



V2D632R-MXSXB0

Lector63x

IMAGE-BASED CODE READERS

SICK
Sensor Intelligence.



Ordering information

| Type | part no. |
|----------------|----------|
| V2D632R-MXSXB0 | 1067380 |

Other models and accessories → www.sick.com/Lector63x



Detailed technical data

Features

| | |
|---------------------------|---|
| Variant | Main unit |
| Optical focus | Adjustable focus (manual) |
| Sensor | CMOS monochrome |
| Sensor resolution | 1,600 px x 1,200 px (1.9 MP) |
| Illumination | To be ordered separately as accessories |
| Alignment aid | Laser, Red, 630 nm ... 680 nm |
| Laser class | 1, Complies with 21 CFR 1040.10 and 1040.11 except for conformance with IEC 60825-1 Ed.3., as described in "Laser Notice No. 56" dated May 8, 2019 (IEC 60825-1:2014, EN 60825-1:2014+A11:2021) |
| Lens | S-mount |
| Optical format | 1/1.8" |
| Note | To be ordered separately as accessories |
| Scanning frequency | ≤ 50 Hz, at 1.9 megapixels resolution |
| Code resolution | ≥ 0.1 mm ¹⁾ |
| Working range | 50 mm ... 2,200 mm ^{2) 3)} |

¹⁾ Depends on lens used, for details see field of view diagram.

²⁾ Depends on lens used.

³⁾ For details see field of view diagram.

Mechanics/electronics

| | |
|------------------------|--|
| Connection type | 1 x M12, 17-pin plug (serial, CAN, I/Os, power supply) 1 x M12, 8-pin socket (Ethernet, 1 GBit/s) |
|------------------------|--|

¹⁾ Housing only, without lens and optics protection hood.

| | |
|-------------------------------|--|
| | 1 x M8, 4-pin socket (USB) 1 x M12, 4-pin socket (external illumination control) |
| Supply voltage | 12 V DC ... 24 V DC, ± 20 % |
| Power consumption | Typ. 10 W, ± 20 % |
| Output current | ≤ 100 mA |
| Housing material | Aluminum die cast |
| Window material | Plastic (To be ordered separately as accessories) Glass (To be ordered separately as accessories) |
| Enclosure rating | IP67 (EN 60529 (1991-10), EN 60529/A2 (2002-02)) |
| Electrical safety | EN 60950-1 (2011-01) |
| Weight | + 430 g, without lens and connection cables |
| Dimensions (L x W x H) | 108 mm x 63.1 mm x 45.8 mm ¹⁾ |

¹⁾ Housing only, without lens and optics protection hood.

Performance

| | |
|---------------------------------|---|
| Readable code structures | 1D codes, Stacked, 2D 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, USPS (Postnet, Planet, USPS4SCB), Australian Post, Dutch KIX Post, Royal Mail, Swedish Post |
| 2D code types | Data Matrix ECC200, GS1 Data-Matrix, MaxiCode, QR code |
| Stacked code types | PDF417 |
| Code qualification | On the basis of ISO/IEC 16022, ISO/IEC 15415, ISO/IEC 18004 |

Interfaces

| | | |
|----------------------------|------------------------------|--|
| Ethernet | | ✓, TCP/IP |
| | Function | Data interface (read result output), Service interface, FTP (image transmission) |
| | Data transmission rate | 10/100/1,000 Mbit/s |
| PROFINET | | ✓ |
| | Function | PROFINET Single Port (integrated), PROFINET Dual Port (optional via external connection module CDF600-2) |
| | Data transmission rate | 10/100 MBit/s |
| EtherNet/IP™ | | ✓ |
| | Data transmission rate | 10/100/1,000 Mbit/s |
| Serial | | ✓, RS-232, RS-422 |
| | Function | Data interface (read result output), Service interface |
| | Data transmission rate | 0.3 kBaud ... 115.2 kBaud, AUX: 57.6 kBaud (RS-232) |
| CAN | | ✓ |
| | Function | SICK CAN sensor network CSN (CAN controller/CAN device, multiplexer/server) |
| | Data transmission rate | 250 kbit/s ... 500 kbit/s |
| PROFIBUS DP | | ✓ |
| | Type of fieldbus integration | Optional over external fieldbus module CDF600-2 |
| Digital inputs | | 4 ("Sensor 1", "Sensor 2", 2 inputs via optional CMC600 parameter memory in CDB650/CDM420) |
| Configurable inputs | | Encoder input, external trigger |

