SVCam-hr29050

SVCam-HR Series

Compact 29 Megapixel Camera Link Camera

A highend resolution of 6576 x 4384 pixel makes this digital Machine Vision camera „best in class". Combined with Kodak 4-Tap Technology it is a real masterpiece of German Engineering.

Correlated Double Sampling (CDS) and 4 x 14 Bit A/D converters guarantee an excellent signal-to-noise ratio.

The internal logic allows different ways to adjust exposure time and select trigger modes including:

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

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

Technical Highlights/Technical Data

> Progressive Scan 4-Tap CCD sensors
> Resolution: 6576 x 4384 pixel
> Synchronization:
   · "Free running" (frame rate adjustable)
   · External trigger with internal exposure control
   · External trigger with pulse width exposure control
   · Software trigger via PC
> Housing dimensions: 70 mm x 71 mm x 49.8 mm
> Monochrome and color sensors (Bayer Pattern)
> 8 or 12 Bit data (user selectable) (using 14 Bit ADC)
> DLL for easy Software integration
> 2x2 binning mode

> Adjustable gain
> Auto tap balancing
> SW-Config. tool to control the camera via frame grabber interface
> Partial Scan
> M58 x 0.75 Mount (optional F-Mount adapter)
> Broad voltage input possible 10 Watt (+10V to +25V DC)
> Operating temperature range: -10°C to +40°C
> Medium Camera Link Configuration
> Configurable Output Dual or Single Tap with Base Configuration Data Output
> Full 2 years warranty

Scale your vision.

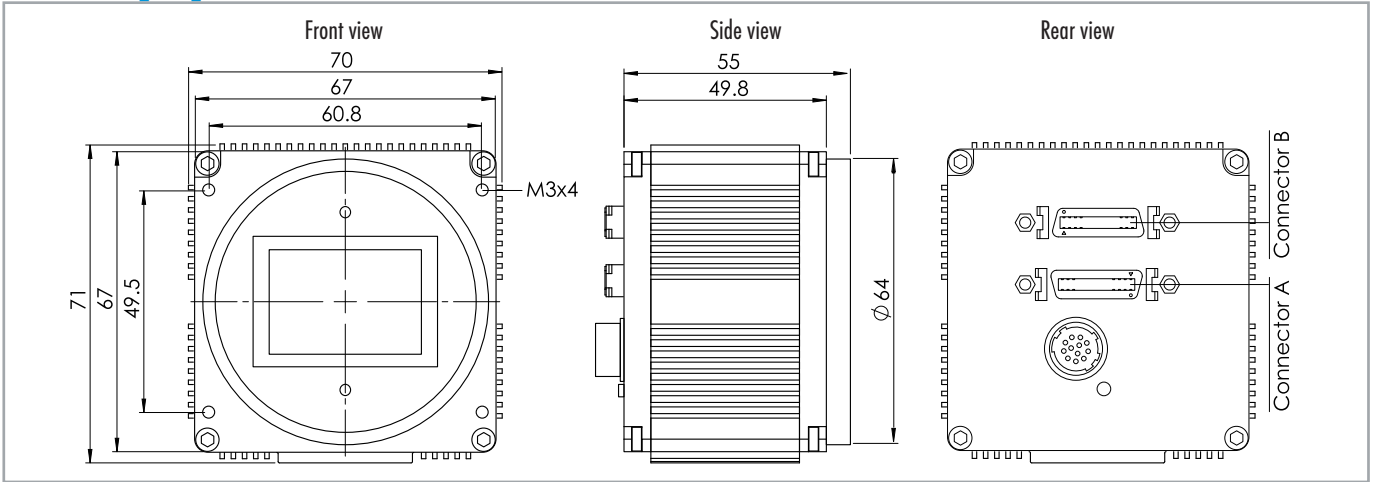## Overview

SVCam-hr29050	
Camera Type	hr29050XFLCPC
Resolution	6576 x 4384
Frame Rate (Hz, max.)	2 Tap CL Base 2.9 fps (Connector A), 4 Tap CL Medium 5.9 fps (Connector A+B), 2x2 Binning 10.9 fps
Pixel (µm^2)	5.5 x 5.5
CCD-Size Equivalent	43.47 mm diag.
Exposure Time internal	20 µs – 1 s
Exposure Time external	20 µs – ∞

X = **M**onochrome, X = **C**olor

Cameras make use of high performance CCD made by **Truesense Imaging, Inc .**®, formerly **Kodak** (USA). For more camera types see our SVCam-HR product overview.
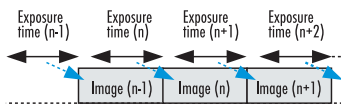
Dimensions [mm]

Front view

70
67
60.8
M3x4
71
67
49.5

Side view

55
49.8
Ø 64

Rear view
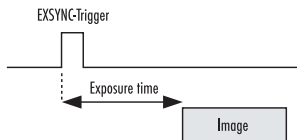
Connector B
Connector A

Operation Modes

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

Exposure time (n-1)   Exposure time (n)   Exposure time (n+1)   Exposure time (n+2)
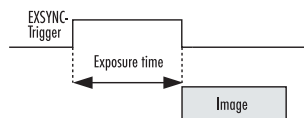
Image (n-1)   Image (n)   Image (n+1)

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.
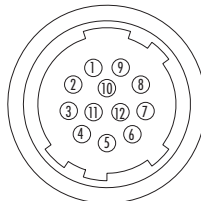
EXSYNC-Trigger
Exposure time
Image

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.

EXSYNC-Trigger
Exposure time
Image

Connector pin-out

1	VIN- (GND)	**7**	OUT1 (open drain max. 24V, 0.3A)
2	VIN+ (10V to 25V DC)	**8**	OUT2 (open drain max. 24V, 0.3A)
3	RXD (RS232)	**9**	IN3+ (RS422)
4	TXD (RS232)	**10**	IN3- (RS422)
5	IN1 (0-24V)	**11**	OUT3+ (RS422)
6	IN2 (0-24V)	**12**	OUT3- (RS422)

Configuration Software

The SVCam cameras come with our "Convenient Cam"-software, which allows easy interactive setup of all camera parameters. The program runs under Windows XP and Windows 7 including 64 Bit operating system. Independently from "Convenient Cam", the camera can be configured using any terminal software that supports Serial communication.

Ordering Guide

Monochrome: Color:
hr29050MFLCPC   **hr29050CFLCPC**   (max. 5.9 Hz)

Option: M58 to F-Mount adapter