



## LECTOR®62x Image-based code readers

Clever. Simple. Industrial.

**SICK**  
Sensor Intelligence.

## The new dimension in code reading. Developed by SICK. Created for more.

More performance, faster speed, more savings, more efficiency.  
The compact LECTOR®62x code readers identify 1D bar codes, stacked codes, 2D matrix codes and DPM codes with extreme reliability – even with the poorest code quality.

### Reliable reading performance

Whether stationary or mobile, printed or directly marked on vastly different surfaces, the intelligent decode algorithms and excellent reading rates of the LECTOR®62x code readers form the basis for product traceability and anti-counterfeiting.

### Simple commissioning and integration

- Simple mounting thanks to a compact design and swivel connector
- Quick installation with a function button, auto setup and aiming laser
- Direct integration with serial, Ethernet, PROFINET, PROFIBUS and CAN industrial networks
- Efficient and quick analysis of reading performance and code quality using integrated tools
- Integrated microSD memory card for parameter cloning and data logging, such as image storing



Clever. Simple. Industrial.

Four variants for all applications

From a damaged code that must be read in poor lighting conditions to standard cost-sensitive situations, SICK offers four LECTOR®620 variants to suit different applications. These variants, which include the DPM Plus, High Speed, ECO and Professional, provide an affordable solution for reliably identifying all common code types for all application requirements and industries.

The LECTOR®620 Professional, for example, is available with infrared lighting and has an IP 67 enclosure rating. A special variant for code reading on solar wafers is the LECTOR®620 DPM Plus Solar with four blue illumination LEDs.

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## LECTOR®620 DPM Plus – High-end variants for the most difficult applications



### More performance: LECTOR®620 DPM Plus

The LECTOR®620 DPM Plus is able to recognize directly marked, partially destroyed and low-contrast codes, as well as codes on critical material surfaces are the strengths of the LECTOR®620 DPM Plus.

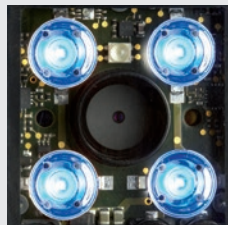
- For directly marked codes on metal, plastic, ceramic, glass, etc.
- For dot peened, lasered, etched and stamped codes
- Ideal for solar wafers, motor parts and electronic circuit boards
- Reads codes in perforated plates

- **Variants:**

- **LECTOR®620 DPM Plus**
- **LECTOR®620 DPM Plus Solar**



Illumination  
LECTOR®620  
DPM Plus



Illumination  
LECTOR®620  
DPM Plus Solar

## LECTOR®620 High Speed – Top solution for fast moving objects

### More speed: LECTOR®620 High Speed

Reading codes on fast moving objects is the specialty of the LECTOR®620 High Speed, which ensures reliable detection at object speeds of up to 6 m/s.

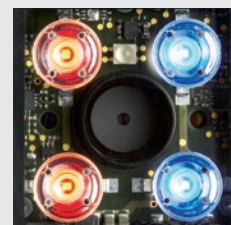
- Advanced algorithms for quick image processing
- For letters, tickets and automatically generated documents
- For the packaging industry and inserters

- **Variants:**

- **LECTOR®620 High Speed**



Illumination  
LECTOR®620  
High Speed



## LECTOR®620 ECO – High performance at a low price



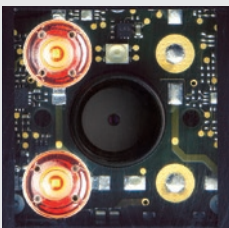
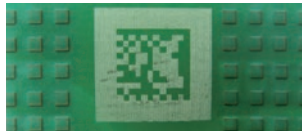
### More savings: LECTOR®620 ECO

Reliable code reading for simple applications.  
The LECTOR®620 ECO combines SICK quality with a maximum price/performance ratio to provide reliable code reading for simple applications.

- Serial connection and USB connection
- Two red-light LEDs for illumination

#### • Variants:

- **LECTOR®620 ECO**



Illumination  
LECTOR®620  
ECO

## LECTOR®620 Professional – Universal and cost-effective

### More efficiency: LECTOR®620 Professional

This variant solves the majority of all industrial applications. The LECTOR®620 Professional features a rugged, compact housing with reliable and intuitive operation all at a low price.

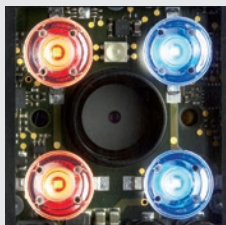
- Can be used in more than 80 % of all code reader applications
- On-board Ethernet and fieldbus connection modules
- Analysis tools such as Live Image and read rate output
- Can also be ordered with infrared lighting

- **Variants:**

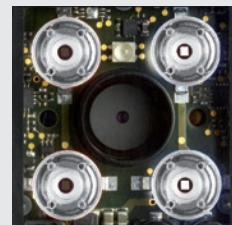
- **LECTOR®620 Professional**
- **LECTOR®620 Professional (IP 67)**
- **LECTOR®620 Professional Infrared**



Illumination  
LECTOR®620  
Professional



Illumination  
LECTOR®620  
Professional  
with infrared



## Reliable code reading for multiple industries



### Packaging, food and beverage, luxury goods, and pharma and cosmetics

The code reader can reliably assign, trace and protect food and drug products against imitation:

- Identifies individual packaging for tracing the serial number or product line
- Detects codes on packaging, including expiration dates

**Suitable LECTOR® variants: Professional, ECO, High Speed**



### Automotive

In the automotive industry, using image processing systems for component tracing are increasingly becoming key components for quality assurance:

- Traceability throughout the product's entire service life
- Individual production control (variant management)
- Correctly combines individual assembly components
- Archives test data

**Suitable LECTOR® variants: DPM Plus, Professional, Professional Infrared**



### Electronics and solar

The solar and electronics industry demands reliable code detection in a compact space:

- 2D code quality control
- Reads high-density codes while stationary or in motion
- Identifies individual components and printed circuit boards
- Identifies glass and wafers for solar module manufacturing

**Suitable LECTOR® variants: Professional, DPM Plus, DPM Plus Solar**



### Print and document handling

High-performance code readers make it possible to identify many objects at high conveyor speeds:

- Detecting and sorting of individual shipments in sorter machines
- Checking shipments for completeness
- Code reading in high-speed inserters

**Suitable LECTOR® variants: High Speed, Professional**

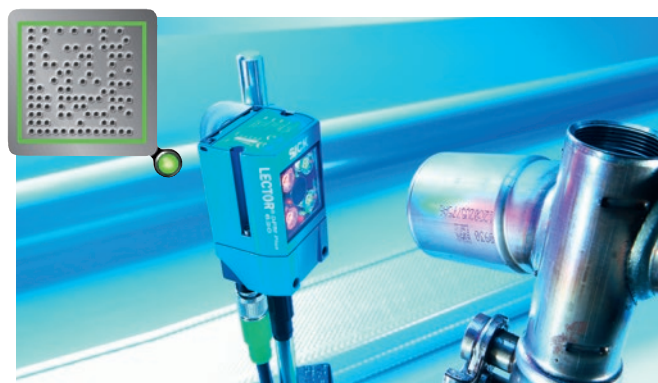


## Typical applications for the LECTOR®62x code reader



Reads 2D codes and plain text on folding boxes for pharmaceutical preparations

- Identifies the information stored in the code, including:
  - Central pharmaceutical number, serial number
  - Packaging date, expiration date
- Traceability back to the individual folding box
- References database systems to guard against fraud



Identifies 2D codes on body/components

- Assigns information to matching body/components
- Archives and traces motors throughout the product's entire service life
- Detects directly marked curved objects, even in motion and with dot peening



Identifies 2D codes on printed circuit boards

- Detects, traces and assigns printed circuit boards, even when in motion
- Quality assurance of recently applied direct marked codes
- Registers the ID number on the production line



Reads codes on letters and mass mailings

- Proof of shipment
- Registering and sorting of various shipments
- Reads codes at fast cycle rates

## An overview of the user advantages of the LECTOR®62x

Throughout the entire life cycle, the LECTOR62x offers a clever, simple and industrial code reading solution. In every step – from integration, installation, setup, operation and analysis to device exchange – the LECTOR®62x offers the correct tools and functions to make the device as simple as possible to use.

### Installation



Even without much space, mounting the LECTOR®62x is simple. The compact design, the rotatable interface connection, and the sliding nuts with various hole distances and diameters make this possible.



Through the integrated illumination, the LECTOR®62x ensures reliable illumination of the reading field. Codes on vastly different materials and multi-colored objects can be reliably detected thanks to various lighting colors.



Whether stationary or mobile, the LECTOR®62x reads every code reliably – even at different transport speeds. This increases mounting flexibility and reduces time - consuming positioning of the reading device to the object or to the trigger photoelectric sensor.



The LECTOR®62x can read codes in any position, simplifying code reader installation and making code alignment unnecessary.

### Commissioning



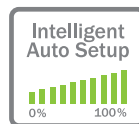
The Live Image gives the user an exact image of what the LECTOR®62x "sees", allowing the user to quickly optimize the device's settings.



Auto focus during setup enables the device to adapt to various applications. With only one device, the LECTOR®62x automatically adapts to the correct distance required for the application. This simplifies product selection, reduces the costs of storing replacement parts and makes commissioning easier.



The targeting laser shows the exact position of the reading field and helps the operator in the alignment of the code reader. Therefore, positioning the code is also possible without a PC, which simplifies commissioning.



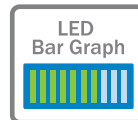
Auto setup quickly configures the reading distance, as well as the image and code settings using only a few key operations. Since a PC is not required, this reduces the installation and training effort and saves time and money.

## Less integration effort for more productivity

### Commissioning



Two function buttons on the device provide intuitive operation without a computer. This allows the following functions to be simply configured: reading diagnosis, match code teach-in, auto setup and auto focus.



The LECTOR®62x is ideal for quick operation without a computer. The LED bar on the device shows the progress of the auto setup or the focus position during the implementation of the auto focus function. In addition, it provides direct feedback on the reading rate.

### Integration with industrial networks



Integrating the LECTOR®62x is no longer a challenge thanks to the integrated Ethernet, serial and USB interfaces. If multiple devices are networked to identify larger objects, all LECTOR®62x devices can form a single independent CAN network. The host computer then only has to deal with one participant.



Whether Ethernet/IP, PROFINET or PROFIBUS, the LECTOR®62x supports modern fieldbuses directly via the integrated Ethernet interface or via a corresponding gateway.

