

micro vision systems by optikron

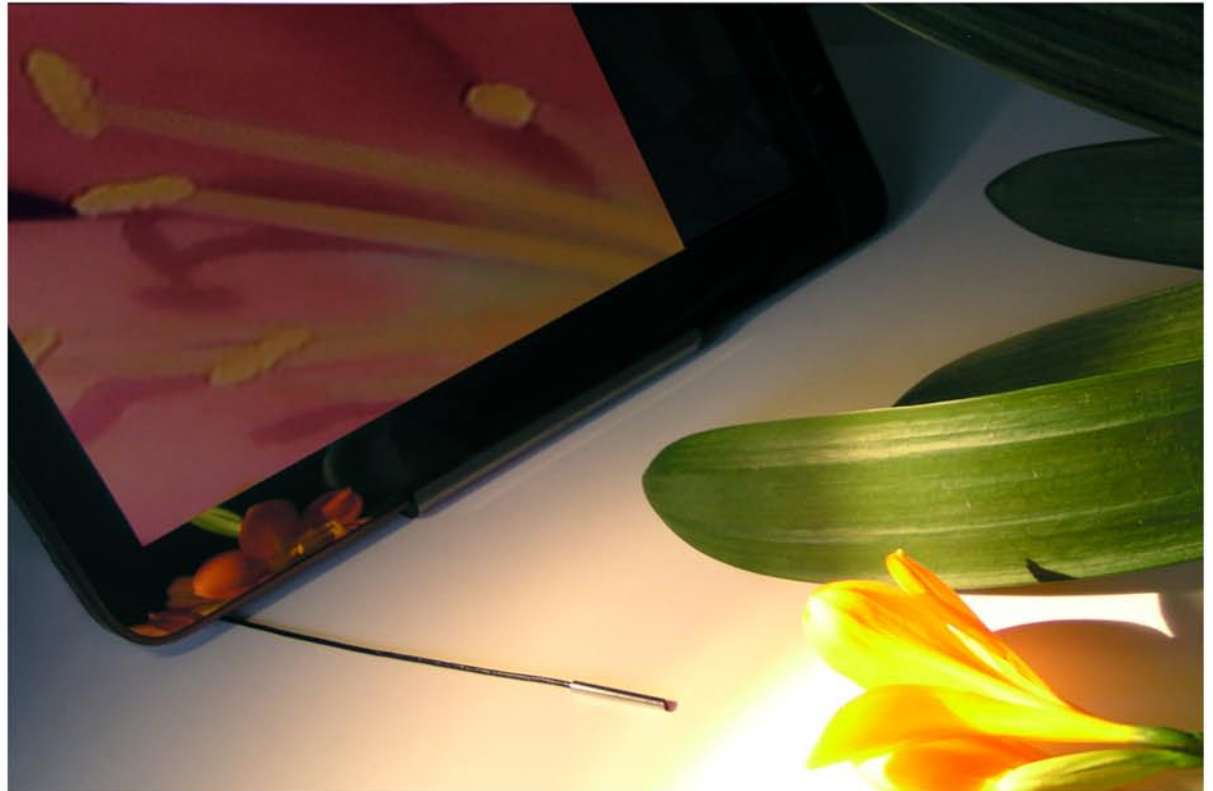


Optikron's micro cameras and vision systems are optimized for applications in which it is important to have imaging systems with smallest sizes in combination with highest image quality. In these miniaturized modules are used smallest sensors together with special optics which are designed for getting the best view of your objects. The cameras are very light-sensitive and have an outstanding performance by the optimal combination of electronics, optics and mechanical parts. All micro cameras can be integrated into complex systems or can be used as stand-alone devices. Additionally to our standard cameras are customized modules and the development and manufacturing of individual vision systems available as well. Key applications for these solutions are endoscopy, microscopy, machine vision, automation, metrology and inspection, bioscience and analytics and many more.

optikron micro-cams

Optikron Vision GmbH
Jena, Germany
www.optikron.de

micro vision systems by optikron



Ø2.75x24 mm (stainless steel tube) or
Ø3.2x22 mm (aluminum tube)

1/10" CMOS sensor 400x400 px.

USB (UVC) or CVBS

multi-element lenses for optimized
image quality and highest DOF

standard and customized modules

key application:

endoscopy, life science, automation,
machine vision, technical inspection



Optikron's s-series camera modules have very small dimensions for a high miniaturization. With their optimally designed and matched optics and electronics for these small sensors have these modules an impressive image quality. The available standard optics are generating an outstanding high depth of field and because of the high light-sensitivity of the sensor these cameras can be also used in surroundings with lower light conditions. There is additionally a NIR version available. The camera will switch automatically to b/w mode, if illumination changes to an NIR light sources.

