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DATA SHEET

V2D611R-MLSBE5

Lector61x
Image-based code readers

SICK Sensor Intelligence



IMAGE-BASED CODE READERS

V2D611R-MLSBE5

ORDERING INFORMATION

Type	part no.
V2D611R-MLSBE5	1144346

Further device versions and accessories at www.sick.com/Lector61x

DETAILED TECHNICAL DATA

FEATURES

Technology	2D snapshot, Image-based code reading
Variant	Complete device
Optical focus	Teach auto focus (Liquid lens)
Sensor	CMOS monochrome
Sensor resolution	1,280 px x 960 px (1.2 MP)
Illumination	Integrated
Illumination color	Amber, LED, Visible, 617 nm, ± 15 nm Blue, LED, Visible, 470 nm, ± 15 nm
LED class	1 (IEC 62471:2006-07, EN 62471:2008-09)
Feedback spot	LED, Visible, green, 525 nm, ± 15 nm LED, Visible, Red, 635 nm, ± 15 nm
Alignment aid	LED, Red, 630 nm, ± 15 nm
Laser class	1, complies with 21 CFR 1040.10 except for the conformance according to “Laser Notice No. 56” from May 8, 2019 (IEC 60825-1:2014, EN 60825-1:2014+A11:2021)
Lens	
Focal length	6 mm
Scanning frequency	40 Hz
Code resolution	0.05 mm [1]
Working range	50 mm ... 300 mm [1] [2]

[1] For details see reading field diagram.

[2] With internal illumination, can be extended to longer distances when using external illumination.

MECHANICS/ELECTRONICS

Connection type	1 x Cable with M12 male connector, 17-pin 1 x Cable with M12 Ethernet socket, 4-pin Circular plug-in connector
Supply voltage	12 V DC ... 24 V DC, ± 15 %
Power consumption	Typ. 3.5 W

Output current	≤ 50 mA
Housing material	Zinc diecast
Housing color	Light blue (RAL 5012)
Window material	Plastic
Enclosure rating	IP65 (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
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	Data interface (read result output), 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
EtherCAT®	✓
Type of fieldbus integration	Optional over external fieldbus module CDF600 and adapter cable 2127037
Serial	✓, RS-232
Function	Data interface (read result output)
Data transmission rate	0.3 kBaud ... 115.2 kBaud
CAN	✓
Function	SICK CAN sensor network CSN (CAN controller/CAN device, 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
EncoderFrequency	Max. 300 Hz
External illumination control	Via digital output (max. 24 V trigger)

