



## LECTOR<sup>®</sup> 65x

TIME FOR SOME REAL TALENT TO STEP UP TO THE LINE

Image-based code reader

**SICK**  
Sensor Intelligence.



[www.sick.com/LECTOR65x](http://www.sick.com/LECTOR65x)

Making the most of technology: SICK offers a complete range of identification equipment for automated logistics, letting you pick the right component



CLV69x 1D barcode scanner



RFU 63x RFID read/write unit for RFID tag identification

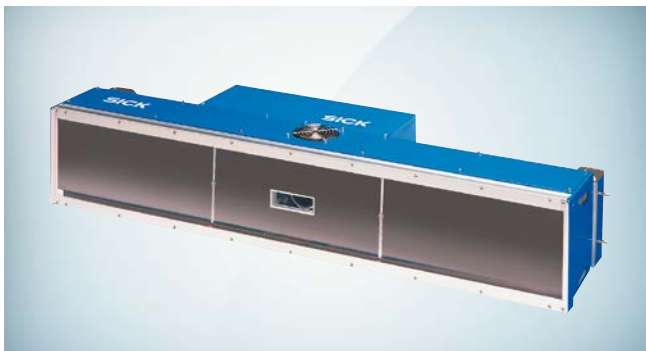
# A NEW LEVEL OF PRECISION: THE LECTOR®65x CAN READ EVERYTHING, EVEN THE HEARTS AND MINDS OF CUSTOMERS

## COUNT ON MAXIMUM PRECISION, NO MATTER WHAT THE THROUGHPUT

The demands of modern logistics are high indeed. Throughput of 200,000 packages an hour at a single location, for instance. And that is not all: the requirements are also increasing: greater reliability during sorting, and greater reliability for the identification and classification of goods.

Since there is no way to stem the flow of packages, it must be managed and brought under control. Precisely. Quickly. Correctly. The latest generation of image-based code readers from SICK takes on this task. With unprecedented intelligence and autonomy. And with innovative technologies such as a dynamic focus. As a result, they can identify even poorly printed codes on packages at different heights. Without an external computer.

These code readers complete the SICK range of identification equipment. Our unique product line includes laser scanners, RFID, image-based code readers with line-scan cameras and – the most recent addition – the LECTOR®65x, the first high-resolution matrix camera with a dynamic focus. This makes it possible to read 1D and 2D codes from any direction using a single device even when they have been damaged or partially covered by stretchwrap. Perfectly adapted to the width of the conveyor, the LECTOR®65x allows you to use the smallest number of devices necessary. A modular approach to conveyor width – and to price. Customers can choose from a wide range and SICK provides guidance on selecting the best technology. And those who work with solutions from SICK are spared having to reinvent the wheel. Same interface, same user interface.



ICR88x/89x image-based code reader, line-scan camera for 1D and 2D codes



LECTOR®65x image-based code reader, matrix camera to read 1D and 2D codes



① Green feedback LED

Highly visible signal in loud environments

② Exchangeable light source

Uniform illumination, even for different types of lenses and applications

③ Aiming laser

Easily determines the center of the field of view

④ Dynamic focus

Or alternatively the Flex version with C-mount lens that can manually be fitted on-site. The adjustable focus supports flexibility as regards field of view, working distance and resolution

⑤ High-speed imager

Resolution of 2 or 4 megapixels for high reading flexibility

⑥ Industry-proven

IP 65 housing

⑦ Integrated high-speed processor

For fully integrated code reading without an external PC

⑧ USB interface

For easy plug-and-play analysis

⑨ Flexible interfaces

TCP/IP, EtherNet/IP, PROFIBUS, serial, CAN

⑩ Flexible mounting

Sliding nuts

⑪ MicroSD memory card slot

For parameter cloning and image storage

⑫ Function buttons

For easy setup without a PC

Only an all-around talent can master today's increasing demands on automated lines. The LECTOR® 65x is the first code reader with real talent.

- It sees more. Thanks to a camera resolution of two or four megapixels and a wide-angle lens.
- It is faster. With a frame rate of 40 Hz, it can identify packages moving on the conveyor at speeds of up to 4 m/s.
- It is flexible. The dynamic focus allows it to adapt perfectly in height and depth for each product, and from object to object.
- It is straightforward. This is demonstrated by the minimum installation requirements: there is no need for an external PC.
- The LECTOR® 65x is also available in the Dynamic Focus for Systems version: using just a single connection, operators can link multiple devices to create a reading system. Perfectly adapted to the required reading field width.

# NON-STOP FLASHES OF GENIUS: MANY BENEFITS SPEAK IN FAVOR OF THE LECTOR®65x

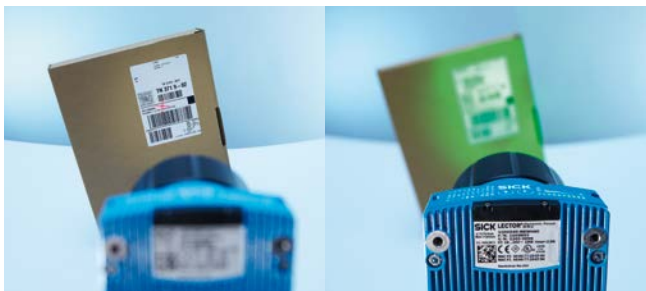
## Advantages in detail:



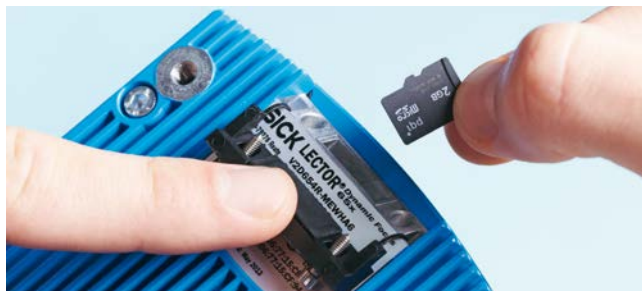
Integrated high-power LED lighting for optimal illumination and minimal installation effort



