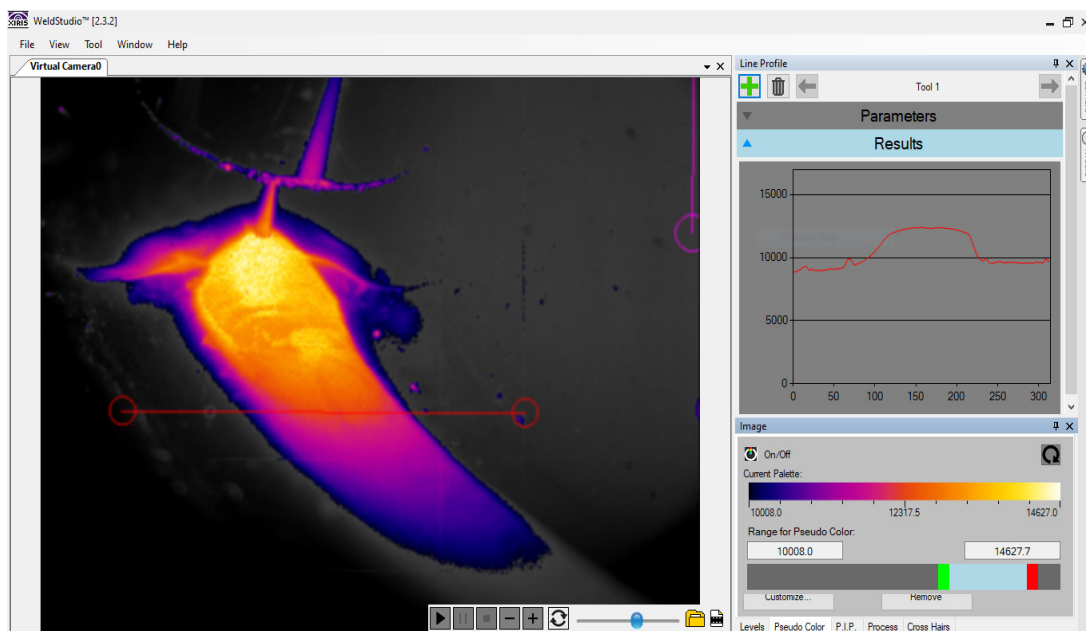
The **XIR-1800** is a High Dynamic Range (HDR) thermal camera designed for use in critical metal joining and Additive Manufacturing applications where thermal properties of key features need to be carefully monitored in real-time.

Combining a spectacular 120+ dB HDR capability with sensitivity to the Short-Wave InfraRed (SWIR) spectrum, the XIR-1800 thermal camera provides enhanced imaging of metal joining processes beyond what is visible using standard thermal or visible-light cameras, creating clear images of the welding arc and surrounding material, while being able to measure their thermal properties between 250-1800°C.



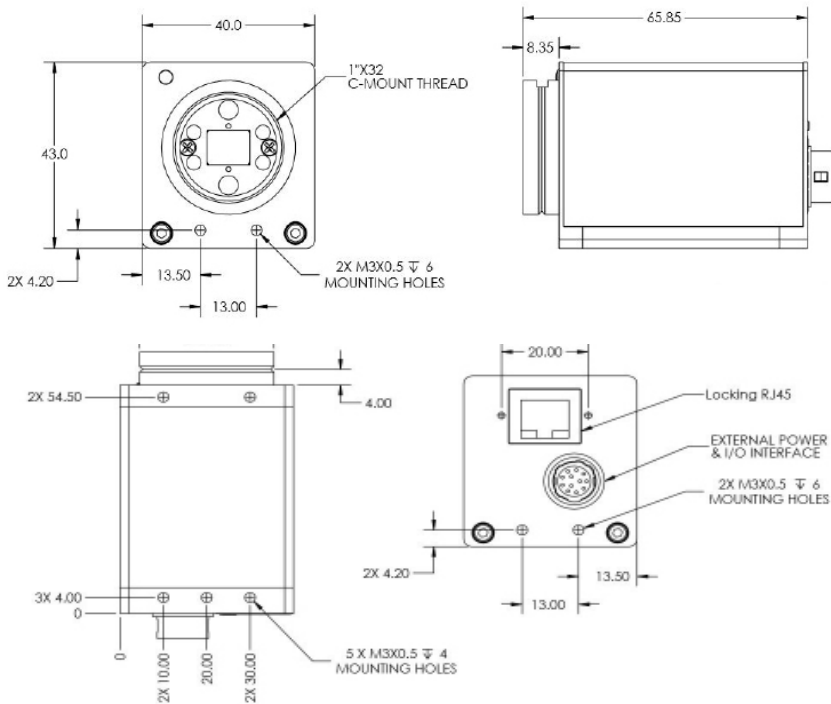
Benefits

- Provides ability to image through smoke or fumes to provide an exceptionally clear, real-time views of any metal additive or welding process.
- Generates a temperature map to thermally monitor key weld zones such as the melt pool and surrounding base material for in-process control and quality assurance.
- Provides ability to capture high speed pulsing processes in real-time using Global Shutter and high frame rates, with or without triggering.
- Integrates with Xiris WeldStudio™ software suite so that multiple Xiris weld cameras (thermal or visual) and a Xiris weld microphone can be integrated together for data synchronization, capture and analysis in one powerful software platform.
- Provides the ability to monitor the weld torch position before and during welding for faster set-up and in-process adjustments.



Xiris® XIR-1800 Thermal Camera

Camera Body Outline



Standard Lens Configurations

Lens with 10mm Spacer	Working Distance (mm)		Field of View (mm)	
	Min	Max	Min	Max
35mm	130	266	50 x 40	88 x 70
50mm	350	560	75 x 60	130 x 104

Other lens options available

Thermal Camera Specifications

Dimensions	40(W) x 43(H) x 66(L) mm	Image Sensor	1" SWIR HDR InGaAs
Weight	140 g	Resolution	640H x 512V Pixels (15 μ m square)
Environmental	IP54	Dynamic Range	+120 dB (Log)
Environmental Temperature	Ambient up to 35°C Up to 80°C with cooling plate	Temperature Sensing Range	~250°C to ~1800°C
Camera Connectors	Locking RJ 45 Ethernet (Cat 6+) Hirose for I/O and Trigger	Shutter Range	10 μ s – 20ms Exposure
Lens Mounting	C/CS -Mount	Shutter	Global
Software	Xiris WeldStudio™ 2.3.2 & later WeldSDK 2.2 and later	Image Data Format	(14 Bit, Gigabit Ethernet) Up to 200fps – full resolution
Humidity	Operating: 20 to 80% (no condensation)	Camera Controls	Exposure Time, Frame Rate, AOI, Image format, Trigger and I/O,

Other accessories such as optics, cables, controllers, HMIs, power adapters, external cooling plates and industrial housings, can be provided upon request.

Please contact your Xiris sales Representative for further information.



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