

SVCam-slc

SVCam-SLC line

SIDE LOOKING GIGABIT ETHERNET CAMERAS

Pre-liminary



This series of digital Machine Vision cameras feature resolutions of 1024 x 1024, 1600 x 1200, and 1920 x 1080 (HD format) pixel. The cameras are designed to reach high frame rates and are enclosed in a slim housing with „side looking“ construction. This allows access to space limited applications. Correlated Double Sampling (CDS, a noise reduction method) and 2 x14 bit A/D Converters guarantee an excellent signal to noise ratio. The internal logic allows different ways to adjust the exposure time and select trigger modes including:

- > Synchronisation of image capture to an external event (trigger mode)
- > “Free running“ (with maximum frame rate)
- > Exposure time control via GigE interface or by trigger pulse width
- > Longer exposure times up to 8 minutes under low light level conditions

The family concept of SVCam series (see also separate datasheets) allows to upgrade systems in order to meet new specific requirements.

GEN*i*CAM

GIG*E*™
VISION

Technical Highlights / Technical Data

- > Progressive scan technology
- > Resolution: 1024 x 1024, 1600 x 1200 and 1920 x 1080 pixel
- > Synchronisation:
 - “Free running“ (frame rate adjustable)
 - External trigger with internal exposure control
 - External trigger with pulse width exposure control
 - Software trigger with internal exposure control
- > Monochrome and color sensors (Bayer Pattern)
- > Up to 12 Bit video data stream (14 Bit ADC per tap)
- > Adjustable gain
- > Low offset
- > 2 x 2 binning mode
- > Area of Interest mode for higher frame rates
- > Standard C-Mount
- > 90 ° looking construction
- > 10-25 V DC @ approx. 600mA consumption (12 V)
- > Operating temperature range: -10°C to +45°C
- > Full 2 years warranty

Overview

SVCam-SLC line			
Camera Type	svs1050XTLGECC	slc2050XTLGECC	slc2150XTLGECC
Resolution	1024 x 1024	1600 x 1200	1920 x 1080
Frame Rate (Hz, max.)	51	31	31
Pixel (μm^2)	5.5 x 5.5	5.5 x 5.5	5.5 x 5.5
CCD-Size Equivalent	7.96mm diag., 1/2"	11mm diag., 2/3" (4:3)	12.1mm diag., 2/3" (16:9)
Exposure Time internal	6 μs - 2 s	48 μs - 8 s	48 μs - 8 s
Exposure Time external	6 μs - ∞	80 μs - ∞	80 μs - ∞

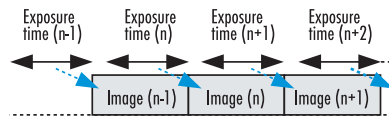
X = M = Monochrome, X = C = Color

For more resolutions see our SVCam-CF, ECO and HR product overview.

Operation Modes

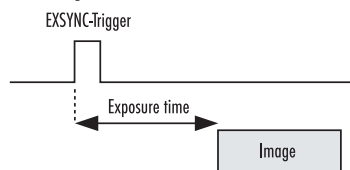
Mode: Free Running/Fixed Frequency

In this mode the camera creates all sync signals itself. Camera is connected to PC and will create images immediately.



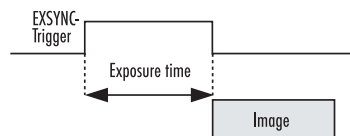
Mode: External Trigger, Internal Exposure Control

The camera needs an external trigger to output images. The exposure time is set by the internal logic inside the camera.



Mode: External Trigger, External Exposure Control

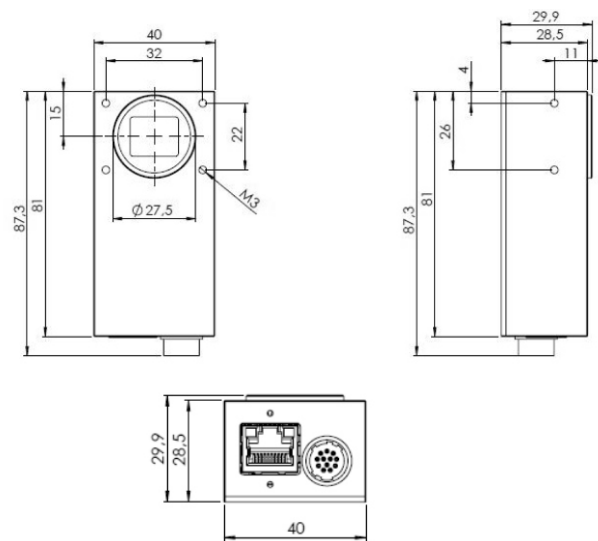
The camera needs an external trigger to output images. The exposure time is determined by the pulse width of the trigger signal and can be changed from frame to frame.



Mode: Software Trigger

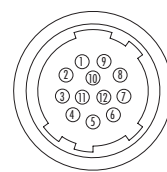
The PC sends a command to the camera in order to get data. Internal logic is set for the exposure time. Jitter must be observed.

Dimensions



All dimensions in mm

HR10A-10R-12PB (mating connector HR10A-10P-12S)



- | | |
|----------------------|------------------------|
| 1 VIN- (GND) | 7 OUT1 (TTL Level) |
| 2 VIN+ (9 to 24V DC) | 8 OUT2 (TTL Level) |
| 3 RXD (RS232 Level) | 9 IN3+ (RS422 Level) |
| 4 TXD (RS232 Level) | 10 IN3- (RS422 Level) |
| 5 IN1 (TTL Level) | 11 OUT3+ (RS422 Level) |
| 6 IN2 (TTL Level) | 12 OUT3- (RS422 Level) |

Configuration Software

The SVCam-cameras come with our "SVCapture"-software, which allows easy interactive setup of all camera parameters. The software including a SDK supports Windows XP including 64 Bit operating system. A LINUX Driver is also available. The camera can be configured using the XML File stored inside the camera. This complies also with the international GenICam standard.

Ordering Guide

Monochrome:	Color:	
slc1050MTLGECC	slc1050CTLGECC	(max. 51 Hz)
slc2050MTLGECC	slc2050CTLGECC	(max. 31 Hz)
slc2150MTLGECC	slc2150CTLGECC	(max. 31 Hz)