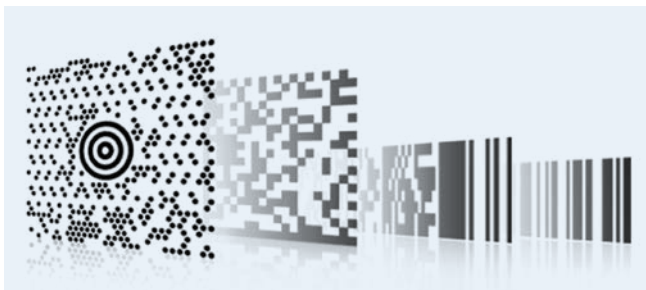
High-speed camera with a resolution of 2 or 4 megapixels and a dynamic focus for highly flexible reading performance



Aiming laser, function buttons and visual and acoustic feedback signals for intuitive device configuration and optimal read rates in manual package sorting



MicroSD memory card for image storage and backup parameter settings for convenient analysis



Intelligent decoding algorithms for the best possible reading performance on 1D and 2D codes



Various connection options enable cost-effective modular integration into any system



LECTOR®65x Dynamic Focus



LECTOR®65x Flex



[www.mysick.com/en/LECTOR65x](http://www.mysick.com/en/LECTOR65x)

# PROCESS RELIABILITY FROM TWO PERSPECTIVES: DYNAMIC FOCUS AND FLEX

Increase throughput, optimize process reliability, and make work easier for employees. You might think achieving these three goals would require a stroke of genius, but it is simply a matter of routine for the LECTOR®65x, which pays particular attention to one thing when tackling technical challenges: ease of use. User-friendliness is at the heart of the LECTOR®65x. Available in two versions, it offers two perspectives. Each presents an impressive range of unique advantages.

## Benefits of the LECTOR®65x:

- Straightforward, cost-effective and modular integration of multiple devices, adapted to the width of the conveyor belt
- Minimal training and installation effort thanks to an intuitive device configuration with function buttons, auto setup, integrated lighting, aiming laser, an acoustic feedback signal and a green feedback LED
- Intelligent decoding algorithms for maximum read performance and high package throughput, even when codes are poor in quality
- Quick and easy integration into a variety of industrial networks using IDpro
- High flexibility in regard to code position, object height and transport speed thanks to a large reading field and dynamic focus

## LECTOR®65x Flex

- A high degree of flexibility thanks to:
  - individual focal length settings for an optimal opening angle and maximum field of view at a defined reading distance
  - adjustable aperture for optimal depth of field adjustment to suit the precise conditions of the application
  - optimal use of the entire field of view with optimized lighting selection based on a variable opening angle and different colors
- Cost reduction: One spare device on stock only, adapted with a high degree of flexibility to any application with the right optical equipment

## LECTOR®65x Dynamic Focus

- Reliable identification with consistently sharp images as the focal height adjusts in line with varying object height
- Straightforward installation: the device is pre-assembled and has automatic focus adjustment, so no manual adjustment of aperture and focal length is necessary
- Short downtime in case of system failure thanks to parameter cloning technology, including focal position
- Very high reliability: the unit is sealed and there is no need to adjust the focal position, so the imager does not become dirty

# A FOCUS ON POSSIBLE APPLICATIONS: THE LECTOR®65x IS SUITED TO MANY TASKS

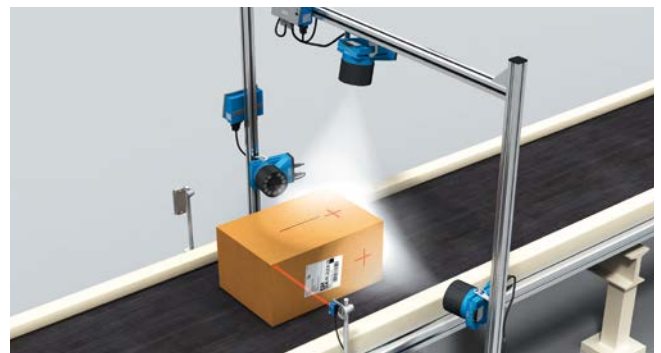


The continuing boom in online retail has shown that parcel deliveries are constantly growing in number, and the demands on package sorting are ever more challenging. In addition to the logistics industry, factory automation systems in various segments require highly reliable solutions. Examples range from the tire and automotive industry and the pharmaceutical and cosmetic sector to the food and beverage industry. All depend on the reliable identification of products to guarantee protection against counterfeit and to ensure end-to-end traceability in the supply chain. The LECTOR®65x family of image-based code readers are precisely tailored to meet the needs of each of these industries.

## Logistics automation:



Presentation camera, manual package sorting

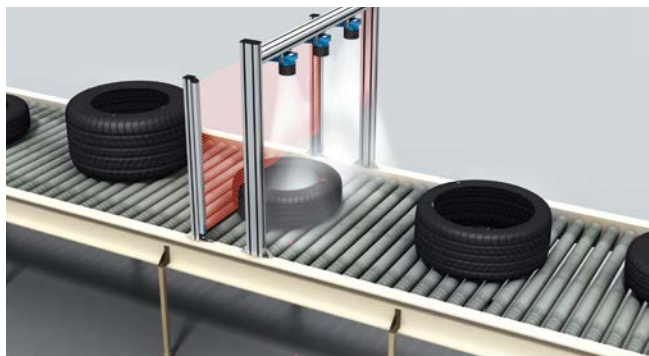


Material handling in automated sorting systems for courier, express, parcel as well as retail





## Factory automation:



Tire identification



Consolidation of food and pharmaceutical packages



Identification of codes, tracing serial numbers and manufacture dates in the distribution of pharmaceutical goods



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## NONSTOP CODE READING FLEXIBILITY



### Product description

The LECTOR®65x image-based code reader from SICK provides maximum performance and optimum throughput in logistics and factory automation. With a frame repetition rate of 40 Hz and real-time decoding, the LECTOR®65x can reliably identify 1D, 2D and directly marked codes at the highest possible speed. The 2/4 megapixel image resolution offers a large field of view. Combined with dynamic focus, maximum flexibility in code positioning, object

height and transport speed is achieved. The intuitive device equipment – featuring function buttons, auto setup, an aiming laser, an acoustic feedback signal, and a green feedback LED – reduce the amount of work required for training and installation. The microSD memory card can be used to store images or back-up copies of parameters. Due to SICK's IDpro feature, the LECTOR®65x can be integrated into numerous industrial network.