### Operation



Changes to the environmental conditions and code markings are a challenge for every reading device. The LECTOR®62x successfully meets these challenges by adapting to the relevant situation through automatic parameter switching and brightness tuning.



In presentation mode, the LECTOR®62x independently recognizes that an object is located in front of the reading device and begins the reading automatically. A trigger photoelectric sensor is no longer required and the reading point is significantly simplified.



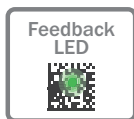
Through innovative data handling with the sorter, filter and output formatter function, the data is transferred to the controller in the desired format. The LECTOR®62x is therefore able to take on control functions and reduce their complexity.

# An overview of the user advantages of the LECTOR®62x

## Analysis



For efficient analysis, the image recording of the code is conveniently transmitted via Ethernet, FTP server or USB and supplies additional analysis data to every image. The user then has data about what caused any changes in the reading results.



The green feedback light provides continuous information about whether a read operation was completed successfully. Even in a noisy industrial environment, in which an acoustic signal cannot be heard, the feedback light indicates to the operator that the reading device is working reliably – even without a computer.



The microSD memory card stores up to 300,000 images, which can be archived or later optimized. Firmware updates take only minutes and parameters can be cloned in case a device is exchanged.



To monitor the state of the LECTOR®62x at any time during continuous operation and assess the quality of the current reading, an integrated web server is available. Because a standard web browser is used, it is not necessary to install additional software.

## Exchange



The LECTOR®62x is prepared for challenging situations. Even in the event of a defective device, the LECTOR®62x offers comprehensive support. The configuration settings can optionally be stored in a cloning module in the connectors or the microSD memory card (pluggable

in the device) so that if the device fails, this information can be transferred by plugging in the new device. The mechanical alignment is also cloned by the quick release. After only a few minutes, the code reader is ready for operation again and the machine downtime is over.

## Industrial suitability newly defined



The power consumption of only 3W reduces energy consumption and emissions and lowers production costs.



The LECTOR®62x can be used in difficult environmental conditions, due to a rugged industrial device design. Whether dust, water or high temperatures, the LECTOR®62x works reliably and gives the user more freedom during installation.



The LECTOR®62x adheres to safety and environmental standards to ensure compliance with industry regulations.



IDpro stands for SICK's expertise in automatic identification related to laser scanners, cameras and RFID. Standardized connectors, user interfaces and identical accessories enable simple, technology-independent commissioning. This makes it possible to switch freely between the technologies.



## Maximum productivity for every LECTOR®62x – SICK LifeTime Services

With globally consistent quality and intelligent services, SICK LifeTime Services make a crucial contribution to increasing equipment performance and improving a company's competitiveness.

### Commissioning

Commissioning service includes mounting, cabling and scanner adjustment as well as scanner parameter optimization and acceptance testing.

### Extended warranty

The warranty for a LECTOR®62x can be optionally extended to the third, fourth or fifth year after delivery based on individual requirements.

### Performance check

This service includes reading performance testing, code reading tests with defined checks as well as function and communication tests.



### From equipment planning to retrofit services

SICK offers the right services for every phase in the life cycle of a LECTOR®62x. Superior and experienced, with unique expertise and comprehensive industry knowledge. More than 60 years of practical experience make it possible for SICK to provide unique expertise and comprehensive industry knowledge.



## Reading areas

Reading distance	50 mm	100 mm	150 mm	200 mm	250 mm	300 mm	350 mm	400 mm	450 mm	500 mm	550 mm	600 mm	650 mm	700 mm	750 mm	800 mm	850 mm	900 mm	950 mm	1000 mm	1050 mm	1100 mm	1150 mm	1200 mm	1250 mm	1300 mm	1350 mm	1400 mm	1450 mm	1500 mm
<b>LECTOR®620</b>																														
ECO		0.2				0.5				0.8				1.0				1.4					1.8							2.4
Professional		0.2				0.5				0.8				1.0				1.4					1.8							2.4
Professional IR		0.2		0.5		0.8		1.0		1.4				1.8				2.4					3.0							3.6
High Speed		0.2		0.4		0.5			0.8																					
DPM Plus		0.1	0.2		0.4		0.5		0.8																					
DPM Plus Solar		0.1	0.2		0.4		0.5		0.8																					

Required code resolution  
for maximum reading distance

## Product selection guide

LECTOR®620	ECO	Professional	High Speed	DPM Plus
Code types	<div><div></div><div></div><div></div><div><div></div><div><sup>1)</sup></div></div></div>			
Marking method	<div><div></div><div></div></div>	<div><div></div><div></div><div></div></div>	<div><div></div><div></div></div>	<div><div></div><div></div><div></div></div>
Object speed	<div><div></div><div></div><div>Max. 2 m/s</div></div>	<div><div></div><div></div><div>Max. 4 m/s</div></div>	<div><div></div><div></div><div>Max. 8 m/s</div></div>	<div><div></div><div></div><div>Max. 4 m/s</div></div>
Scanning frequency, max.	25 Hz	60 Hz		
Min. code resolution	0,1 mm			
Reading distance, min./max.	40 mm / 1,500 mm	40 mm / 1,500 mm	30 mm / 500 mm	30 mm / 500 mm
Focus area	40 mm – 1,500 mm	40 mm – 1,500 mm	30 mm – 300 mm	30 mm – 300 mm
Focus adjustment	<div></div>	<div></div>		
Integrated light	<div></div>	<div><div></div><div></div><div><sup>2)</sup></div></div>	<div></div>	<div><div></div><div></div><div><sup>2)</sup></div></div>
Parametrization tools	<div><div></div><div></div></div>	<div><div></div><div></div><div></div><div></div></div>		
Optical feedback	<div></div>	<div><div></div><div></div></div>		
Analysis tools	<div></div>	<div><div></div><div></div></div>		
Interfaces	<div><div></div><div></div><div></div></div>	<div><div></div><div><sup>3)</sup></div><div></div><div></div><div></div><div></div></div>		
Code qualification	-	ISO 15416 (1D code) ISO 16022 (Data matrix) ISO 15415 (Data matrix, QR) ISO 18004 (QR)	ISO 15416 (1D code) ISO 16022 (Data matrix) ISO 15415 (Data matrix, QR) ISO 18004 (QR)	ISO 15416 (1D code) ISO 16022 (Data matrix) ISO 15415 (Data matrix, QR) ISO 18004 (QR), AIM DPM (Data matrix)
Electrical connection	Cable 0.9 m, with D-Sub-HD plug, 15-pin, micro USB socket	<div></div> <div>1 x M12, 17-pin, 1 x M12, 4-pin, Micro USB socket</div>	<div></div> <div>1 x M12, 17-pin, 1 x M12, 4-pin, Micro USB socket</div>	<div></div> <div>1 x M12, 17-pin, 1 x M12, 4-pin, Micro USB socket</div>
Housing	<div><div></div><div>IP 65</div></div>	<div><div></div><div>IP 65 / IP 67 <sup>2)</sup></div></div>	<div><div></div><div>IP 65</div></div>	<div><div></div><div>IP 65</div></div>

<sup>1)</sup> Available upon request.

<sup>2)</sup> Dependent on type.

<sup>3)</sup> Ethernet TCP/IP, Ethernet/IP, PROFINET

## IDpro connects – complete modular connectivity from a single source

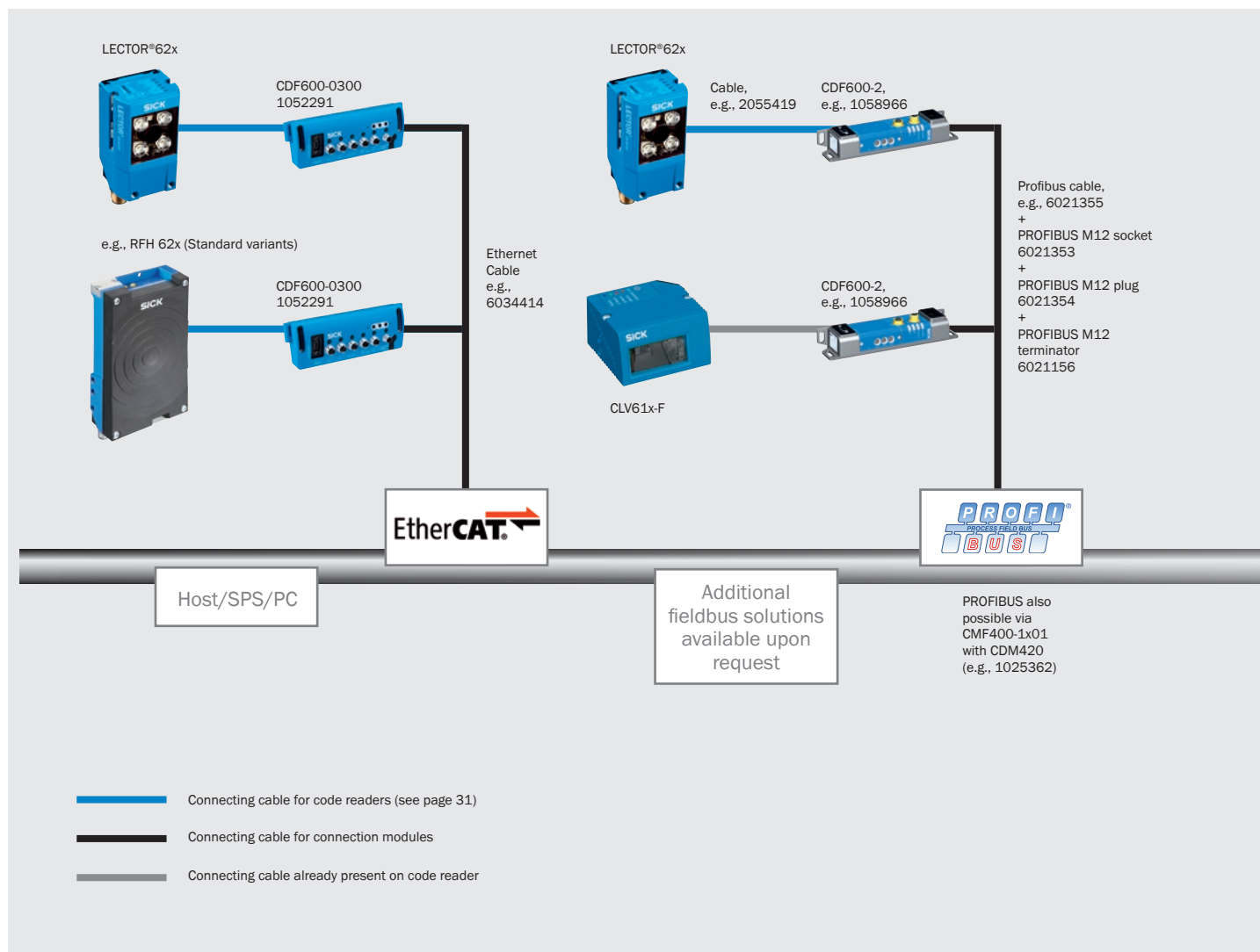
The LECTOR®62x, together with the CLV6xx laser scanners and the RFH/ RFU6xx RFID interrogators, belongs to the group of IDpro devices.



