Operating Instructions

Lector® 64x Flex

Image-based code reader with manually adjustable focus

Correct use

The Lector® 64x Flex image-based code reader featuring a selectable application-specific optic kit (lens unit, integrable illumination unit with spacers plus optics protective hood) is an intelligent SICK IDpro sensor.

Variants of the Lector® 64x are the result of selecting and using the following accessories:
- Type and focal distance of lens unit
- Light color of integrable illumination unit
- Type and combination of electrical connections
- Device enclosure rating and type of material used for the reading window in the optics protective hood

About this document

The purpose of these operating instructions is to allow you to put the Lector® 64x Flex into operation quickly and easily and to achieve initial read results. These instructions describe a stand-alone application for a Lector® 64x Flex based on the default settings. The device used in this scenario could, for example, take the form of a Lector® 642 Flex (model name V2D642R-MDXX46; sensor resolution 1.7 meqapixels) plus optional optic kit 05. The kit comprises: C-mount lens unit with a focal distance of 50 mm, integrable Vi83I illumination (ring light) with white LED light, 2 spacers, and an IP 65 optics protective hood with a glass reading window.

Tools and aids required

- Two or four M5 screws for mounting the Lector® 64x on a bracket supplied by the customer. Screw length is dependent on the mounting base (wall thickness of bracket). When using optional SICK brackets, screws for the Lector® 64x are included with the brackets.

Mounting requirements

- The permissible ambient conditions for the operation of the Lector® 64x must be observed (e.g., ambient temperature, ground potential) see “Technical specifications (excerpt)”, page 5, “Pin assignments and lead color assignments of cables” see “Optical radiation”, page 3 and “Notes on device of Vi83I illumination unit”.
- During operation, the surface temperature of the Lector® 64x Flex (particularly on the rear of the device where the cooling fins are located) can reach 70°C.
- The following requirements must be met if the IP 65 enclosure rating is to be maintained during operation (otherwise, the device will no longer meet the conditions for any specified IP enclosure rating):
  - The optics protective hood must be screwed tight.
  - The black cover for the micro SD card slot (rear of device) must be screwed tight to the device.
  - The SICK cables plugged into the M12/M8 connections must be screwed tight.
  - Electrical connections that are not being used must be fitted with yellow protective caps/plugs, which must be screwed tight (as on delivery). Only operate the Lector® 64x without the cover for the micro SD card slot for a short period while inserting or removing the memory card. During this time, protect the device against moisture and dust.
- Opening the Lector® 64x camera housing, which is screwed closed – including the part that holds the electrical connections – will invalidate any warranty claims against SICK AG. For further warranty provisions, see the General Terms and Conditions of SICK AG, e.g., on the delivery note of the Lector® 64x.
- Data integrity; SICK AG uses standardized data interfaces, such as standard IP technology, in its products. The emphasis here is on the availability of products and their features. SICK AG always assumes that the integrity and the confidentiality of the data and rights which are affected by the use of these products will be ensured by the customer. In all cases, appropriate security measures, such as network separation, firewalls, virus protection and patch management, must be taken by the customer on the basis of the situation in question.

Commissioning and configuration

Scope of delivery

- The version of the Lector® 64x Flex (camera housing) ordered, with a C-mount threaded connection and two MS sliding blocks. Light inlet and electrical connections fitted with protective caps/plugs or covered by a protective sticker. Lens unit, illumination unit, optics protective hood, and connecting cables not included.
- Hexagon key, wrench size 2 for opening/closing the cover of the micro SD card slot and mounting the integrable illumination unit from the optic kit.
- SICK lens cloth no. 4003353
- Printed operating instructions in German (no. 8017446) and English (no. 8017447). Other language versions (if applicable) are available in PDF format from the online product page: www.mysick.com/en/lector64x
- Optional accessories, such as the optic kit, device bracket, and connecting cables, are only supplied if ordered separately.

Step 1: Mounting and alignment

Tools and aids required

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1. Mounting the lens unit

**NOTE**
Possible impairment of image quality!

Dust and fingerprints on optical boundary surfaces can reduce image quality and may also affect the decoding performance of the Lector®64x.

- When mounting the optic kit, always ensure that the environment is free of dust.
- Do not touch the image sensor (CMOS) in the light inlet opening of the Lector®64x or the glass lenses at either end of the lens unit.