optikron s-series

OPTIKRON Vision GmbH
Jena, Germany
www.optikron.de

micro vision systems

by optikron



M-Series VGA USB (1/9") Ø5.95x8 mm
M-series 720p USB (1/9") Ø4.2 mm
M-series 1080p USB (1/6") 6.5 mm
M-series 60fps 1080p USB (1/6")
M-series CVBS (1/4") Ø16 or 10x10 mm
M-Series GS b/w USB (global shutter)
modules with 0° and 90° view

key application:

automation, metrology, inspection,
bioscience, microscopy



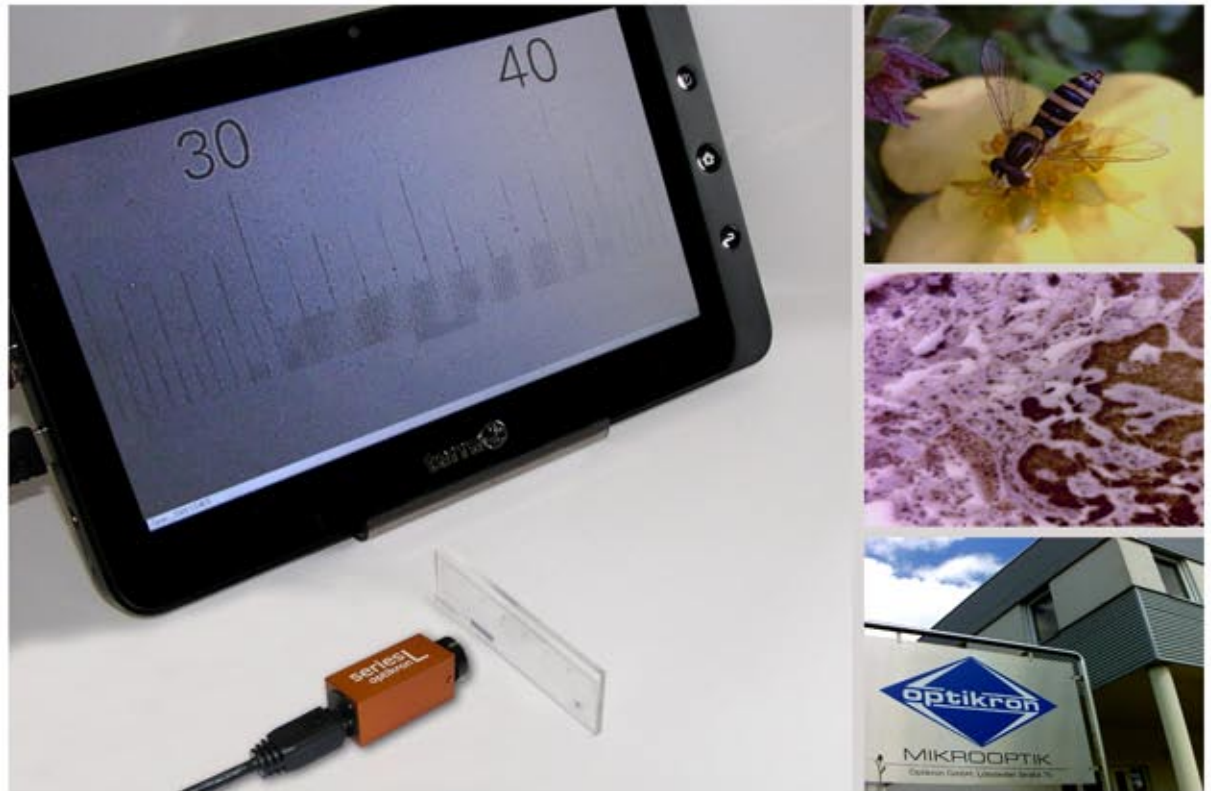
Optikron's m-series camera modules are versatile, small and available with a wide variety of optics and housings for an easy integration.

The M-series modules are the smallest cameras with VGA, HD or Full HD resolution. They are often the basis for customized vision systems of a higher complexity. Additionally is with our M-Series GS a small global shutter camera available. The M-Series 1080p modules with 60 fps are cameras with higher speed but having the flexibility of USB UVC cameras. Optionally we offer modules with integrated LEDs or add-on illumination units. Highlights are the HQ lenses for high DOFs. M-Series cameras are also available for a use as smallest video microscopes.

optikron m-series

OPTIKRON Vision GmbH
Jena, Germany
www.optikron.de

micro vision systems by optikron



L-series 5MP USB (1/4")
16x16x35 mm

L-series 5MP Pro USB (1/4")
with snapshot-switch and trigger input

L-series 8MP USB (1/3,2")
20x20x40 mm

L-series 1080p HDMI (1/2,9")
20x20x60 mm

key application:

machine vision, metrology, inspection,
bioscience, analytics, microscopy



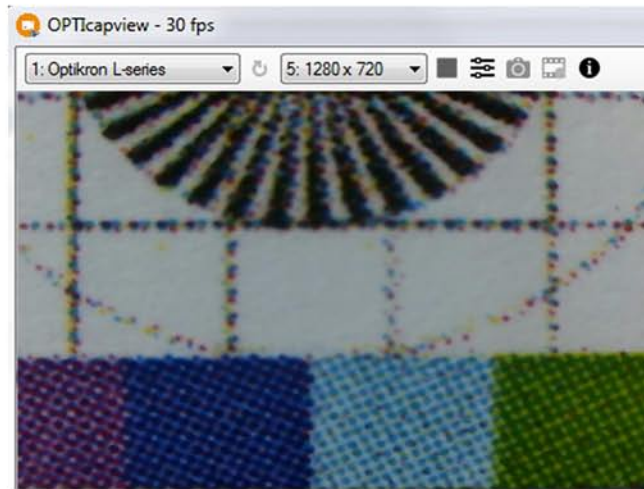
Because of their high resolution, high light-sensitivity and fast auto adjustments are these small cameras very versatile regarding their applications. They show a very high performance in different working surroundings. The L-series cameras can be simply integrated into complex systems, like machines, robots, automation systems. Also they can be used as stand-alone device like a digital microscope or for process control or for assembling and inspection.