### Identical connectivity

All IDpro devices use identical connectivity and can be connected together into a network.

The graphic below shows how the IDpro devices can be flexibly connected into numerous fieldbus technologies with little cabling complexity.





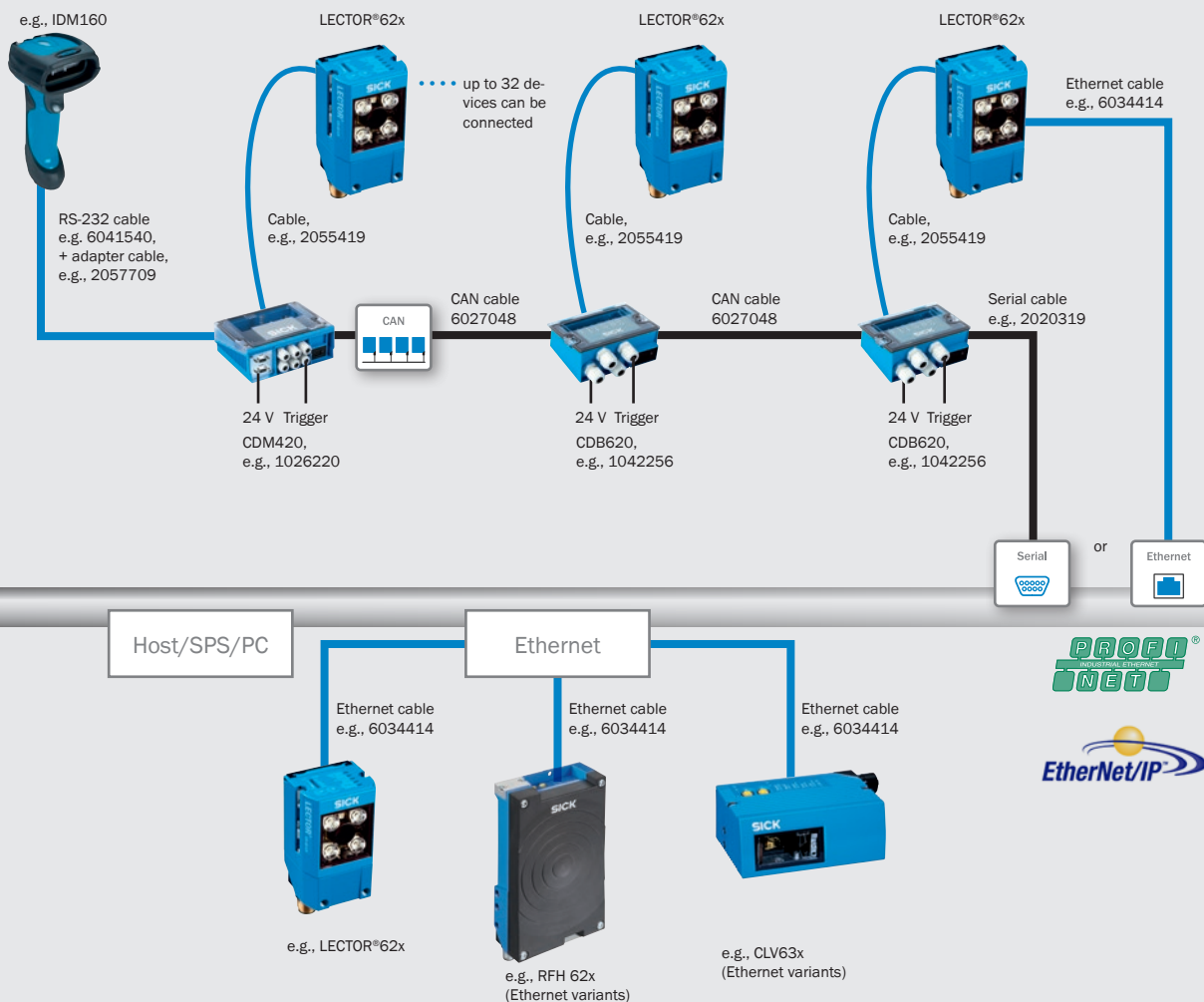
## Carefully considered interface concept

### Less effort, greater safety

- Interfaces for Ethernet TCP/IP, PROFINET, Ethernet/IP and CAN are already available in the IDpro devices
- All devices can also be used as multiplexers in the SICK CAN sensor network
- Flexible connection into PROFIBUS and EtherCAT networks through integration of external fieldbus gateways in the modular connection modules

### For the highest degree of flexibility

The separation of the device and the connection module (2-component solution) enables easy access to the interfaces, even when the device is integrated in the system. The SICK connectivity concept thus guarantees the highest degree of flexibility.



Clever. Simple. Industrial.



## Product description

The LECTOR®62x is an industrial, compact image-based code reader with highly reliable identification of 1D, 2D and direct part mark (DPM) codes. Whether in motion or stationary, it can read even the poorest quality codes. Its compact housing ensures flexible integration in reduced spaces. Multiple on-board interfaces allow for universal network integration.

LECTOR®620 Professional with integrated aiming laser, automatic focus teach-in, green feedback LED and auto

setup is intuitive to set up and reliable in performance even with poor code qualities.

LECTOR®620 ECO, the price-attractive alternative for more simple applications and moderate conveyor speed.

LECTOR®620 High Speed, the specialist for fast packaging machines with high throughput at transport speeds up to 6 m/s.

LECTOR®620 DPM Plus, for codes on solar cells and very difficult DPM codes in automotive industry.

## At a glance

- Decoding of most popular code types: 1D, 2D, direct part marking
- Easy integration with industrial networks: serial, USB, several fieldbus technologies
- Auto setup with function buttons, aiming laser, focus adjustment and green feedback LED – for quick setup without PC
- Compact design and industrial housing
- Analysis tools include live image capturing, code verification and read rate view

## Your benefits

- Intelligent decoding algorithms provide reliable reading performance for improved read rates and throughput
- IDpro facilitates integration with most popular industrial networks
- Intuitive setup with function buttons, auto setup, aiming laser, focus adjustment and green feedback LED reduces training and installation time and costs
- Compact design and flexible interface connections make it easy to install in reduced spaces
- Quick analysis of read rate performance and code quality allows for efficient control
- Cloning back-up systems ensure low machine downtime in the event of unexpected incidents



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→ [www.mysick.com/en/LECTOR62x](http://www.mysick.com/en/LECTOR62x)

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®620 ECO	LECTOR®620 Professional	LECTOR®620 High Speed	LECTOR®620 DPM Plus
Focus	Adjustable focus	Auto focus (during teach-in)		
Sensor	CMOS matrix sensor, gray scale values			
Light source	Lighting LEDs: visible red light (λ = 617 ± 15 nm) Feedback spot: visible green light (λ = 525 ± 15 nm)	Lighting LEDs: visible red light (λ = 617 ± 15 nm), visible blue light (λ = 470 ± 15 nm) Feedback spot: visible green light (λ = 525 ± 15 nm) Aiming laser: visible red light (λ = 630 nm ... 680 nm) / Lighting LEDs: invisible infrared light (λ = 850 ± 25 nm) Feedback spot: visible green light (λ = 525 ± 15 nm) Aiming laser: visible red light (λ = 630 nm ... 680 nm) (depending on type)	Lighting LEDs: visible red light (λ = 617 ± 15 nm), visible blue light (λ = 470 ± 15 nm) Feedback spot: visible green light (λ = 525 ± 15 nm) Aiming laser: visible red light (λ = 630 nm ... 680 nm)	Lighting LEDs: visible blue light (λ = 470 ± 15 nm) Feedback spot: visible green light (λ = 525 ± 15 nm) Aiming laser: visible red light (λ = 630 nm ... 680 nm) / Lighting LEDs: visible red light (λ = 617 ± 15 nm), visible blue light (λ = 470 ± 15 nm) Feedback spot: visible green light (λ = 525 ± 15 nm) Aiming laser: visible red light (λ = 630 nm ... 680 nm) (depending on type)
MTBF	75,000 h			
LED class	1, radiance L <sub>B</sub> < 10 kW/(m²sr) within 100 s, L <sub>R</sub> < 28/α kW/(m²sr) within 10 s At distance > 200 mm (IEC 62471 (2006-07) / EN 62471 (2008- 09))	1, radiance L <sub>B</sub> < 10 kW/(m²sr) within 100 s, L <sub>R</sub> < 28/α kW/(m²sr) within 10 s At distance > 200 mm (IEC 62471 (2006-07) / EN 62471 (2008- 09))  0, Irradiance: E <sub>IR</sub> < 100 W/m² within 1,000 s at distance ≥ 200 mm (IEC 62471 (2006-07) / EN 62471 (2008- 09)) (depending on type)	1, radiance L <sub>B</sub> < 10 kW/(m²sr) within 100 s, L <sub>R</sub> < 28/α kW/(m²sr) within 10 s At distance > 200 mm (IEC 62471 (2006-07) / EN 62471 (2008-09))	
Laser class	–		1, complies with CFR 1040.10 except for the tolerance according to Laser Notice No. 50 from June 24, 2007 (IEC 60825-1 (2007-3))	
Scanning frequency	25 Hz, WVGA resolution	60 Hz, WVGA resolution		
Code resolution	≥ 0.1 mm <sup>1)</sup>			
Reading distance (at code resolution)	40 mm ... 1,500 mm (2.6 mm) <sup>1)</sup>		30 mm ... 500 mm (0.9 mm)	30 mm ... 500 mm (0.9 mm) <sup>1)</sup>

<sup>1)</sup> Valid for Data Matrix, PDF417 and 1D codes with good printing quality.