### At a glance

- 2/4 megapixel resolution; high frame repetition rate of 40 Hz
- Dynamic focus adjustment from object to object
- Integrated high-power LED illumination
- Function button, aiming laser, optical and acoustic feedback signal
- Intelligent, rapid decoding algorithms
- MicroSD memory card for storing images and back-up copies of parameters

### Your benefits

- Highly flexible code position, object height, and transport speed due to a large field of view and dynamic focus
- Cost-effective, straightforward, modular integration of multiple devices adapted to the width of the conveyor belt
- Minimum training and installation work due to intuitive device equipment that includes function buttons, auto setup, integrated illumination, an aiming laser, an acoustic feedback signal, and a green feedback LED
- Intelligent decoding algorithms ensure maximum reading performance and high package throughput, even with codes that are difficult to read
- SICK IDpro platform facilitates quick and easy integration into numerous industrial networks



### Additional information

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→ [www.mysick.com/en/LECTOR65x](http://www.mysick.com/en/LECTOR65x)

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.



Detailed technical data

Features

	LECTOR®652 Flex	LECTOR®652 Dynamic Focus	LECTOR®654 Flex	LECTOR®654 Dynamic Focus	LECTOR®654 Dynamic Focus for Systems
<b>Focus</b>	Manually adjustable focus (C-mount)	Dynamic focus control	Manually adjustable focus (C-mount)	Dynamic focus control	
<b>Sensor</b>	CMOS matrix sensor, gray scale values				
<b>Light source</b>	Lighting LEDs: - (to be ordered separately as accessory) Aiming laser: visible red light (λ = 630 nm ... 680 nm)	Lighting LEDs: white (λ = 6000 K ± 500 K) Feedback spot: visible green light (λ = 525 nm ± 15 nm) Aiming laser: visible red light (λ = 630 nm ... 680 nm)	Lighting LEDs: - (to be ordered separately as accessory) Aiming laser: visible red light (λ = 630 nm ... 680 nm)	Lighting LEDs: white (λ = 6000 K ± 500 K) Feedback spot: visible green light (λ = 525 nm ± 15 nm) Aiming laser: visible red light (λ = 630 nm ... 680 nm)	
<b>LED class</b>	-	Risk group 1 (IEC 62471 (2006-07) / EN 62471 (2008-09))	-	Risk group 1 (IEC 62471 (2006-07) / EN 62471 (2008-09))	
<b>Laser class</b>	1M, complies with 21 CFR 1040.10 except for the tolerance according to "Laser Notice No. 50" from June 24, 2007 (IEC 60825-1 (2007-3))				
<b>Scanning frequency</b>	70 Hz, at 2 megapixels resolution		40 Hz, at 4 megapixels resolution		
<b>Code resolution</b>	≥ 0.1 mm <sup>1)</sup>	≥ 0.12 mm <sup>2)</sup>	≥ 0.1 mm <sup>1)</sup>	≥ 0.12 mm <sup>2)</sup>	

<sup>1)</sup> Depends on lens used.

<sup>2)</sup> Depends on distance.

Performance

<b>Bar code types</b>	GS1-128 / EAN 128, UPC / GTIN / EAN, Interleaved 2 of 5, Pharmacode, GS1 DataBar, Code 39, Code 128, Codabar, Code 32, Code 93
<b>2D code types</b>	Data Matrix ECC200, GS1 Data-Matrix, PDF417, QR code, MaxiCode
<b>Code qualification</b>	On the basis of ISO/IEC 16022, ISO/IEC 15415, ISO/IEC 18004
<b>Internal image storage</b>	512 MB

Interfaces

	LECTOR®652 Flex	LECTOR®652 Dynamic Focus	LECTOR®654 Flex	LECTOR®654 Dynamic Focus	LECTOR®654 Dynamic Focus for Systems
<b>Serial (RS-232, RS-422)</b>	✓				-
Function	Host, AUX				-
Data transmission rate	300 Baud ... 115.2 kBaud, AUX: 57.6 kBaud (RS-232)				-
<b>USB</b>	✓, USB 2.0				-
<b>Ethernet</b>	✓				
Function	Host, AUX, image transmission				
Data transmission rate	10/100/1,000 Mbit/s				
Protocol	TCP/IP, FTP (image transmission), EtherNet/IP, PROFINET (optional via external connection module CDF600-2)				TCP/IP, FTP (image transmission), EtherNet/IP

	LECTOR®652 Flex	LECTOR®652 Dynamic Focus	LECTOR®654 Flex	LECTOR®654 Dynamic Focus	LECTOR®654 Dynamic Focus for Systems
<b>CAN bus</b>	✓				
Function	SICK CAN sensor network (Master/Slave, Multiplexer/Server)				
Data transmission rate	20 kbit/s ... 1 Mbit/s				
Protocol	CSN (SICK CAN Sensor Network)				
<b>PROFIBUS DP</b>	✓, optional via external connection module (CDF600-2)				–
<b>Switching inputs</b>	4 ("Sensor 1", "Sensor 2", 2 inputs via optional CMC600 in CDB650/CDM420)				0
<b>Switching outputs</b>	6 (CDB650: "Result 1", "Result 2", "Result 3", "Result 4", 2 external outputs via CMC600 or CDM420: "Result 1", "Result 2", 2 external outputs via CMC600 or cable with open end "Result 1", "Result 2", "Result 3", "Result 4")				0
<b>Reading pulse</b>	CAN, Ethernet, non-powered, switching inputs, serial interface, presentation mode, auto pulse				CAN, Ethernet, non-powered, presentation mode, auto pulse
<b>Optical indicators</b>	21 LEDs (10 x status display, 10 x LED bar graph, 1 green feedback spot)				
<b>Acoustic indicators</b>	Beeper/buzzer (can be switched off, can be assigned a function to signal the result status)				
<b>Control elements</b>	2 buttons (choose and start/stop functions)				
<b>Memory card</b>	MicroSD memory card (flash card) max. 16 GB, optional				

## Mechanics/electronics

	LECTOR®652 Flex	LECTOR®652 Dynamic Focus	LECTOR®654 Flex	LECTOR®654 Dynamic Focus	LECTOR®654 Dynamic Focus for Systems
<b>Electrical connection</b>	1 x M12, 17-pin plug (serial, CAN, I/Os, power supply) 2 x M12, 8-pin socket (Ethernet, P1 not yet with function) 1 x M8, 4-pin socket (USB)				1 x M12, 5-pin plug (CAN) 1 x M12, 5-pin socket (CAN) 1 x M8, 3-pin socket (external illumination) 2 x M12, 8-pin socket (Ethernet, P1 not yet with function)
<b>Operating voltage</b>	24 V DC ± 20 %				
<b>Power consumption</b>	Typ. 20 W ± 20 %				
<b>Housing</b>	Die-cast aluminum				
<b>Housing color</b>	Light blue (RAL 5012)				
<b>Protection class</b>	III				
<b>Weight</b>	635 g	963 g	635 g	963 g	
<b>Dimensions</b>	142 mm x 89 mm x 46 mm <sup>1)</sup>	142,8 mm x 90 mm x 106,1 mm	142 mm x 89 mm x 46 mm <sup>1)</sup>	142,8 mm x 90 mm x 106,1 mm	

<sup>1)</sup> Only housing without lens and protective hood.

