





### Ordering information

Type	Part no.
V2D621R-2MSFBB5	1085372

Other models and accessories → [www.sick.com/Lector62x](http://www.sick.com/Lector62x)



### Detailed technical data

#### Features

<b>Optical focus</b>	Teach auto focus								
<b>Sensor</b>	CMOS matrix sensor, grayscale values								
<b>Sensor resolution</b>	1,280 px x 1,024 px								
<b>Light source</b>	<table border="0"> <tr> <td>Internal lighting</td> <td>LED, Visible, Red, 617 nm, ± 15 nm</td> </tr> <tr> <td>Internal lighting</td> <td>LED, Visible, blue, 470 nm, ± 15 nm</td> </tr> <tr> <td>Feedback spot</td> <td>LED, Visible, green, 525 nm, ± 15 nm</td> </tr> <tr> <td>Adjustment aid</td> <td>Laser, Visible, Red, 630 nm ... 680 nm</td> </tr> </table>	Internal lighting	LED, Visible, Red, 617 nm, ± 15 nm	Internal lighting	LED, Visible, blue, 470 nm, ± 15 nm	Feedback spot	LED, Visible, green, 525 nm, ± 15 nm	Adjustment aid	Laser, Visible, Red, 630 nm ... 680 nm
Internal lighting	LED, Visible, Red, 617 nm, ± 15 nm								
Internal lighting	LED, Visible, blue, 470 nm, ± 15 nm								
Feedback spot	LED, Visible, green, 525 nm, ± 15 nm								
Adjustment aid	Laser, Visible, Red, 630 nm ... 680 nm								
<b>LED class</b>	1 (IEC 62471:2006-07, EN 62471:2008-09)								
<b>Laser class</b>	1, complies with 21 CFR 1040.10 except for the conformance according to "Laser Notice No. 50" from June 24, 2007 (IEC 60825-1:2014, EN 60825-1:2014)								
<b>Scanning frequency</b>	50 Hz								
<b>Code resolution</b>	≥ 0.05 mm <sup>1)</sup>								
<b>Reading distance</b>	70 mm ... 1,500 mm <sup>1) 2)</sup>								
<b>Lens</b>	<table border="0"> <tr> <td>Focal length</td> <td>9.6 mm</td> </tr> </table>	Focal length	9.6 mm						
Focal length	9.6 mm								

<sup>1)</sup> For details see reading field diagram.

<sup>2)</sup> Valid for Data Matrix, PDF417, and 1D codes with good print quality.

#### Mechanics/electronics

<b>Connection type</b>	1 x M12, 17-pin male connector
------------------------	--------------------------------

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

	1 x M12, 4-pin Ethernet female connector Circular plug-in connector
<b>Supply voltage</b>	12 V DC ... 24 V DC, ± 20 %
<b>Power consumption</b>	Typ. 4 W
<b>Housing</b>	Aluminum die cast
<b>Housing color</b>	Light blue (RAL 5012)
<b>Enclosure rating</b>	IP65 (EN 60529, EN 60529/A2)
<b>Protection class</b>	III
<b>Electrical safety</b>	EN 62368
<b>Weight</b>	170 g
<b>Dimensions (L x W x H)</b>	71 mm x 43 mm x 35.6 mm <sup>1)</sup>
<b>MTBF</b>	75,000 h

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

## Performance

<b>Readable code structures</b>	1D codes, Stacked, 2D codes
<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, Plessey Code, MSI/Plessey, Telepen, postal codes
<b>2D code types</b>	Data Matrix ECC200, GS1 Data-Matrix, PDF417, PDF417 Truncated, QR code, MaxiCode
<b>Code qualification</b>	On the basis of ISO/IEC 16022, ISO/IEC 15415, ISO/IEC 15416, ISO/IEC 18004
<b>No. of codes per reading interval</b>	1 ... 50
<b>No. of characters per reading interval</b>	500 (for multiplexer function in CAN operation)
<b>Automated parameter switching</b>	✓