## Performance

	LECTOR®620 ECO	LECTOR®620 Professional	LECTOR®620 High Speed	LECTOR®620 DPM Plus
Bar code types	GS1-128 / EAN 128, UPC / GTIN / EAN, Interleaved 2 of 5, Pharmacode, GS1 DataBar, Code 39, Code 128, Codabar, Code 32, Code 93			
2D code types	Data Matrix ECC200, GS1 Data-Matrix, PDF417, PDF417 Truncated, QR code			Data Matrix ECC200, GS1 Data-Matrix, PDF417, QR code, PDF417 Truncated, Data-Matrix SEMI PV29-0212 (depending on type)
Code qualification	–	On the basis of ISO/IEC 16022, ISO/IEC 15415, ISO/IEC 15416, ISO/IEC 18004		On the basis of ISO/IEC 16022, ISO/IEC 15415, ISO/IEC 18004, AIM DPM Quality Guideline
No. of codes per reading interval	1 ... 50			
No. of characters per reading interval	500 (for multiplexer function in CAN operation)			
Internal image storage	135 MB			
Transport speed	2 m/s	4 m/s	6 m/s	4 m/s

## Interfaces

	LECTOR®620 ECO	LECTOR®620 Professional	LECTOR®620 High Speed	LECTOR®620 DPM Plus
Serial (RS-232, RS-422)	✓			
Function	Host, AUX			
Data transmission rate	300 Baud ... 115.2 kBaud, AUX: 57.6 kBaud (RS-232)			
USB	✓, USB 2.0			
Ethernet	–	✓		
Function	–	Host, AUX, image transmission		
Data transmission rate	–	10/100 Mbit		
Protocol	PROFINET (optional via external connection module CDM), EtherCAT (optional via external connection module CDF600-2)	TCP/IP, FTP (image transmission), PROFINET, EtherNet/IP, EtherCAT (optional via external connection module CDF600-2)		
CAN bus	✓			
Function	SICK CAN sensor network (Master/Slave, Multiplexer/Server)			
Data transmission rate	20 kbit/s ... 1 Mbit/s			
Protocol	CANopen, CSN (SICK CAN Sensor Network)			
PROFIBUS DP	✓, optional via external connection module (CDF)			
Switching inputs	4 ("Sensor 1", "Sensor 2", 2 inputs via optional CMC600 in CDB620/CDM420)			
Switching outputs	4 ("Result 1", "Result 2", 2 outputs via optional CMC600 in CDB620/CDM420)	4 ("Result 1", "Result 2", 2 outputs via CMC in CDB620/CDM420 or "Result 1", "Result 2", "Result 3", "Result 4" using the 17-pin cable with open end)		
Reading pulse	Switching inputs, non-powered, serial interface, CAN, auto pulse, presentation mode	Switching inputs, non-powered, serial interface, Ethernet, CAN, auto pulse, presentation mode		



	LECTOR®620 ECO	LECTOR®620 Professional	LECTOR®620 High Speed	LECTOR®620 DPM Plus
Optical indicators	16 LEDs (5 x status display, 10 x LED bar graph, 1 green feedback spot)			
Acoustic indicators	Beeper/buzzer (can be switched off, can be assigned a function to signal the result status)			
Control elements	2 buttons (choose and start/stop functions)			
Memory card	–	MicroSD memory card (flash card) max. 32 GB, optional		

## Mechanics/electronics

	LECTOR®620 ECO	LECTOR®620 Professional	LECTOR®620 High Speed	LECTOR®620 DPM Plus
Electrical connection	1 15-pin D-Sub HD plug (0.9 m)	1 x M12, 17-pin plug 1 x M12, 4-pin socket Ethernet Cylindrical connectors		
Operating voltage	10 V DC ... 30 V DC			
Power consumption	Typ. 3 W			
Housing	Die-cast aluminum			
Housing color	Light blue (RAL 5012)			
Protection class	III			
Weight	170 g			
Dimensions	71 mm x 43 mm x 35.6 mm <sup>1)</sup>			

<sup>1)</sup> Swivel connector is 17.8 mm longer.

## Ambient data

Electromagnetic compatibility (EMC)	EN 61000-6-2 (2006-03) / EN 61000-6-2 (2009-05)
Vibration resistance	EN 60068-2-6 (2008-02)
Shock resistance	EN 60068-2-27 (2009-05)
Electrical safety	EN 60950-1 (2006-04) / EN 60950-1/A11 (2009-03)
Ambient operating temperature	0 °C ... +50 °C
Storage temperature	–20 °C ... +70 °C
Permissible relative humidity	90 %, non-condensing
Ambient light safety	2,000 lx, on code

## Ordering information

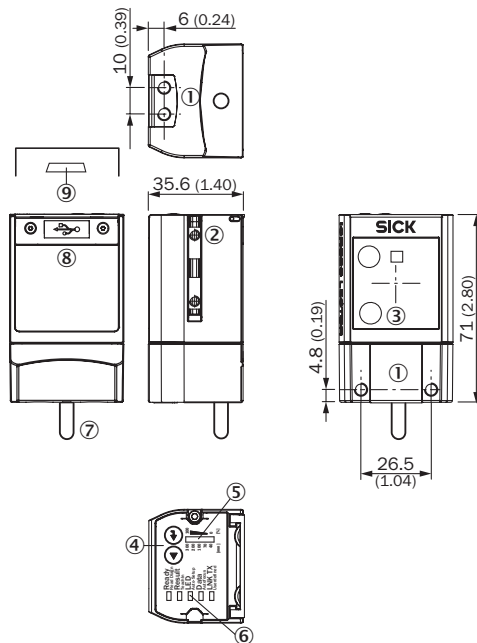
- **Reading field:** side
- **Sensor resolution:** 752 px 480 px WVGA
- **Lens:** integrated

Version	Internal lighting	Enclosure rating	Model name	Part no.
LECTOR®620 ECO	Red	IP 65	ICR620E-H12013 ECO	1054507
LECTOR®620 Professional	Red, blue	IP 67	ICR620S-T11504 Professional	1054375
	Infrared	IP 65	ICR620S-T16503 Professional	1058623
	Red, blue	IP 65	ICR620S-T11503 Professional	1050589
	Red, blue	IP 65	ICR620H-T11503 High Speed	1055890
LECTOR®620 DPM Plus	Blue	IP 65	ICR620D-T17503 DPM Plus Solar	1060912
	Red, blue	IP 65	ICR620D-T11503 DPM Plus	1055891

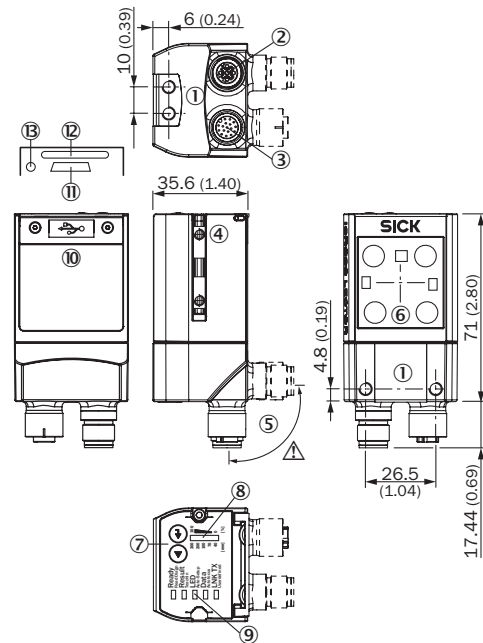
## Dimensional drawings

Dimensions in mm (inch)

## LECTOR®620 ECO



- ① Blind hole thread M5, 5 mm deep (4 x), for mounting
- ② Sliding nut M5, 5 mm deep (2 x), for mounting (as alternative)
- ③ Reading field
- ④ Function button (2 x)
- ⑤ Bar graph display
- ⑥ LED for status display (2 levels), 5 x
- ⑦ Cable with 15-pin D-sub HD plug
- ⑧ Cover (flap)
- ⑨ "Micro USB" connection

LECTOR®620 Professional  
LECTOR®620 High Speed  
LECTOR®620 DPM Plus

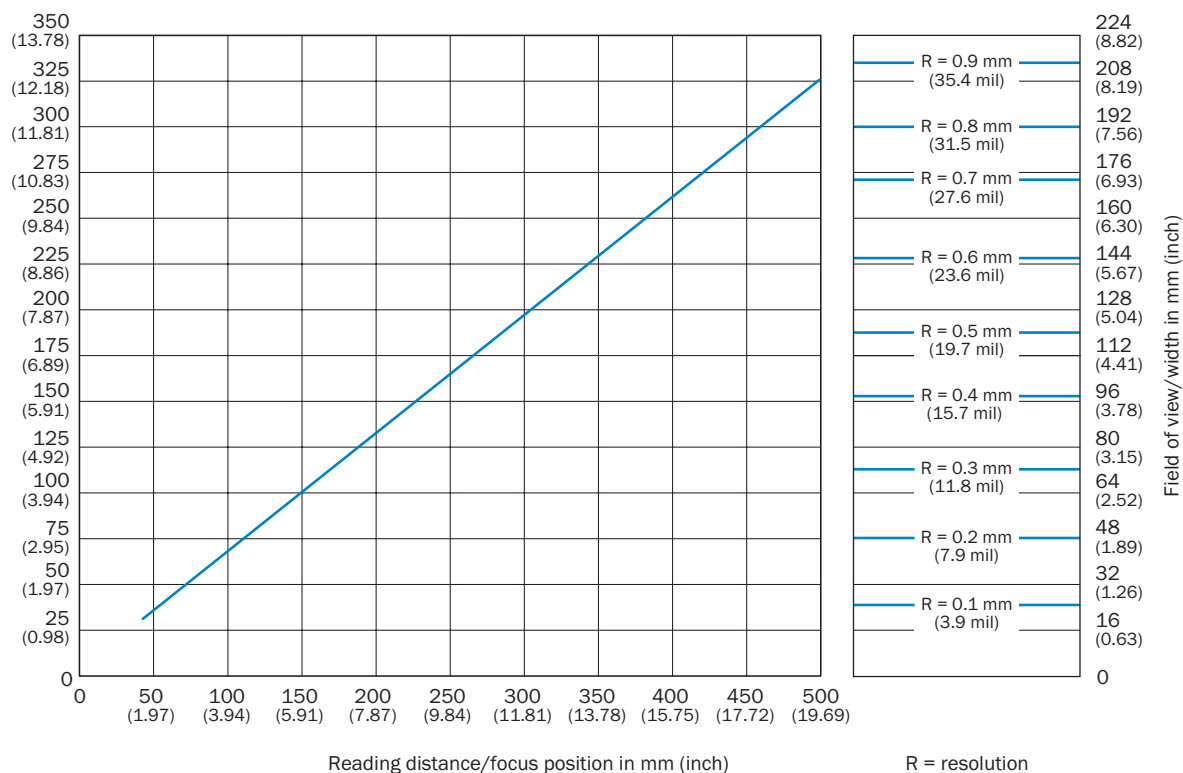
- ① Blind hole thread M5, 5 mm deep (4 x), for mounting
- ② Ethernet connection
- ③ "Power/Serial Data/CAN/I/O" connection
- ④ Sliding nut M5, 5 mm deep (2 x), for mounting (as alternative)
- ⑤ Swivel connector unit
- ⑥ Reading field
- ⑦ Function button (2 x)
- ⑧ Bar graph display
- ⑨ LED for status display (2 levels), 5 x
- ⑩ Cover (flap)
- ⑪ "Micro USB" connection
- ⑫ Slot for microSD memory card
- ⑬ LED for microSD memory card