## Ambient data

<b>Electromagnetic compatibility (EMC)</b>	EN 61000-6-2 (2005-08), EN 61000-6-3 (2007-01)
<b>Shock resistance</b>	EN 60068-2-6
<b>Electrical safety</b>	EN 60950-1 (2011-01)
<b>Ambient operating temperature</b>	0 °C ... +50 °C
<b>Storage temperature</b>	-20 °C ... +70 °C
<b>Permissible relative humidity</b>	90 %, non-condensing
<b>Ambient light safety</b>	2,000 lx, on code

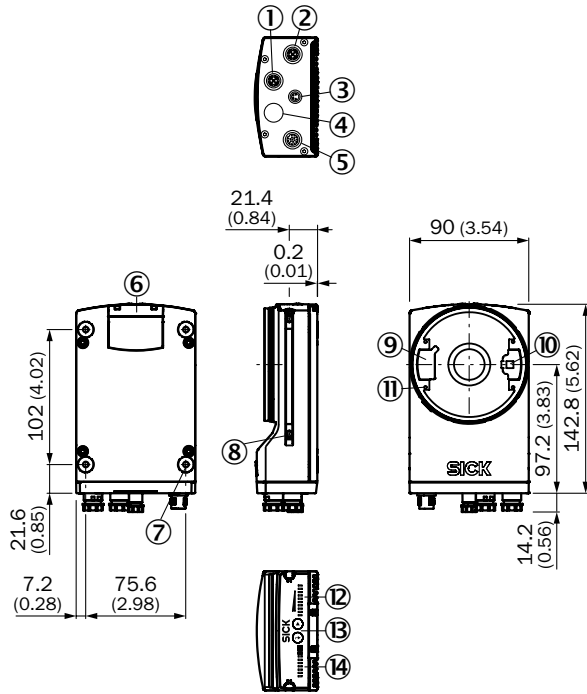
## Ordering information

- **Reading field:** side
- **Enclosure rating:** IP 65

Version	Sensor resolution	Lens	Internal lighting	Model name	Part no.
LECTOR®652 Flex	2,048 px x 1,088 px	Exchangeable (C-mount), to be ordered separately as accessory	-	V2D652R-MCXXA6	1063404
LECTOR®652 Dynamic Focus	2,048 px x 1,088 px	Integrated	White	V2D652R-MEWHA6	1063405
LECTOR®654 Flex	2,048 px x 2,048 px	Exchangeable (C-mount), to be ordered separately as accessory	-	V2D654R-MCXXA6	1060892
LECTOR®654 Dynamic Focus	2,048 px x 2,048 px	Integrated	White	V2D654R-MEWHA6	1060893
LECTOR®654 Dynamic Focus for Systems	2,048 px x 2,048 px	Integrated	White	V2D654R-MEWHF6	1063229

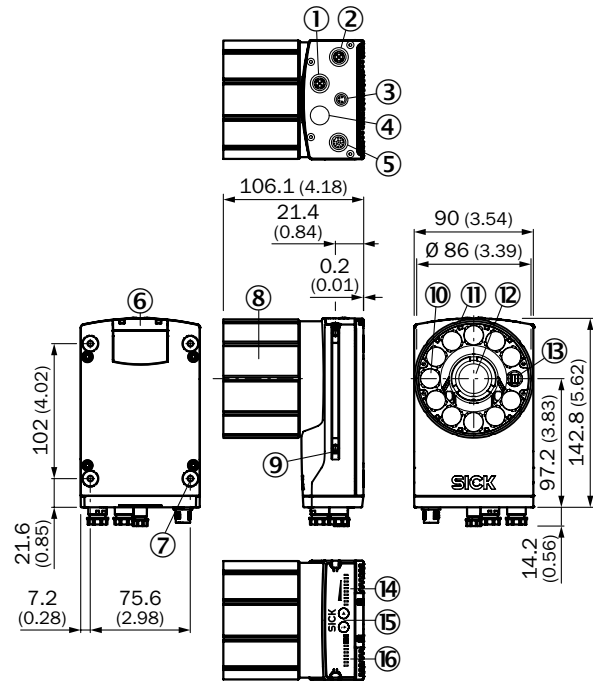
Dimensional drawings (Dimensions in mm (inch))

LECTOR®652 Flex  
LECTOR®654 Flex



- ① P1 connection, no function, planned "Ethernet", depending on type
- ② P3 connection "Ethernet"
- ③ X2 "USB" connection or "lighting connection", depending on type
- ④ P2 connection "CAN OUT", depending on type
- ⑤ X1 "Power/Serial Data/CAN/I/O" connection or "CAN IN", depending on type
- ⑥ Cover (flap) for the slot of the microSD memory card
- ⑦ Blind hole thread M5, 5 mm deep (4 x), for mounting
- ⑧ Sliding nut M5, 5.5 mm deep (2 x), for mounting
- ⑨ Plug connector for connecting the integrated lighting
- ⑩ Outlet, aiming laser
- ⑪ Blind hole thread M2.5, 5.5 mm deep (4 x), for mounting the lighting fixture
- ⑫ Bar graph display
- ⑬ Function button (2 x)
- ⑭ LED for status display (2 levels), 10 x

LECTOR®652 Dynamic Focus  
LECTOR®654 Dynamic Focus  
LECTOR®654 Dynamic Focus for Systems

