

# SVCAM-svs 16000



## COMPACT 16-Megapixel CAMERA



*This digital Machine Vision camera has a resolution of 4904 x 3280 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: 4904 x 3280 pixel*
- *Synchronization*
  - *"free running"*
  - *external trigger with internal exposure control*
  - *external trigger with pulse-width exposure control*
- *Housing Dimensions: 65mm x 67m x 45mm*
- *Monochrome and Color sensor (Bayer Pattern)*
- *10-Bit video data stream*

- *Adjustable Gain*
- *Low Offset*
- *2 x 2 binning mode*
- *Partial Scan Mode for higher frame rates*
- *M 58 x 0.75 mount or F-mount*
- *12V DC @ ca. 900mA consumption (model dependend)*
- *Operating Temperature Range, -10° C to +40° C*
- *Full 2 year warranty*

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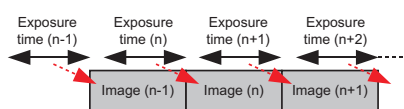
## SVCAM - svs16000 Camera Types:

Camera Type	svs16000XSCP	svs16000XFCP
Resolution	4904 x 3280	4904 x 3280
Frame Rate (Hz,max)	1.5	3.0
Pixel ( $\mu\text{m}^2$ )	7,4 x 7,4	7,4 x 7,4
Exposure Time internal	100 $\mu\text{s}$ - 2s	100 $\mu\text{s}$ - 2s
Exposure Time external	120 $\mu\text{s}$ - 00	120 $\mu\text{s}$ - 00
CCD-Size Equivalent	43,3mm diagonal	43,3mm diagonal

## SVCAM-svs16000 Operation Modes:

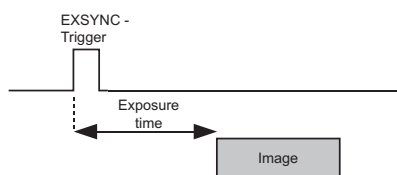
### Mode: Free Running

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.



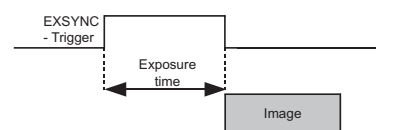
### Mode : External Trigger, Internal Exposure Control

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

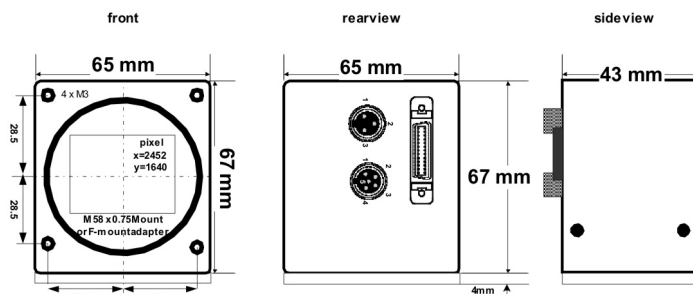
In this mode the camera is waiting for an external trigger which starts integration and read out. Exposure time can be varied using the length of the EXSYNC pulse (i.e. between the high going edge and the low going edge). The time settings in the control software are not activated. This mode is useful 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. Independently from "Convenient Cam", the camera can be configured using any terminal software that supports RS-232 communication.

## Dimensions:



## Ordering Guide:

- Monochrome:  
 SVS16000MSCP (single tap, frame rate 1,5Hz)  
 SVS16000MFCP (dual tap, frame rate 3.0 Hz)
- Color:  
 SVS16000CSCP (single tap, frame rate 1.5 Hz)  
 SVS16000CFCP (dual tap, frame rate 3.0 Hz)
- Option: M58 to F-mount adapter

Changes without  
notification 14.06.2007

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