**Items supplied, optic kit:**
- Application-specific lens unit
- Application-specific V83i illumination unit (ring light), laminated field appropriate for focal distance of lens
- Two spacers, one with a plated-through connection for the electrical connection
- Screws: 4 x M2.5 x 6 mm, 4 x M2.5 x 12 mm, all screws have a cylinder head with hexagon socket, wrench size 2
- IP 65 optics protective hood with screw thread and reading window

When mounting the optic kit on the camera housing, always ensure that there is no power to the system.

1. Mounting the lens unit

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- Do not touch the image sensor (CMOS) in the light inlet opening of the Lector®64x or the glass lenses at either end of the lens unit.

1. Place the camera housing on a nonslip base.
2. Remove the protective cap from the round light inlet.
3. If applicable, carefully insert the (optional) filter in the light inlet.
4. Screw the lens unit into the C-mount thread. This will also lock the optional filter in place at the same time (if applicable).

2. Mounting the illumination unit (ring light)

**Important!**
Illumination unit with LEDs in risk group RG 2

This illumination unit variant comes with a black and yellow self-adhesive warning label for visible optical radiation.

After mounting the optics protective hood, attach the warning label to the hood near the light emission. See also the No. 1 notes on device of V83i illumination unit (no. 8017270).

**NOTE**
Risk of damage due to electrostatic discharge!

Electrostatic discharge from the human body may cause damage to parts of the illumination unit or the camera housing. The illumination variant for lenses with a focal distance of 12 mm/16 mm does not feature any plastic lenses in front of the LEDs in the round recesses.

Further notes:
- For the electrical connection, please see the "Electrical Installation" chapter in the manual: www.mysick.com/en/lector64x
- For the field of view diagram, please see the CDB650-204 Technical Information (no. 8016185).

Taking account of the reading range

For the reading range, see "Field of view diagram", page 5.

**Taking account of the reading angle**

Selection of the skew angle, depending on the application

- Tilt the Lector®64x away from the plane that is perpendicular to the surface of the code to avoid any interfering reflections as possible. Typically, this skew angle will be between 10° and 20°.
- In the case of codes created on metal, e. g., by dot peening, a skew angle of between 0° (bright field light) and 45° (dark field light) may be advisable.
- For further information about aligning the field of view with the object, see the "Mounting" chapter of the Lector®64x/65x Technical Information (no. 8016185).

**Step 2: Electrical installation**

- Only skilled electricians with appropriate training and qualifications are permitted to perform electrical installation.
- Standard safety requirements must be met when working with electrical systems.
- Electrical connections between the Lector®64x and other devices may only be made or disconnected when there is no power to the system. Otherwise, the devices may be damaged.

- Where connecting cables with one end open are concerned, make sure that bare wire ends are not touching (risk of short circuit when the supply voltage is switched on). Wires must be appropriately insulated from each other.
- Wire cross sections of the supply cable from the customer’s power system should be designed and protected in accordance with the applicable standards. If the supply voltage for the Lector®64x is not supplied via the CDB650-204 connection module, the Lector®64x must be protected by a separate slow-blow fuse with a max. rating of 2.0 A. This fuse must be located at the start of the supply circuit.
- All circuits connected to the Lector®64x must be designed as SELV circuits (SELV = Safety Extra Low Voltage).

**DANGER**
Risk of injury/risk of damage due to electrical current!

The Lector®64x is designed to be operated in a system with professional grounding of all connected devices and mounting surfaces to the same ground potential. Incorrect grounding of the Lector®64x can result in equipotential bonding currents between the Lector®64x and other grounded devices in the system. This can lead to hazardous voltages being applied to the metal housing, cause devices to malfunction or sustain irreparable damage, and damage the cable shield as a result of heat rise, thereby causing cables to catch fire.

- Ensure that the ground potential is the same at all grounding points.
- If the cable insulation is damaged, disconnect the power supply immediately and have the damage repaired.
- See the "Electrical Installation" chapter in the Lector®64x/65x Technical Information (no. 8016185) that is available on the online product page: www.mysick.com/en/lector64x

1. Connect the communication interface of the Lector®64x to the PC (Ethernet or USB, depending on model).
2. Supply the Lector®64x with a voltage of DC 24 V ± 20 %.