## Interfaces

<b>Ethernet</b>	✓, TCP/IP
Function	Host, AUX, FTP (image transmission)
Data transmission rate	10/100 MBit/s
<b>PROFINET</b>	✓
Function	PROFINET Single Port, PROFINET Dual Port (optional via external connection module CDF600-2)
Data transmission rate	10/100 MBit/s
<b>EtherNet/IP™</b>	✓
Data transmission rate	10/100 MBit/s
<b>EtherCAT</b>	✓
Type of fieldbus integration	Optional over external fieldbus module CDF600
<b>Serial</b>	✓, RS-232, RS-422
Function	Host, AUX
Data transmission rate	0.3 kBaud ... 115.2 kBaud, AUX: 57.6 kBaud (RS-232)
<b>CAN</b>	✓
Function	SICK CAN sensor network CSN (master/slave, multiplexer/server)
Data transmission rate	20 kbit/s ... 1 Mbit/s
<b>CANopen</b>	✓
Data transmission rate	20 kbit/s ... 1 Mbit/s

<b>PROFIBUS DP</b>	✓
Type of fieldbus integration	Optional over external fieldbus module CDF600-2
<b>USB</b>	✓
Remark	USB 2.0 (for parameterization only)
Function	AUX
<b>Digital inputs</b>	4 ("Sensor 1", "Sensor 2", 2 inputs via optional parameter storage CMC600 in CDM420)
<b>Digital outputs</b>	4 ("Result 1", "Result 2", 2 outputs via CMC and CDM420 or "Result 1", "Result 2", "Result 3", "Result 4" when using the 17-wire cable with open cable end)
<b>Reading pulse</b>	Digital inputs, non-powered, serial interface, Ethernet, CAN, auto pulse, presentation mode
<b>Optical indicators</b>	16 LEDs (5 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 a result)
<b>Control elements</b>	2 buttons (choose and start/stop functions)
<b>Operator interfaces</b>	Web server
<b>Configuration software</b>	SOPAS ET
<b>Memory card</b>	microSD memory card (flash card), optional
<b>Data storage and retrieval</b>	Image and data storage via microSD memory card and external FTP
<b>Maximum encoder frequency</b>	300 Hz
<b>External illumination control</b>	Via digital output (max. 24 V trigger)

### Ambient data

<b>Electromagnetic compatibility (EMC)</b>	EN 61000-6-2:2005-08 / EN 61000-6-4 (2007-01) + A1 (2011)
<b>Vibration resistance</b>	EN 60068-2-6:2008-02
<b>Shock resistance</b>	EN 60068-2-27:2009-05
<b>Ambient operating temperature</b>	0 °C ... +50 °C <sup>1)</sup>
<b>Storage temperature</b>	-20 °C ... +70 °C
<b>Permissible relative humidity</b>	90 %, Non-condensing
<b>Ambient light immunity</b>	2,000 lx, on code

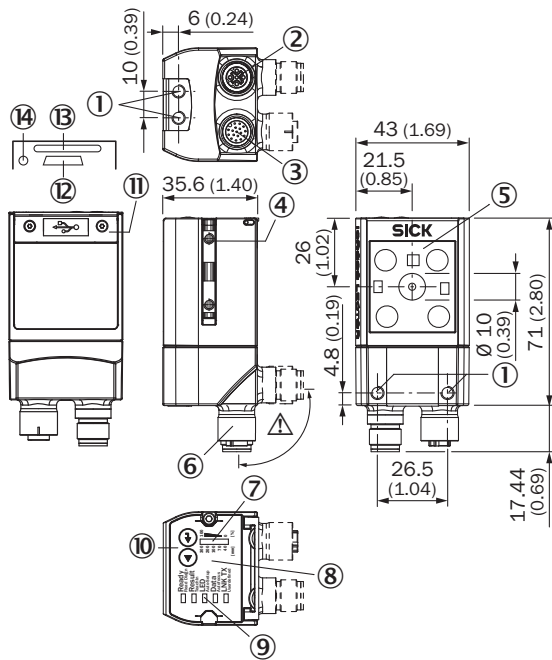
<sup>1)</sup> For mounting on a metal mounting bracket.