...available as standard modules or as
customized solution

optikron l-series

Optikron Vision GmbH
Jena, Germany
www.optikron.de

micro vision systems by optikron



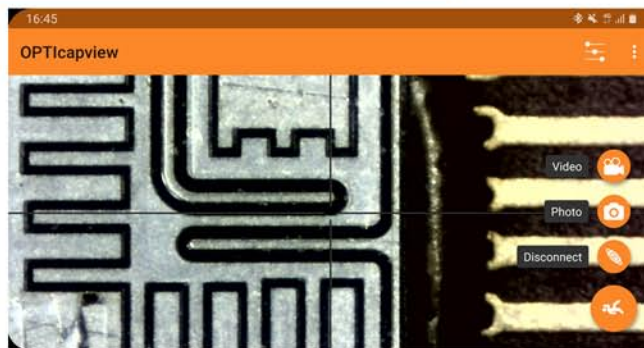
OPTIcapview for Windows

All Optikron micro-cameras with USB interface are UVC devices. There are no special drivers required. The cameras can be easily connected to Windows or Linux PC's and tablets and can be also used on RaspberryPi. By this standard it is easy to integrate the cam's into already existing software solutions or use them with our viewer software.

OPTIcapview is our freeware viewer software optimized for a simple use of Optikron's micro-cameras.

Functions:

live video view, image settings, resolution setting, crosshair and customized overlays, screen mirroring, switching between different cameras, frame rate information, snapshot, video recording



OPTIcapview App for Android

With this Android App can be used our micro-cameras also with mobile devices. With tablets or smartphones can be generated compact systems for mobile use and applications like on-site inspection or for a simple integration into machines. All our USB cameras can be connected via an OTG adaptor to such Android devices. Some of our camera modules are additionally available as OTG version for a direct use at mobile devices. So our cameras can be also used in a flexible way at several places as high efficient tool in quality inspection, production, process control, assembling, analytics, microscopy and documentation.

Functions:

live video view, image settings, resolution setting, adjustable crosshair as overlay, screen mirroring, magnification, snapshot, video recording

software

micro vision systems by optikron



overview
standard cameras

Micro Cameras 2020

04-2020

Performance Cams

Item	Item No.
XS-series	
XS-series CVBS Dia 1.8 stainless steel, 0° view, HQ lens large FOV ~ 120°	82-0001-01
XS-series customized	00-0000-00
S-series	
S-series CVBS Dia 2.75 stainless steel, 0° view, HQ lens large FOV ~ 120°	83-0101-01
S-series CVBS Dia 3.2 AL orange, 0° view, HQ lens large FOV ~ 120°	83-0102-01
S-series USB Dia 2.75 stainless steel, 0° view, HQ lens large FOV ~ 120°	83-0001-01
S-series USB Dia 3.2 AL orange, 0° view, HQ lens large FOV ~ 120°	83-0002-01
S-series customized	00-0000-00
M-series	
M-series CVBS, 0° view, HQ lens 10x10x14	84-0001-02
M-series CVBS, 0° view, S-Mount	84-0001-03
M-series VGA, USB, 0° view	84-0006-01
M-series VGA MIC, USB, 0° view (FOV ~22°)	84-0006-02
M-series VGA MIC, USB, 0° view (FOV ~22°), LED	84-0006-03
M-series VGA, USB, 0° view, LED	84-0007-01
M-series HD 720p USB (USB 2.0), round, 0° view, HQ lens (new version; smaller size)	84-0013-02
M-series HD 1080p compact USB (USB 2.0), 0° view, fixed lens (30 fps version)	84-0020-01
M-series HD 1080p USB (USB 2.0), 0° view, HQ lens (30 fps version)	84-0021-01
M-series HD 1080p OTG (micro USB), 0° view, HQ lens (30 fps version)	84-0022-01
M-series HD 1080p USB (USB 2.0), round, 0° view, HQ lens (30 fps version)	84-0023-01
M-series HD 1080p OTG (micro USB), round, 0° view, HQ lens (30 fps version)	84-0024-01
M-series HD 1080p USB (USB 2.0), round, 0° view, HQ lens, LED (30 fps version)	84-0025-01
M-series HD 1080p 60 USB (USB 3.0), round, 0° view, HQ lens	84-0026-01
M-series HD 1080p 60 USB (USB 3.0), 0° view, HQ lens	84-0027-01
M-series HD 1080p 60 USB (USB 3.0), round, 0° view, HQ lens, LED	84-0028-01
M-series HD 1080p 60 USB (USB 3.0), 90° view, HQ lens	84-9022-01
M-series HD 1080p USB (USB 2.0), 90° view, HQ lens	84-9021-01
M-series GS b/w VGA USB (USB2.0), 90° view, HQ lens	84-9031-01
M-series customized	00-0000-00
L-series	
L-series 5MP USB with basic s-mount lens	85-0001-01
L-series 5MP Pro USB with snapshot + trigger function with basic s-mount lens	85-0001-02
L-series 8MP USB with basic s-mount lens	85-0011-01
L-series HDMI with one basic s-mount lens	85-0901-01
L-series customized	00-0000-00