**Diagram V2D64 FLEx | SICK**
Step 3: Configuration

The SOPAS ET configuration software is used by default to adapt the Lector®64x parameters to the application and to perform diagnostics in the event of an error. The Lector®64x supports this process by displaying the images it has recorded in the SOPAS ET software (requirement concerning SOPAS ET: V. 2.38 or higher).

Installing and starting the configuration software

1. Download and install the latest version of the SOPAS ET configuration software, as well as current device description files (*.xml), from the online product page for the software: www.mysick.com/en/SOPAS_ET by following the instructions provided there. In this case, select the “Complete” option as suggested by the install wizard. Administrator rights may be required on the PC to install the software.
2. Start the “Single Device” program option.
Path: Start > Programs > SICK > SOPAS Engineering Tool > SOPAS (Single Device)
3. Establish a connection between the software and the Lector®64x via Ethernet or USB (depending on model).
The connection wizard starts automatically so that you can do this.
4. The following IP address is configured by default on the Lector®64x:

5. Select the appropriate Lector®64x from the list of available devices:
SOPAS establishes communication with the Lector®64x and loads the associated device description file for the Lector®64x. The program window, which is divided into three sections, opens.

SOPAS Single Device program window

Wizard and Help | Image display | Configurations bars

Adjusting the brightness and sharpness on the lens unit

1. Set the aperture ring (upper ring) on the lens unit to a value of 8, which is an appropriate starting value. To increase the depth of field (value > 8) or the image quality (value > 8), this value may need to be adjusted in conjunction with the online image display.
2. Adjust the sharpness ring (lower ring) on the lens unit according to the approximate current distance of the object bearing the code until you can see a clear and non-distorted image of the code on the online image display.
The reference point for the reading distance is the center of the front window on the screwed-on optics protective hood (see adjacent figure on right). If the hood has been removed, the front edge of the illumination unit can be used instead.
3. If necessary, use the SHUTTER TIMER, BRIGHTNESS, and CONTRAST slider controls to optimize the brightness and contrast.
4. If you have trouble adjusting the sharpness on the lens unit, you may wish to activate the sharpness diagnostics bar on the bottom left of the display window. To do this, click the DISPLAY SHARPNESS check box.
5. Keep adjusting the sharpness setting on the lens unit until the color of the bar indicator changes to green.
6. Once the online image adjustment process has been successfully completed, use the locking screws to lock both adjustment rings of the lens unit in place.
7. Attach the round optics protective hood and screw it tight.

Continuing the configuration process

1. Make settings for additional functions during planned operation such as codes, reading trigger, read result formats, data interface, etc.
2. Go to the image display window (ONLINE IMAGE), click the OPERATION button, and test the settings in read mode (real operation).

3. Establish a connection between the software and the Lector®64x:
SOPAS establishes communication with the Lector®64x and loads the associated device description file for the Lector®64x. The program window, which is divided into three sections, opens.

SOPAS Single Device: Example of online image display once the device has been started with “Edit” mode and the field of view has been aligned with a code.

In this mode, the switching inputs and outputs are deactivated along with data output via the host interface.
7. Click the CAMERA & ILLUMINATION configuration bar. You can now access key parameters for fine adjustment of the brightness and sharpness.
8. Align the lens of the Lector®64x with the code.

In the ONLINE IMAGE window, click the EDIT button. The Lector®64x now starts recording images consecutively and uses the current settings to decode them. The effects of any lens adjustment or parameter changes in SOPAS are directly visible.

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Completing the configuration process

- Permanently save the entire configuration:
  Parameter set in Lector®64x: Click the button Configuration file on the PC: Click the button.

Important
To put the Lector®64x into operation on a network (e.g., CAN bus) together with other SICK products, select the “SOPAS” program option. Path: Start > Programs > SICK > SOPAS Engineering Tool > SOPAS.

Description of the device

Device design
Lector®64x (camera housing)

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3. If necessary, use the SHUTTER TIMER, BRIGHTNESS, and CONTRAST slider controls to optimize the brightness and contrast.
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7. Attach the round optics protective hood and screw it tight.