AMBIENT DATA

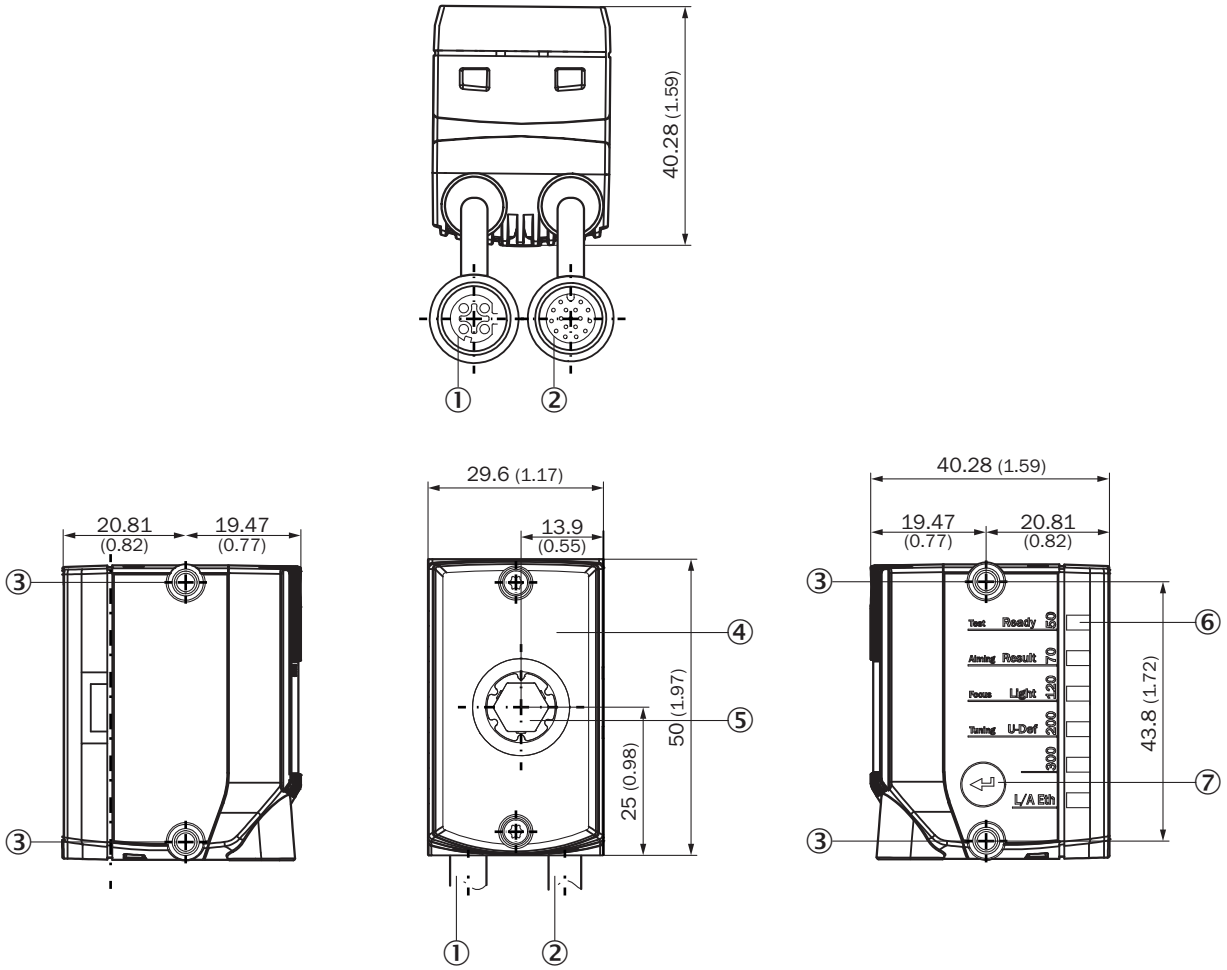
Electromagnetic compatibility (EMC)	EN 61000-6-3:2007+A1:2011 EN 61000-6-2:2005-08
Vibration resistance	EN 60068-2-6:2008-02
Shock resistance	EN 60068-2-27:2009-05
Ambient operating temperature	0 °C ... +40 °C [1]
Storage temperature	–20 °C ... +70 °C
Relative humidity	90 %, Non-condensing

[1] To use the product at the maximum ambient operating temperature, mount it with an aluminum mounting bracket (e.g., part number 2113160, 2112790).

CERTIFICATES

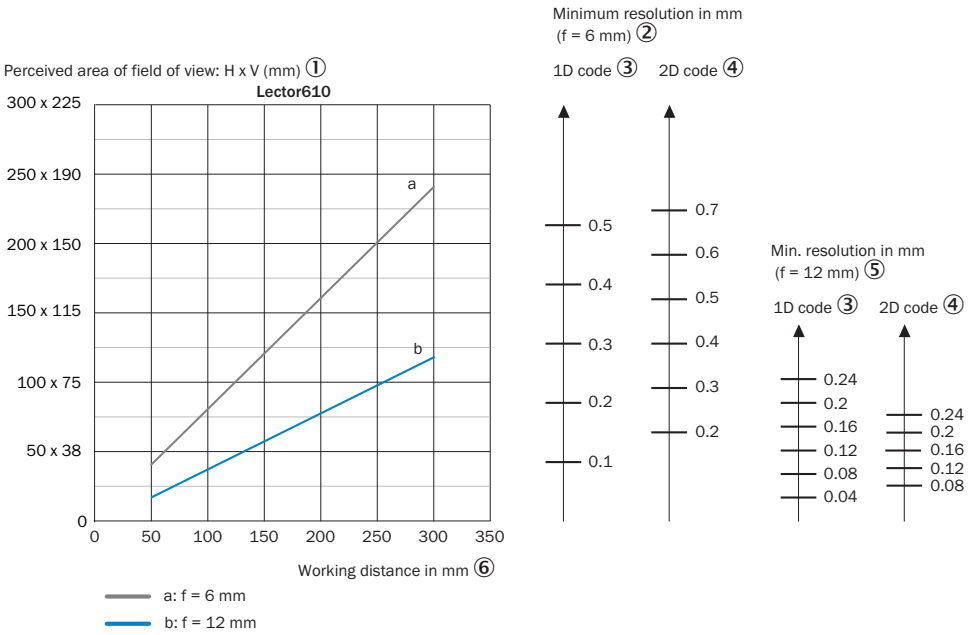
EU declaration of conformity	✓
UK declaration of conformity	✓
ACMA declaration of conformity	✓
China RoHS	✓
cULus certificate	✓
Profinet certificate	✓
ESD conformity	✓
Information according to Art. 3 of Data Act (Regulation EU 2023/2854)	✓

