



# CLV615-D2520

CLV61x

**FIXED MOUNT BARCODE SCANNERS**

**SICK**  
Sensor Intelligence.



### Ordering information

Type	Part no.
CLV615-D2520	1075150

Other models and accessories → [www.sick.com/CLV61x](http://www.sick.com/CLV61x)



### Detailed technical data

#### Features

<b>Version</b>	Long Range
<b>Connection type</b>	Cable
<b>Reading field</b>	Side (105°)
<b>Sensor type</b>	Line scanner
<b>Optical focus</b>	Fixed focus
<b>Light source</b>	Light spot, laser, Visible, Red, 655 nm
<b>Laser class</b>	2 (IEC 60825-1:2014, EN 60825-1:2014)
<b>Aperture angle</b>	≤ 50°
<b>Reading distance</b>	25 mm ... 330 mm <sup>1)</sup>
<b>Scanning frequency</b>	400 Hz ... 1,000 Hz
<b>Code resolution</b>	0.35 mm ... 0.5 mm

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

#### Mechanics/electronics

<b>Connection type</b>	1 x "POWER" connection, 5-pin M12 plug, A-coded 1 x "PROFINET P1" connection, 4-pin M12 female connector, D-coded 1 x "PROFINET P2" connection, 4-pin M12 socket, D-coded 1 x Micro USB female connector, type B
<b>Supply voltage</b>	10 V DC ... 30 V DC
<b>Power consumption</b>	5 W
<b>Housing</b>	Aluminum die cast
<b>Housing color</b>	Light blue (RAL 5012)
<b>Window material</b>	Glass
<b>Enclosure rating</b>	IP65 (DIN 40 050)
<b>Protection class</b>	III (VDE 0106/IEC 1010-1)

<sup>1)</sup> At 25 °C.

<b>Weight</b>	310.5 g
<b>Dimensions (L x W x H)</b>	80 mm x 96 mm x 38 mm
<b>MTBF</b>	100,000 h
<b>MTTF</b>	40,000 h (Laser diode) <sup>1)</sup>

<sup>1)</sup> At 25 °C.

### Performance

<b>Readable code structures</b>	1D codes
<b>Bar code types</b>	All current code types
<b>Code printing process</b>	Label (printed codes)
<b>Print ratio</b>	2:1 ... 3:1
<b>No. of codes per scan</b>	1 ... 10 (Standard decoder) 1 ... 6 (SMART620)
<b>No. of codes per reading interval</b>	1 ... 50 (auto-discriminating)
<b>No. of characters per reading interval</b>	1,500
<b>No. of multiple readings</b>	1 ... 99

### Interfaces

<b>PROFINET</b>	✓
Function	PROFINET Single Port, PROFINET Dual Port Service interface
Data transmission rate	2-port Ethernet in accordance with IEEE 802.3 (baud rate 100 MBit/s, full-duplex transmission, 2-port switch, auto-negotiation, auto-crossover). Maximum data length is limited by the mode of communication (fragmentation protocol) to 4,000 bytes.
<b>Digital inputs</b>	2 (1 x "Sensor 1", 1 x via PROFINET Ctrl bits)
<b>Digital outputs</b>	4 (via PROFINET Ctrl bits)
<b>Reading pulse</b>	Non-powered
<b>Optical indicators</b>	5 LEDs
<b>Configuration software</b>	SOPAS ET

