



V2D621P-2MDFCB5

InspectorP62x

2D MACHINE VISION

**SICK**  
Sensor Intelligence.



### Ordering information

Type	part no.
V2D621P-2MDFCB5	1130942

Other models and accessories → [www.sick.com/InspectorP62x](http://www.sick.com/InspectorP62x)



### Detailed technical data

#### Features

<b>Technology</b>	2D snapshot
<b>Programmable</b>	✓
<b>Configurable</b>	✓
<b>Application software</b>	Nova Inspector
<b>License included</b>	Quality 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>Toolkit</b>	SICK algorithm API HALCON
<b>Image sensor</b>	CMOS monochrome
<b>Shutter technology</b>	Global-Shutter
<b>Optical focus</b>	Adjustable focus (electrical)
<b>Working range</b>	70 mm ... 1,500 mm <sup>1)</sup>
<b>Illumination</b>	Integrated
<b>Illumination color</b>	Infrared, LED, invisible, 850 nm, ± 25 nm
<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. 50" from June 24, 2007 (IEC 60825-1:2014, EN 60825-1:2014)
<b>LED class</b>	Risk group 1 (IEC 62471 (2006-07) / EN 62471 (2008-09))
<b>Spectral range</b>	Approx. 800 nm ... 900 nm
<b>Lens</b>	
	Focal length 9.6 mm

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

<b>Task</b>	Detecting - Standard objects Measuring - Dimension, contour and volume Measuring - Number Identifying - 2D code Identifying - OCR Identifying - Pattern Identifying - Classifying Identifying - Sorting Determining position - 2D position determination
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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 (serial, I/Os, voltage supply) 1 x M12, 4-pin female connector (Ethernet)
<b>Supply voltage</b>	12 V DC ... 24 V DC, ± 10 %
<b>Power consumption</b>	Typ. 4 W
<b>Enclosure rating</b>	IP65 (EN 60529 (1991-10), EN 60529/A2 (2002-02))
<b>Protection class</b>	III
<b>Housing material</b>	Aluminum die cast
<b>Window material</b>	Glass
<b>Weight</b>	170 g
<b>Dimensions (L x W x H)</b>	71 mm x 43 mm x 35.6 mm
<b>MTBF</b>	75,000 h

## Performance

<b>Sensor properties</b>	
Sensor resolution	1,280 px x 1,024 px (1.3 MP)
<b>Scan/frame rate</b>	50 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>Serial</b>	✓ , RS-232, RS-422
Data transmission rate	300 Baud ... 115.2 kBaud
<b>Ethernet</b>	✓ , TCP/IP, UDP
Function	FTP, HTTP, HTTPS, NTP
Data transmission rate	10/100 MBit/s
<b>CAN</b>	✓
Remark	Not yet available in the pre-installed Quality Inspection SensorApp
Function	SICK CAN sensor network (CAN controller/CAN device)
<b>EtherNet/IP™</b>	✓
Data transmission rate	10/100 MBit/s
<b>EtherCAT®</b>	✓
Type of fieldbus integration	Optional over external fieldbus module CDF600
Remark	Not yet available in the pre-installed Quality Inspection SensorApp
<b>PROFINET</b>	✓
Function	PROFINET Single Port

<sup>1)</sup> Not yet available in the pre-installed Quality Inspection SensorApp.

Data transmission rate	10/100 MBit/s
<b>PROFIBUS DP</b>	✓
Type of fieldbus integration	Optional over external fieldbus module CDF600-2
Remark	Not yet available in the pre-installed Quality Inspection SensorApp
<b>Operator interfaces</b>	Web server
<b>Configuration software</b>	Web GUI (SensorApp configuration), SICK AppManager (IP determination and configuration, SensorApp installation), SICK AppStudio (programming)
<b>Data storage and retrieval</b>	Image and data logging via microSD memory card and external FTP
<b>Inputs/outputs</b>	2 opto-decoupled inputs, 4 inputs/outputs, configurable
<b>Output current</b>	≤ 100 mA
<b>Maximum encoder frequency</b>	Max. 300 Hz
<b>External illumination</b>	Via digital output (max. 24 V trigger)
<b>Control elements</b>	2 buttons <sup>1)</sup>
<b>Optical indicators</b>	16 LEDs (5 status displays, 10 LED bar graphs, 1 green/red feedback spot)
<b>Acoustic indicators</b>	Beeper <sup>1)</sup>

<sup>1)</sup> Not yet available in the pre-installed Quality Inspection SensorApp.