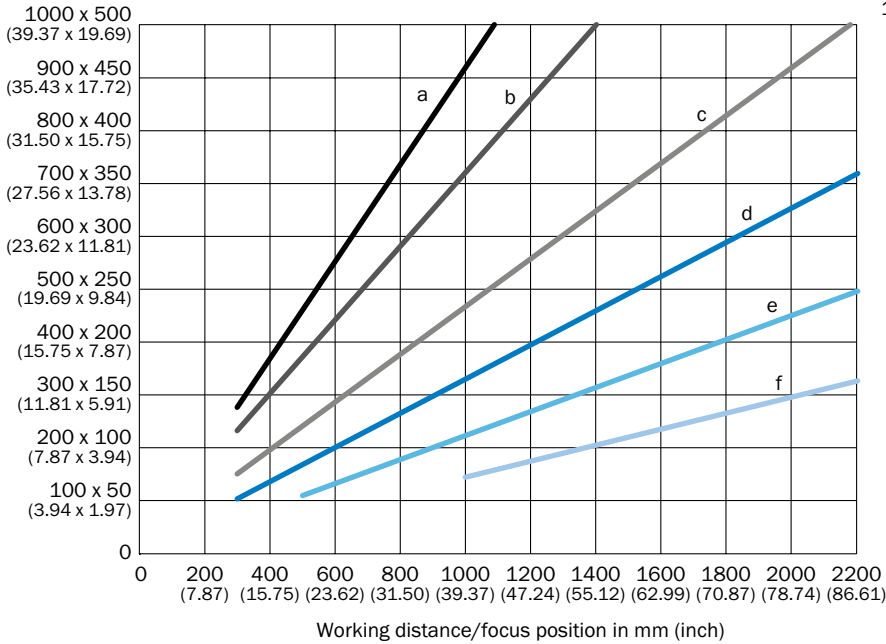


- ① P1 connection, no function, planned "Ethernet", depending on type
- ② P3 connection "Ethernet"
- ③ X2 "USB" connection or "lighting connection", depending on type
- ④ P2 connection "CAN OUT", depending on type
- ⑤ X1 "Power/Serial Data/CAN/I/O" connection or "CAN IN", depending on type
- ⑥ Cover (flap) for the slot of the microSD memory card
- ⑦ Blind hole thread M5, 5 mm deep (4 x), for mounting
- ⑧ Lens and lighting protective cover
- ⑨ Sliding nut M5, 5.5 mm deep (2 x), for mounting
- ⑩ Green feedback LED
- ⑪ Ring light
- ⑫ Lens
- ⑬ Outlet, aiming laser
- ⑭ Bar graph display
- ⑮ Function button (2 x)
- ⑯ LED for status display (2 levels), 10 x

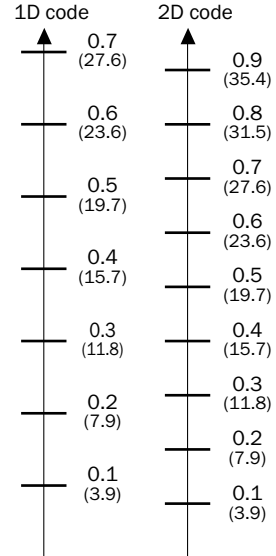
**Field of view**

**LECTOR®652 Flex**

Field of view in mm² (sq inch)



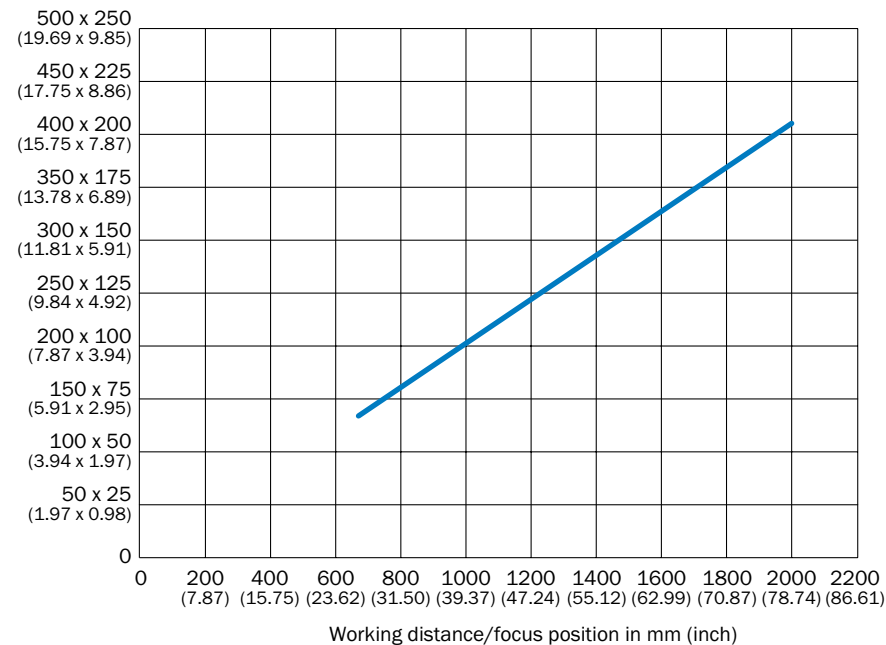
Min. resolution in mm (mil)



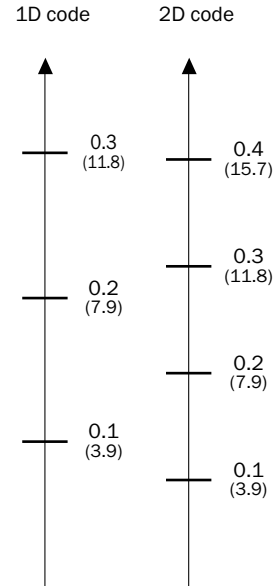
- a: f = 12 mm
- b: f = 16 mm
- c: f = 25 mm
- d: f = 35 mm
- e: f = 50 mm
- f: f = 75 mm

**LECTOR®652 Dynamic Focus**

Field of view in mm² (sq inch)