| | |
|--------------------------------------|---|
| Digital outputs | 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") |
| Configurable outputs | Good read, External illumination control, free configurable output condition, "device ready" |
| Reading pulse | Digital inputs, non-powered, serial interface, Ethernet, CAN, auto pulse, presentation mode |
| Optical indicators | 11 LEDs (5 status displays, 16 LEDs, 5 LED bar graphs, 1 green/red feedback spot) |
| Acoustic indicators | Beeper (configurable) |
| Control elements | 2 buttons (choose and start/stop functions) |
| Operator interfaces | Web server |
| Configuration software | SOPAS ET |
| Memory card | Micro SD memory card (flash card) max. 32 GB, optional |
| Data storage and retrieval | Image and data storage via microSD memory card and external FTP |
| EncoderFrequency | Max. 1 kHz |
| External illumination control | Via digital output (max. 24 V trigger) or external illumination connection |

Ambient data

| | |
|--|---|
| Electromagnetic compatibility (EMC) | EN 61000-6-2:2005-08 / EN 61000-6-4 (2007-01) + A1 (2011) |
| Vibration resistance | EN 60068-2-6:2008-02 |
| Shock resistance | EN 60068-2-27:2009-05 |
| Ambient operating temperature | 0 °C ... +50 °C |
| Storage temperature | -20 °C ... +70 °C |
| Relative humidity | 90 %, Non-condensing |

Certificates

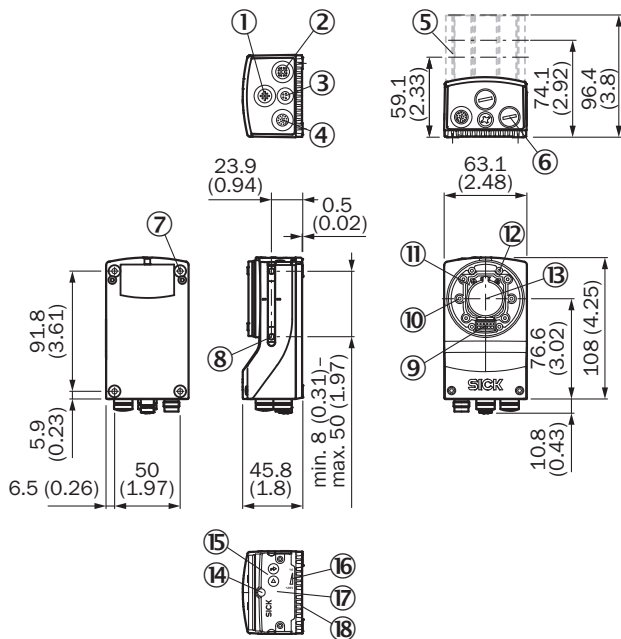
| | |
|--|---|
| EU declaration of conformity | ✓ |
| UK declaration of conformity | ✓ |
| ACMA declaration of conformity | ✓ |
| China RoHS | ✓ |
| cULus certificate | ✓ |
| KC Mark certificate | ✓ |
| Profinet certificate | ✓ |
| BIS registration | ✓ |
| Information according to Art. 3 of Data Act (Regulation EU 2023/2854) | ✓ |
| 4Dpro | ✓ |