### Ambient data

<b>Shock load</b>	EN 60068-2-27:2009-05
<b>Vibration load</b>	EN 60068-2-6:2008-02
<b>Ambient operating temperature</b>	0 °C ... +50 °C <sup>1)</sup>
<b>Storage temperature</b>	-20 °C ... +70 °C <sup>1)</sup>

<sup>1)</sup> Permissible relative humidity: 0% ... 90% (non-condensing).

### Licenses

<b>License included</b>	Quality Inspection License
<b>Description</b>	The Quality Inspection license enables productive use of a large subset of the tools of a SICK Nova SensorApp. The Quality Inspection toolkit is used to ensure that products comply with exact requirements after production, for instance when it comes to dimensions and angular degrees. Optional upgrade with the Intelligent Inspection Upgrade License, which enables productive use of the complete toolset.
<b>Product type</b>	Software
<b>License type</b>	Device license
<b>License description</b>	The software is provided as a device license. A license is bound to a specific hardware ID.
<b>Scope of use</b>	Full version
<b>License period</b>	The license is issued without a time limit.
<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.

### Certificates

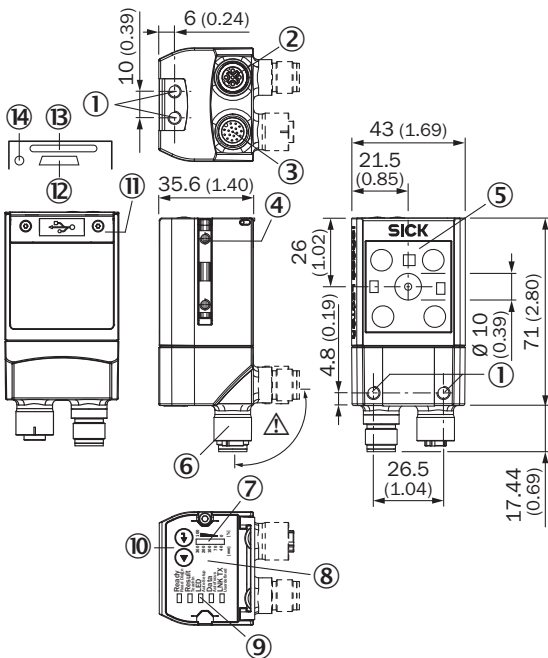
<b>EU declaration of conformity</b>	✓
<b>UK declaration of conformity</b>	✓
<b>ACMA declaration of conformity</b>	✓
<b>China RoHS</b>	✓
<b>cULus certificate</b>	✓

Profinet certificate	✓
Information according to Art. 3 of Data Act (Regulation EU 2023/2854)	✓
4Dpro	✓