## Field of view

### LECTOR®620 ECO

#### LECTOR®620 Professional (ICR620S-T11504, ICR620S-T11503)

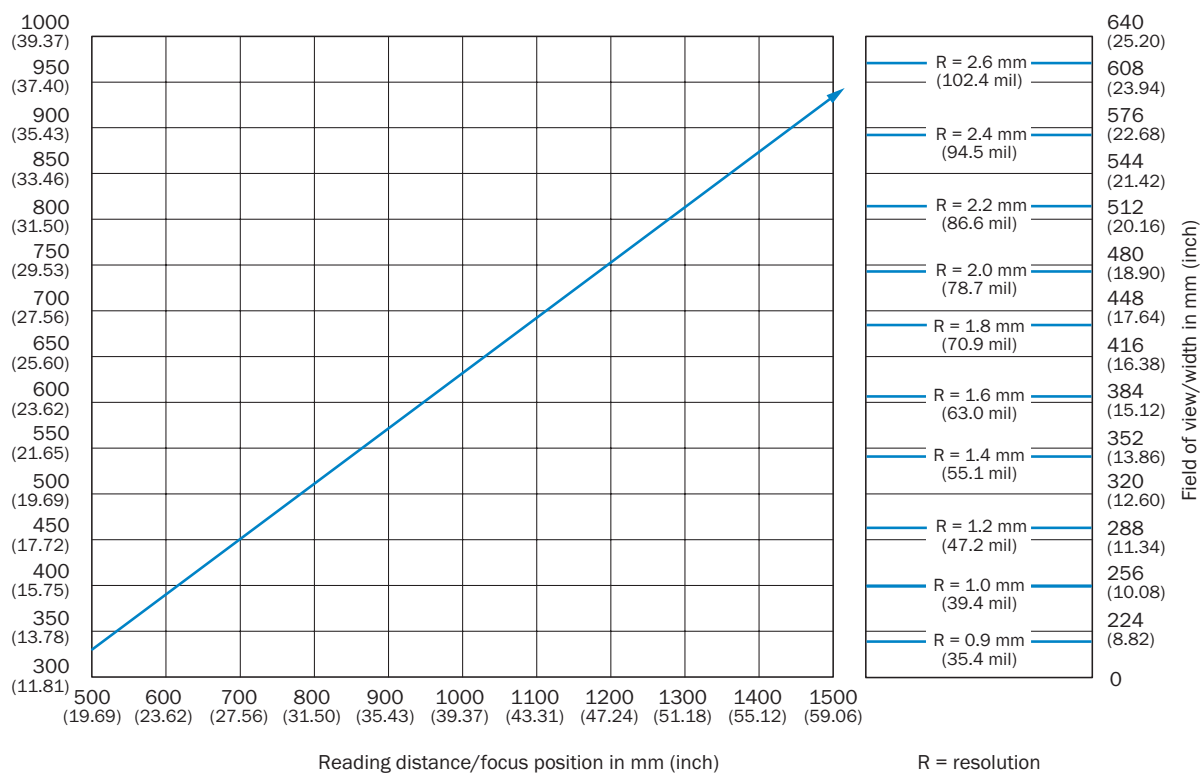
Field of view/length in mm (inch)

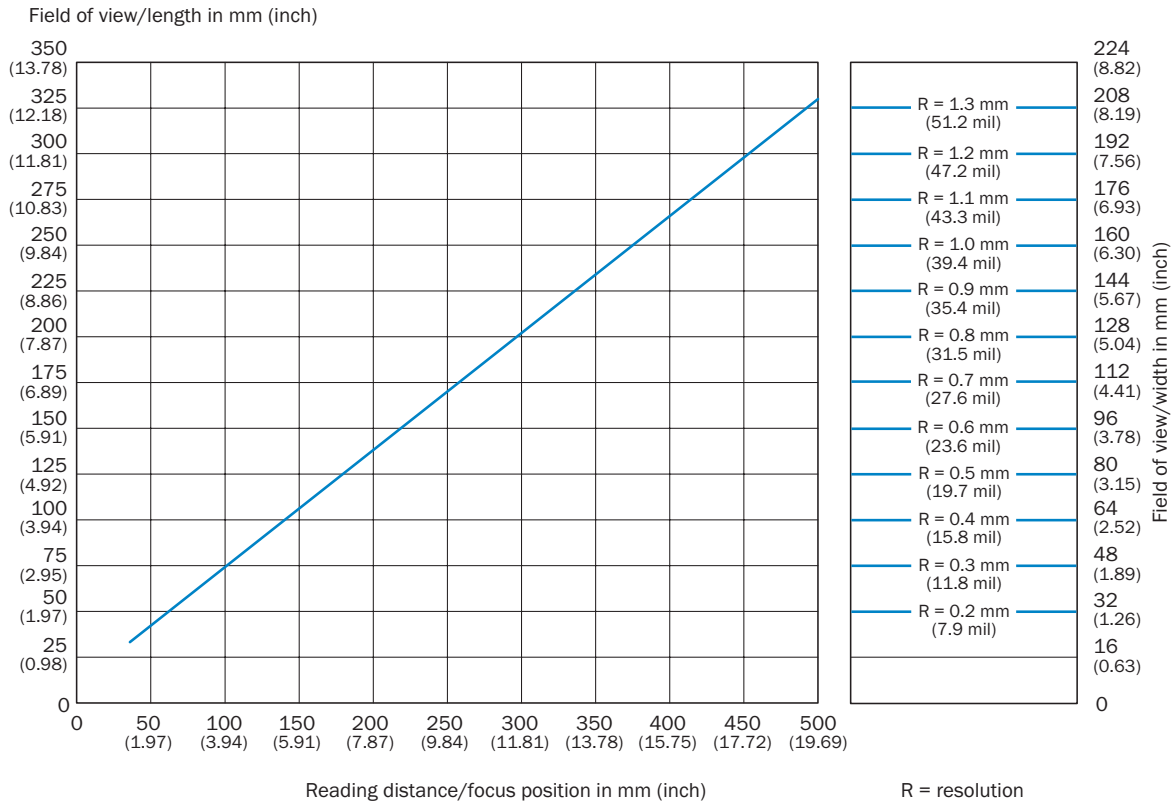
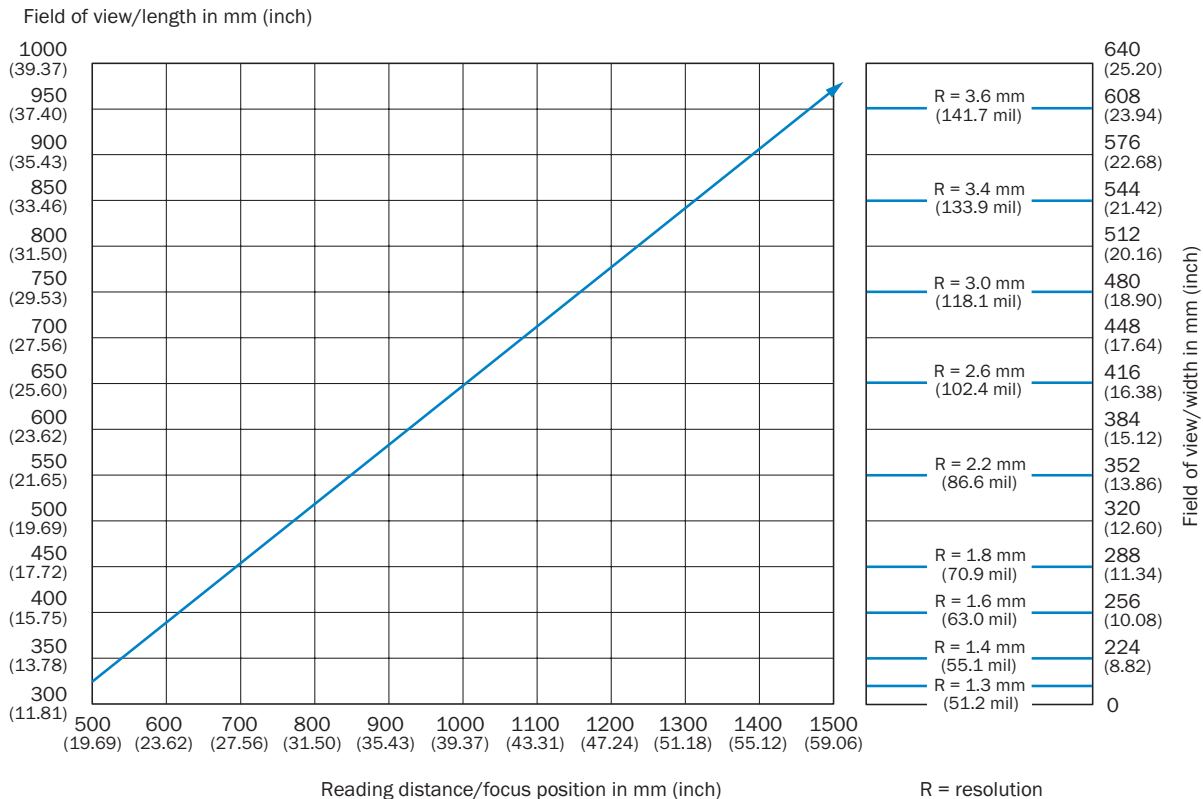


