

USB 3.0

- Robust cable connections
- Hot-pluggable
- Perfect for movable setups

**Time Delay
Integration****TDi****Schäfter + Kirchhoff**

Line Scan Camera SK2048U3TDI

96-stages Time Delay and Integration Digital camera with very high sensitivity and high line frequency, gain and offset adjustable by PC, anti blooming



Specifications

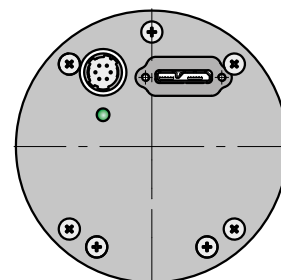
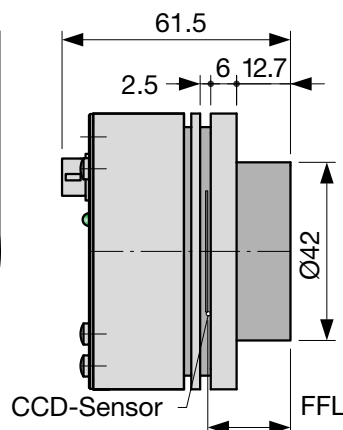
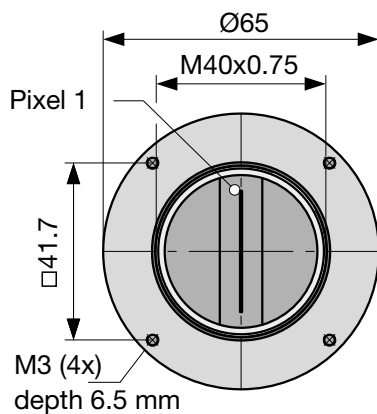
Sensor type:	CCD TDI Sensor	min. exposure time:	0.023 ms
Pixel number:	96x 2048	max exposure time:	1 ms
Pixel size:	13 x 13 μm^2	Video signals:	monochrome 8/12 Bit digital
Pixel distance:	13 μm	Signal in/out:	USB 3.0
Active sensor length:	26.6 mm	Power supply:	+5V, +15V
max. pixel frequency:	100 MHz	Size:	$\varnothing 65 \text{ mm} \times 54 \text{ mm}$
max. line frequency:	43.4 kHz	Case type:	AT2
Anti blooming:	x	Mass:	0.2 kg
Integration Control:	-	Lens mount:	M40x0.75
Shading correction:	x	Seat for bracket:	$\varnothing 42 \text{ mm}$
Threshold mode:	x	Flange focal length:	19.5 mm
Spectral sensitivity:	400 - 1000 nm	Operating temperature:	+5 ... +45°C
Dynamic range:	1:2500 (rms)		

Dimensions

AT2

Lens mount:
Seat for bracket:
Flange focal length:

M40x0.75
 $\varnothing 42 \text{ mm}$
FFL = 19.5 mm



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 **SK91GigE-WIN**

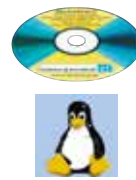


Software

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, compiled for Debian or openSUSE



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

└── 3 = 3 m cable length (standard)
 5 = 5 m cable length



Power supply unit PS051515

Input: 100-240 VAC, 0.8 A, 50/60 Hz
IEC 60320 C14 coupler (for IEC C13 power cord)

Output: +5VDC, 2.5 A / +15VDC, 0.5 A / -15VDC, 0.3 A


Cable length: 1 m, with Lumberg connector KV60, female 6-pin

PS051515 Order Code

Power cord IEC 60320 C13, 1.5 m, 10 A, 250 VAC

PC150DE Order Code

└── DE = Europe / US = USA, Canada, Japan / UK = United Kingdom




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




Combined Synchronization and Power Cable SK9016.1.5

Applicable when a power supply in addition to the USB interface is required. Shielded cable, length 1.5 m.

Connectors: Hirose plug HR10A, female 6 pin, (camera side), Lumberg SV60, male 6-pin connector (for supply voltage), Phoenix 6 pin connector incl. terminal block (for synchronization signals)

SK9016.1.5 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




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



M1 Mounting Bracket SK5105

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

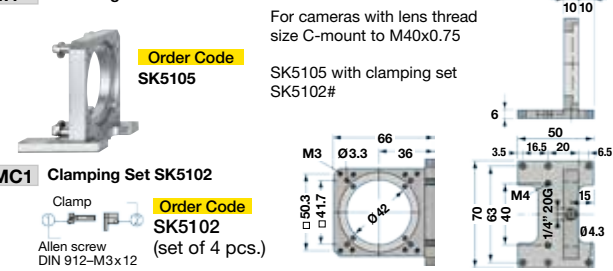
SK5105 Order Code

SK5105 with clamping set SK5102#

MC1 Clamping Set SK5102

Clamp Order Code SK5102 (set of 4 pcs.)

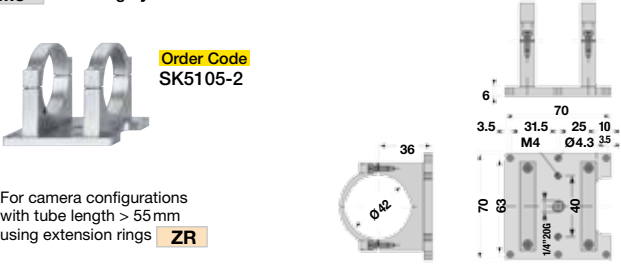
Allen screw DIN 912-M3x12



M3 Mounting System SK5105-2

SK5105-2 Order Code

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

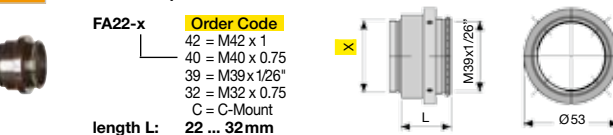


FA1 Focus adapter FA22...

FA22-x Order Code

42 = M42 x 1
40 = M40 x 0.75
39 = M39 x 1/26"
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

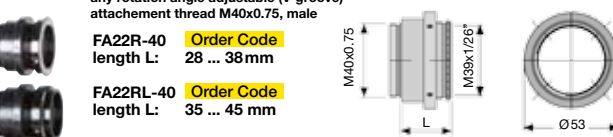


FA2 Focus adapter L-Mount (M39x1/26" Leica)

any rotation angle adjustable (V-groove) attachment thread M40x0.75, male

FA22R-40 Order Code
length L: 28 ... 38 mm

FA22RL-40 Order Code
length L: 35 ... 45 mm



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