Accessories fort L-series cameras

Lenses fort L-series cameras

Smart Cams

Item	item no.
Smart S CVBS, 90° view, basic lens not adjustable, LEDs	83-0000-01
Smart M HD 720p USB (USB 2.0 or OTG), 0° view, basic lens not adjustable, LEDs	84-0000-01
Smart L 5MP USB, 0° view, S-mount, with one basic lens	85-0000-01

optikron
micro-cams

micro vision systems by optikron



technical data

camera type	item no.
XS-series USB Ø 1.8, FOV ~ 120°	82-0001-01
	
	Specification
Size of standard housing	Ø1.8x12 mm, stainless steel
Standard cable	approx. 50 cm cable from camera to controller-board, then approx. 1 m USB-cable (can be extended)
Resolution and max. frame rate	400 x 380 / 30fps.
Image sensor	1/18" CMOS Color
Image area	0.741x0.707 mm
Pixel size	1.75x1.75 µm
Shutter type	Rolling Shutter
Dynamic range	67.1 dB
UVC format	MJPEG
Storage temperature	- 30 to 60 Degree C
Working temperatur	- 10 to 45 Degree C
Interface	USB 2.0 (UVC => driver free)
Power source	DC 5 V via USB
Power current	120 mA-max. (DC 5 V)
LED Illumination	no
Miscellaneous	
Lens	FOV ~120°

micro vision systems by optikron



technical data

camera type	item no.
S-series CVBS Ø 2.75 inox, FOV ~ 120°	83-0101-01
S-series CVBS Ø 3.2 Alu, FOV ~ 120°	83-0102-01
	
Specification	
Size of standard housing	Ø2.75x22 mm or Ø3.2x22 mm
Standard cable	approx. 80 cm cable (up to 200 cm upon request) from camera to controller-board, then approx. 100 cm cable with RCA female for video out and DC plug female for power input
Resolution and max. frame rate	400 x 400
Image sensor	1/10" CMOS Color
Image area	1.224x1.212 mm
Pixel size	3.0x3.0 µm
Shutter type	Rolling Shutter
S/N Ratio	> 50 dB
UVC format	-
Storage temperature	- 30 to 60 Degree C
Working temperatur	- 10 to 45 Degree C
Interface	CVBS
Power source	DC 5 ~ 12 V (ext.)
Power current	200 mA max.
LED Illumination	no
Miscellaneous	customized housings available
Lens	FOV ~120° or customized lens upon request IR-cut filter (optional without IR-cut)

micro vision systems by optikron



technical data

camera type	item no.
S-series USB Ø 2.75 inox, FOV ~ 120°	83-0001-01
S-series USB Ø 3.2 Alu, FOV ~ 120°	83-0002-01
	
Specification	
Size of standard housing	Ø2.75x22 mm or Ø3.2x22 mm
Standard cable	approx. 80 cm cable (up to 200 cm upon request) from camera to controller-board, then approx. 1 m USB-cable
Resolution and max. frame rate	400 x 400
Image sensor	1/10" CMOS Color
Image area	1.224x1.212 mm
Pixel size	3.0x3.0 µm
Shutter type	Rolling Shutter
S/N Ratio	> 50 dB
UVC format	MJPEG
Storage temperature	- 30 to 60 Degree C
Working temperatur	- 10 to 45 Degree C
Interface	USB 2.0 (UVC => driver free)
Power source	DC 5 V via USB
Power current	200 mA-max. (DC 5 V)
LED Illumination	no
Miscellaneous	customized housings available
Lens	FOV ~120° or customized lens upon request IR-cut filter (optional without IR-cut)

micro vision systems by optikron



technical data

camera type	item no.
M-series CVBS, 0°, HQ lens	84-0001-02
M-series CVBS, 0°, S-Mount lens	84-0001-03

		Specification
Size of standard housing	10x10x14 mm with HQ lens M5.5 Ø16x20 mm with S-Mount	
Standard cable	after approx. 50 cm splitting into video out RCA (chinch) & power input DC Plug female (DC 5~ 12 V)	
Resolution and max. frame rate	648 x 488 (NTSC or PAL) 60 (NTSC) / 50 (PAL) fields/sec.	
Image sensor	1/4" CMOS Color	
Image area	3.63 x 2.73 mm	
Pixel size	5.6 x 5.6 µm	
Shutter type	Rolling Shutter	
Dynamic range	62 dB	
UVC format	-	
Storage temperature	- 30 to 60 Degree C	
Working temperature	- 10 to 45 Degree C	
Interface	CVBS	
Power source	DC 5 ~ 12 V (DC plug 2.1/5.5)	
Power current	90 mA-max	
LED Illumination	no	
Miscellaneous	customized housings and integrated LED illumination available upon request	
Lens	84-0001-02 with HQ lens HFOV ~40° or ~60°, various lenses available 84-0001-03 various S-Mount - lenses available	

