

Better Images. Better Decisions. Better Process Control.

The Xiris **XVC-1000e/1100e** Weld Camera is intended for remote monitoring of all open arc welding processes such as MIG/MAG, TIG, Plasma, Laser, or Stick Welding, up to 100 m away. The XVC-1000e is the monochrome version; the XVC-1100e is the color version.

Using sophisticated sensor technology with advanced electronics to provide a spectacular 140+ dB High Dynamic Range capability, the **XVC-1000e/1100e** Weld Camera delivers a clear view of the brightest features of the welding torch tip while still being able to see the weld pool and surrounding darker background.

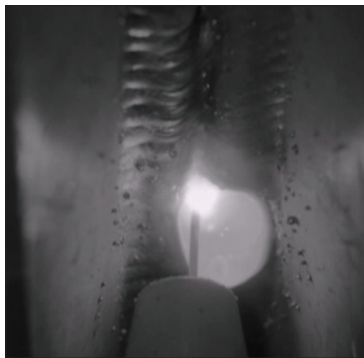
The **XVC-1000e/1100e** delivers all the benefits of the XVC-1000 camera but comes in a rugged, IP65 rated housing that includes auxiliary lighting, internal cooling, remote motorized lens capability and replaceable front window protection.

The combination of powerful welding specific features such as image triggering, general purpose I/O, image windowing capability and a weld arc photodetector with a full suite of welding-specific imaging software tools, provides unprecedented image quality of a variety of welding and laser processes.

GTAW/TIG



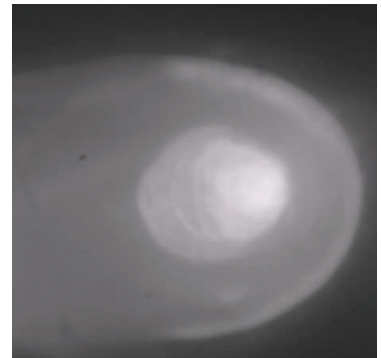
GMAW/MIG



Plasma



Laser



High Dynamic Range

With a dynamic range image in excess of 140 dB, the XVC-1000e/1100e is able to acquire images with a greater range of tonal detail than any standard camera. This is particularly important for various industrial processes such as welding where there is a very bright light source in the image that needs to be seen in great detail without saturation as well as darker surrounding background features that also need to be present in the image and seen by the user.

Color When You Need It

With high dynamic range (HDR) color imaging, the XVC-1000e/1100e is able to acquire color images when required for various welding processes, such as GTAW, where color provides extra information to the user such as: the boundary of the Heat Affected Zone, oxidation of the melt pool and tip, and shielding gas presence. The very bright weld arc can be seen in color without saturation as well as its darker surrounding background features as a result of the HDR imaging.

Welding Specific Functionality

Every feature of the XVC-1000e/1100e is designed to maximize usability for the welding industry, including the high dynamic range sensor, the small compact ruggedized housing, integrated solid state lighting, motorized focus, multiple mounting points, and replaceable protective window.

Opto-Isolated GPIO

Opto-isolated GPIO protects the camera from noise generated by external devices typically found in a welding environment, such as welding power supplies, motors, etc., as well as power issues caused by malfunctioning devices attached to the camera.

Triggering

Hardware and software triggering to synchronize image acquisition to an external device such as a welding power supply, light source or to other cameras. Supported modes include free running, external, and single shot triggering, with an optional trigger delay.

Software

The Xiris WeldStudio™ Viewer is a full demo software utility compatible with Microsoft Windows 7/8.1 and Linux Ubuntu/Redhat. It includes the Xiris camera driver and controls, graphic tools to provide the user with crosshairs and targets, and image processing functions to provide additional image enhancements for the user. Also included is a full video recording and playback utility.