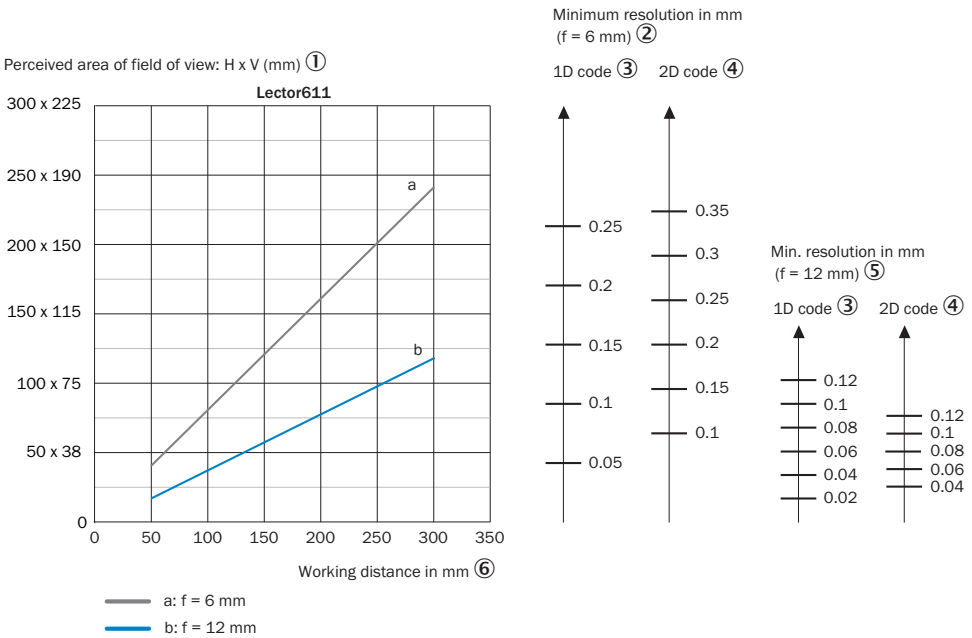
DIMENSIONAL DRAWING



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





① perceived field of view area: horizontal x vertical (mm)
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 in mm

Further information as well as suitable accessories, example applications and downloads such as CAD dimensional models, operating instructions and software can be found at www.sick.com/1144346

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SICK AT A GLANCE

SICK is a leading global technology company for intelligent sensors and integrated solutions in industrial automation. Our technologies set benchmarks, making your industrial processes more efficient, safer and more sustainable – both in logistics and manufacturing operations.

SICK combines sensor intelligence with industry expertise and certified consulting services. We provide the ideal foundation for scalable as well as tailor-made automation solutions and create added value along the entire value chain. Our close partnerships with our customers are more than just a promise: Together, we optimize productivity, improve quality, protect health and safety, and help build a sustainable future. All with empathy and trust.

Since 1946, we have been developing innovative technologies with passion and a pioneering spirit. With a global network in around 40 countries, SICK has a global presence and is always close by. The company's headquarters are located in Waldkirch near Freiburg, Germany. Our customers benefit from our understanding of both local and global requirements, which enables us to deliver tailor-made solutions

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