### LECTOR®620 ECO

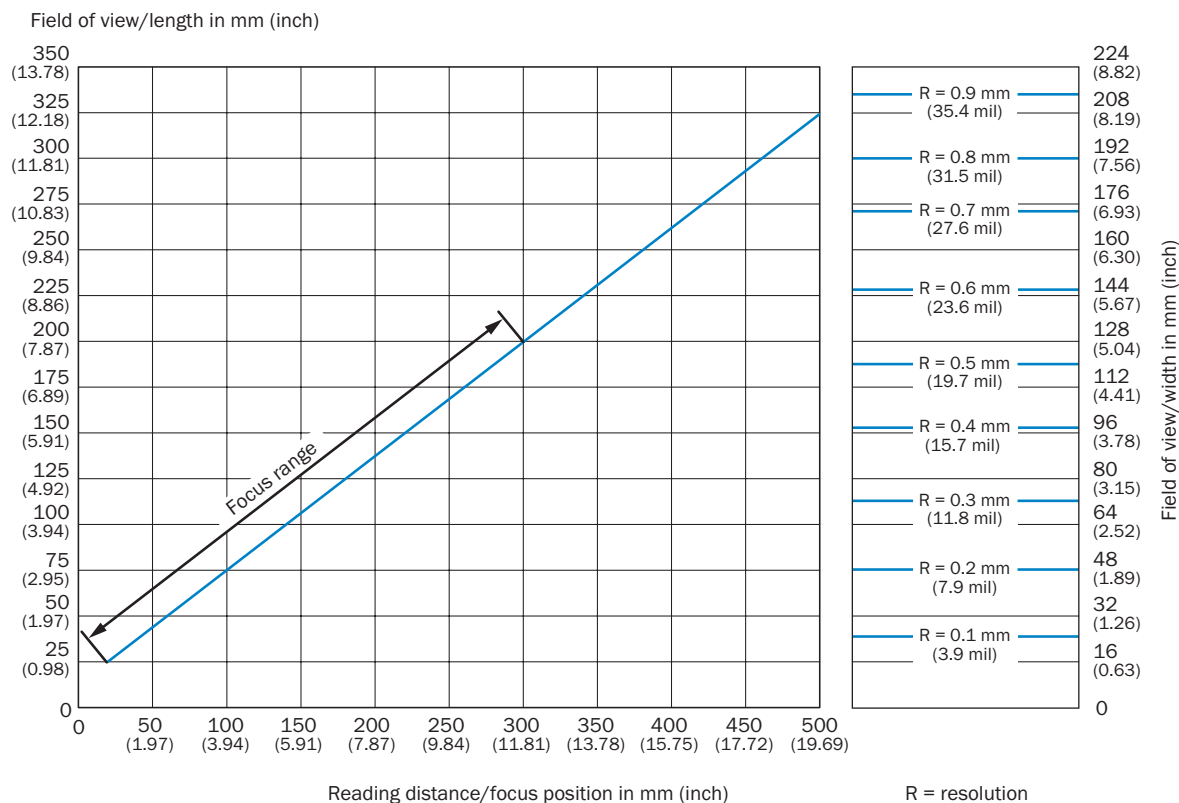
#### LECTOR®620 Professional (ICR620S-T11504, ICR620S-T11503)

Field of view/length in mm (inch)

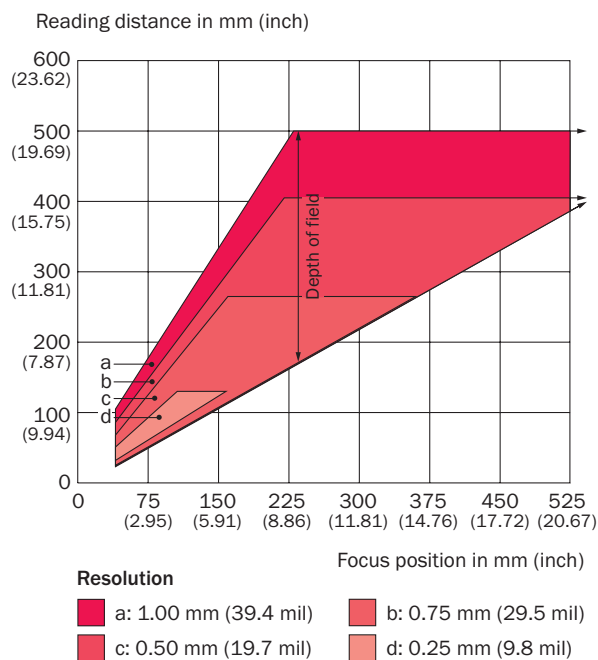
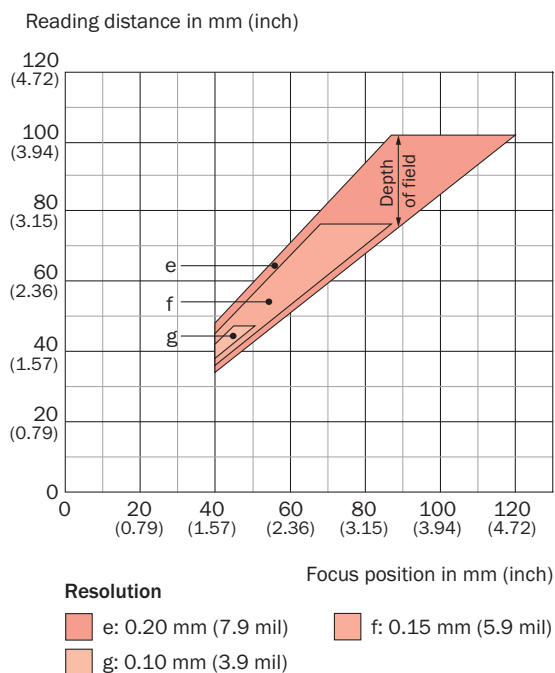


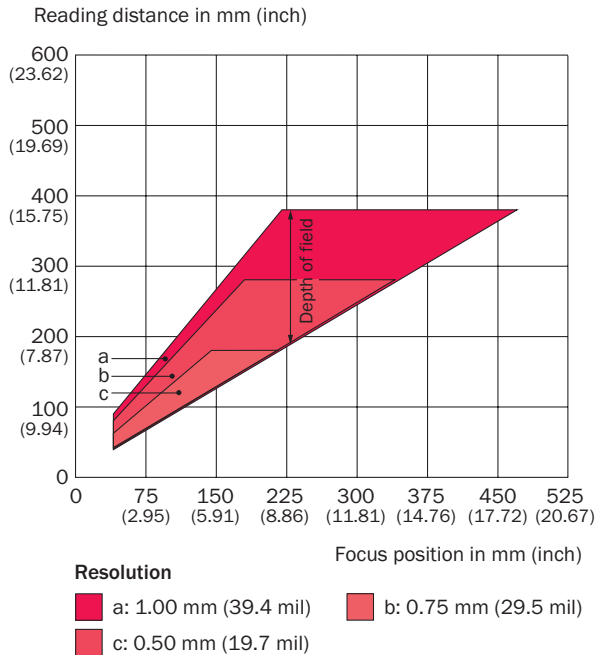
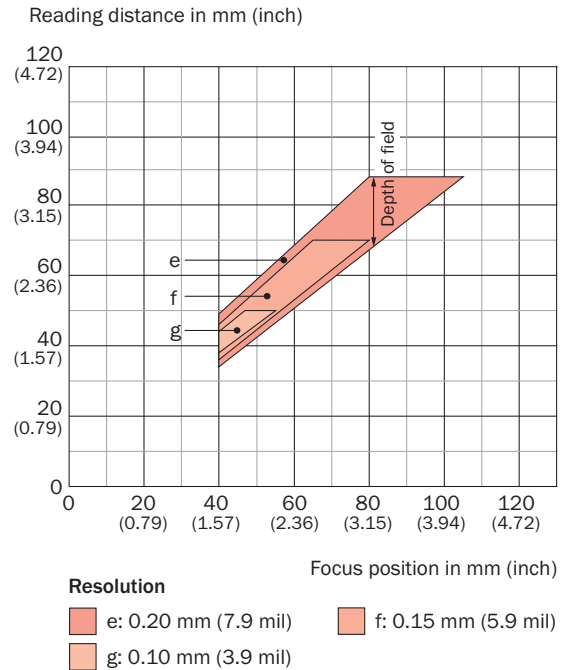
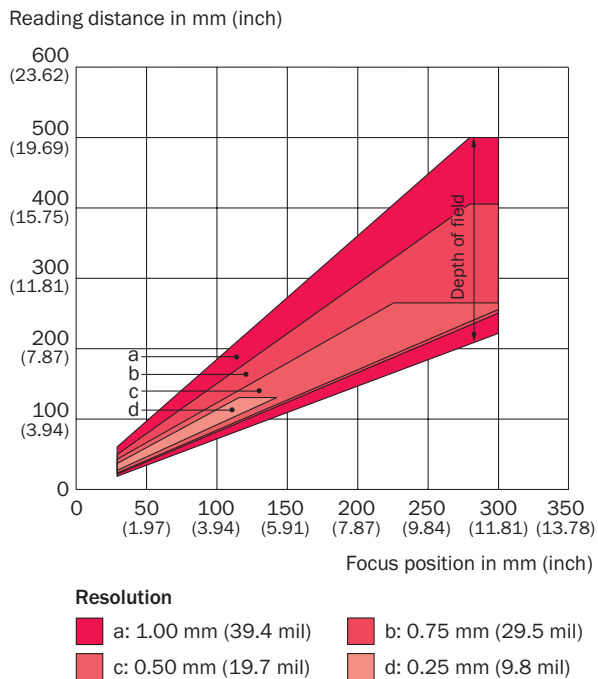
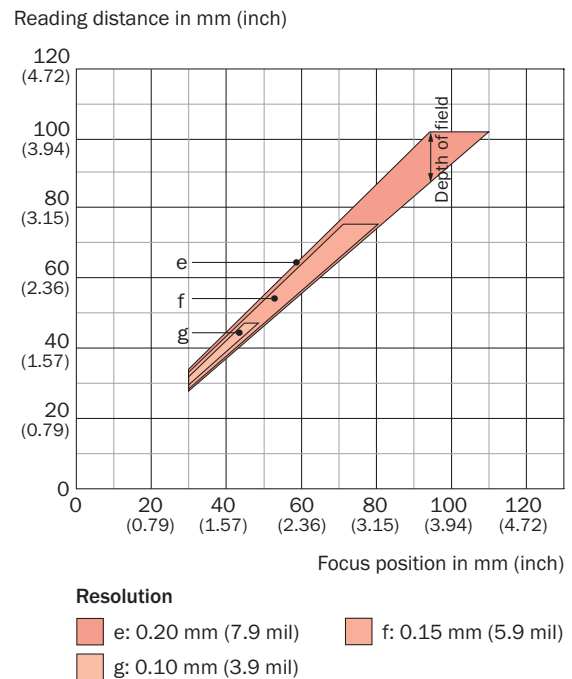
**LECTOR®620 Professional (ICR620S-T16503)****LECTOR®620 Professional (ICR620S-T16503)**

