



V2D8505P-1MCXXXAF0SXXXX

Inspector85x

2D MACHINE VISION

**SICK**  
Sensor Intelligence.



### Ordering information

Type	Part no.
V2D8505P-1MCXXXAF0SXXXX	1139002

Other models and accessories → [www.sick.com/Inspector85x](http://www.sick.com/Inspector85x)



### Detailed technical data

#### Features

<b>Task</b>	Classification Identifying Position determination 1D code 2D code Presence inspection Quality check Measuring, 2D OCR
<b>Technology</b>	2D snapshot
<b>Product category</b>	Programmable
<b>SensorApp</b>	Nova InspectorP
<b>License included</b>	Intelligent Inspection License
<b>Expansion options</b>	The SICK Nova Tool plug-in enables customer-specific or new tools to be added. Development and customization of the tools is supported by SICK AppSpace and SICK AppStudio.
<b>License type</b>	The software is provided as a device license. A license is bound to a specific hardware ID.
<b>License period</b>	The license is issued without a time limit.
<b>Toolkit</b>	SICK algorithm API HALCON
<b>Sensor</b>	CMOS matrix sensor, grayscale values
<b>Shutter technology</b>	Global-Shutter
<b>Optical focus</b>	Adjustable focus (manually)
<b>Working distance</b>	500 mm ... 2,500 mm, depends on lens used <sup>1)</sup>
<b>Illumination</b>	To be ordered separately as accessories
<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 except for the conformance according to "Laser Notice No. 56" from May 8, 2019 (IEC 60825-1:2014, EN 60825-1:2014)
<b>Lens</b>	C-mount
	Optical format 1"

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

Note	To be ordered separately as accessories
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<sup>1)</sup> For details see field of view diagram.

## Mechanics/electronics

<b>Connection type</b>	1 x M12, 17-pin male connector, A-coded (Power, I/O)
<b>Supply voltage</b>	24 V DC, $\pm 20\%$ <sup>1)</sup>
<b>Power consumption</b>	Typ. 24 W, $\pm 20\%$ <sup>2)</sup>
<b>Enclosure rating</b>	IP65 (IEC 60529:2013 +C1:2013 +C2:2015 +AMD2 C1:2019, EN 60529:1991 +A1:2010 +A2:2013 +AC:2019-02)
<b>Housing material</b>	Aluminum die cast
<b>Weight</b>	640 g, without lens and connection cables
<b>Dimensions (L x W x H)</b>	143.3 mm x 90 mm x 46 mm <sup>3)</sup>

<sup>1)</sup> Voltage source in accordance with ES1 (EN 62368-1) or SELV (EN 60950-1).

<sup>2)</sup> For digital outputs without load.

<sup>3)</sup> Housing only, without lens and optics protection hood.

## Performance

<b>Sensor resolution</b>	2,464 px x 2,048 px (5 Mpixel)
<b>Scan/frame rate</b>	40 Hz <sup>1)</sup>

<sup>1)</sup> Maximum, lower at long exposure times. Image capture time only, does not include additional required processing time.

## Interfaces

<b>Ethernet</b>	✓, TCP/IP
Function	FTP EtherNet/IP™ Dual Port PROFINET Dual Port
Data transmission rate	10/100/1,000 Mbit/s, MAC address (device-specific), see type label 10/100 MBit/s 10/100 MBit/s
<b>Operator interfaces</b>	Web server
<b>Configuration software</b>	Web GUI (SensorApp configuration)
<b>Data storage and retrieval</b>	Image and data logging via external FTP
<b>Inputs/outputs</b>	2 x opto-decoupled inputs, physical, switching 4 x configurable input/output, physical, switching (3 on the Power-I/O connection, 1 on the external illumination connection)
<b>Output current</b>	$\leq 50$ mA
<b>Maximum encoder frequency</b>	50 kHz
<b>External illumination</b>	Internal voltage supply and trigger via external illumination connection (max. 1 A) or external voltage supply and trigger via digital output
<b>Optical indicators</b>	12 LEDs (10 x status displays, 2 x feedback spot)

## Ambient data

<b>Electromagnetic compatibility (EMC)</b>	
Interference resistance	IEC 61000-6-2:2016 / EN IEC 61000-6-2:2019
Interference emission	IEC 61000-6-4:2018 / EN IEC 61000-6-4:2019
<b>Vibration resistance</b>	EN 60068-2-6:2007, EN 60068-2-64:2019

<sup>1)</sup> If the ambient operating temperature will be  $\geq 45$  °C, ensure adequate heat dissipation when mounting the device.