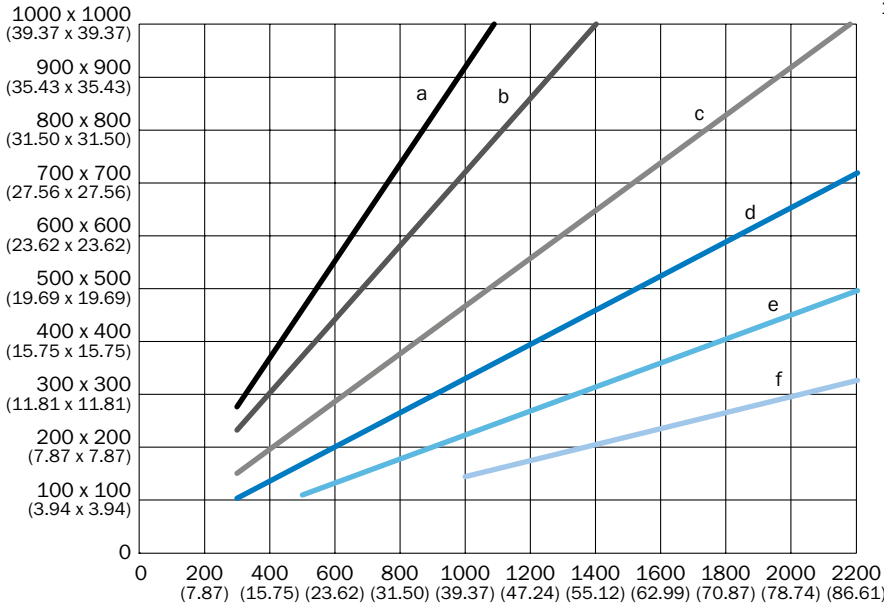
Min. resolution in mm (mil)



- f = 54 mm (V2D652R-xxHxx)

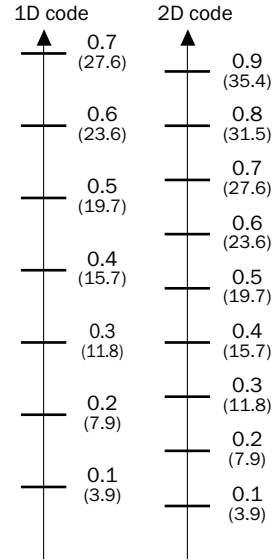
LECTOR®654 Flex

Field of view in mm<sup>2</sup> (sq inch)



- a: f = 12 mm
- b: f = 16 mm
- c: f = 25 mm
- d: f = 35 mm
- e: f = 50 mm
- f: f = 75 mm

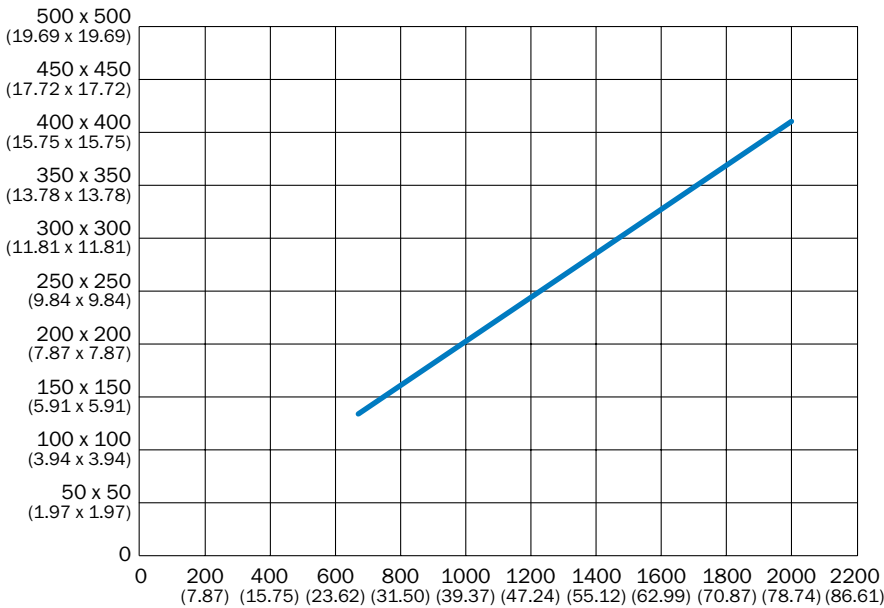
Min. resolution in mm (mil)



LECTOR®654 Dynamic Focus

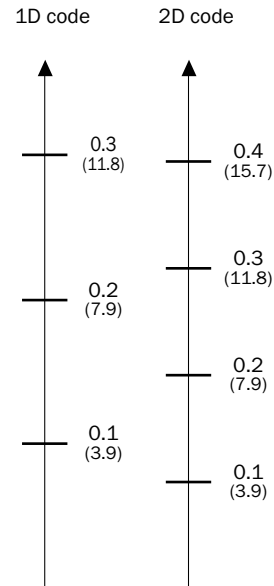
LECTOR®654 Dynamic Focus for Systems

Field of view in mm<sup>2</sup> (sq inch)



- f = 54 (V2D654R-xxHxx)

Min. resolution in mm (mil)






Accessories











Device protection (mechanical)







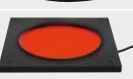


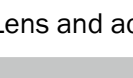
Protective caps

	Description	Part no.	LECTOR® 65x Flex	LECTOR® 65x Dynamic Focus	LECTOR® 65x for Systems
	IP-65 sealing rubber for extension cables with 15-pin D-Sub plug connection (6010075 and 6020092)	4038847	●	●	●


Illuminations



LED

	Description	Model name	Part no.	LECTOR® 65x Flex	LECTOR® 65x Dynamic Focus	LECTOR® 65x for Systems
	Integratable lighting, lighting color white, suitable for lenses with a focal length of 12.5 mm and 16 mm	VI83I-WH0766M0	2069006	●	-	-
	Integratable lighting, lighting color white, suitable for lenses with a focal length of 25 mm and 35 mm	VI83I-WH1441M0	2074001	●	-	-
	Integratable lighting, lighting color white, suitable for lenses with a focal length of 50 mm and 75 mm	VI83I-WH2023M0	2069099	●	-	-
	Bar light, light source white, outer dimension 109 mm x 28 mm	VLR-10BR1111	6035959	●	-	-
	Spot lighting set, white lighting color, incl. 24 V power supply (in 24 V, out max. 7 V)	VLR-10PL1011P01	6037795	●	-	-
	Dark field light, light source white, outer dimension 138 mm x 102 mm	VLR-10RD1311	6037800	●	-	-
	Square ring light, light source white, outer dimension 70 mm x 70 mm	VLR-10RK0211	6035958	●	-	-
	Bar light, light source blue, 470 nm, outer dimension 109 mm x 28 mm	VLR-47BR1111	6035960	●	-	-
	Spot lighting set, blue lighting color, incl. 24 V power supply (in 24 V, out max. 7 V)	VLR-47PL1011P01	6037797	●	-	-
	Ring light, light source blue, 470 nm, outer diameter 90 mm	VLR-47RL0411	6037792	●	-	-
	Bar light, light source green, 525 nm, outer dimension 109 mm x 28 mm	VLR-52BR1111	6035961	●	-	-
	Spot lighting set, green lighting color, incl. 24 V power supply (in 24 V, out max. 7 V)	VLR-52PL1011P01	6037796	●	-	-