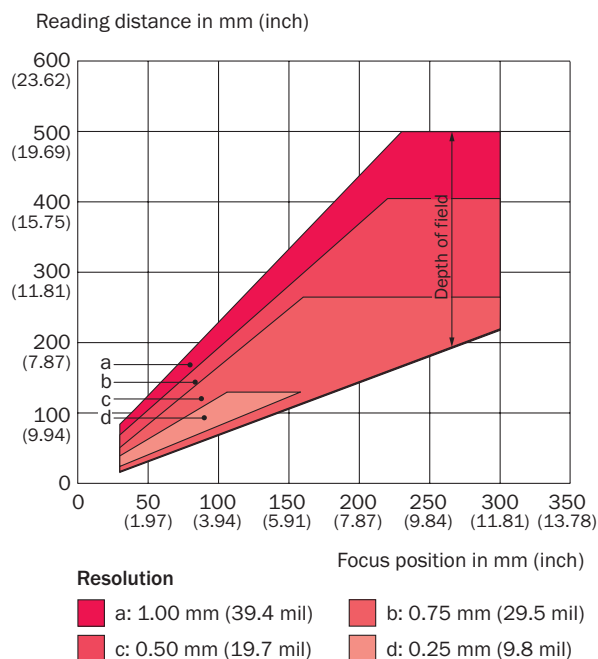
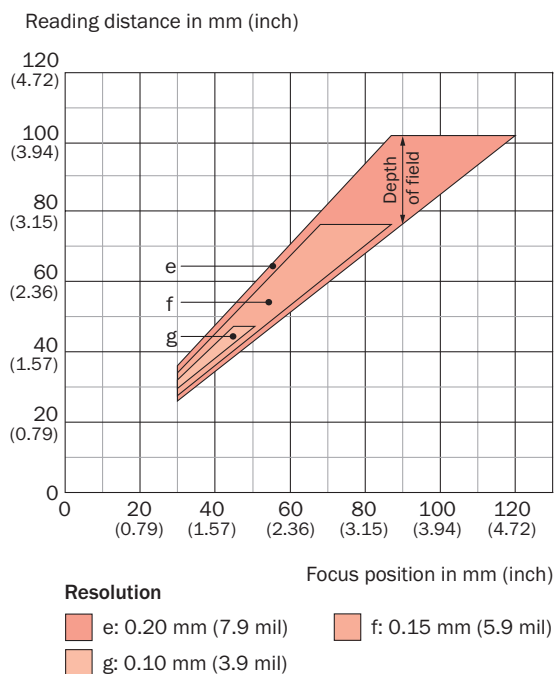



**LECTOR®620 High Speed**  
**LECTOR®620 DPM Plus**


## Reading field diagrams


**LECTOR®620 ECO**  
**LECTOR®620 Professional**  
**(ICR620S-T11504, ICR620S-T11503)**

**LECTOR®620 ECO**  
**LECTOR®620 Professional**  
**(ICR620S-T11504, ICR620S-T11503)**


**LECTOR®620 Professional (ICR620S-T16503)****LECTOR®620 Professional (ICR620S-T16503)****LECTOR®620 High Speed****LECTOR®620 High Speed**

**LECTOR®620 DPM Plus****LECTOR®620 DPM Plus****Accessories****Device protection (mechanical)****Front screen protection**

	Brief description	Part no.	LECTOR®62x ECO	LECTOR®62x
	Weld spark guard for direct mounting in front of front screen on device including fixing screws	2065807	●	●

**Protective caps**

	Brief description	Part no.	LECTOR®62x ECO	LECTOR®62x
	IP-65 sealing rubber for extension cables with 15-pin D-Sub plug connection (6010075 and 6020092)	4038847	●	●


## Illuminations

## LED






	Brief description	Model name	Part no.	LECTOR®62x ECO	LECTOR®62x
	Ring lighting, bright field, red lighting color, lighting distance 0.2 m ... 1 m	ICL170-F222	1048371	●	●
	Ring illumination, bright field, red lighting color, lighting distance 200 mm ... 1.5 m	ICL260-F222	1052495	●	●
	Ring lighting, bright field, red lighting color, lighting distance 200 mm ... 1.1 m	ICL280-F222	1052472	●	●
	Ring lighting, bright field spot, infrared lighting color, lighting distance 0.2 m ... 2 m, temperature 0 °C ... +40 °C	ICL300-F202S01	1047957	●	●
	Ring lighting, bright field spot, red lighting color, lighting distance 0.2 m ... 2 m, temperature 0 °C ... +40 °C	ICL300-F222	1046820	●	●
	UV illumination, light source ultraviolet, 370 nm, external diameter 62 mm	VI35S-UV0015A2	6051200	●	●
	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	●	●
	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	●	●

	Brief description	Model name	Part no.	LECTOR®62x ECO	LECTOR®62x
	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

	Brief description	Part no.	LECTOR®62x ECO	LECTOR®62x
	LECTOR®620 dome accessories for glossy and curved surfaces inclusive bracket and mounting material	2063093	●	●

## Modules




	Brief description	Model name	Part no.	LECTOR®62x ECO	LECTOR®62x
 Illustration may differ	Small connection module for one sensor, 4 cable glands, base for CMC600	CDB620-001	1042256	●	●
	Small connection module for one sensor, 2 cable glands, 2 x M12 connector/socket for CAN, base for CMC600	CDB620-101	1042257	●	●
	Small connection module for a sensor, 5 cable glands, socket for CMC cloning module	CDB620-201	1042258	●	●
	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	●	●
	Modular connection module for one sensor	CDM420-0001	1025362	●	●



	Brief description	Model name	Part no.	LECTOR®62x ECO	LECTOR®62x
 Illustration may differ	Modular connection module for two sensors	CDM420-0004	1028487	●	●
	Modular connection module for one sensor, Host and AUX interface available on face plate	CDM420-0101	1025364	●	●
	Kit: modular connection module for one sensor, Host and AUX interface available on face plate, power supply CMP400, US power cord	CDM420-0102	1026220	●	●
 Illustration may differ	Modular connection module for one sensor, additional M12 socket for PROFINET on face plate	CDM425-00034094	1048488	●	●
	Modular connection module for two sensors, additional M12 socket for PROFINET on face plate. Reduction of cable glands from 6 to 4, M12 socket for CAN bus and M12 plug for connection to power supply on front side	CDM425-10234094	1050643	●	●




## Mounting brackets/plates

### Mounting brackets



	Brief description	Part no.	LECTOR®62x ECO	LECTOR®62x
	Bracket with adapter board	2042902	●	●
	Mounting bracket (simple bracket)	2020410	●	●
	Mounting bracket to mount the ICL illuminations	2063992	●	●

## Other mounting accessories



### Sliding nuts

	Brief description	Part no.	LECTOR®62x ECO	LECTOR®62x
	Sliding nut, M3, short	5324898	●	●
	Sliding nut, M4, short	5324897	●	●
	Sliding nut, M5, short	5324896	●	●






## Plug connectors and cables

	Brief description	Part no.	LECTOR®62x ECO	LECTOR®62x
	Black AS-i flat cable for looping in the power supply to IDpro Ethernet sensors, sold per meter	6022463	-	●
	M12 AS-i clip for connection on black AS-i flat cable	6022472	-	●




## Connecting cable (female connector-open)

	Connection type head A	Special feature	Cable length	Part no.	LECTOR®62x ECO	LECTOR®62x
 Illustration may differ	Female connector, M12, 17-pin, straight	-	3 m	6042772	-	●
			5 m	6042773	-	●
		-	10 m	6048817	-	●
		Drag chain use	5 m	6045141	-	●
	Female connector, D-Sub, 15-pin, straight	-	2 m	2043413	●	●


## Connection cable (male connector-male connector)

	Connection type head A	Connection type head B	Special feature	Authorizations	Cable length	Part no.	LECTOR®62x ECO	LECTOR®62x
	Connector, M12, 4-pin, straight, D-coded	Connector, RJ45, 8-pin, straight	Shielded	-	2 m	6034414	-	●
					3 m	6044400	-	●
					5 m	6034415	-	●
					10 m	6030928	-	●
					20 m	6036158	-	●
	Connector, M12, 4-pin, straight, D-coded	Connector, RJ45, 8-pin, straight	Drag chain use, deep-freeze use, shielded	ECOLAB	2 m	6050198	-	●
					3 m	6050199	-	●
					5 m	6050200	-	●
					10 m	6050201	-	●
	Connector, M12, 4-pin, D-coded	Connector, M12, 4-pin	Shielded	-	2 m	6034420	-	●
					3 m	6034421	-	●
					5 m	6034422	-	●
	Connector, USB-A	Connector, Micro-B	-	-	2 m	6036106	●	●
	Connector, M12, 4-pin, angled, D-coded	Connector, RJ45, 8-pin, straight	-	-	5 m	6039488	-	●


**Connection cable (male connector-female connector)**

	Connection type head A	Connection type head B	Brief description	Special feature	Cable length	Part no.	LECTOR®62x ECO	LECTOR®62x
 Illustration may differ	Female connector, M12, 17-pin, straight	Connector, D-Sub, 15-pin, straight	To connection module CDx	-	0.35 m	2056184	-	●
					0.9 m	2049764	-	●
					2 m	2055419	-	●
					3 m	2055420	-	●
					5 m	2055859	-	●
 Illustration may differ	Female connector, M12, 17-pin, straight	Connector, M12, 4-pin, straight	4-pin for connecting one IDpro sensor, 17-pin to AS-i clip on black AS-i flat cable	Drag chain use	3 m	2061605	-	●
					1 m	6044574	-	●
 Illustration may differ	Female connector, D-Sub HD, 15-pin, straight	Connector, D-Sub HD, 15-pin, straight	-	-	2.5 m	6044575	-	●
					2 m	6034417	●	●
					3 m	6034418	●	●


**Female connector (ready to assemble)**

	Connection type head A	Connection type head B	Part no.	LECTOR®62x ECO	LECTOR®62x
	Connection inlay (female connector), D-Sub HD, 15-pin	-	6010019	●	●


**Housing (ready to assemble)**

	Connection type head A	Part no.	LECTOR®62x ECO	LECTOR®62x
	Connection inlay (male connector), D-Sub HD, 9-pin, 15-pin	6009438	●	●


**Male connector (ready to assemble)**

	Connection type head A	Connection type head B	Part no.	LECTOR®62x ECO	LECTOR®62x
	Connection inlay (male connector), D-Sub HD, 15-pin	-	6010020	●	●


## Signal converters

	Brief description	Part no.	LECTOR®62x ECO	LECTOR®62x
	Lighting trigger and NPN/PNP converter, to be installed in CDB620 and CDM420	2056990	●	●


## Storage mediums

	Brief description	Part no.	LECTOR®62x ECO	LECTOR®62x
 Illustration may differ	MicroSD memory card with 2 GB	4051366	-	●

## Terminal and alignment brackets

	Brief description	Part no.	LECTOR®62x ECO	LECTOR®62x
	Quick-action lock system	2025526	●	●

## Universal bar clamp systems

	Brief description	Part no.	LECTOR®62x ECO	LECTOR®62x
	Universal clamping bracket for rod mounting	2042802	●	●

## Accessories for critical lighting situations, mounting and connectivity

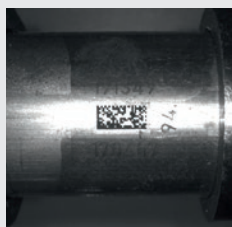
With the correct lighting supplies, a safe code reading can be guaranteed even under difficult environmental conditions and on critical surfaces. A mounting bracket and a fieldbus module make system integration easier.