micro vision systems by optikron



technical data

camera type	item no.
M-series VGA, USB, 0° view	84-0006-01
	
Specification	
Size of standard housing	Ø5.95x8 mm
Standard cable	approx. 200 cm USB-cable fixed at the camera / USB type A to PC
Resolution and max. frame rate	640 x 480 /30 fps 352 x 288 /30 fps 320 x 240 /30 fps 160 x 120 /30 fps
Image sensor	1/9" CMOS Color
Image area	1.6 x 1.2 mm
Pixel size	2.5 x 2.5 µm
Shutter type	Rolling Shutter
Dynamic range	73 dB
UVC format	MJPEG
Storage temperature	- 25 to 60 Degree C
Working temperatur	0 to 50 Degree C
Interface	USB 2.0 (UVC => driver free)
Power source	DC 5 V (via USB)
Power current	60 mA-max
LED Illumination	no
Miscellaneous	customized housings available
Lens	lens adjustable (HFOV ~60° in standard), customized lenses upon request

micro vision systems by optikron



technical data

camera type	item no.
M-series VGA MIC, USB, 0° view	84-0006-02



Specification

Size of standard housing	Ø6.5x12 mm
Standard cable	approx. 200 cm USB-cable fixed at the camera / USB type A to PC
Resolution and max. frame rate	640 x 480 /30 fps 352 x 288 /30 fps 320 x 240 /30 fps 160 x 120 /30 fps
Image sensor	1/9" CMOS Color
Image area	1.6 x 1.2 mm
Pixel size	2.5 x 2.5 µm
Shutter type	Rolling Shutter
Dynamic range	73 dB
UVC format	MJPEG
Storage temperature	- 25 to 60 Degree C
Working temperatur	0 to 50 Degree C
Interface	USB 2.0 (UVC => driver free)
Power source	DC 5 V (via USB)
Power current	170 mA-max
LED Illumination	no
Miscellaneous	customized housings available
Lens	adjustable lens FOV ~22° (f5.0), customized lenses upon request

micro vision systems by optikron



technical data

camera type	item no.
M-series VGA MIC, USB, 0° view, LED	84-0006-03
	
Specification	
Size of standard housing	Ø10x15 mm
Standard cable	approx. 200 cm USB-cable fixed at the camera / USB type A to PC
Resolution and max. frame rate	640 x 480 /30 fps 352 x 288 /30 fps 320 x 240 /30 fps 160 x 120 /30 fps
Image sensor	1/9" CMOS Color
Image area	1.6 x 1.2 mm
Pixel size	2.5 x 2.5 µm
Shutter type	Rolling Shutter
Dynamic range	73 dB
UVC format	MJPEG
Storage temperature	- 25 to 60 Degree C
Working temperatur	0 to 50 Degree C
Interface	USB 2.0 (UVC => driver free)
Power source	DC 5 V (via USB)
Power current	190 mA-max
LED Illumination	White LED x 6, dimmable
Miscellaneous	customized housings available
Lens	adjustable lens FOV ~22° (f5.0), customized lenses upon request

micro vision systems by optikron



technical data

camera type	item no.
M-series VGA, USB, 0° view, LED	84-0007-01
	
Specification	
Size of standard housing	Ø5.95x8 mm
Standard cable	approx. 200 cm USB-cable fixed at the camera / USB type A to PC
Resolution and max. frame rate	640 x 480 /30 fps 352 x 288 /30 fps 320 x 240 /30 fps 160 x 120 /30 fps
Image sensor	1/9" CMOS Color
Image area	1.6 x 1.2 mm
Pixel size	2.5 x 2.5 µm
Shutter type	Rolling Shutter
Dynamic range	73 dB
UVC format	MJPEG
Storage temperature	- 25 to 60 Degree C
Working temperatur	0 to 50 Degree C
Interface	USB 2.0 (UVC => driver free)
Power source	DC 5 V (via USB)
Power current	170 mA-max
LED Illumination	White LED x 6, dimmable
Miscellaneous	customized housings available
Lens	lens fixed (HFOV ~60°), customized lenses upon request

micro vision systems by optikron



technical data

camera type	item no.
M-series HD 720p USB, round, 0°	84-0013-02
 Specification	
Size of standard housing	Ø4.2x14 mm (Ø3.8 as option)
Standard cable	approx. 200 cm USB-cable fixed at the camera / USB type A to PC
Resolution and max. frame rate	1280 x 720 /30 fps 960 x 540 /30 fps 848x480 /30 fps 640 x x480 /30 fps 320 x 240 /30 fps
Image sensor	1/9" CMOS Color
Image area	1.819 x 1.033 mm
Pixel size	1.4 x 1.4 µm
Shutter type	Rolling Shutter
Dynamic range	68.4dB
UVC format	MJPEG
Storage temperature	- 30 to 60 Degree C
Working temperatur	- 10 to 45 Degree C
Interface	USB 2.0 or OTG (UVC => driver free)
Power source	DC 5 V (via USB)
Power current	170 mA
LED Illumination	no
Miscellaneous	customized housings and integrated LED illumination available upon request
Lens	lens HFOV ~68°, other lenses upon request

micro vision systems by optikron



technical data

camera type	item no.
M-series HD 1080p compact USB, 0°	84-0020-01
M-series HD 1080p USB, 0°	84-0021-01
M-series HD 1080p OTG, 0°	84-0022-01
M-series HD 1080p USB, round, 0°	84-0023-01
M-series HD 1080p OTG, round, 0°	84-0024-01
M-series HD 1080p USB, 90°	84-9021-01