Classifications

| | |
|---------------------|----------|
| ECLASS 5.0 | 27280103 |
| ECLASS 5.1.4 | 27280103 |
| ECLASS 6.0 | 27280103 |
| ECLASS 6.2 | 27280103 |
| ECLASS 7.0 | 27280103 |
| ECLASS 8.0 | 27280103 |
| ECLASS 8.1 | 27280103 |
| ECLASS 9.0 | 27280103 |

| | |
|-----------------------|----------|
| ECLASS 10.0 | 27280103 |
| ECLASS 11.0 | 27280103 |
| ECLASS 12.0 | 27280103 |
| ETIM 5.0 | EC002550 |
| ETIM 6.0 | EC002550 |
| ETIM 7.0 | EC002999 |
| ETIM 8.0 | EC002999 |
| UNSPSC 16.0901 | 43211701 |

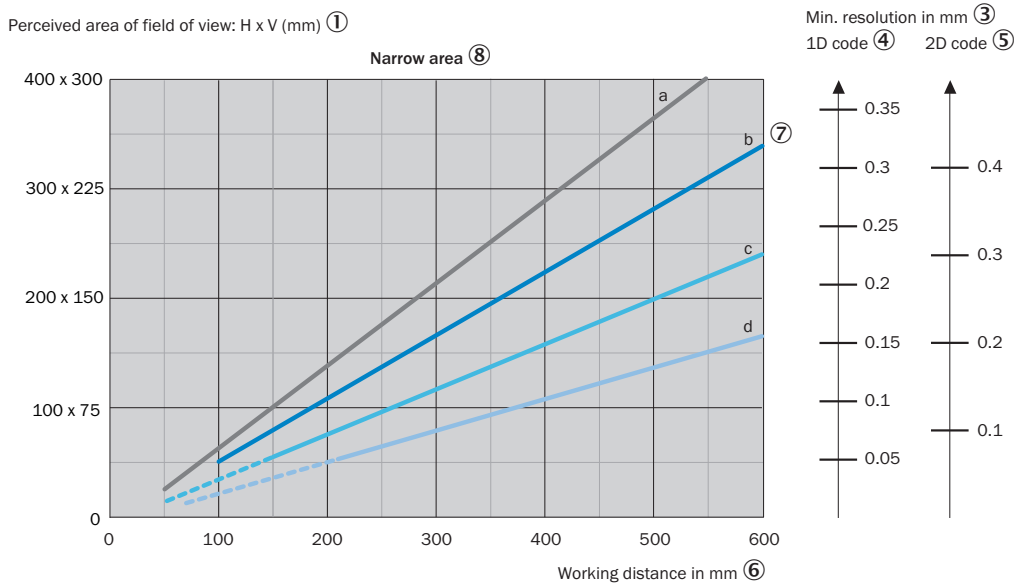
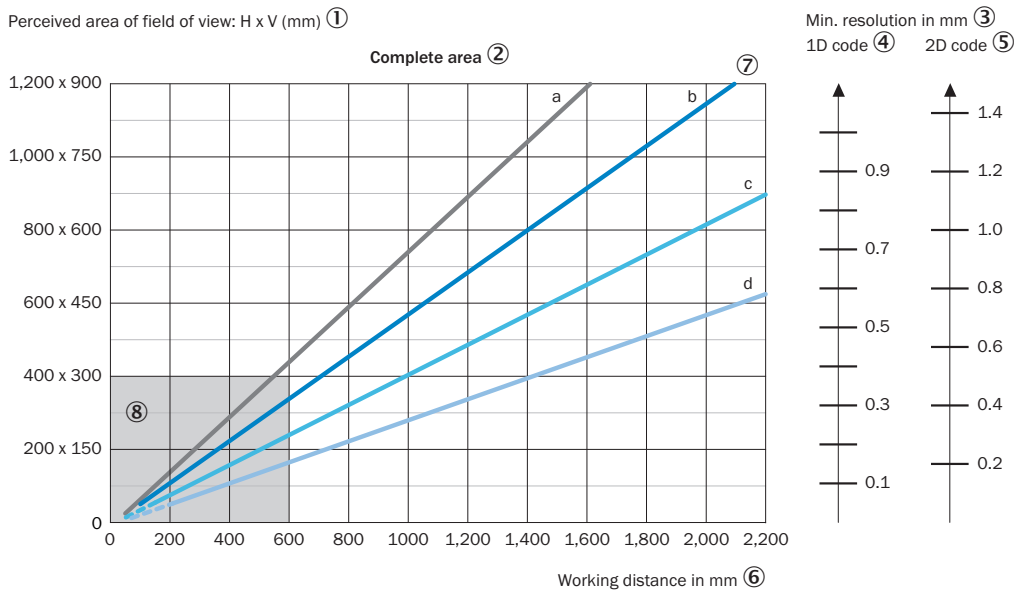
Dimensional drawing