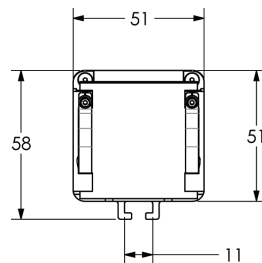
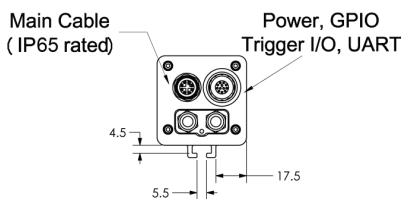
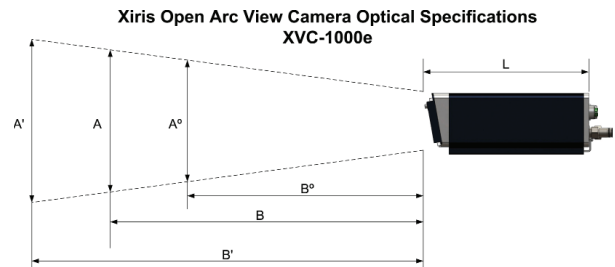
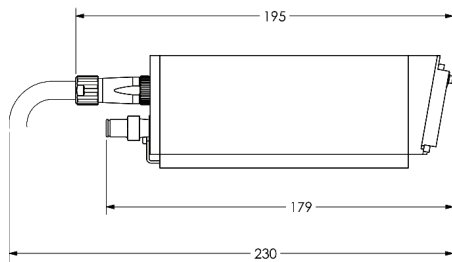
Accessories

Customize your system to meet your needs. All the accessories you need to get up and running, such as a fanless PC, display monitors, different cable lengths and power adapters can be provided on a custom basis from Xiris.

Xiris® XVC-1000e/1100e Weld Camera

XVC-1000e/1100e Specifications

Image Sensor	2/3" Mono HDR CMOS (1000e); 2/3" Color HDR CMOS (1100e)		
Speed/Resolution	Up to 55 FPS at 1280 (H) x 1024 (V) pixels	Shutter Range	1 μ s - 53s Exposure
Pixel Size	6.8 μ m square (8.7 mm x 7 mm active area for full sensor)	Imaging Controls	ROI, exposure time, shutter mode, trigger delay, image format
Environmental Rating	IP65	Dimensions (mm)	51 (W) x 51 (H) x 179 (L)
Shutter	Global or Rolling	Weight	0.6 kg
Dynamic Range	140+ dB	Mounting	T-Slot, Compatible with M5 or 10-32 Screws
Bit Depth	12 bits	Power Consumption	16 V nominal via GPIO interface, maximum 15 W
Image Data	Mono 8/16, Bayer 8/16	Connectors	IP65, X-coded Ethernet, Hirose HR10A-10R-12P (73)
Max. Cable Length	100 m	Max. # of Cameras	Up to 2 supported @ full speed
Trigger Options	<ul style="list-style-type: none"> Free-running External/delayed trigger Single shot 	Machine Vision Stds.	GigE vision 2.0 GenICam upon request
		Video Recording	Recording & Playback utility integrated
Synchronization	Via external trigger or software trigger	Camera Control	Via Xiris WeldStudio™ Viewer (standard), or via Xiris WeldStudio™ SDK (optional)
Trigger Inputs	2 high-speed opto-isolated, 5-24 VDC	Temperature	Operating: 0 ° to 45 ° C, Storage: -20 ° to 60 ° C
Strobe Outputs	1 opto-isolated open-collector, max 40 VDC	Humidity	Operating: 20 to 80% Storage: 20 to 95% (no condensation)
GP Inputs	2 opto-isolated 5-24 VDC	Compliance	CE, FCC-B, RoHS
GP Outputs	2 opto-isolated open-collector, max 40 VDC	Operating System	Windows 7/8 (32 or 64 bit)
Communications	Gigabit Ethernet, opto-insolated UART interface	Photodiode	Detects presence of weld arc



	XVC-1x00e125	XVC-1x00e90	XVC-1x00e50	XVC-1x00e40
A°	91x73 mm	70x55 mm	46x37 mm	26x21 mm
A	127x102 mm	89x71 mm	51x41 mm	40x32 mm
A'	208x167 mm	125x100 mm	57x46 mm	56x46 mm
B°	240 mm	185 mm	180 mm	190 mm
B	345 mm	240 mm	200 mm	300 mm
B'	570 mm	340 mm	230 mm	455 mm
L	156 mm	156 mm	156 mm	156 mm

Notes:
A – Field of View
B – Camera Working Distance
L – Camera Body Length
A°, A', B°, B' range are achievable via the remote focus in the camera module.
Data in this chart is approximate.

All dimensions in mm unless otherwise stated



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