



# V2D621R-2MSFBB5

Lector62x

IMAGE-BASED CODE READERS

**SICK**  
Sensor Intelligence.



### 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>Variant</b>            | Complete device                                                                                                                                                                                 |
| <b>Optical focus</b>      | Teach auto focus                                                                                                                                                                                |
| <b>Sensor</b>             | CMOS monochrome                                                                                                                                                                                 |
| <b>Sensor resolution</b>  | 1,280 px x 1,024 px (1.3 MP)                                                                                                                                                                    |
| <b>Illumination</b>       | Integrated                                                                                                                                                                                      |
| <b>Illumination color</b> | Red, LED, Visible, 617 nm, ± 15 nm<br>Blue, LED, Visible, 470 nm, ± 15 nm                                                                                                                       |
| <b>LED class</b>          | 1 (IEC 62471:2006-07, EN 62471:2008-09)                                                                                                                                                         |
| <b>Feedback spot</b>      | LED, Visible, green, 525 nm, ± 15 nm                                                                                                                                                            |
| <b>Alignment aid</b>      | Laser, Red, 630 nm ... 680 nm                                                                                                                                                                   |
| <b>Laser class</b>        | 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) |
| <b>Lens</b>               |                                                                                                                                                                                                 |
|                           | Focal length 9.6 mm                                                                                                                                                                             |
| <b>Scanning frequency</b> | 50 Hz                                                                                                                                                                                           |
| <b>Code resolution</b>    | ≥ 0.05 mm <sup>1)</sup>                                                                                                                                                                         |
| <b>Working range</b>      | 70 mm ... 1,500 mm <sup>1)</sup>                                                                                                                                                                |

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

#### Mechanics/electronics

|                        |                                                                            |
|------------------------|----------------------------------------------------------------------------|
| <b>Connection type</b> | 1 x M12, 17-pin male connector<br>1 x M12, 4-pin Ethernet female connector |
|------------------------|----------------------------------------------------------------------------|

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

|                               |                                       |
|-------------------------------|---------------------------------------|
|                               | Circular plug-in connector            |
| <b>Supply voltage</b>         | 12 V DC ... 24 V DC, $\pm 20\%$       |
| <b>Power consumption</b>      | Typ. 4 W                              |
| <b>Housing material</b>       | Aluminum die cast                     |
| <b>Housing color</b>          | Light blue (RAL 5012)                 |
| <b>Window material</b>        | Plastic                               |
| <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>MTTFd</b>                  | 270 years                             |

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

### Safety-related parameters

|                         |           |
|-------------------------|-----------|
| <b>MTTF<sub>D</sub></b> | 270 years |
|-------------------------|-----------|

### 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                     | Data interface (read result output), Service interface, 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                     | Data interface (read result output), Service interface                                      |
| Data transmission rate       | 0.3 kBaud ... 115.2 kBaud, AUX: 57.6 kBaud (RS-232)                                         |
| <b>CAN</b>                   | ✓                                                                                           |
| Function                     | SICK CAN sensor network CSN (CAN controller/CAN device, 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>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>EncoderFrequency</b>              | Max. 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                                           |
| <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                                         |

## Certificates

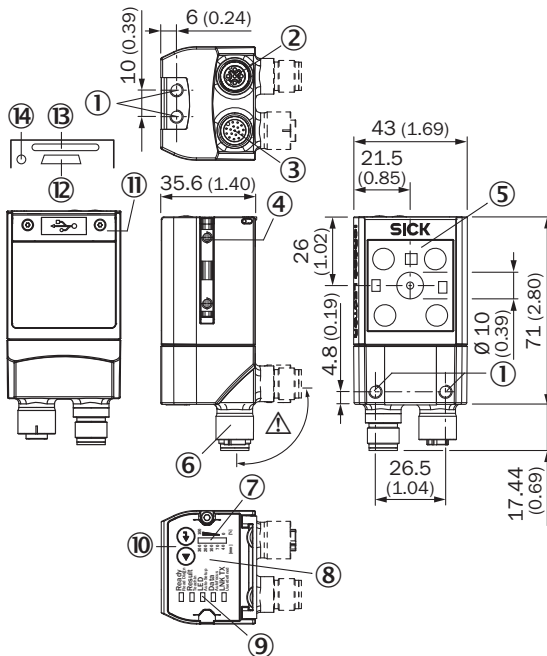
|                                                                              |   |
|------------------------------------------------------------------------------|---|
| <b>EU declaration of conformity</b>                                          | ✓ |
| <b>UK declaration of conformity</b>        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

## Classifications

|                     |          |
|---------------------|----------|
| <b>ECLASS 5.0</b>   | 27280103 |
| <b>ECLASS 5.1.4</b> | 27280103 |
| <b>ECLASS 6.0</b>   | 27280103 |
| <b>ECLASS 6.2</b>   | 27280103 |

|                       |          |
|-----------------------|----------|
| <b>ECLASS 7.0</b>     | 27280103 |
| <b>ECLASS 8.0</b>     | 27280103 |
| <b>ECLASS 8.1</b>     | 27280103 |
| <b>ECLASS 9.0</b>     | 27280103 |
| <b>ECLASS 10.0</b>    | 27280103 |
| <b>ECLASS 11.0</b>    | 27280103 |
| <b>ECLASS 12.0</b>    | 27280103 |
| <b>ETIM 5.0</b>       | EC002550 |
| <b>ETIM 6.0</b>       | EC002550 |
| <b>ETIM 7.0</b>       | EC002999 |
| <b>ETIM 8.0</b>       | EC002999 |
| <b>UNSPSC 16.0901</b> | 43211701 |

