

COMPACT 2-Megapixel CAMERA

This digital Machine Vision Camera has a resolution of 1600 x 1200 pixel. The camera is designed to reach high frame rates at excellent signal to noise ratios and is enclosed in a small housing.



Unique processing of the analogue CCD-signal using Correlated Double Sampling (CDS, a noise reduction method) and digital signal conversion guarantees an excellent signal to noise ratio.

The internal microcontroller allows different ways to adjust 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 serial interface or by trigger pulse width
- Longer exposure times up to 10 sec under low light level conditions

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



- Progressive Scan Technology
- Resolution: 1600 x 1200 pixel
- Synchronization
 - "free running"
 - external trigger with internal exposure control
 - external trigger with pulse-width exposure control
- Housing Dimensions: 50mm x 55mm x 43mm
- Monochrome and Color sensor (Bayer Pattern)
- 10-Bit video data stream (12 Bit option)
- Adjustable Gain
- Low Offset
- 2 x 2 binning mode
- Partial Scan Mode for higher frame rates
- C-mount
- 12V DC @ ca. 600mA consumption
- Operating Temperature Range, -10°C to +40°C
- Full 2 year Warranty

SVCAM-svs2020



SVCAM - svs2020 Camera Types:

Camera Type	svs2020xSCP	svs2020xFCP	svs2020xUCP*
Resolution	1600 x 1200	1600 x 1200	1600 x 1200
Frame Rate (Hz,max)	18.5	30	40
Pixel (μm^2)	7.4 x 7.4	7.4 x 7.4	7.4 x 7.4
Exposure Time internal	120 μs - 3s	67 μs - 1.7s	50 μs - 1.3s
Exposure Time external	120 μs - 00	67 μs - 00	50 μs - 00
CCD-Size Equivalent	14,8mm diagonal	14,8mm diagonal	14,8mm diagonal

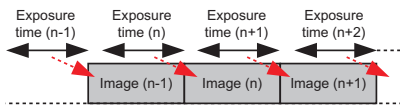
x=M monochrome
x=C Color

*ULTRA HIGH SPEED (2 x 50 Mhz)

SVCAM-svs2020 Operation Modes:

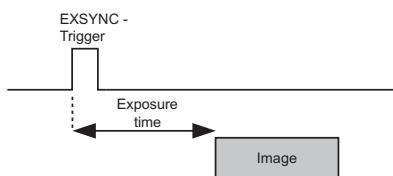
Mode: Free Running

In this mode the camera creates all sync signals itself. The frame rate is at its maximum and there is no need to trigger the camera (by EXSYNC) in order to get data. Exposure time can be set by using the serial Camera Link interface of any PC. The enclosed software allows the user to set the specified values. Exposure time can be changed "on the fly" during Image acquisition. The time set stays resident after power off.



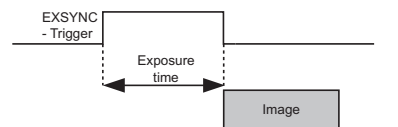
Mode : External Trigger, Internal Exposure Control

In this mode the camera starts image acquisition after an external trigger event. The exposure time is controlled by the camera. The value for the exposure time is entered via serial interface over the frame grabber CameraLink connection. The trigger signal is fed through the frame grabber or directly connected to the camera.



Mode : External Trigger, External Exposure Control

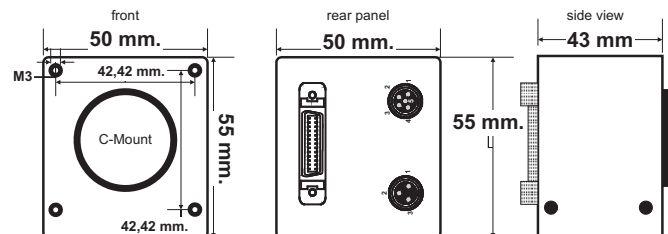
In this mode the camera is waiting for an external trigger which starts integration and read out. Exposure time can be varied using the length of the EXSYNC pulse (i.e. between the high going edge and the low going edge). The time settings in the control software are not activated. This mode is useful in applications where the light level of the scene changes during operation. Change of exposure time is possible from one frame to the next.



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, Windows 2000 and NT4.0. Independently from "Convenient Cam", the camera can be configured using any terminal software that supports RS-232 communication.

Dimensions:



Ordering Guide:

- Monochrome:
 SVS2020MSCP (single tap, frame rate 18.5Hz)
 SVS2020MFCP (dual tap, frame rate 33Hz)
 SVS2020MUCP (dual tap, frame rate 40Hz)
- Color:
 SVS2020CSCP (single tap, frame rate 18.5Hz)
 SVS2020CFCP (dual tap, frame rate 33Hz)
 SVS2020CUCP (dual tap, frame rate 40Hz)

Changes without notification
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