

Line Scan Camera SK1024U3SD

CCD

monochrome

USB 3.0

Digital camera with large dynamic range and high line frequency, anti blooming and integration control.



Sensor Characteristics

| | |
|------------------------|-------------------------|
| Sensor type: | CCD, Monochrome |
| Pixel number: | 1024 |
| Pixel size: | 14 x 14 μm^2 |
| Active sensor length: | 14.3 mm |
| Pixel frequency: | 30 / 15 MHz |
| Max. line frequency: | 28 kHz |
| Min. integration time: | 0.01 ms |
| Max. integration time: | 20 ms |
| Spectral range: | 400 - 1000 nm |
| Dynamic range: | 1:2000 (rms) |

Mechanical data

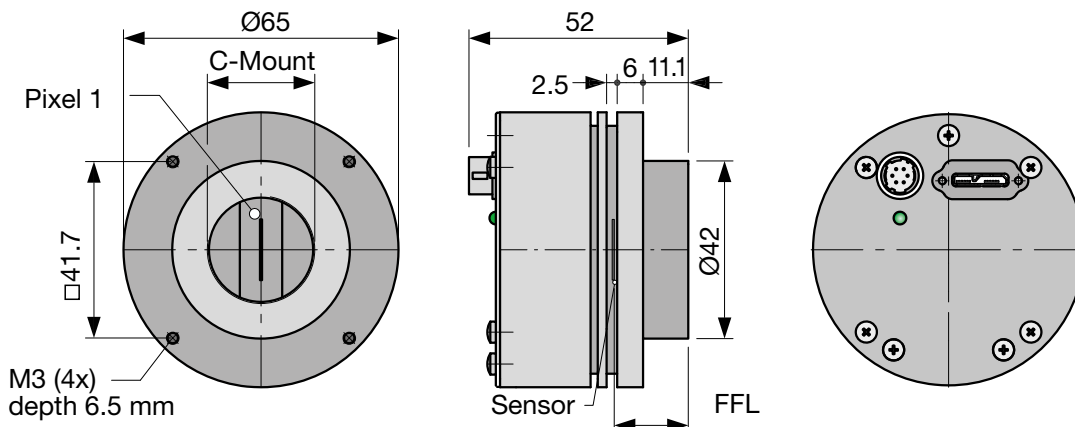
| | |
|----------------------------|--|
| Case type: | AT1 |
| Size: | $\text{Ø}65 \text{ mm} \times 52.4 \text{ mm}$ |
| Mass: | 0.2 kg |
| Lens mount: | C-Mount |
| Flange focal length (FFL): | 17.53 mm |
| Seat for bracket: | $\text{Ø}42 \text{ mm}$ |

Functioning Features

| | |
|---------------------------|--------------|
| Anti blooming: | x |
| Integration control: | x |
| Shading correction: | x |
| Look-up table: | x |
| Region of interest (ROI): | x |
| Thresholding: | x |
| Temperature sensor: | x |
| External synchronization: | x |
| Operating Temperature: | +5 ... +45°C |

Connections

| | |
|---------------------------|-------------------------------|
| Interface: | USB 3.0 |
| | Type μB , threaded |
| Video signals: | monochrome 8/12 Bit digital |
| Power supply: | via USB3 interface 2.0W |
| External synchronization: | TTL |
| | Hirose 10A, 6-pin, male |



Software

Software


SK91USB3-WIN Order Code

SDK from Schäfter + Kirchhoff including the **SKLineScan** operating program, as well as API, C++ class library and examples.

Operating systems:
Windows 7 / 8.1 / 10 - x64 and x86

SK91USB3-LV VI Order Code

VI-Library for LabVIEW®, requires **SK91USB3-WIN**




Software

SK91USB3-LX Order Code

SDK from Schäfter + Kirchhoff including the **SKLineScan** operating program, as well as libraries and examples.

Operating systems:
Linux kernel 3.13 or higher



Accessories


USB 3.0 cable SK9020.x

Camera connector: USB 3.0 plug, type micro-B, with safety lock screws

PC connector: USB 3.0 plug, type A (also fits into a USB 2.0 type A socket)

SK9020.x Order Code

└── 1 = 1 m cable length
 3 = 3 m cable length (standard)




External synchronization cable SK9026...

for line scan cameras with USB3.0 interface.