### Ambient data

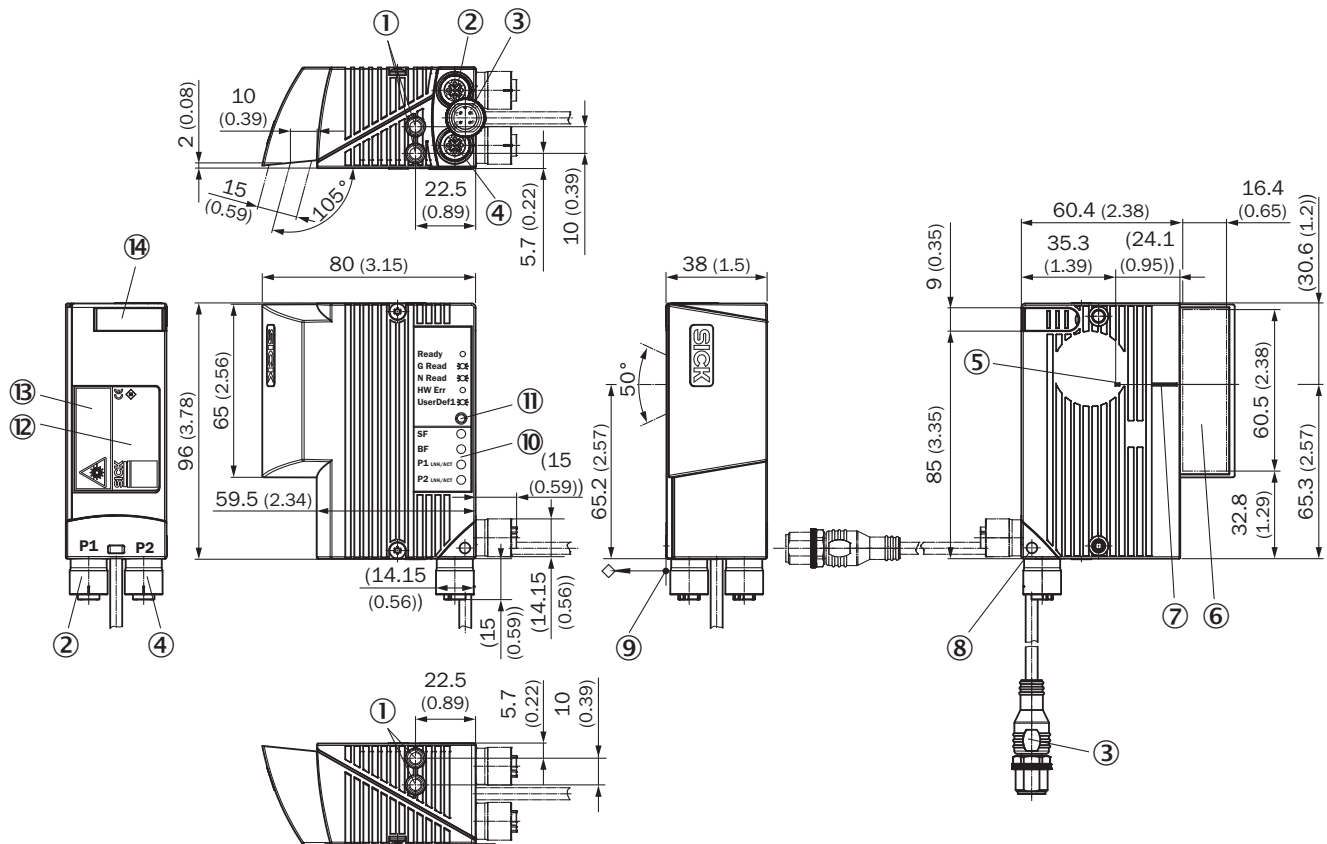
<b>Electromagnetic compatibility (EMC)</b>	EN 61000-6-4 (2007-01) + A1 (2011) / EN 61000-6-2:2005-08
<b>Vibration resistance</b>	EN 60068-2-6:2008-02
<b>Shock resistance</b>	EN 60068-2-27:2009-05
<b>Ambient operating temperature</b>	0 °C ... +40 °C
<b>Storage temperature</b>	-20 °C ... +70 °C
<b>Permissible relative humidity</b>	90 %, Non-condensing
<b>Ambient light immunity</b>	2,000 lx, on barcode
<b>Bar code print contrast (PCS)</b>	≥ 60 %

