



# ArcCam AL Factsheet

## High-quality industrial camera

In the case of automated processes, it is usually not possible for the operator to monitor the process from close by. For visualization purposes, a welding camera should deliver images of the arc, wire and melt in color and with a high dynamic range. The SBI welding camera ArcCam is equipped with autofocus as standard. The direct communication between the welding machine and the camera system enables the data to be recorded and visualized in parallel. The form factor is particularly small in order to be able to install a camera even in structures that are difficult to access.

The extreme light emission of the arc harbors the risk that a high dynamic range is achieved in the course of the image processing. The ArcCam delivers color images of the welding process in high resolution (HD), with a high dynamic range (HDR) and high frame rate (60fps), in addition, successive images with up to 8 different exposure times are combined without loss of information.

With the help of the liquid lens lens and the new LCD shutter, the software can be used to focus quickly and precisely, and the focal length and incidence of light can be set without any mechanically moving parts.

The plug-in angle attachment enables very flexible use and a reduction in the space required for installation and operation.



## Features

### Quality and productivity

- Auto focus function
- Robust plug & play camera system
- Plug-in capable via C-mounting rail and various mounting options
- Video data synchronized with the recorded welding data.

- Clear image with high-contrast of the arc, welding pool and SeamTracking (HDR) in real time
- Low-maintenance design
- Quick and easy replacement of protective glass
- Two cameras possible in parallel in one application
- Video recordings

The ArcCam was developed as an observation monitor and recording system for the welding process. AL stands for Advanced Line for our current robust high-performance camera system for live visualization of the melt pool for processes such as plasma, TIG, MIG, MAG or LASER.

## CAMERA

Resolution:	1920 x 1200 pixels
Frame Rate Maximum:	38fps (at full resolution)
Pixel size:	5,86µm
Shutter type:	Global
Protocol:	GiGE Vision
Focal length:	37,5mm
Variable (Auto) Focus:	10cm - ∞
Connections:	Ethernet M12, power supply/trigger M12, LED M8, cooling, Gas flushing
Ethernet cable length max.:	50m

## ArcCam SOFTWARE

Format:	AVI
Compression types:	Full Frames, Raw Uncompressed, DV Video Encoder, MJPEG Compressor
Storage location:	variably adjustable
Cameras per application:	1 or 2
SDK:	ActiveGige

## Contact



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## About SBI GmbH

SBI was founded in 1999 with the aim of developing rapid prototyping technologies. SBI has therefore developed its plasma technologies and built welding solutions. From automated solutions for coating technologies to the repair of forging dies or plasma arc deposition machines for the maintenance of aircraft turbines, SBI has established world-renowned references in the field of arc deposition plasma. Since 2009, SBI has established itself as the main supplier of its plasma-based technology for the 3D manufacturing of aeronautical parts.

Besides its renown portfolio of superior plasma inverter systems and plasma welding equipment, SBI has been developing its own additive manufacturing machines. The manufacturer put the metal additive manufacturing

system M3DP on the market in 2019.