### Classifications

<b>ECl@ss 5.0</b>	27280103
<b>ECl@ss 5.1.4</b>	27280103
<b>ECl@ss 6.0</b>	27280103
<b>ECl@ss 6.2</b>	27280103
<b>ECl@ss 7.0</b>	27280103
<b>ECl@ss 8.0</b>	27280103
<b>ECl@ss 8.1</b>	27280103
<b>ECl@ss 9.0</b>	27280103
<b>ECl@ss 10.0</b>	27280103
<b>ECl@ss 11.0</b>	27280103
<b>ETIM 5.0</b>	EC002550
<b>ETIM 6.0</b>	EC002550
<b>ETIM 7.0</b>	EC002999

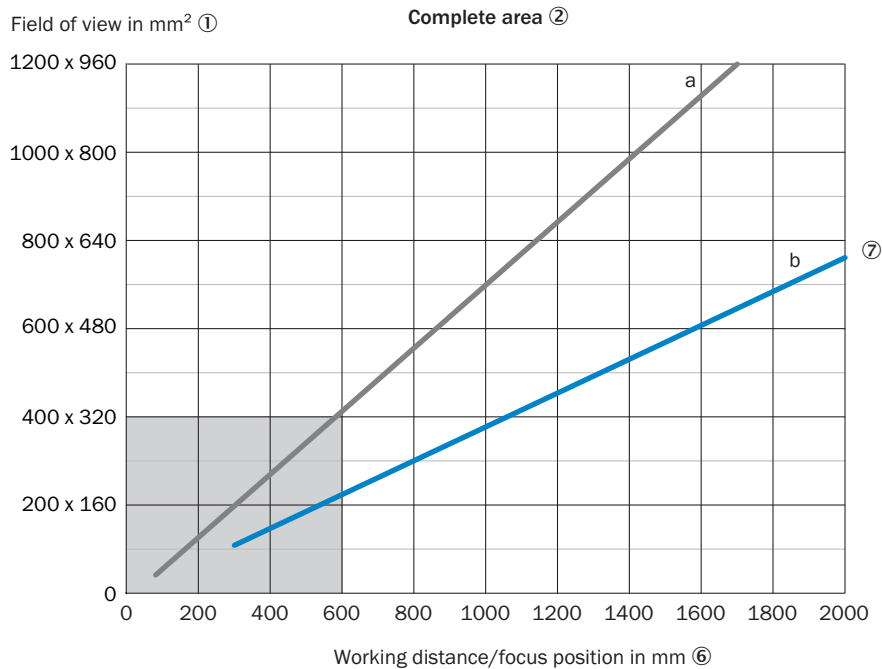
ETIM 8.0	EC002999
UNSPSC 16.0901	43211701

### Dimensional drawing (Dimensions in mm (inch))

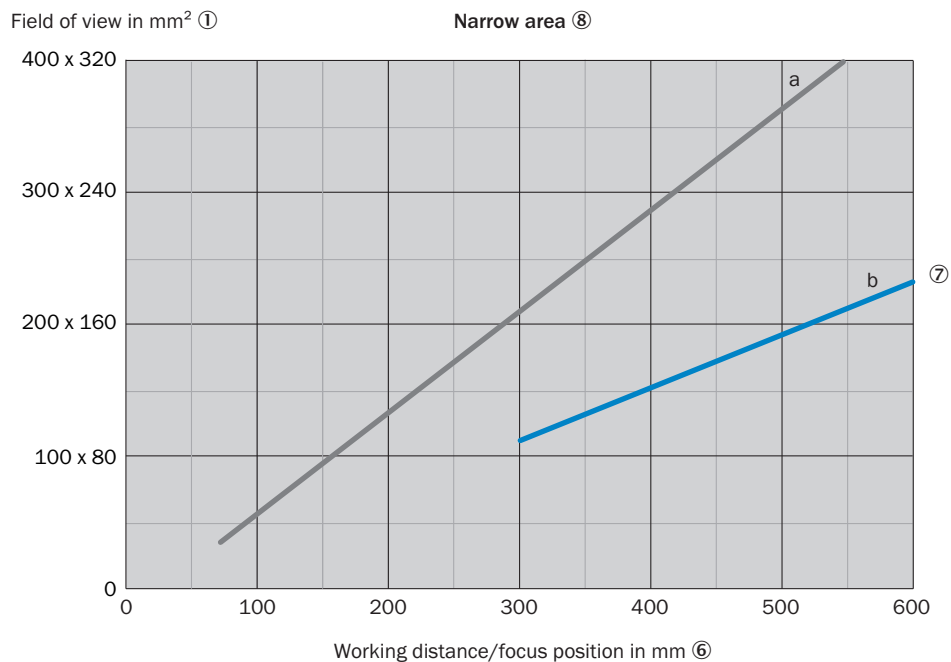
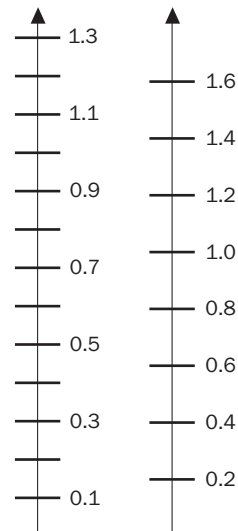


