V2D611D-MMSCE4

Lector61x

IMAGE-BASED CODE READERS

SICK
Sensor Intelligence.

V2D611D-MMSCE4 | Lector61x

IMAGE-BASED CODE READERS

Ordering information

Type	Part no.
V2D611D-MMSCE4	1110306

Other models and accessories ➜ www.sick.com/Lector61x

Detailed technical data

Features

Optical focus	Adjustable focus (manually)
Sensor resolution	1,280 px x 960 px
Light source	
Internal lighting	LED, Visible, Amber, 617 nm, ± 15 nm
Internal lighting	LED, Visible, blue, 470 nm, ± 15 nm
Feedback spot	LED, Visible, green, 525 nm, ± 15 nm
Feedback spot	LED, Visible, Red, 635 nm, ± 15 nm
Adjustment aid	LED, Visible, Red, 630 nm, ± 15 nm
Time-of-flight	Laser, invisible, infrared, 940 nm
LED class	1 (IEC 62471:2006-07, EN 62471:2008-09)
Laser class	1, complies with 21 CFR 1040.10 except for the tolerance according to "Laser Notice No. 5" from May 8, 2019 (IEC 60825-1:2014, EN 60825-1:2014)
Scanning frequency	40 Hz
Code resolution	0.02 mm [1]
Reading distance	50 mm … 300 mm [1] [2]
Lens	Integrated
Focal length	12 mm

[1] For details see reading field diagram.

[2] Valid for Data Matrix, PDF417, and 1D codes with good print quality.

Mechanics/electronics

Connection type	1 x M12, 17-pin male connector 1 x M12, 4-pin Ethernet female connector Circular plug-in connector
Supply voltage	12 V DC … 24 V DC, ± 15 %

Power consumption	Typ. 3.5 W
Output current	≤ 50 mA
Housing	Zinc diecast
Housing color	Light blue (RAL 5012)
Enclosure rating	IP54 (EN 60529, EN 60529/A2)
Protection class	III
Electrical safety	EN 62368-1
Weight	165 g
Dimensions (L x W x H)	50 mm x 40.3 mm x 29.6 mm

Performance

Readable code structures	1D codes, 2D codes, Stacked, direct-marked codes
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, Plessey Code, MSI/Plessey, Telepen, postal codes
2D code types	Data Matrix ECC200, GS1 Data-Matrix, PDF417, PDF417 Truncated, QR code, MaxiCode
Code qualification	On the basis of ISO/IEC 16022, ISO/IEC 15415, ISO/IEC 15416, ISO/IEC 18004
No. of codes per reading interval	1 ... 50
No. of characters per reading interval	500 (for multiplexer function in CAN operation)
Exposure time	≥ 60 µs
Automated parameter switching	✓

Interfaces

Ethernet	✓, TCP/IP
Function	Host, FTP (image transmission)
Data transmission rate	10/100 MBit/s
PROFINET	✓
Function	PROFINET Single Port
Data transmission rate	10/100 MBit/s
EtherNet/IP™	✓
Data transmission rate	10/100 MBit/s
Serial	✓, RS-232
Function	Host
Data transmission rate	0.3 kBaud ... 115.2 kBaud
CAN	✓
Function	SICK CAN sensor network CSN (master/slave, multiplexer/server)
Data transmission rate	20 kbit/s ... 1 Mbit/s
CANopen	✓
Data transmission rate	20 kbit/s ... 1 Mbit/s
Digital inputs	2 (physical, switching, "Sensor 1") "Sensor 2"
Digital outputs	3 (physical, switching, "Result 1" ... "Result 3")
Reading pulse	Digital inputs, non-powered, serial interface, Ethernet, CAN, auto pulse, presentation mode
Optical indicators	9 LEDs (6 status displays, 2 LED alignment aids, 1 feedback spot)
Control elements	1 pushbutton (select and start/stop functions)