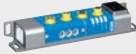

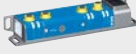



	Description	Model name	Part no.	LECTOR®65x Flex	LECTOR®65x Dynamic Focus	LECTOR®65x for Systems
	Back light, light source red, 660 nm, outer dimension 60 mm x 58 mm	VLR-66BL0511	6041961	●	-	-
	Back light, light source red, 660 nm, outer dimension 120 mm x 118 mm	VLR-66BL1611	6041962	●	-	-
	Bar light, light source red, 660 nm, outer dimension 109 mm x 28 mm	VLR-66BR1111	6035962	●	-	-
	Coaxial light, light source red, 660 nm, outer dimension 73 mm x 70 mm	VLR-66CA0311	6035964	●	-	-
	Flat dome light, light source red, 660 nm, outer dimension 143 mm x 143 mm	VLR-66FD1511	6035965	●	-	-
	Spot lighting set, red lighting color, incl. 24 V power supply (in 24 V, out max. 7 V)	VLR-66PL1011P01	6037794	●	-	-
	Low angle light, light source red, 660 nm, outer diameter 134 mm	VLR-66RA1211	6035963	●	-	-
	Low angle light, light source red, 660 nm, outer diameter 208 mm	VLR-66RA2011	6037798	●	-	-
	Dark field light, light source red, 660 nm, outer dimension 138 mm x 102 mm	VLR-66RD1311	6037799	●	-	-
	Ring light, light source red, 660 nm, outer diameter 50 mm	VLR-66RL0111	6035957	●	-	-
	Ring light, light source red, 660 nm, outer diameter 90 mm	VLR-66RL0411	6037793	●	-	-

## Lens and accessories

	Description	Model name	Part no.	LECTOR®65x Flex	LECTOR®65x Dynamic Focus	LECTOR®65x for Systems
 Illustration may differ	Lens 1", focal length 12.5 mm, lens aperture 1.4 – 16	C-mount lens	5327522	●	-	-
	Lens 1", focal length 16 mm, lens aperture 1.4 – 16	C-mount lens	5327523	●	-	-
	Lens 1", focal length 25 mm, lens aperture 1.4 – 16	C-mount lens	5327524	●	-	-
	Lens 1", focal length 35 mm, lens aperture 1.4 – 16	C-mount lens	5327525	●	-	-
	Lens 1", focal length 50 mm, lens aperture 1.4 – 16	C-mount lens	5327526	●	-	-
	Lens 1", focal length 75 mm, lens aperture 1.4 – 16	C-mount lens	5327527	●	-	-

	Description	Model name	Part no.	LECTOR®65x Flex	LECTOR®65x Dynamic Focus	LECTOR®65x for Systems
	Optic kit 01 including lens with a focal length of 12.5 mm, white lighting, distance bracket and protective hood	Optic kit 01	1064791	●	-	-
	Optic kit 02 including lens with a focal length of 16 mm, white lighting, distance bracket and protective hood	Optic kit 02	1064792	●	-	-
	Optic kit 03 including lens with a focal length of 25 mm, white lighting, distance bracket and protective hood	Optic kit 03	1064793	●	-	-
	Optic kit 04 including lens with a focal length of 35 mm, white lighting, distance bracket and protective hood	Optic kit 04	1064794	●	-	-
	Optic kit 05 including lens with a focal length of 50 mm, white lighting, distance bracket and protective hood	Optic kit 05	1064776	●	-	-
	Optic kit 06 including lens with a focal length of 75 mm, white lighting, distance bracket and protective hood	Optic kit 06	1064777	●	-	-
	Lens protective hood, enclosure rating IP 65, length 74.5 mm, glass window	Optic protective hood	2066565	●	-	-

Modules




	Description	Model name	Part no.	LECTOR®65x Flex	LECTOR®65x Dynamic Focus	LECTOR®65x for Systems
	Fieldbus proxy/gateway for connecting identification sensors to PROFIBUS-DP networks (PROFIBUS interface: 2 x M12, plug/socket, 5-pin)	CDF600-2100	1058965	●	●	-
	Fieldbus proxy/gateway for connecting identification sensors to PROFIBUS-DP networks (PROFIBUS interface: 1 x D-Sub, socket, 9-pin)	CDF600-2103	1058966	●	●	-
	Fieldbus proxy/gateway for connecting one identification sensor to PROFINET-IO networks (interface 2 x M12, socket/socket, 4-pin)	CDF600-2200	1062460	●	●	-
	Connection device basic for connecting one sensor with 2 A fuse, 5 cable glands and RS-232 interface to sensor via M12, 17-pin female connector, all outputs available on screw/spring-loaded terminals, including trigger unit functionality for external illumination of LECTOR®65x	CDB650-204	1064114	●	●	-
	Modular connection module for one sensor, 2 A fuse	CDM420-0006	1058634	●	●	-
 Illustration may differ	Modular connection module for two sensors, 2 A fuse	CDM420-0007	1060324	●	●	-

## Optical filters

Description	Part no.	LECTOR®65x Flex	LECTOR®65x Dynamic Focus	LECTOR®65x for Systems
Optical NIR blocking filter to increase ambient light immunity	2068812	●	-	-



## Other mounting accessories

## Sliding nuts



Description	Part no.	LECTOR®65x Flex	LECTOR®65x Dynamic Focus	LECTOR®65x for Systems
 Sliding nut, M5, short	5324896	●	●	●
 Sliding nut, M4, short	5324897	●	●	●
 Sliding nut, M3, short	5324898	●	●	●