		Specification
Size of standard housing	compact version with Ø6.5x14 mm; 0° type => Ø6.5x30 or 6.5x6.5x30 mm; 90° type => 10x6x30 mm	
Standard cable	approx. 200 cm USB-cable fixed at the camera / USB type A (type B for OTG)	
Resolution and max. frame rate	1920 x 1080 /30 fps 1280 x 720 /30 fps 640 x 480 /30 fps	
Image sensor	1/6" CMOS Color	
Image area	2.7288 x 1.5498	
Pixel size	1.4 x 1.4 µm	
Shutter type	Rolling Shutter	
Dynamic range	73.3 dB	
UVC format	MJPEG	
Storage temperature	- 30 to 60 Degree C	
Working temperatur	- 10 to 45 Degree C	
Interface	USB 2.0 or OTG (UVC => driver free)	
Power source	DC 5 V (via USB)	
Power current	160 mA	
LED Illumination	no	
Miscellaneous	customized housings and integrated LEDs available upon request	
Lens	lens adjustable HFOV ~68° or 80° (fixed lens at compact version); other lenses available upon request	

micro vision systems by optikron



technical data

camera type	item no.
M-series HD 1080p USB, 0°, LED	84-0025-01
	
Specification	
Size of standard housing	Ø10x30 mm
Standard cable	approx. 200 cm USB-cable fixed at the camera / USB type A to PC
Resolution and max. frame rate	1920 x 1080 /30 fps 1280 x 720 /30 fps 640 x 480 /30 fps 320 x 240 /30 fps
Image sensor	1/6" CMOS Color
Image area	2.7288 x 1.5498
Pixel size	1.4 x 1.4 µm
Shutter type	Rolling Shutter
Dynamic range	73.3 dB
UVC format	MJPEG
Storage temperature	- 30 to 60 Degree C
Working temperatur	- 10 to 45 Degree C
Interface	USB 2.0 or OTG (UVC => driver free)
Power source	DC 5 V (via USB)
Power current	190 mA
LED Illumination	White LED x 6, dimmable
Miscellaneous	customized housings upon request
Lens	lens adjustable HFOV ~68°, other lenses upon request

micro vision systems by optikron



technical data

camera type	item no.
M-series HD 1080p 60 fps USB, round, 0°	84-0026-01
M-series HD 1080p 60 fps USB, 0°	84-0027-01
M-series HD 1080p 60 fps USB, 90°	84-9022-01

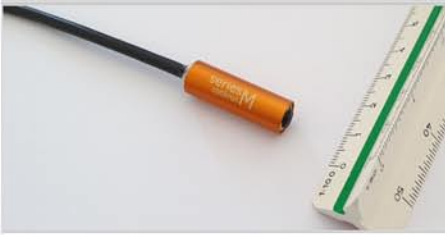
		Specification
Size of standard housing	0° view modules => Ø6.5x14 mm or 6.5x6.5x14 mm with adjustable lenses / Ø 5,95 x 12 mm with fixed lens 90° view module => 10x6x30 mm (18 mm length as option)	
Standard cable	approx. 200 cm USB-cable fixed at the camera / USB type A to PC	
Resolution and max. frame rate	1920 x 1080 /60 fps 1280 x 720 /60 fps 640 x 480 /60 fps	
Image sensor	1/6" CMOS Color	
Image area	2.7288 x 1.5498	
Pixel size	1.4 x 1.4 µm	
Shutter type	Rolling Shutter	
Dynamic range	73.3 dB	
UVC format	MJPEG	
Storage temperature	- 30 to 60 Degree C	
Working temperatur	- 10 to 45 Degree C	
Interface	USB 3.0 (UVC => driver free)	
Power source	DC 5 V (via USB)	
Power current	160 mA	
LED Illumination	no	
Miscellaneous	customized housings and integrated LED illumination available upon request	
Lens	lens adjustable HFOV ~68° or 80°, other lenses upon request	

60 fps
m-series

micro vision systems by optikron



technical data

camera type	item no.
M-series HD 1080p 60 USB, 0°, LED	84-0028-01
	
Specification	
Size of standard housing	Ø10x22 mm
Standard cable	approx. 200 cm USB-cable fixed at the camera / USB type A to PC
Resolution and max. frame rate	1920 x 1080 /60 fps 1280 x 720 /60 fps 640 x 480 /60 fps
Image sensor	1/6" CMOS Color
Image area	2.7288 x 1.5498
Pixel size	1.4 x 1.4 µm
Shutter type	Rolling Shutter
Dynamic range	73.3 dB
UVC format	MJPEG
Storage temperature	- 30 to 60 Degree C
Working temperatur	- 10 to 45 Degree C
Interface	USB 3.0 (UVC => driver free)
Power source	DC 5 V (via USB)
Power current	190 mA
LED Illumination	White LED x 6, dimmable
Miscellaneous	customized housings upon request
Lens	lens adjustable HFOV ~68°, other lenses upon request