- ① M5 blind tapped holes, 5 mm deep (4 x), for mounting the sensor
- ② "Ethernet" connection, 4-pin M12 female connector, D-coded
- ③ "Power/Serial Data/CAN/I/O" connection, 17-pin M12 male connector, A-coded
- ④ Sliding nut M5, 5.5 mm deep (2 x), for mounting (as alternative)
- ⑤ Reading window with internal illumination LEDs (4 x)
- ⑥ Swivel connector unit
- ⑦ Bar graph
- ⑧ Beeper (under housing cover)
- ⑨ LEDs for status display (2 levels), 5 x
- ⑩ Function button (2 x)
- ⑪ Cover (flap)
- ⑫ "USB" connection (female connector, 5-pin, type Micro-B) interface for temporary use (service)
- ⑬ Slot for microSD memory card
- ⑭ LED for microSD memory card

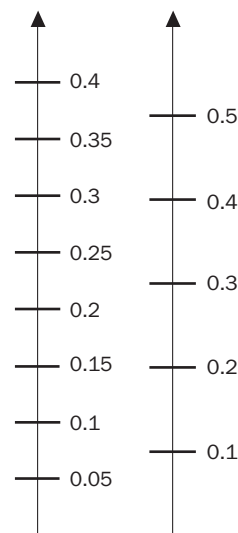
Field of view



Min. resolution in mm ③  
1D code ④ 2D code ⑤



Min. resolution in mm ③  
1D code ④ 2D code ⑤



— a: f = 9.6 mm  
— b: f = 17.1 mm







- ① Field of view in mm<sup>2</sup>
- ② Overall range
- ③ Minimum resolution in mm
- ④ 1D code
- ⑤ 2D code
- ⑥ Working distance/Focus position in mm

⑦ Focal length of lens, here example for  $f = 17.1$  mm

⑧ Close range

## Recommended accessories

Other models and accessories → [www.sick.com/Lector62x](http://www.sick.com/Lector62x)

	Brief description	Type	Part no.
<b>Mounting brackets and plates</b>			
	Bracket with adapter board	Mounting bracket	2042902
<b>Plug connectors and cables</b>			
	Head A: male connector, USB-A Head B: male connector, Micro-B Cable: USB 2.0, unshielded, 2 m	USB cable	6036106
	Head A: female connector, M12, 17-pin, straight Head B: male connector, D-Sub-HD, 15-pin, straight Cable: Power, serial, CAN, digital I/Os, shielded, 2 m	YF2Z1D-020XXXMHDAC	2055419
	Head A: female connector, M12, 17-pin, straight, A-coded Head B: male connector, M12, 17-pin, straight, A-coded Cable: Power, serial, CAN, digital I/Os, suitable for 2 A, shielded, 2 m	YM2A8D-020XXXF2A8D	6052286
	Head A: male connector, M12, 4-pin, D-coded Head B: male connector, M12, 4-pin, D-coded Cable: Ethernet, twisted pair, PUR, halogen-free, shielded, 2 m	YM2D24-020EA2M2D24	6034420
	Head A: male connector, M12, 4-pin, straight, D-coded Head B: male connector, RJ45, 4-pin, straight Cable: Ethernet, PROFINET, PUR, halogen-free, shielded, 2 m	YM2D24-020PN1MRJA4	2106182
<b>Modules</b>			
	<ul style="list-style-type: none"> <li><b>Sub product family:</b> CDB650</li> <li><b>Supported products:</b> Lector® series, CLV62x - CLV64x (depending on type), CLV69x, RFID read/write device</li> <li><b>Brief description:</b> 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.</li> </ul>	CDB650-204	1064114
	<ul style="list-style-type: none"> <li><b>Sub product family:</b> CDF600-2 PROFIBUS DP</li> <li><b>Supported products:</b> Lector® series, CLV61x - CLV65x, CLV69x, RFID read/write device, Mobile hand-held scanners</li> <li><b>Brief description:</b> Fieldbus proxy/gateway for connecting identification sensors to PROFIBUS-DP networks (PROFIBUS interface: 2 x M12, male connector/female connector, 5-pin)</li> </ul>	CDF600-2100	1058965
	<ul style="list-style-type: none"> <li><b>Sub product family:</b> CDF600-2 PROFIBUS DP</li> <li><b>Supported products:</b> Lector® series, CLV61x - CLV65x, CLV69x, RFID read/write device, Mobile hand-held scanners</li> <li><b>Brief description:</b> Fieldbus proxy/gateway for connecting identification sensors to PROFIBUS-DP networks (PROFIBUS interface: 1 x D-Sub, female connector, 9-pin)</li> </ul>	CDF600-2103	1058966