Dimensions in mm (inch)

- ① "External light" connection (external illumination unit, female connector, M12, 4-pin, A-coded)
- ② "Ethernet" connection (Gigabit Ethernet, female connector, M12, 8-pin, X-coded)
- ③ "USB" connection (female connector, type M8, 4-pin), for temporary use as a service interface only
- ④ "Power/Serial Data/CAN/I/O" connection (male connector, M12, 17-pin, A-coded)
- ⑤ Optics protection hood (length: 22.7 mm, 37.7 mm or 60 mm)
- ⑥ 4 protective caps for sealing off the electrical connections as required for enclosure rating IP67 (delivery condition)
- ⑦ 4 tapped blind holes, M5, 5.5 mm deep for mounting the product
- ⑧ 2 M5 sliding nuts; 5.5 mm deep; pivoting; as an alternative method of mounting the product
- ⑨ Connection for an integrable illumination unit (VI55I ring illumination unit)
- ⑩ 2 laser alignment aids
- ⑪ S-mount or C-mount optics module
- ⑫ 4 blind tapped holes, 2.5 mm for mounting the spacers for the integrable illumination (VI55I ring illumination unit)
- ⑬ Optical axis and center of the image sensor
- ⑭ Basic device: Manual focus screw for an S-mount lens, accessible via the round opening in the housing cover. To secure the focus setting, cover the round opening with a self-adhesive label. Complete device: The opening is already covered by a label.
- ⑮ 2 function keys
- ⑯ 5 bar graph LEDs
- ⑰ Hinged cover on the top side of the device, access to the microSD memory card and the manual focus screw (S-mount)
- ⑱ 5 status LEDs (2 levels)