### Classifications

<b>ECLASS 5.0</b>	27280102
<b>ECLASS 5.1.4</b>	27280102
<b>ECLASS 6.0</b>	27280102
<b>ECLASS 6.2</b>	27280102
<b>ECLASS 7.0</b>	27280102

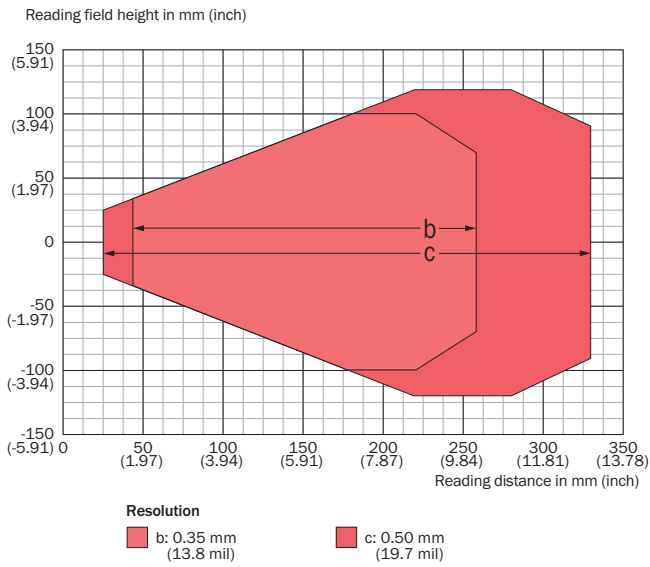
<b>ECLASS 8.0</b>	27280102
<b>ECLASS 8.1</b>	27280102
<b>ECLASS 9.0</b>	27280102
<b>ECLASS 10.0</b>	27280102
<b>ECLASS 11.0</b>	27280102
<b>ECLASS 12.0</b>	27280102
<b>ETIM 5.0</b>	EC002550
<b>ETIM 6.0</b>	EC002550
<b>ETIM 7.0</b>	EC002550
<b>ETIM 8.0</b>	EC002550
<b>UNSPSC 16.0901</b>	43211701

Dimensional drawing (Dimensions in mm (inch))








- ① Blind hole thread M5, 5 mm deep (2 x), for mounting
- ② P1 (Port 1) connection, 4-pin M12 female connector, D-coded
- ③ Acble (0.9 m) with POWER connection, 4-pin M12 male connector, A-coded
- ④ P2 (Port 2) connection, 4-pin M12 female connector, D-coded
- ⑤ Internal impact point: rotation point of the variable direction laser beam
- ⑥ Reading window, side orientation
- ⑦ Central position of the deflected laser beam in the V-shaped aperture angle
- ⑧ Swivel connector unit (max 180° rotation angle from end position to end position)
- ⑨ Reference point for reading distance (from housing edge to object)
- ⑩ LED (4 x), status indicator
- ⑪ RGB-LED (1 x), status display with signal color allocation for events
- ⑫ Type label
- ⑬ Laser warning label
- ⑭ Cover for USB port, 4-pin female connector, Micro B type




### Reading field diagram



### Recommended accessories

Other models and accessories → [www.sick.com/CLV61x](http://www.sick.com/CLV61x)

	Brief description	Type	Part no.
<b>Distributors</b>			
	<ul style="list-style-type: none"> <li><b>Note:</b> Male connector M12, 4-pin, straight, A-coded to 2 x female connector M12, 5-pin, straight, A-coded</li> </ul>	T-junctions	6058934
<b>Mounting brackets and plates</b>			
	Hanger-shaped mounting bracket, mounting hardware included	Mounting bracket	2042800
	Mounting bracket (simple bracket), mounting hardware included	Mounting bracket	2020410
<b>Plug connectors and cables</b>			
	<ul style="list-style-type: none"> <li><b>Connection type head A:</b> Female connector, M12</li> <li><b>Signal type:</b> Power</li> <li><b>Description:</b> Power, AS-i clip for connection on black Actuator Sensor Interface flat cable</li> </ul>	Actuator Sensor Interface, M12	6022472
<b>Terminal and alignment brackets</b>			
	Rod clamp for outer diameter of 12 ... 20 mm, mounting hardware included	Rod clamp	2042801