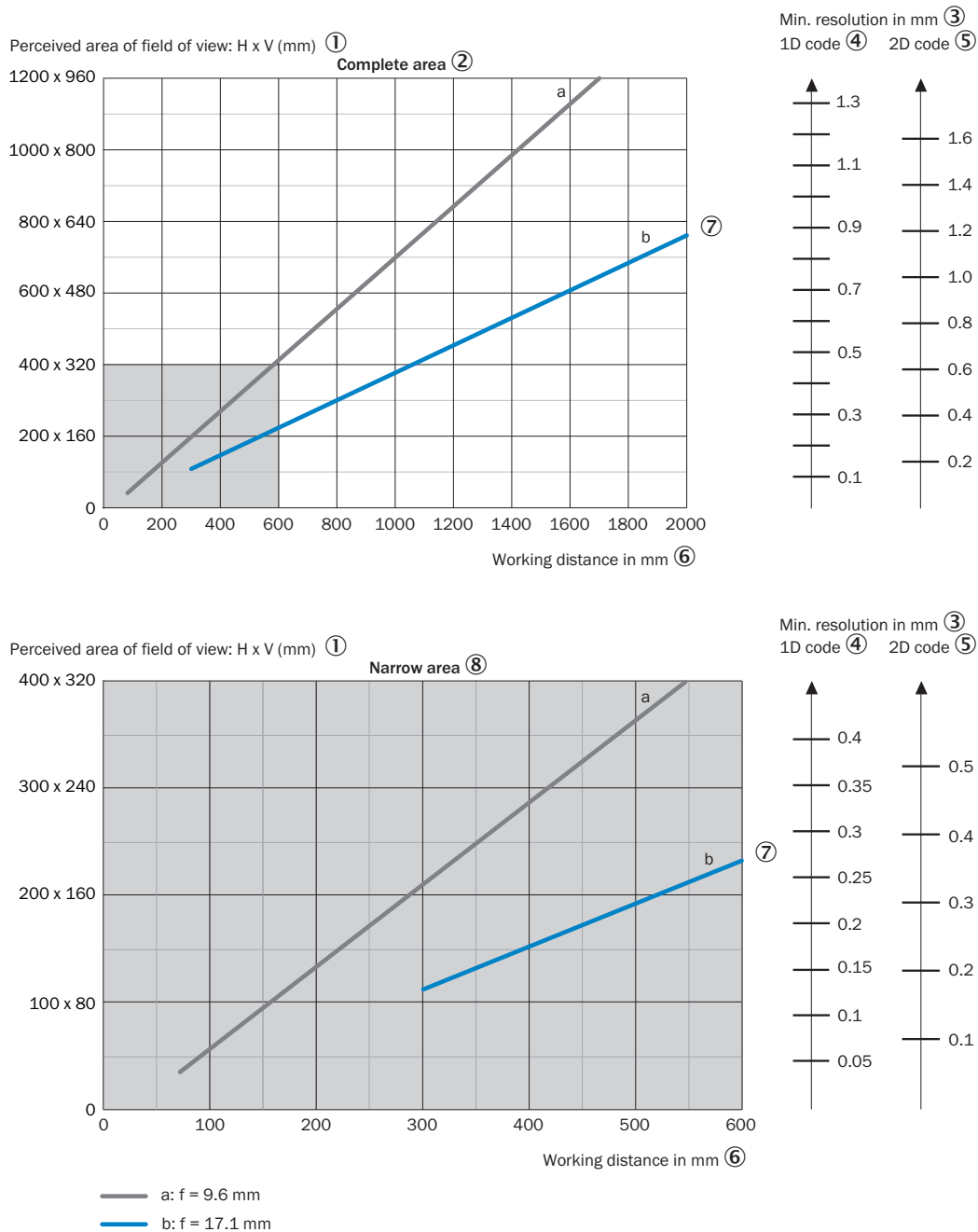
### Dimensional drawing



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



- 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 = 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. |
|-------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|----------|
| Mounting systems                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                     |          |
|    | <ul style="list-style-type: none"> <li><b>Description:</b> Bracket with adapter board</li> </ul>                                                                                                                                                                                                                                                                                                                                                               | Mounting bracket    | 2042902  |
| network devices                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                     |          |
|    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                | CDF600-2100         | 1058965  |
|    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                | CDF600-2103         | 1058966  |
| connectors and cables                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                     |          |
|    | <ul style="list-style-type: none"> <li><b>Description:</b> USB 2.0, unshielded</li> <li><b>Connection type head A:</b> Male connector, Micro-B, 4-pin, straight</li> <li><b>Connection type head B:</b> Male connector, USB-A, 4-pin, straight</li> <li><b>Signal type:</b> USB 2.0</li> <li><b>Cable:</b> 2 m, 4-wire</li> </ul>                                                                                                                              | YMUSA4-020VG4MUIA4  | 6036106  |
|   | <ul style="list-style-type: none"> <li><b>Connection type head A:</b> Male connector, M12, 4-pin, straight, D-coded</li> <li><b>Connection type head B:</b> Male connector, RJ45, 4-pin, straight</li> <li><b>Signal type:</b> Ethernet, PROFINET</li> <li><b>Cable:</b> 2 m, 4-wire, PUR, halogen-free</li> <li><b>Description:</b> Ethernet, shielded, PROFINET</li> <li><b>Application:</b> Drag chain operation, Zones with oils and lubricants</li> </ul> | YM2D24-020P-N1MRJA4 | 2106182  |
| Junction boxes                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                     |          |
|  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                | CDB650-204          | 1064114  |

## 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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