Field of view

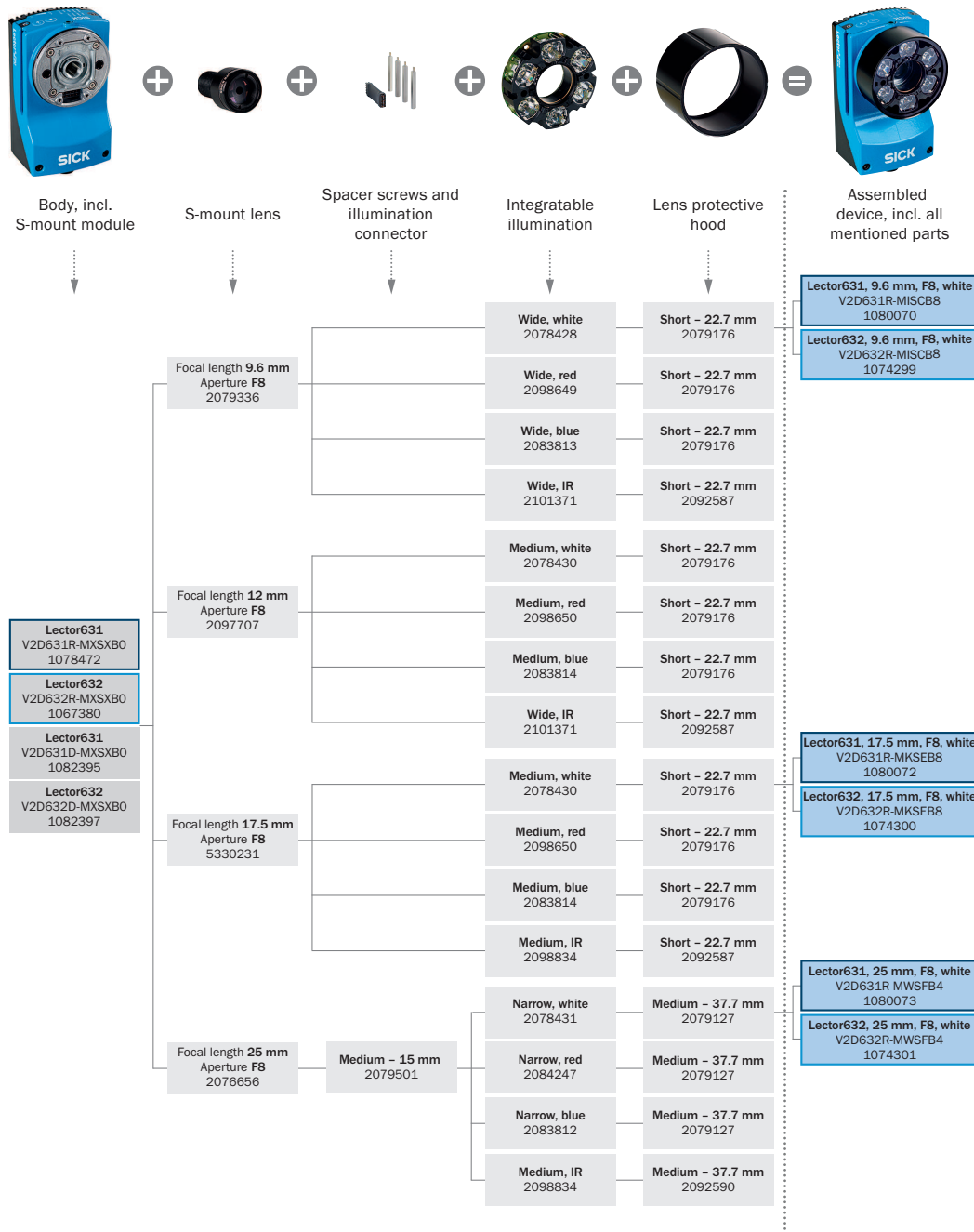


- a: f = 9.6 mm — c: f = 17.5 mm
- b: f = 12.5 mm — d: f = 25.0 mm
- - - Optional spacer rings required ⑨

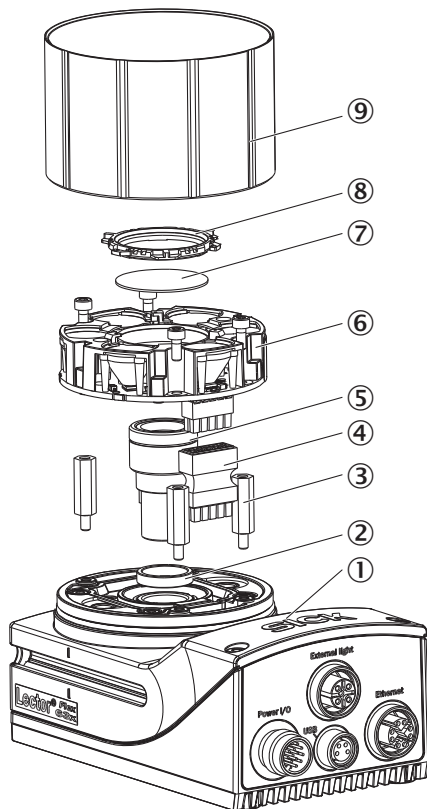
For S-mount and standard C-mount lenses, spacer rings are needed for working distances shorter than approximately 10 times the focal length. For compact C-mount lenses, spacer rings are not needed, but the built-in illumination cannot be used for distances shorter than 300 mm.