Shielded cable with Hirose plug HR10A, female 6-pin (camera side), and Phoenix 4-pin connector incl. terminal block.

SK9026.x Order Code

└── cable length 3 / 5 m
 Other lengths on request




USB 3.0 active extension cable USB3.EXT.AA10

External power supply +5VDC, length 10 m

Connectors:
1x socket USB3.0 socket, type A,
1x plug Power in, 5VDC,
1x plug USB3.0, type A (also fits a USB2.0 type A socket)

USB3.EXT.AA10 Order Code




Adapter cable for sync signals CAB-ADSync-BNC-1

BNC/SMA (3x) to line scan camera synchronization cable SK9016/SK9024/SK9026.

Shielded cable, length 0.25 m

Connectors:
1x Phoenix 4-pin connector
3x SMA plug (Line Sync A, Line Sync B, Frame Sync)
3x adapter SMA socket (outside threading) to BNC-plug

CAB-ADSync-BNC-1 Order Code




USB 3.0 active extension cable USB3.EXT.A2A...

Hybrid cable (copper/fiber), power supply by another USB-connection, cable length up to 100 m on request.

Connectors:
USB3.0 plug and socket, with locking screws

USB3.EXT.A2Ax Order Code

└── 20 = 20 m cable length
 30 = 30 m
 50 = 50 m
 other lengths up to 100 m on request



M1 Mounting Bracket SK5105

For cameras with lens thread size C-mount to M40x0.75

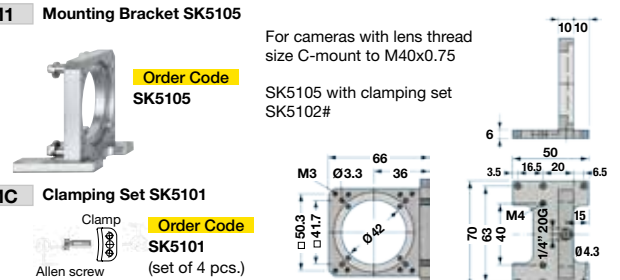
SK5105 Order Code

SK5105 with clamping set SK5102#

MC Clamping Set SK5101

Clamp **SK5101** Order Code (set of 4 pcs.)

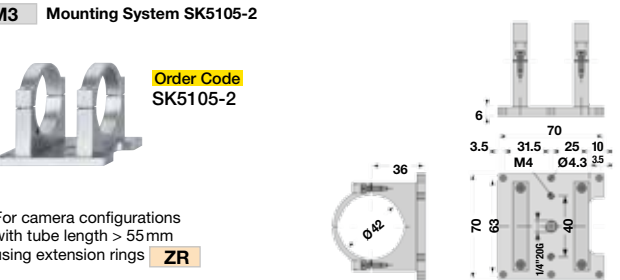
Allen screw DIN 912-M3x12



M3 Mounting System SK5105-2

SK5105-2 Order Code

For camera configurations with tube length > 55 mm using extension rings **ZR**

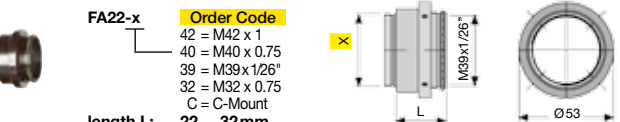


FA1 Focus adapter FA22...

FA22-x Order Code

42 = M42 x 1
40 = M40 x 0.75
39 = M39x1/26"
32 = M32 x 0.75
C = C-Mount

length L: **22 ... 32 mm**




A3 Lens Adapter F-Mount

for line scan cameras with case type **Axx** or **BGx**.

AOC-F-... Order Code

Attachment thread:
45 = M45x0.75
40 = M40x0.75
32 = M32x0.75
C = C-Mount 1"-32-TP



ZR Extension rings L-Mount (M39x1/26" Leica)

attachment threads M39x1/26" male/female

ZR 10 Order Code

10 = Length 10 mm
15 = Length 15 mm
20 = Length 20 mm
50 = Length 50 mm