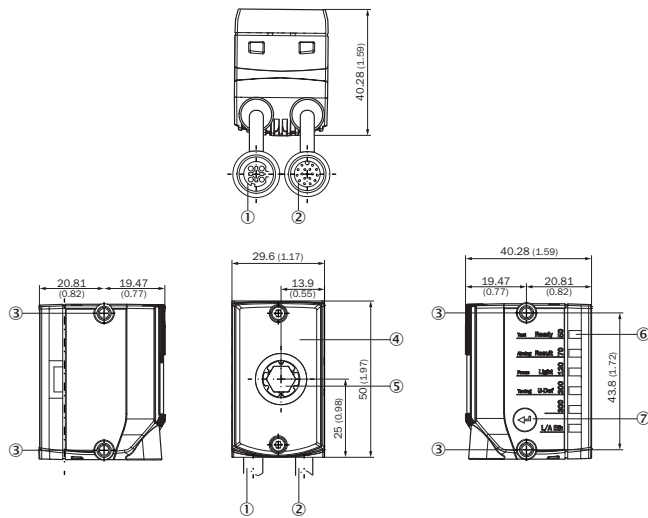| Operator interfaces	Web server
Configuration software	SOPAS ET
Data storage and retrieval	Image and data storage via external FTP
Maximum encoder frequency	300 Hz
External illumination control	Via digital output (max. 24 V trigger)

Ambient data

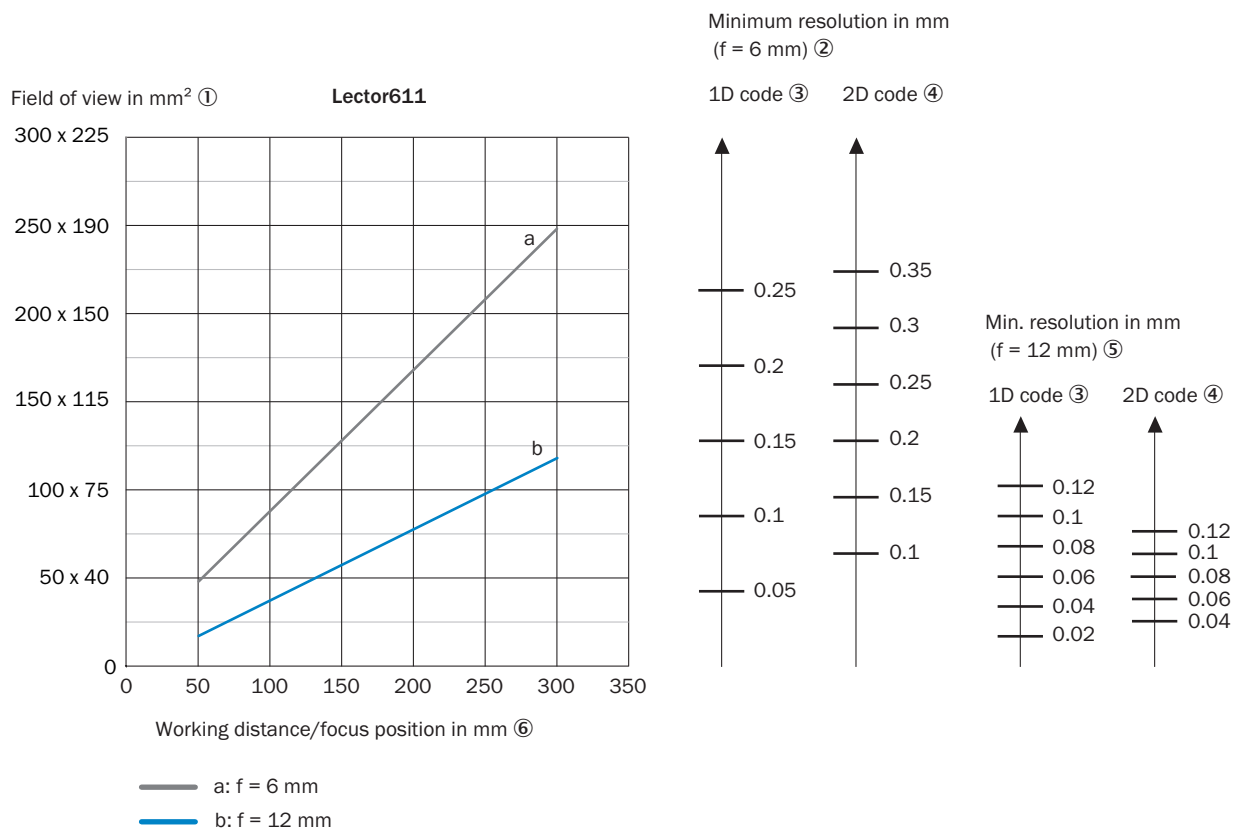| Electromagnetic compatibility (EMC)	EN 61000-6-3:2007+A1:2011 / IEC 61000-6-3:2006+AMD1:2010 EN 61000-6-2:2005-08
Vibration resistance	EN 60068-2-6:2008-02
Ambient operating temperature	0 °C ... +40 °C
Storage temperature	–20 °C ... +70 °C
Permissible relative humidity	90 %, Non-condensing