Continuing the configuration process

1. Make settings for additional functions during planned operation such as codes, reading trigger, read result formats, data interface, etc.
2. Go to the image display window (ONLINE IMAGE), click the OPERATION button, and test the settings in read mode (real operation).

Integrable illumination unit (accessory)

<table>
<thead>
<tr>
<th>Accessories</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Integrable illumination unit = 11 x LEDs</td>
</tr>
<tr>
<td>2</td>
<td>Feedback LED, green (e.g., to indicate “Good Read”), after a successful read operation (by default) it briefly generates a light spot on the object within the field of view</td>
</tr>
<tr>
<td>3</td>
<td>Opening in illumination unit for aiming laser (alignment), 1 x red laser LED, can be deactivated. Generates a red cross on the object within the field of view</td>
</tr>
</tbody>
</table>

CAUTION

Optical radiation!

Laser radiation class 1M:
The accessible beam from the aiming laser does not represent a risk due to the normal restrictions imposed by human behavior.

LED risk group 1:
The accessible radiation from the illumination unit (RG 1) does not represent a risk due to the normal restrictions imposed by human behavior.

LED risk group 2:
The accessible radiation from the illumination unit (RG 2) does not represent a risk due to aversion responses to very bright light sources and the perception of heat.

For both types of radiation:

It is not possible to entirely rule out temporary, disorientating optical effects on the human eye (e.g., dazzle, flash blindness, afterimages, impairment of color vision), in particular in conditions of dim lighting. No safety precautions are required.

Caution – Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

- Do not look into the light source when it is switched on.
- LED risk group 2: CAUTION – Possibly hazardous visible radiation. During operation do not intentionally look into the illumination unit for long periods. May be harmful to the eyes.
- Do not look at the laser directly with optical instruments (magnifiers).
- Comply with the latest version of the applicable standards on photobiological safety of lamps and lamp systems as well as laser protection.
- If the product is operated in conjunction with external illumination systems, the risks described here may be exceeded. This must be taken into consideration by users on a case-by-case basis.
Status indicators, functions

LED status indicators, function buttons, and bar graph display

1. Return button
2. Arrow button

Status indicators on the first display level

<table>
<thead>
<tr>
<th>Display</th>
<th>LED</th>
<th>Color</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ready</td>
<td>G</td>
<td>Green</td>
<td>Device ready to read</td>
</tr>
<tr>
<td></td>
<td>R</td>
<td>Red</td>
<td>Hardware or software error</td>
</tr>
<tr>
<td>Result</td>
<td>G</td>
<td>Green</td>
<td>Read operation successful</td>
</tr>
<tr>
<td></td>
<td>R</td>
<td>Red</td>
<td>Read operation unsuccessful</td>
</tr>
<tr>
<td>Light</td>
<td>G</td>
<td>Green</td>
<td>Read mode: illumination on, internal read gate open</td>
</tr>
<tr>
<td>Func</td>
<td>G</td>
<td>Green</td>
<td>Function can be defined by user</td>
</tr>
<tr>
<td></td>
<td>Y</td>
<td>Yellow</td>
<td>Function can be defined by user</td>
</tr>
<tr>
<td></td>
<td>B</td>
<td>Blue</td>
<td>Function can be defined by user</td>
</tr>
<tr>
<td></td>
<td>R</td>
<td>Red</td>
<td>Function can be defined by user</td>
</tr>
</tbody>
</table>