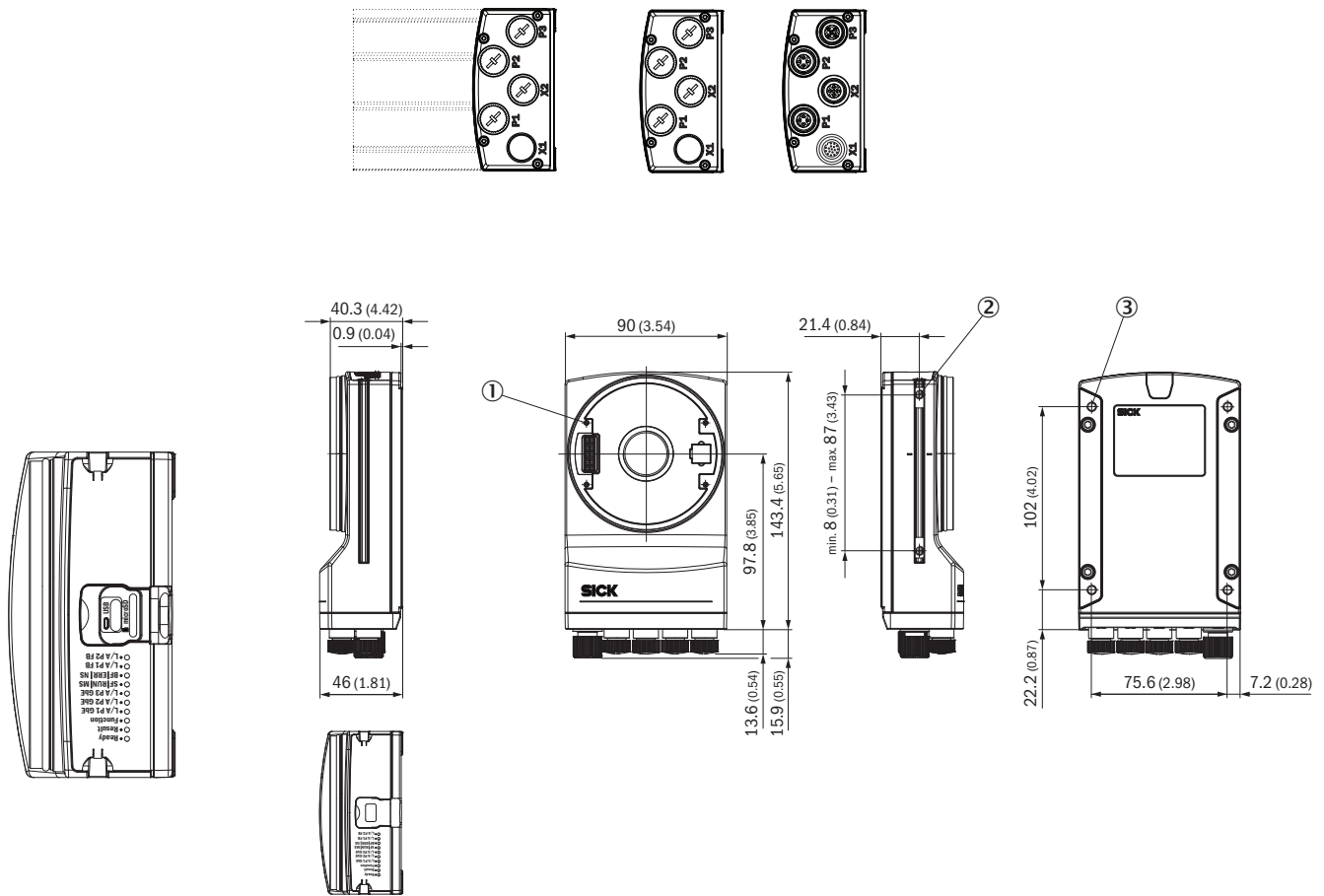
<b>Shock resistance</b>	EN 60068-2-27:2008
<b>Ambient operating temperature</b>	0 °C ... +50 °C <sup>1)</sup>
<b>Storage temperature</b>	-20 °C ... +70 °C
<b>Permissible relative humidity</b>	≤ 90 %, Non-condensing
<b>Altitude (above sea level)</b>	< 5,000 m

<sup>1)</sup> If the ambient operating temperature will be ≥ 45 °C, ensure adequate heat dissipation when mounting the device.