Classifications

ECl@ss 5.0	27280103
ECl@ss 5.1.4	27280103
ECl@ss 6.0	27280103
ECl@ss 6.2	27280103
ECl@ss 7.0	27280103
ECl@ss 8.0	27280103
ECl@ss 8.1	27280103
ECl@ss 9.0	27280103
ECl@ss 10.0	27280103
ECl@ss 11.0	27280103
ETIM 5.0	EC002550
ETIM 6.0	EC002550
ETIM 7.0	EC002999
UNSPSC 16.0901	43211701

Dimensional drawing (Dimensions in mm (inch))

① Connecting cable with "Ethernet" connection (female connector, M12, 4-pin, D-coded), length of cable: 0.25 m
② Connecting cable with "Power/Serial Data/CAN/I/O" connection (male connector, M12, 17-pin, A-coded), length of cable: 0.35 m
③ 4 x M4 blind tapped holes, 6.4 mm deep for mounting the device
④ Viewing window with 8 integrated illumination LEDs, 2 LED alignment aids, 1 feedback LED, 1 time-of-flight sensor
⑤ Optics, manual focus adjustment with the help of a focus adjustment tool
⑥ 6 status LEDs to display the focus position and working distance, device status and device function (3 display levels)
⑦ Function key

Field of view

Field of view in mm² ①   **Lector611**

300 x 225

250 x 190

200 x 150

150 x 115

100 x 75

50 x 40

0

0   50   100   150   200   250   300   350

Working distance/focus position in mm ⑥

Minimum resolution in mm
(f = 6 mm) ②

1D code ③   2D code ④

Min. resolution in mm
(f = 12 mm) ⑤

1D code ③   2D code ④

—— a: f = 6 mm
—— b: f = 12 mm

① Field of view in mm2
② Minimum resolution in mm (f = 6 mm)
③ 1D code
④ 2D code
⑤ Minimum resolution in mm (f = 12 mm)
⑥ Working distance/Focus position in mm

Recommended accessories

Other models and accessories ➜ www.sick.com/Lector61x

	Brief description	Type	Part no.
Plug connectors and cables			
	Head A: male connector, M12, 4-pin, straight, D-coded Head B: male connector, RJ45, 8-pin, straight Cable: Ethernet, twisted pair, PUR, halogen-free, shielded, 2 m	YM2D24-020EA1MRJA4	6034414
	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
Modules			
	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.	CDB650-204	1064114

Recommended services

Additional services ➜ www.sick.com/Lector61x

	Type	Part no.
Warranty extensions		
• **Product area:** Identification solutions, machine vision, Distance sensors, Detection and ranging solutions • **Range of services:** The services correspond to the scope of the statutory manufacturer warranty (SICK general terms and conditions of purchase) • **Duration:** Five-year warranty from delivery date.	Extended warranty for a total of five years from delivery date	1680671
Product, system and software training		
• **Range of services:** The training contents relate to the Lector® series, Training format and location can be worked out in collaboration with SICK • **Duration:** The fixed price includes the specific training services agreed upon, the fixed price includes the work time required for the training services and depends on the range of services, Additional work will be invoiced separately	Lector® series training	1612232
Commissioning		
• **Product area:** Image-based code readers • **Range of services:** Inspection of connection, fine adjustment, optimization of parameters of SICK product as well as verification 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 • **Travel expenses:** The prices do not include travel costs such as hotel, flight, travel time and expenses. • **Duration:** Additional work will be invoiced separately	Commissioning Lector6xx	1608206
Maintenance		
• **Product area:** Image-based code readers • **Range of services:** 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 • **Travel expenses:** The prices do not include travel costs such as hotel, flight, travel time and expenses. • **Duration:** Additional work will be invoiced separately	Maintenance Lector6xx	1611421
Performance check		
• **Product area:** Image-based code readers • **Range of services:** Inspection of defined functions, e.g., reading performance • **Travel expenses:** The prices do not include travel costs such as hotel, flight, travel time and expenses. • **Duration:** Additional work will be invoiced separately	Performance check Lector6xx	1608207

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:

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