## Plug connectors and cables






## Connecting cable (female connector-open)

	Signal type	Connection type head A	Connection type head B	Cable length	Part no.	LECTOR®65x Flex	LECTOR®65x Dynamic Focus	LECTOR®65x for Systems
	CAN	Female connector, M12, 5-pin	Cable	5 m	6021166	-	-	●
	CAN/CANopen	Female connector, M12, 5-pin, straight	Cable	10 m	6021175	-	-	●
	-	Female connector, D-Sub, 15-pin, straight	Cable	2 m	2043413	●	●	●


Connection cable (male connector-male connector)

	Signal type	Connection type head A	Connection type head B	Cable length	Part no.	LECTOR®65x Flex	LECTOR®65x Dynamic Focus	LECTOR®65x for Systems
	Ethernet	Plug, M12, 8-pin, straight, X-coded	Plug, RJ45, 8-pin, straight	2 m	6049728	●	●	●
				5 m	6049729	●	●	●
	USB 2.0	Plug, M8, 8-pin, straight, X-coded	Plug, USB-A, 4-pin, straight	1.5 m	6051163	●	●	-
				2 m	6051164	●	●	-
				3 m	6051165	●	●	-


Connection cable (male connector-female connector)

	Signal type	Connection type head A	Connection type head B	Description	Special feature	Authorizations	Cable length	Part no.	LECTOR®65x Flex	LECTOR®65x Dynamic Focus	LECTOR®65x for Systems
	CAN/CAN-open	Female connector, M12, 5-pin, straight	Connector, M12, 5-pin, straight	-	-	-	1 m	6021164	-	-	●
							3 m	6021165	-	-	●
							5 m	6021168	-	-	●
 Illustration may differ	-	Female connector, M12, 17-pin, straight	Connector, D-Sub, 15-pin, straight	To connection module CDx (except CDB650)	-	-	0.35 m	2056184	●	●	-
							0.9 m	2049764	●	●	-
							2 m	2055419	●	●	-
							3 m	2055420	●	●	-
							5 m	2055859	●	●	-
							Drag chain use	3 m	2061605	●	●
	-	Plug, M12, 17-pin, straight, A-coded	Female connector, M12, 17-pin, straight	To connection module CDB650	Suitable for 2 A, adapted color coding of open conductor heads	Ecolab	5 m	6051195	●	●	-
							3 m	6051194	●	●	-
	-	Female connector, D-Sub HD, 15-pin, straight	Connector, D-Sub HD, 15-pin, straight	-	-	-	2 m	6034417	●	●	-
	-						3 m	6034418	●	●	-



Female connector (ready to assemble)

	Connection type head A	Connection type head B	Part no.	LECTOR®65x Flex	LECTOR®65x Dynamic Focus	LECTOR®65x for Systems
	Connection inlay (female connector), D-Sub HD, 15-pin	-	6010019	●	●	●

Housing (ready to assemble)

	Connection type head A	Part no.	LECTOR®65x Flex	LECTOR®65x Dynamic Focus	LECTOR®65x for Systems
	Connection inlay (male connector), D-Sub HD, 9-pin, 15-pin	6009438	●	●	●

Male connector (ready to assemble)

	Signal type	Connection type head A	Connection type head B	Part no.	LECTOR®65x Flex	LECTOR®65x Dynamic Focus	LECTOR®65x for Systems
	CAN	Connector, M12, 5-pin, straight	-	6021167	-	-	●
	-	Connection inlay (male connector), D-Sub HD, 15-pin	-	6010020	●	●	●


Storage mediums

	Description	Part no.	LECTOR®65x Flex	LECTOR®65x Dynamic Focus	LECTOR®65x for Systems
 Illustration may differ	MicroSD memory card with 2 GB	4051366	●	●	●

Terminal and alignment brackets

	Description	Part no.	LECTOR®65x Flex	LECTOR®65x Dynamic Focus	LECTOR®65x for Systems
	Quick-action lock system	2016110	●	●	●

Alignment brackets

	Description	Part no.	LECTOR®65x Flex	LECTOR®65x Dynamic Focus	LECTOR®65x for Systems
	Distance bracket for mounting integratable lighting, length 51.3 mm	2069007	●	-	-



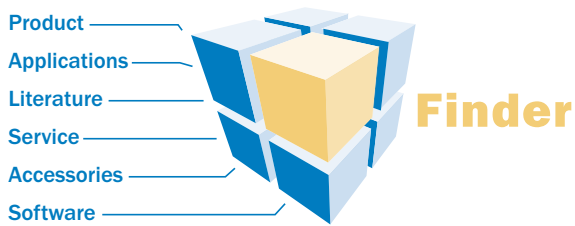






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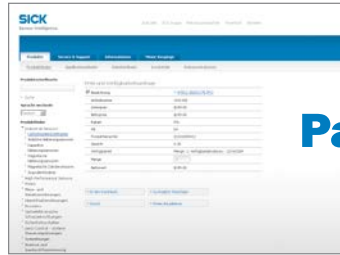


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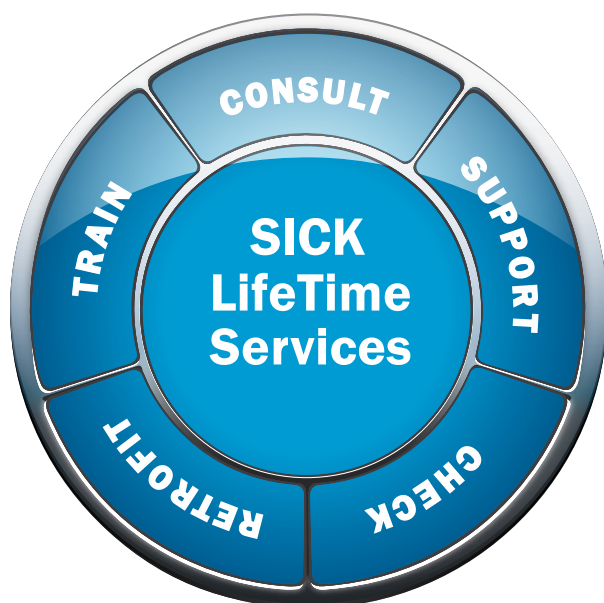
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