### Recommended services

Additional services → [www.sick.com/Lector62x](http://www.sick.com/Lector62x)

	Type	Part no.
Product, system, and software training		
<ul style="list-style-type: none"> <li>• <b>Range of services:</b> The training contents relate to the Lector® series, Training format and location can be worked out in collaboration with SICK</li> </ul>	Lector® series training	1612232
Commissioning		
<ul style="list-style-type: none"> <li>• <b>Product area:</b> Image-based code readers</li> <li>• <b>Range of services:</b> Inspection of connection, fine adjustment, optimization of parameters of SICK product as well as tests, Set-up of previously defined functions of possible Lector6xx illumination, code configuration, trigger and digital inputs, interfaces and digital outputs as well as data processing</li> <li>• <b>Travel expenses:</b> The prices do not include travel costs such as hotel, flight, travel time and expenses.</li> <li>• <b>Duration:</b> Additional work will be invoiced separately</li> </ul>	Commissioning Lector6xx	1608206
Maintenance		
<ul style="list-style-type: none"> <li>• <b>Product area:</b> Image-based code readers</li> <li>• <b>Range of services:</b> Inspection, analysis and restoring of defined functions, Inspection and adaptation of previously defined functions of possible Lector6xx illumination, code configuration, trigger and digital inputs, interfaces and digital outputs as well as data processing</li> <li>• <b>Duration:</b> Additional work will be invoiced separately</li> <li>• <b>Travel expenses:</b> The prices do not include travel costs such as hotel, flight, travel time and expenses.</li> </ul>	Maintenance Lector6xx	1611421
Performance check		
<ul style="list-style-type: none"> <li>• <b>Product area:</b> Image-based code readers</li> <li>• <b>Range of services:</b> Inspection of defined functions, e.g., reading performance</li> <li>• <b>Travel expenses:</b> The prices do not include travel costs such as hotel, flight, travel time and expenses.</li> <li>• <b>Duration:</b> Additional work will be invoiced separately</li> </ul>	Performance check Lector6xx	1608207
Warranty extensions		
<ul style="list-style-type: none"> <li>• <b>Product area:</b> Identification solutions, machine vision, Distance sensors, Detection and ranging solutions</li> <li>• <b>Range of services:</b> The services correspond to the scope of the statutory manufacturer warranty (SICK general terms and conditions of purchase)</li> <li>• <b>Duration:</b> Five-year warranty from delivery date.</li> </ul>	Extended warranty for a total of five years from delivery date	1680671



## SICK AT A GLANCE

SICK is one of the leading manufacturers of intelligent sensors and sensor solutions for industrial applications. A unique range of products and services creates the perfect basis for controlling processes securely and efficiently, protecting individuals from accidents and preventing damage to the environment.

We have extensive experience in a wide range of industries and understand their processes and requirements. With intelligent sensors, we can deliver exactly what our customers need. In application centers in Europe, Asia and North America, system solutions are tested and optimized in accordance with customer specifications. All this makes us a reliable supplier and development partner.

Comprehensive services complete our offering: SICK LifeTime Services provide support throughout the machine life cycle and ensure safety and productivity.

For us, that is “Sensor Intelligence.”

## WORLDWIDE PRESENCE:

Contacts and other locations –[www.sick.com](http://www.sick.com)