

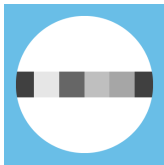
## SK2048VSH-4L

Monochrome Line Scan Camera, GigE Vision



### FEATURES

- Pixel number: 2048
- Pixel dimensions:  $14 \times 14 \mu\text{m}^2$
- Max. line frequency: 14 kHz
- Spectral range: 200 - 1000 nm
- Anti-blooming
- Shading correction



## DESCRIPTION

The monochrome SK2048VSH-4L line scan camera is equipped with a 2048 pixel CCD sensor. The maximum line frequency is 14 kHz. The camera operates with 18-36 V DC supply voltage.

### Features

All lenses show some vignetting as a function of the field angle. Hence, even with homogeneous object illumination, the signal intensity of the image decreases with increasing image height. Shading correction (or flat field compensation) is used to compensate for lens vignetting as well as for inhomogeneity in the illumination. The sensor has a blooming protection against over exposure. The integration control / electronic shutter function enables to control the exposure time independently from the line frequency.

### Synchronization

Line scan cameras have to be externally synchronized in order to obtain distortion-free images. There are two different synchronization functions that can be applied together or individually:

1. Line Synchronization triggers each individual exposure of the sensor line by line. Several operating modes are available for this: Free run, Line Start, Exposure Active, Exposure Start.
2. Frame Synchronization is the recording of a set of lines (frame) representing a two dimensional image. The trigger is activated either by an external control signal or by exceeding an adjustable signal threshold.

### Lenses and Adapters

The lens or tube attachment is M45x0.75. Adapters are available for other dimensions, see Accessories.

### Software and SDK

SKLineScan is an operation program with a graphical user interface for system setup and simple scanning tasks. It is free for use and is applicable both for optimal adjustment of the optical system and for parameterization of the camera.

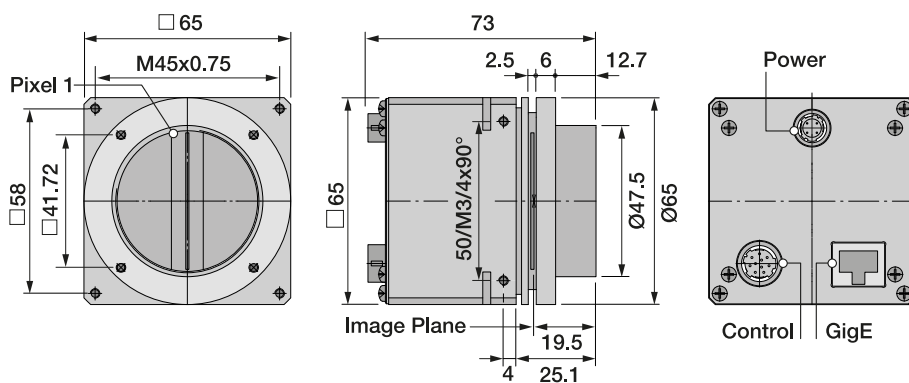
The software development kit (SDK) SK91USB3-WIN is based on C++ and includes examples for C/C++ with Visual Studio. Supported operating systems are Windows 10 (32- or 64-bit), Windows 11.

## TECHNICAL DATA

SK2048VSH-4L

|                      |                         |
|----------------------|-------------------------|
| Order Code           | SK2048VSH-4L            |
| Sensor type          | CCD monochrome sensor   |
| Pixels               | 2048                    |
| Pixel size           | 14 x 14 $\mu\text{m}^2$ |
| Active sensor length | 28.7 mm                 |
| Max. pixel frequency | 30 MHz                  |
| Max. line frequency  | 14 kHz                  |
| Anti-blooming        | x                       |
| Integration control  | x                       |
| Shading correction   | x                       |
| Spectral range       | 200 - 1000 nm           |
| Dynamic range        | 1:400 (rms)             |
| Min. exposure time   | 0.01 ms                 |
| Max. exposure time   | 20 ms                   |
| Video signal         | monochrome 8/12 Bit     |
| Interface            | GigE Vision             |
| Power supply         | 18 - 36 V DC            |

|                                                                                       |                                |
|---------------------------------------------------------------------------------------|--------------------------------|
| Dimension                                                                             | 65 x 65 x 72.4 mm <sup>3</sup> |
| Case type                                                                             | BG3                            |
| Weight                                                                                | 0.3 kg                         |
| Lens mount                                                                            | M45x0.75                       |
| Flange diameter                                                                       | 47.5 x 12.7 mm                 |
| Flange focal length                                                                   | 19.5 mm                        |
| Operating temperature                                                                 | +5 ... +45 °C                  |
| Dimensions (for a complete dimensional drawing please refer to the downloads section) |                                |



## DOWNLOADS



[981112091300.pdf](#)



[981112091300\\_BG3\\_24V.stp](#)



[981112091300\\_BG3\\_5-15V.stp](#)

This is a printout of the page <https://sukhamburg.com/products/details/SK2048VSH-4L> from 1/7/2026

## CONTACT

For more information please contact:

Schäfter + Kirchhoff GmbH

Kieler Str. 212

22525 Hamburg

Germany

Tel: +49 40 85 39 97-0

Fax: +49 40 85 39 97-79

[info@sukhamburg.com](mailto:info@sukhamburg.com)

[www.sukhamburg.com](http://www.sukhamburg.com)

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