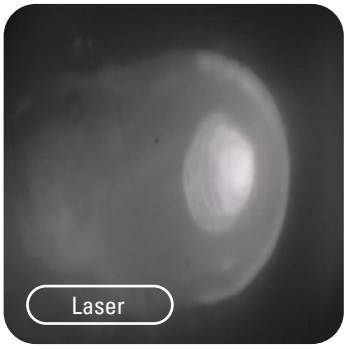
XVC-1000e/XVC-1100e Weld Camera

Better Images. Better Decisions. Better Process Control.



Description

The Xiris XVC-1000e/XVC-1100e weld camera is designed to maximize usability for welding and additive manufacturing applications. It features a 140+ dB HDR, integrated solid-state lighting, arc detection, motorized focus, ruggedized housing with integrated cooling, and easily replaceable protective windows.

The XVC-1000e/1100e camera is ideal for production welding cells, providing reliable remote monitoring of all open-arc processes—MIG/MAG, TIG, Plasma, and Laser at distances of up to 100 m.

Key Benefits

- **High Dynamic Range (HDR):** With a range exceeding 140 dB, the XVC-1000e/1100e captures detailed images of both the bright weld arc and darker surroundings. The XVC-1000e is the monochrome version; the XVC-1100e is the color model providing insight into the heat-affected zone, oxidation, and shielding gas presence.
- **Welding-Specific Functionality:** Integrated photodiode enables automatic switching between Setup (non-welding) mode or Welding mode and can also trigger video recording. The WeldStudio™ software supports crosshair overlays, image enhancement, and motorized focus adjustment. Using a single controller, additional cameras and WeldMic™ devices can be fully supported.
- **Advanced Software Capability:** WeldStudio™ Pro adds advanced machine vision tools for geometric measurement and melt pool analysis. Supports integration with automation and process monitoring systems via OPC-UA and Modbus/TCP interfaces.
- **Triggering:** Hardware and software triggering modes to synchronize image acquisition with external devices such as power supplies, light sources, or additional cameras. Modes include free-running, recording, and frame triggering using available trigger kits.
- **Accessories:** Complete range of system integration accessories: HMIs, controllers, camera mounts, cooling components, and custom solutions as required.

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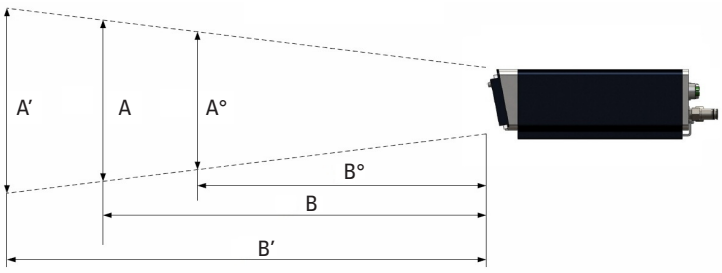
For local representatives visit www.xiris.com/contact. Specifications are subject to change without notice. February 2026.

XVC-1000e/XVC-1100e Camera Specifications

Dimensions (mm)	51 (W) × 58 (H) × 168 (L)	**Weight**	0.6 kg (1.3 lbs)
Mounting	Adapter plate with 4 × M4, T-slot; with M5 T-Nuts	**Environmental Rating**	IP65
Speed/Resolution	Up to 55 FPS at 1280 (H) × 1024 (V) pixels	**Pixel Size**	6.8 µm square (8.7 × 7 mm active area)
Image Sensor	2/3" Mono HDR CMOS (XVC-1000e) 2/3" HDR Color CMOS (XVC-1100e)	**Image Controls**	Shutter Modes, Exposure Time, AOI, Tone mapping, Color enhancements
Dynamic Range	140+ dB	**Optics**	Integrated with motorized focus
Trigger Modes	Free-running, external/recording trigger, single-shot capture (Trigger Kit)	**GP/Trigger Inputs**	2 high-speed trigger + 2 GP Inputs, opto-isolated (10–24 VDC)
Image Data	Mono 8/12 or Bayer 8/12	**Synchronization**	Via external trigger input
Shutter Type	Global, Rolling	**Shutter Range**	10 µs to 100 ms Exposure
Power/GPIO/Trigger Connector	Hirose LF10WBR-12S	**Camera Connector**	M12 Ethernet (X-coded)
Operating System	Windows 10 (64-bit) or later	**Software**	Xiris WeldStudio™ / WeldStudio™ Pro, Xiris WeldSDK
Max Cable Length	100 m for Camera, 30 m for Power	**Video Recording**	Software recording & playback utility
Power	15 ± 1 V via GPIO (Maximum 15 W)	**Compliance**	CE, FCC-B, RoHS
Temperature	Operating: 0° to 45°C (32° to 113°F) With Air/Water Cooling: Up to 75°C (167°F) With HT Cooling Kit: Up to 260°C (500°F)	**Humidity**	Operating: 20–80% Storage: 20–95% (non-condensing)

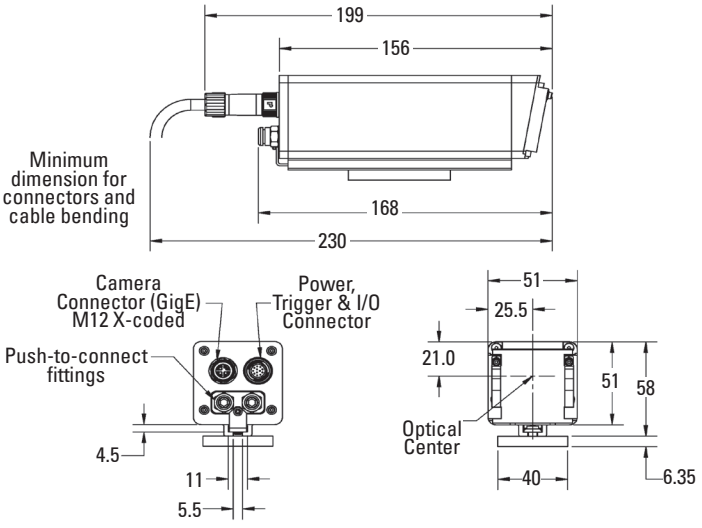
XVC-1000e/XVC-1100e Optical Specifications



A – Field of view
B – Camera Working Distance
A°, A', B°, B' range is achievable via the remote focus in the camera module.

	40 mm	50 mm	90 mm	125 mm
A°	26 × 21 mm	46 × 37 mm	70 × 55 mm	91 × 73 mm
A	40 × 32 mm	51 × 41 mm	89 × 71 mm	127 × 102 mm
A'	56 × 46 mm	57 × 46 mm	125 × 100 mm	208 × 167 mm
B°	190 mm	180 mm	185 mm	240 mm
B	300 mm	200 mm	240 mm	345 mm
B'	455 mm	230 mm	340 mm	570 mm

XVC-1000e/XVC-1100e Camera Outline



XVC-1x00e Camera Connected to HMI