- ① perceived field of view area: horizontal x vertical (mm)
- ② complete area
- ③ Minimum resolution in mm
- ④ 1D code
- ⑤ 2D code
- ⑥ Working distance in mm
- ⑦ Focal length of lens, here example for f = 12.5 mm
- ⑧ Close range
- ⑨ Optional spacer ring required

Selection Guide Lector63x S-mount





Exploded view








- ① Camera housing
- ② Spacer for built-in illumination
- ③ Spacer ring (optional)
- ④ Plug connector for illumination
- ⑤ S-mount lens
- ⑥ Built-in illumination
- ⑦ Optical filter (optional)
- ⑧ Filter holder
- ⑨ optics protection hood

Recommended accessories

Other models and accessories → www.sick.com/Lector63x

| | Brief description | Type | part no. |
|---|--|-------------------------------|----------|
| reflectors and optics | | | |
|  | <ul style="list-style-type: none"> Description: Distance bracket and light extension connector (medium) for mounting integratable lighting, length 15 mm, used with compact C-mount lenses with focal length of 12 mm or 25 mm and S-mount lens with focal length 25mm | Distance bracket | 2079501 |
|  | <ul style="list-style-type: none"> Description: Optics protection hood, medium, enclosure rating IP 67, length: 37.7 mm, PMMA, for use with compact C-mount lens with focal length 12 mm or 25 mm and S-mount lens with focal length 25mm | Optics protection hood (PMMA) | 2079127 |

| | Brief description | Type | part no. |
|---|--|---------------------|----------|
| connectors and cables | | | |
|  | <ul style="list-style-type: none"> Description: Power, suitable for 2 A, shielded, Serial, CAN, Digital I/Os Connection type head A: Female connector, M12, 17-pin, straight, A-coded Connection type head B: Male connector, M12, 17-pin, straight, A-coded Signal type: Power, serial, CAN, digital I/Os Cable: 2 m, suitable for refrigeration | YM2A8D-020XXXF2A8D | 6053230 |
|  | <ul style="list-style-type: none"> Connection type head A: Male connector, M12, 8-pin, straight, X-coded Connection type head B: Male connector, RJ45, 8-pin, straight Signal type: Ethernet, Gigabit Ethernet Cable: 2 m, 8-wire, PUR, halogen-free Description: Ethernet, shielded, Gigabit Ethernet Application: Zones with oils and lubricants | YM2X18-020EG1M-RJA8 | 2106258 |
|  | <ul style="list-style-type: none"> Connection type head A: Male connector, M12, 8-pin, straight, X-coded Connection type head B: Male connector, RJ45, 8-pin, straight Signal type: Ethernet, Gigabit Ethernet Cable: 3 m, 8-wire, PUR, halogen-free Description: Ethernet, shielded, Gigabit Ethernet Application: Zones with oils and lubricants | YM2X18-030EG1M-RJA8 | 2145693 |
| Junction boxes | | | |
|  | | CDB650-204 | 1064114 |
| Mounting systems | | | |
|  | <ul style="list-style-type: none"> Description: Mounting bracket with screws, L-shaped for mounting with sliding nuts, includes angle indicator for adjusting the tilt angle Suitable for: Lector83x, Inspector83x, Lector63x, InspectorP63x, Lector83x, Inspector83x, Lector63x, InspectorP63x, Lector83x, Inspector83x, Lector63x, InspectorP63x, Lector83x, Inspector83x, Lector63x | Mounting bracket | 2078970 |

SICK AT A GLANCE

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