Classifications

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

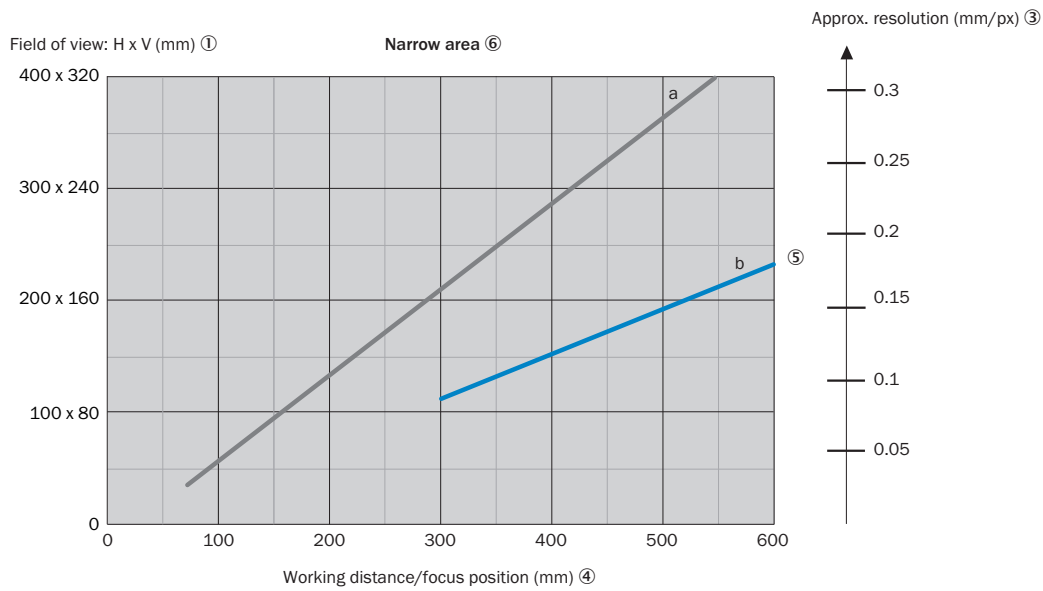
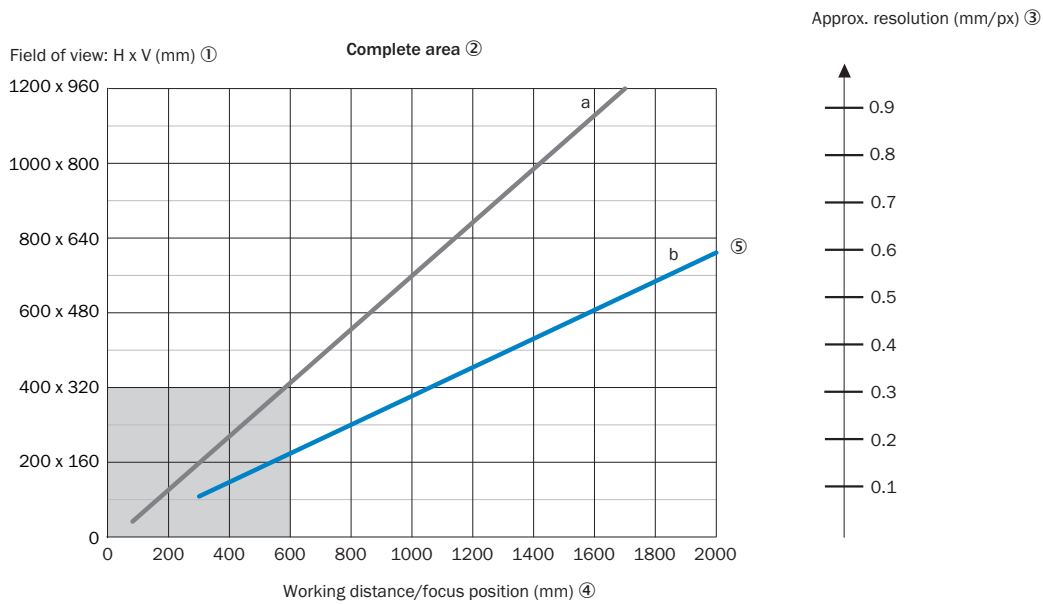
Dimensional drawing



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







— a: f = 9.6 mm  
 — b: f = 17.1 mm

Take into account the following aspects when designing the application: the field of view geometry of the device, and the position of the field of view in the space in front of the device. Possible angles at which the objects can arise in relation to the device. For the planned working distance: resultant field of view length and width as well as the approximate resolution.

- ① Field of view: Horizontal x vertical in mm
- ② complete area
- ③ approximate resolution in mm/px
- ④ Working distance/Focus position in mm
- ⑤ Focal length of lens, here example for f = 17.1 mm
- ⑥ Narrow range

### Recommended accessories

Other models and accessories → [www.sick.com/InspectorP62x](http://www.sick.com/InspectorP62x)

	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
connectors and cables			
	<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, suitable for 2 A, shielded, Serial, CAN, Digital I/Os</li> <li><b>Application:</b> Drag chain operation</li> </ul>	YM2A8D-030XXXF2A8D	6051194
	<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:

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