### Dome accessories

The dome accessories are the ideal solution if codes are located on curved and/or shiny surfaces such as metal. The diffuse incident light of the dome means that disruptive reflections and mirroring are avoided.

- Dome accessories article numbers: see page 29



Without dome:  
poorly illuminated object



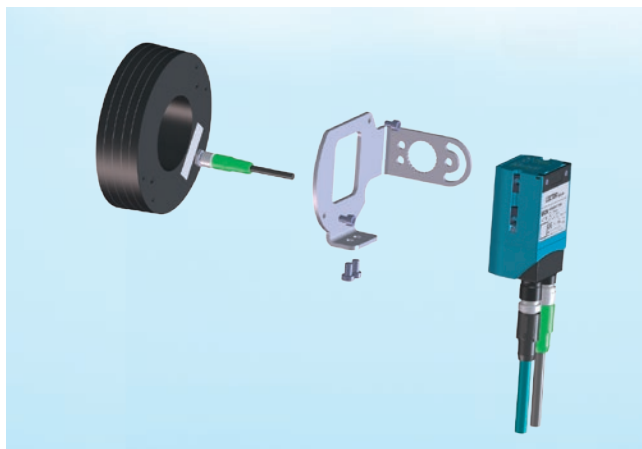
With dome:  
optimally illuminated object



## Ring lighting

Ring lighting provides optimal lighting of the reading field, especially when there are large distances between the code reader and the object. The mounting bracket perfectly connects the ICL ring lighting with the housing of the LECTOR®62x.

- Article number ICL illumination: see page 28
- Article number ICL mounting bracket: see page 30



ICL illumination and ICL mounting bracket

## Quick-release clamp mounting bracket

The quick release mounting bracket makes device exchange possible within seconds. Because the position of the bracket remains fixed during exchange, alignment of the LECTOR®62x is not required.

- Quick release mounting bracket article number: see page 33



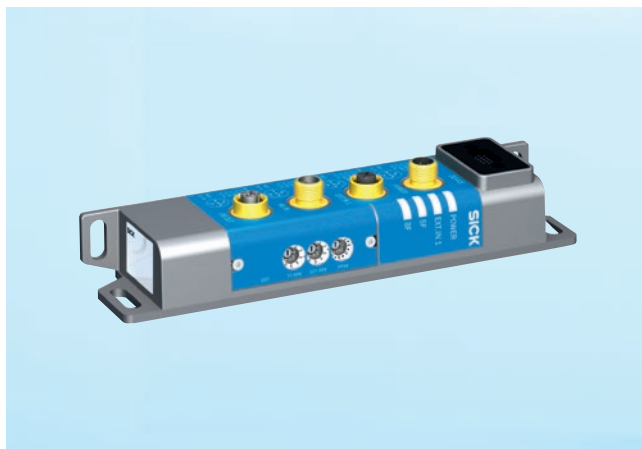
Quick-release clamp mounting bracket

## CDF600-2 fieldbus module

The CDF600-2 PROFIBUS fieldbus module makes it possible to quickly and easily integrate automatic identification solutions (1D, 2D, RFID) in PROFIBUS-DP networks.

There are two versions available with either an M12 or a Sub-D-PROFIBUS connection.

- Article number CDF600-2: see page 29



CDF600-2 fieldbus module

## Integrated solutions to make routine production easier

The LECTOR®62x image-based code readers incorporate standard features, including a parameter cloning system and, depending on the variant, infrared or UV lighting.

### Parameter backup with cloning systems

Parameters set in the LECTOR®62x can be saved to a microSD memory card in the device or in the external CMC module. If the device is exchanged, the data is automatically transferred

to the new device. This ensures minimal machine downtime in case of malfunctions.

- MicroSD memory card article number: see page 33



microSD memory card

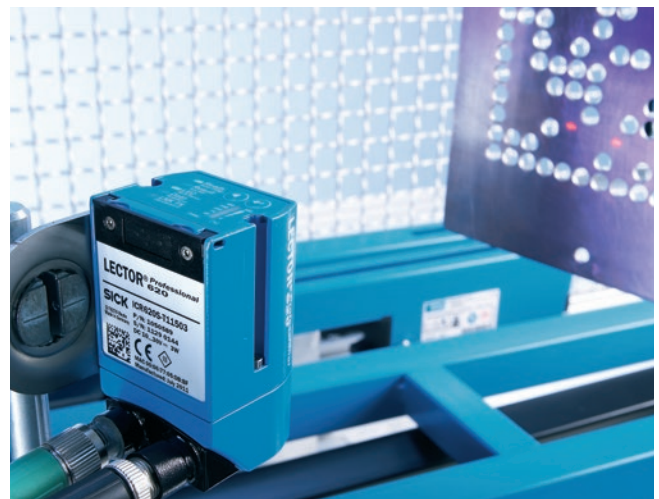


CMC module

### Illumination without flashes

An infrared illumination is integrated in the LECTOR®620 Professional. Through the invisible infrared light, the LECTOR®620 Professional reads codes without the disruptive flashing of the red or blue LEDs that occur with other LECTOR® variants.

- LECTOR®620 Professional article number: see page 21



Infrared illumination in the LECTOR®620 Professional



LECTOR®620 High Speed

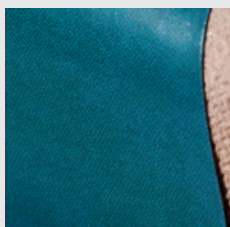
## Recognition of invisible codes

In connection with the external UV lighting, which can be obtained as an accessory, the LECTOR®620 High Speed is able to read codes that are printed with invisible UV ink.

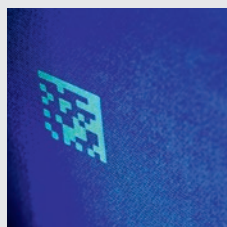
- LECTOR®620 High Speed article number: see page 21
- UV illumination article number: see page 28



UV illumination



Non-illuminated object  
with invisible UV code

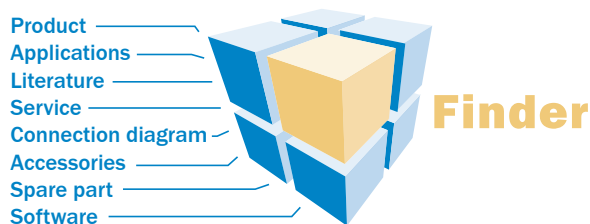


Object with visible code  
through UV illumination



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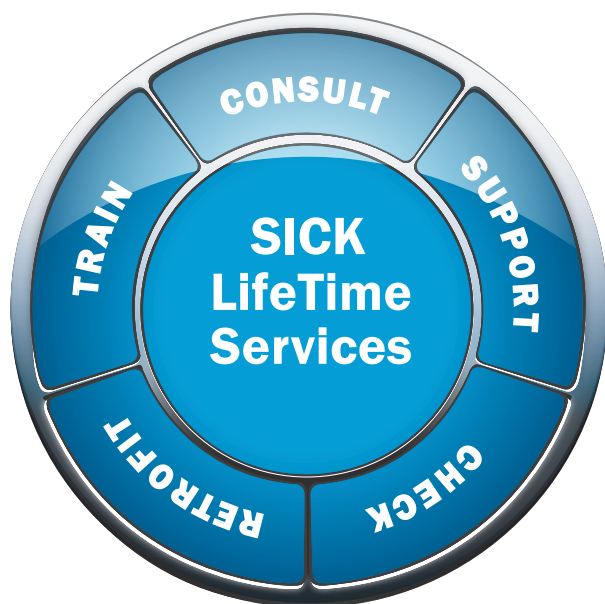
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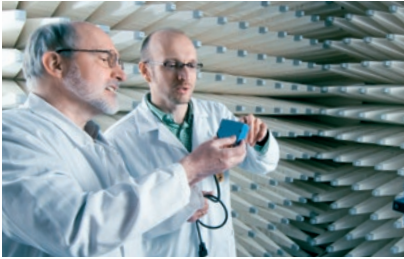


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Employee qualification for increased competitiveness



## SICK at a glance



### Leading technologies

With a staff of more than 6,000 and over 40 subsidiaries and representations worldwide, SICK is one of the leading and most successful manufacturers of sensor technology. The power of innovation and solution competency have made SICK the global market leader. No matter what the project and industry may be, talking with an expert from SICK will provide you with an ideal basis for your plans – there is no need to settle for anything less than the best.



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- Non-contact detecting, counting, classifying, positioning and measuring of any type of object or media
- Accident and operator protection with sensors, safety software and services
- Automatic identification with bar code and RFID readers
- Laser measurement technology for detecting the volume, position and contour of people and objects
- Complete system solutions for analysis and flow measurement of gases and liquids



### Comprehensive services

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- Application centers in Europe, Asia and North America for the development of system solutions under real-world conditions
- E-Business Partner Portal [www.mysick.com](http://www.mysick.com) – price and availability of products, requests for quotation and online orders

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Japan

México  
Nederland  
Norge  
Österreich  
Polska  
România  
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Singapore  
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