60 fps
m-series

micro vision systems by optikron



technical data

camera type	item no.
M-series GS b/w USB, 90°	84-9031-01
	
Specification	
Size of standard housing	90° view module => 10x6x30 mm
Standard cable	approx. 200 cm USB-cable fixed at the camera / USB type A to PC
Resolution and max. frame rate	640 x 480 / 30 fps
Image sensor	1/7.5" CMOS Color (black/white)
Image area	1.968 x 1.488
Pixel size	3 x 3 µm
Shutter type	Global Shutter
Dynamic range	73.3 dB
UVC format	MJPEG
Storage temperature	- 30 to 60 Degree C
Working temperatur	- 10 to 45 Degree C
Interface	USB 2.0 (UVC => driver free)
Power source	DC 5 V (via USB)
Power current	160 mA
LED Illumination	no
Miscellaneous	customized housings and integrated LED illumination available upon request
Lens	lens adjustable, standard HFOV ~55° various other lenses availbale (for example HFOV ~30°, ~45° or ~65°)

micro vision systems by optikron



technical data

camera type	item no.
L-series 5 MP USB	85-0001-01
L-series 5 MP Pro USB	85-0001-02
 Specification	
Size of standard housing	16x16x35 mm (without lens)
Standard cable	USB cable ~ 1.8 m (or ~ 5 m as option) Micro USB (type B) connector to camera with 3.8V DC out/ USB (type A) to PC with 5V DC in => special cable for DC out of only 3.8V
Resolution and max. frame rate	2592 x 1944 /10 fps 1920 x 1080 /30 fps 1280 x 720 /30 fps 640 x 480 /30 fps
Image sensor	1/4" CMOS Color
Image area	3.651 x 2.744 mm
Pixel size	1.4 x 1.4 µm
Shutter type	Rolling Shutter
Dynamic range	63 dB
UVC format	MJPEG
Storage temperature	- 40 to 85 Degree C
Working temperatur	0 to 70 Degree C
Interface	USB 2.0 (UVC => driver free)
Power source	DC 5 V (via USB)
Power current	170 mA
LED Illumination	no
Miscellaneous	L-series 5 MP Pro has additionally 1x input for snapshot switch + 1x trigger input (camera stop/run)
Lens	various S-Mount - lenses availbale

micro vision systems by optikron



technical data

camera type	item no.
L-series 8 MP USB	85-0011-01
 Specification	
Size of standard housing	20x20x40 mm (without lens)
Standard cable	USB cable ~ 1.8 m (or ~ 5 m as option) Micro USB (type B) connector to camera / USB (type A) to PC
Resolution and max. frame rate	3264 x 2448 /20 fps 2592 x 1944 /20fps 2048 x 1536 /20 fps 1920 x 1080 /25 fps 1280 x 720 /30 fps 1024 x 768 /30 fps
Image sensor	1/3.2" CMOS Color
Image area	4.59x3.45
Pixel size	1.4 x 1.4 µm
Shutter type	Rolling Shutter
Dynamic range	72.5 dB
UVC format	MJPEG
Storage temperature	- 30 to 60 Degree C
Working temperatur	0 to 60 Degree C
Interface	USB 2.0 (UVC => driver free)
Power source	DC 5 V (via USB)
Power current	170 mA
LED Illumination	no
Miscellaneous	optionally available with 1x input for snapshot switch + 1x trigger input (camera stop/run)
Lens	various S-Mount - lenses available

micro vision systems by optikron



technical data

camera type	item no.
L-series HDMI	85-0901-01
 Specification	
Size of standard housing	20x20x60 mm (without lens)
Standard cable	HDMI type D + power cable (~80 cm)
Resolution and max. frame rate	1920 x 1080 /30 fps
Image sensor	1/2.9" CMOS Color
Image area	5.51 x 3.1 mm
Pixel size	4.2 x 4.2 µm
Shutter type	Rolling Shutter
Dynamic range	55.1 dB
UVC format	-
Storage temperature	- 40 to 120 Degree C
Working temperatur	- 10 to 80 (105) Degree C
Interface	HDMI D type
Power source	DC 5 ~ 12 V (ext.)
Power current	5V/ 430 mA-max, 12V/180mA-max
LED Illumination	no
Miscellaneous	
Lens	various S-Mount - lenses available

micro vision systems by optikron



technical data

accessories for L-Series cameras	usable with
L-series 5 MP USB	85-0001-01
L-series 5 MP Pro USB	85-0001-02
L-series 8 MP USB	85-0011-01
L-series HDMI	85-0901-01
Smart L 5 MP *	* 85-0000-01

Item	Description	Item no.
S-mount extension tube 11 mm	Extension tubes for lenses with longer focal lengths (>16 mm). They also allow you to turn standard fixed focal length lenses into macro lenses. By placing distance between the camera body and lens, the focusing distance is shortened and magnification is increased.	85-1102-01
S-mount extension tube 21 mm		85-1103-01
S-mount to C-mount adaptor	For using standard C-mount lenses with L-Series cameras	85-1104-01
RMS adaptor	For using microscope lenses with RMS thread with L-Series cameras.	85-1105-01
S-mount to M9x0.5 adaptor	For using our HQ lenses and other lenses with M9x0.5 in the standard housing of L-Series cameras.	85-1106-01
Mount for L-Series 4xM4 * not for Smart L camera	This mount can be fixed at L-Series cameras (Pro Cams). Then the mount can be fixed by several threaded holes with M4. Additionally can be added a strain-relief for the cable.	85-1101-01
LED-Ring Light; OD 24, S-Mount	homogenized LED illumination; ring light module with tube extension of 14 mm (not usable for lenses with shorter focal lengths <f16 mm)	85-2001-01
USB cable 5 m	longer USB cable with 3.8V out	85-1002-01