● = illuminated; ● = flashing

Status displays on the second display level

<table>
<thead>
<tr>
<th>Display</th>
<th>LED</th>
<th>Color</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tst (Test)</td>
<td>B</td>
<td>Blue</td>
<td>Test (reading diagnostics) selected</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Test started</td>
</tr>
<tr>
<td>Tch (Teach)</td>
<td>B</td>
<td>Blue</td>
<td>Teach-in selected (default: match code)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Teach-in started</td>
</tr>
<tr>
<td></td>
<td>G</td>
<td>Green</td>
<td>Teach-in successful</td>
</tr>
<tr>
<td></td>
<td>R</td>
<td>Red</td>
<td>Teach-in unsuccessful (match code default setting: unable to teach in any code)</td>
</tr>
<tr>
<td>A-S (Auto-Setup)</td>
<td>B</td>
<td>Blue</td>
<td>Auto-Setup selected</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Auto-Setup started</td>
</tr>
<tr>
<td></td>
<td>G</td>
<td>Green</td>
<td>Auto-Setup successfully finished</td>
</tr>
<tr>
<td></td>
<td>Y</td>
<td>Yellow</td>
<td>Auto-Setup partially successful (in at least one of the 3 parameter modules)</td>
</tr>
<tr>
<td></td>
<td>R</td>
<td>Red</td>
<td>Auto-Setup was unsuccessful</td>
</tr>
<tr>
<td>Usr (User)</td>
<td>G</td>
<td>Green</td>
<td>Function can be defined by user</td>
</tr>
<tr>
<td></td>
<td>Y</td>
<td>Yellow</td>
<td>Function can be defined by user</td>
</tr>
<tr>
<td></td>
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Test (reading diagnostics)

Percentage Evaluation: The Lector®64x records a series of images and uses the current reading performance settings to decode them. The read rate of the last 10 attempts is displayed in % in the bar graph display.

Teach-in

When you teach in a match code, the Lector®64x reads the code that is presented and saves it permanently (in accordance with the default setting) as a target code for future code comparisons during read mode. Pharmacode is only supported following activation with SOPAS.

Auto-Setup

The Lector®64x adjusts itself automatically to suit the lighting conditions and the quality of one code presented. It saves the calculated values permanently in accordance with the default setting.

Micro SD memory card (optional accessory)

Function

With the optional plug-in memory card, the Lector®64x backs up the last permanently modified parameter set externally as well (cloning). Furthermore, the Lector®64x can record optional images, e.g., when codes cannot be read (“No Read”) (for details of the parameter backup concept and other memory card functions, see the online help function of the Lector®64x).

An accessory memory card is not included in the scope of delivery.

To ensure that the memory card functions reliably, only use types approved by SICK (see www.mysick.com/en/lector64x). The Lector®64x supports memory cards up to max. 16 GB. The memory card has no write protection that can be activated.

Inserting the memory card

To avoid damaging the memory card, make sure there is no power to the Lector®64x when you insert or remove it. On the Lector®64x, the card slot can be accessed on the rear of the device. It is located behind the black cover above the device. To remove the memory card safely during operation, select the “Remove card!” option or if functions are started that need to access the memory card (e.g., image recording), do not remove the memory card/ do not switch off the supply voltage.

NOTE

Risk of data loss or irreparable damage to the memory card!

The Lector®64x does not signal when the card is being accessed (for read or write purposes) (unlike an electronic camera with a memory card).

If parameter values are changed on the Lector®64x using the SOPAS configuration software and the “permanent” option or if functions are started that need to access the memory card (e.g., image recording), do not remove the memory card/ do not switch off the supply voltage.

To remove the memory card safely during operation, select the “Remove card!” function under Avaxis Tools/MicroSD card in the configuration software SOPAS and wait for SOPAS to provide confirmation.
## Technical specifications (excerpt)

**Image sensor**
- Monochrome (gray scale value), application-specific
- USB Serial RS-232 Aux (57.6 kBd), for configuration/diagnosis

**Image memory**
- Internally 512 MB, externally on optional fieldbus module

**Reading distance**
- ≥ 0.1 mm, depending on lens unit

**Reading window**
- Monochrome (gray scale value), application-specific

**Digital switching inputs**
- 2 x physical, 2 x additional external via optional CMOS module in connection module CDB850-204 or CDM420-0006. 
- V<sub>in</sub> = max. 32 V, I<sub>in</sub> = max. 5 mA, opto-decoupled, reverse polarity protected, adjustable debounce time

**Digital switching outputs**
- 4 x physical, 2 x additional external via optional CMOS module in connection module CDB850-204 or CDM420-0006. 