### Classifications

<b>ECLASS 5.0</b>	27310205
<b>ECLASS 5.1.4</b>	27310205
<b>ECLASS 6.0</b>	27310205
<b>ECLASS 6.2</b>	27310205
<b>ECLASS 7.0</b>	27310205
<b>ECLASS 8.0</b>	27310205
<b>ECLASS 8.1</b>	27310205
<b>ECLASS 9.0</b>	27310205
<b>ECLASS 10.0</b>	27310205
<b>ECLASS 11.0</b>	27310205
<b>ECLASS 12.0</b>	27310205
<b>ETIM 5.0</b>	EC001820
<b>ETIM 6.0</b>	EC001820
<b>ETIM 7.0</b>	EC001820
<b>ETIM 8.0</b>	EC001820
<b>UNSPSC 16.0901</b>	43211731

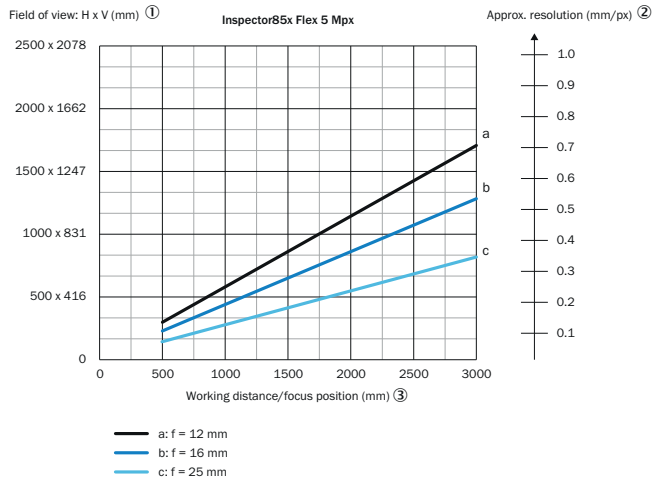
Dimensional drawing (Dimensions in mm (inch))



- ① 4 tapped blind holes, M2.5, 5.5 mm deep, for mounting the spacer
- ② 2 sliding nuts, M5, 5.5 mm deep, as an alternative method of mounting the device
- ③ 4 tapped blind holes, M5, 5.5 mm deep for mounting the device

Field of view

V2D8505P



- ① Field of view: Horizontal x vertical in mm
- ② Approximate resolution in mm/px
- ③ Working distance/Focus position in mm


Overview


SICK AppSpace



Recommended accessories

Other models and accessories → [www.sick.com/Inspector85x](http://www.sick.com/Inspector85x)

	Brief description	Type	Part no.
Others			
	<ul style="list-style-type: none"> <li>• <b>Connection type head A:</b> Female connector, M12, 17-pin, straight, A-coded</li> <li>• <b>Connection type head B:</b> Male connector, M12, 17-pin, straight, A-coded</li> <li>• <b>Signal type:</b> Power, serial, CAN, digital I/Os</li> <li>• <b>Cable:</b> 3 m, 17-wire</li> <li>• <b>Description:</b> Power, serial, CAN, digital I/Os, suitable for 2 A, shielded, to connection module CDB650</li> <li>• <b>Application:</b> Drag chain operation</li> </ul>	YM2A8D-030XXXF2A8D	6051194

	Brief description	Type	Part no.
Modules			
	<ul style="list-style-type: none"> <li>• <b>Sub product family:</b> CDB650</li> <li>• <b>Supported products:</b> Lector® series, CLV62x - CLV64x (depending on type), CLV69x, RFID read/write device, InspectorP series</li> <li>• <b>Brief description:</b> Connection device basic for connecting one sensor with 2 A fuse, 5 cable glands and RS-232 interface to sensor via M12, 17-pin female connector, all outputs available on screw/spring-loaded terminals.</li> </ul>	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:

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