	Brief description	Type	Part no.
Others			
	<ul style="list-style-type: none"> <li>• <b>Connection type head A:</b> Male connector, USB-A</li> <li>• <b>Connection type head B:</b> Male connector, Micro-B</li> <li>• <b>Signal type:</b> USB 2.0</li> <li>• <b>Cable:</b> 2 m</li> <li>• <b>Description:</b> USB 2.0, unshielded</li> </ul>	USB cable	6036106
	<ul style="list-style-type: none"> <li>• <b>Connection type head A:</b> Flying leads</li> <li>• <b>Connection type head B:</b> Flying leads</li> <li>• <b>Signal type:</b> Power</li> <li>• <b>Cable:</b> 2-wire</li> <li>• <b>Description:</b> Power, unshielded, Black Actuator Sensor Interface flat cable for looping in the power supply to 4Dpro Ethernet sensors</li> <li>• <b>Note:</b> For use with connection clip 6022472</li> <li>• <b>Items supplied:</b> By the meter</li> </ul>	Actuator Sensor Interface, LTGE-MW	6022463
	<ul style="list-style-type: none"> <li>• <b>Connection type head A:</b> Female connector, M12, 4-pin, straight, A-coded</li> <li>• <b>Connection type head B:</b> Male connector, M12, 4-pin, straight, A-coded</li> <li>• <b>Signal type:</b> Power</li> <li>• <b>Cable:</b> 2 m, PUR</li> <li>• <b>Description:</b> Power, silicone-free, free of paint wetting impairment substances, shielded, For connecting to black AS-i flat ribbon cable for supplying power to CLV61x Dual Port</li> <li>• <b>Note:</b> For connecting a CLV61x Dual Port sensor to a connection chip (part no. 6022472) and flat cable (part no. 6022463)</li> </ul>	YX2A24-020UA4F2A24	6060279

## Recommended services

Additional services → [www.sick.com/CLV61x](http://www.sick.com/CLV61x)

	Type	Part no.
Performance check		
<ul style="list-style-type: none"> <li>• <b>Product area:</b> Fixed mount barcode scanners</li> <li>• <b>Range of services:</b> Inspection of defined functions, e.g., reading performance</li> <li>• <b>Travel expenses:</b> The prices do not include travel costs such as hotel, flight, travel time and expenses.</li> <li>• <b>Duration:</b> Additional work will be invoiced separately</li> </ul>	Performance check CLV4xx/CLV6xx	1682028
Commissioning		
<ul style="list-style-type: none"> <li>• <b>Product area:</b> Fixed mount barcode scanners</li> <li>• <b>Range of services:</b> Inspection of connection, fine adjustment, optimization of parameters of SICK product as well as tests, Setup of previously defined functions of reading configuration, code configuration, data processing and network, interfaces or inputs and outputs</li> <li>• <b>Travel expenses:</b> The prices do not include travel costs such as hotel, flight, travel time and expenses.</li> <li>• <b>Duration:</b> Additional work will be invoiced separately</li> </ul>	Commissioning CLV61x ... CLV64x	1681925
Extended warranty		
<ul style="list-style-type: none"> <li>• <b>Product area:</b> Identification solutions, machine vision, Detection and ranging solutions, safety camera sensors, Safety laser scanners, Safety radar sensors</li> <li>• <b>Range of services:</b> The services correspond to the scope of the statutory manufacturer warranty (SICK general terms of delivery).</li> <li>• <b>Duration:</b> Five-year warranty from delivery date.</li> </ul>	Extended warranty for a total of five years from delivery date	1680671

## 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:

Contacts and other locations –[www.sick.com](http://www.sick.com)