**Focus**
- Manual adjustment of the sharpness and aperture on the optional lens unit

**Feedback LED**
- Optional, e.g., with the integrable V83i illumination unit: 1 x LED, visible light.
- Green (x = 525 ± 15 nm)

**USB**
- Version 1.1, compliant with the USB 2.0 specification

**Optional connections**
- Optional via external fieldbus module
- pROFIBus
- PROFINET IO

**Mechanical data**
- Lector®64x, the reading window in the optics protective frame: approx. 430 mm x 292 mm
- Table 1: Field of view diagram

### Table 2

<table>
<thead>
<tr>
<th>Device overview</th>
<th>Image sensor</th>
<th>Image sensor resolution</th>
<th>Electrical connections</th>
<th>Enclosure rating</th>
<th>Device type</th>
<th>Part no.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lector®64x Flex</td>
<td>1.7 Mpi</td>
<td>1,600 px x 1,088 px</td>
<td>Connection variant 1</td>
<td>IP 65</td>
<td>V2D642RM. MCOA6</td>
<td>1070119</td>
</tr>
</tbody>
</table>

### Interpreting the diagram

You can use the diagram to determine the following for a given lens focal distance:

- The maximum reading distance for a selected code resolution
- The dimensions of the available field of view

### Maintenance and care

The Lector®64x is maintenance-free. No maintenance is required in order to ensure compliance of the aiming laser with class 1M and LED risk group RG 1 or RG 2 for the integrable illumination unit.

- In order to obtain maximum reading performance from the Lector®64x, the reading window in the optics protective hood must be cleaned for contamination at regular intervals (e.g., weekly). This applies especially when using the Lector®64x in harsh environments (dust, abrasion, moisture, etc.). The reading window must be kept clean and dry for reading.
- If the reading window becomes contaminated, clean it carefully with a soft, moist (mild detergent) cloth.

#### Important!

If the reading window is scratched or damaged (cracked, broken), the optics protective hood must be replaced immediately using a spare part of identical design (reading window material). Static charge may cause dust particles to adhere to the reading window. This effect can be avoided by using the SICK anti-static plastic cleaner (no. 5600006) in combination with

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**For further technical specifications, see the Online data sheet on the online product page (www.mysick.com/en/lector64x).**
the SICK lens cloth (no. 4003353).

Transport and storage
Transport and store the camera housing of the Lector®64x and any optional optic kit in their original packaging, ensuring in the case of the former that the protective caps/plugs have been screwed onto the electrical connections. Do not store outdoors. To ensure that any residual moisture present can escape, do not store the camera housing in airtight containers. Do not expose to aggressive media (e.g., solvents such as acetone) or storage conditions: dry, dust-free, no direct sunlight, storage temperature -20°C to 70°C, as little vibration as possible, relative air humidity max. 90% (non-condensing).

Repair
Repair work on the camera housing of the Lector®64x may only be performed by qualified and authorized service personnel from SICK AG. Spare parts may be purchased to enable the replacement of any optic kit parts that have become defective (spacers are only available in pairs).

Disassembly and disposal

**WARNING**
Risk of burns due to hot device surface!
During operation, the surface of the Lector®64x housing (particularly the rear of the device) can reach temperatures of up to 70°C.
➢ Before commencing disassembly, switch off the device and allow it to cool down.

Any Lector®64x which can no longer be used at the end of its product life cycle must be disposed of in an environmentally-friendly manner in accordance with the country-specific waste disposal regulations that are applicable at the time. As it is categorized as electronic waste, the Lector®64x must never be disposed of with household waste! SICK AG is not currently able to take back devices that can no longer be used.

Sources for obtaining additional information

Additional information about the Lector®64x and its optional accessories can be found in electronic form on the following online product pages:

**Image-based code reader Lector®64x** ([www.mysick.com/en/lector64x](http://www.mysick.com/en/lector64x))

- Detailed technical specifications (online data sheet)
- EC declaration of conformity
- Dimensional drawing and 3D CAD dimension models in various electronic formats
- Field view diagrams
- Compatible accessories (including cables, brackets, trigger sensors, external illumination systems)
- Lector®64x Flex Operating Instructions in German (no. 8017446) and English (no. 8017447) and other languages if applicable

For details of the associated license texts that relate to the license overview provided below, please refer to the Lector®64x Technical Information, License Texts for Open-source Software (no. 8016467). This can be downloaded from the Lector®64x product page on the web:

[www.mysick.com/en/lector64x](http://www.mysick.com/en/lector64x)

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Source codes

The source codes licensed under GPL and LGPL can be ordered on CD-ROM from the responsible SICK national office. For contact details, see: www.sick.com/worldwide

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