accessories for L-series

micro vision systems by optikron



technical data

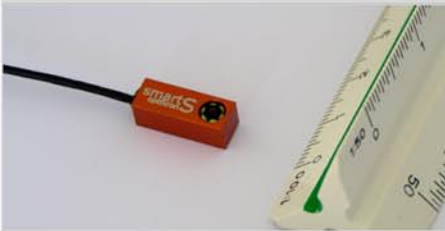
lenses for L-Series cameras		usable with
L-series 5 MP USB		85-0001-01
L-series 5 MP Pro USB		85-0001-02
L-series 8 MP USB		85-0011-01
L-series HDMI		85-0901-01
Smart L 5 MP *		* 85-0000-01
Item	Interface	Item no.
Basic Lens f4.0 mm	S-mount	85-1201-01
Basic Lens f8.0 mm	S-mount	85-1201-02
Basic Lens f16.0 mm	S-mount	85-1201-03
Basic Lens f25.0 mm	S-mount	85-1201-04
Standard Lens f1.68 mm / F2.5	S-mount	85-1211-01
Standard Lens f2.1 mm / F2.2	S-mount	85-1212-01
Standard Lens f3.94 mm / F2.0	S-mount	85-1213-01
Standard Lens f6.05 mm / F1.8	S-mount	85-1214-01
Standard Lens f8.0 mm / F2.5	S-mount	85-1215-01
Standard Lens f10.6 mm / F2.8	S-mount	85-1216-01
Standard Lens f12.0 mm / F2.0	S-mount	85-1217-01
Standard Lens f16.0 mm / F2.0	S-mount	85-1218-01
Standard Lens f25.0 mm / F2.5	S-mount	85-1219-01
Standard Lens f35.0 mm / F2.0	S-mount	85-1220-01
HQ Lens f6.6 mm / F6.7	M9 x 0.5 (with adaptor to S-mount)	85-1301-01
HQ Lens f10.0 mm / F5.9	M9 x 0.5 (with adaptor to S-mount)	85-1302-01
HQ Lens f12.0 mm / F5	S-mount	85-1303-01
HQ Lens f15.1 mm / F4.7	M9 x 0.5 (with adaptor to S-mount)	85-1304-01
HQ Lens OD 17 f18.0 mm / F2.0	S-mount	85-1401-01
HQ Lens OD 17 f25.0 mm / F3.5	S-mount	85-1402-01
HQ Lens OD 17 f30.0 mm / F3.5	S-mount	85-1403-01
HQ Lens OD 17 f50.0 mm / F4	S-mount	85-1404-01
HQ Lens OD 20 f75.0 mm / F6.25	S-mount	85-1405-01

lenses
for L-series

micro vision systems by optikron



technical data

camera type	item no.
Smart S CVBS, 90° view, LEDs	83-0000-01
	
Specification	
Size of standard housing	5x5x16 mm
Standard cable	approx. 80 cm cable (up to 200 cm upon request) from camera to controller-board, then approx. 100 cm cable with RCA female for video out and DC plug female for power input => LED dimmer switch at the cable
Resolution and max. frame rate	400 x 400
Image sensor	1/10" CMOS Color
Image area	1.224x1.212 mm
Pixel size	3.0x3.0 µm
Shutter type	Rolling Shutter
S/N Ratio	> 50 dB
UVC format	-
Storage temperature	- 30 to 60 Degree C
Working temperatur	- 10 to 45 Degree C
Interface	CVBS
Power source	DC 5 ~ 12 V
Power current	200 mA-max.
LED Illumination	White LED x 4, dimmable
Miscellaneous	
Lens	FOV ~120°

micro vision systems by optikron



technical data

camera type	item no.
Smart M HD 720p USB, 0° view, LEDs	84-0000-01
	
Specification	
Size of standard housing	Ø 4.8 x 25 mm
Standard cable	approx. 200 cm USB-cable fixed at the camera / USB type A to PC => LED dimmer switch at the cable
Resolution and max. frame rate	1280 x 720 /30 fps 640 x 480 /30 fps
Image sensor	1/9" CMOS Color
Image area	1.819 x 1.033 mm
Pixel size	1.4 x 1.4 µm
Shutter type	Rolling Shutter
Dynamic range	68.4dB
UVC format	MJPEG
Storage temperature	- 30 to 60 Degree C
Working temperatur	- 10 to 45 Degree C
Interface	USB 2.0 (UVC => driver free)
Power source	DC 5 V (via USB)
Power current	170 mA
LED Illumination	White LED x 6, dimmable
Miscellaneous	
Lens	HFOV ~65°

micro vision systems by optikron



technical data

camera type	item no.
Smart L 5 MP USB, 0° view, S-mount	85-0000-01
	
Specification	
Size of standard housing	Ø 17 x 42 mm (without lens)
Standard cable	approx. 200 cm USB-cable fixed at the camera / USB type A to PC
Resolution and max. frame rate	2592 x 1944 /10 fps 1920 x 1080 /30 fps 1280 x 720 /30 fps 640 x 480 /30 fps
Image sensor	1/4" CMOS Color
Image area	3.651 x 2.744 mm
Pixel size	1.4 x 1.4 µm
Shutter type	Rolling Shutter
Dynamic range	63 dB
UVC format	MJPEG
Storage temperature	- 30 to 60 Degree C
Working temperatur	- 10 to 45 Degree C
Interface	USB 2.0 (UVC => driver free)
Power source	DC 5 V (via USB)
Power current	170 mA
LED Illumination	no
Miscellaneous	
Lens	various S-Mount - lenses available