

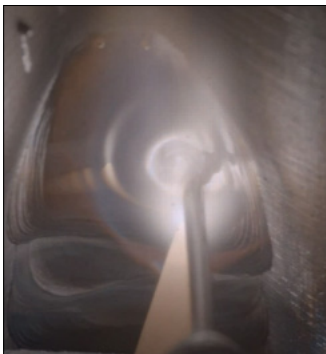
Better Images. Better Decisions. Better Process Control.

The **Xiris XVC-700/710** weld camera is a compact, +140 dB High Dynamic Range camera specifically designed for integration with welding automation equipment where a lightweight, slimline camera is preferred.

The **XVC-700/710** weld camera uses the latest advanced electronics design and flexible PCB technologies to provide a fully digital image for a variety of welding processes.



GTAW/TIG



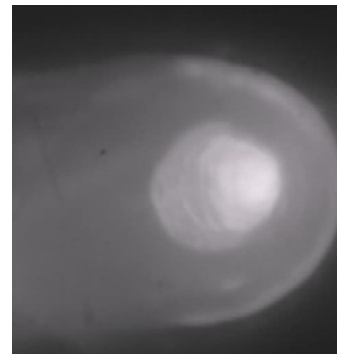
GMAW/MIG



Plasma



Laser



Welding Specific Versatility

Every feature of the XVC-700 is designed to maximize usability and versatility for the welding industry, including a lightweight, compact body size, angled head variants, onboard FPGA and multiple compact optics configurations using industry standard S-Mount lenses.

Software

The XVC-700 is compatible with all Xiris WeldStudio™ software that include numerous powerful camera and image processing tools to fully optimize, analyze, record and playback welding processes. Using the WeldSDK these software components can be customized and fully integrated into your welding automation or Additive Manufacturing system.

Angled Head

Due to the flexible design of the electronics, the camera can be built so that the optics can be angled relative to the camera body, allowing the camera to fit in tight locations. This helps minimize welding head size in automated welding equipments. Optical Design Services can be provided upon request.

Accessories

All the accessories you need, such as Optics, Controllers, HMIs, cables, power adapters, external cooling plates and industrial housings, can be provided on a custom basis.

High Dynamic Range with Color

With a full 1280x 1024 pixel resolution and High Dynamic Range (HDR) in excess of 140 dB, the XVC-700/710 is able to acquire detailed images with a greater range of tonal detail than any standard camera. Operators can see the bright weld arc without saturation as well as darker surrounding background features like the weld seam, melt pool, torch tip and shielding gas. The XVC-700 is Monochrome best suited for machine vision, while the XVC-710 is the color version that is often very useful in welding processes like GTAW, Plasma or GMAW.

GigE Interface with POE

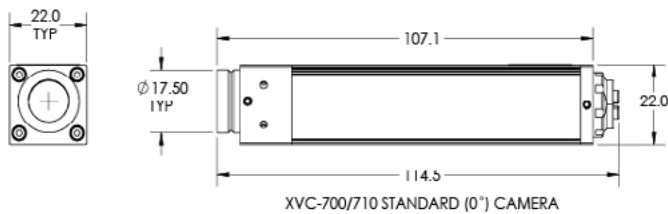
A single, robust M12 Ethernet connection and cable with Power Over Ethernet helps simplify installations, minimizing the need for specialized or additional cables. The fully digital GigE protocol enables robust, high-bandwidth image transmission up to 100 meters from the point of welding, without any image quality degradation.

Free run and Triggering Modes

Depending on the welding process, images can be acquired in free running mode or triggered from a controller. Triggering is particularly useful for some advanced MIG welding processes to capture images at the same point of the welding cycle.

Xiris® XVC-700/710 Weld Camera

Camera Body Outline



Other mounted optics configurations are available for the XVC-700/710, including 15°, 60°, 75°, 90°.

Standard S-Mount Lens

WD (mm)	F=17.1 FOV (mm)	F=25 FOV (mm)	F=35 FOV (mm)
70	30 x 24	21 x 17	11 x 9
100	44 x 35	31 x 25	18 x 15
200	93 x 75	66 x 53	43 x 34
300	143 x 115	100 x 80	By Request.
500	217 x 193	168 x 136	

XVC-700/710 Specifications

Dimensions (mm)	22 W x 22 H x 107 L (0° without optics)	Software	All Xiris WeldStudio™ Software Xiris WeldSDK Xiris SeamMonitor™
Weight	89 g (without optics)	Operating System	Microsoft Windows 10 (64Bit)
Lens Mount	Lockable S - Mount or C-Mount with adaptor	Camera Controls	Shutter Mode, Exposure Time, Frame Rate, Picture in Picture
Image Sensor	2/3" HDR CMOS (Model 700) 2/3" HDR Color CMOS (Model 710)	Image Data	Mono 8/12 (Model 700) Bayer 8/12 (Model 710)
Pixel Size	6.8 µm square (8.7 mm x 7 mm active area)	Shutter Range	1 µs – 53s Exposure
Filter	Internal UV + IR Cut Filter	Shutter	Global or Rolling
Dynamic Range	140+ dB	Camera Connectors	M12 Ethernet (X-Coded)
Temperature	Operating: 0° to 35° C (No Cooling) Operating: 0° to 80° C (With Cooling Plate) Storage: -20° to 60° C	Image Data Format	Gigabit Ethernet (8/12 Bit-depth)
Humidity	Operating: 20 to 80% Storage: 20 to 95% (no condensation)	Power Consumption	Maximum 6 W Power Over Ethernet (POE)
Head Inclination Angle	0° (Straight) ,15°, 60°, 75°, 90° Other available upon request.	Compliance	CE, FCC-B, RoHS



Xiris Automation GmbH
Holterkamp 18
40880 Ratingen, Germany
T: +49.2102.126.3835
E: sales@xiris.eu www.xiris.com



POLYTEC GmbH
Polytec-Platz 1 - 7
D -76337 Waldbronn

Tel: +49 (72 43) 604 4540
E-Mail: ot@polytec.de
www.polytec.de