



V2D621P-2MDFGB5

InspectorP62x

2D MACHINE VISION

SICK
Sensor Intelligence.



Ordering information

Type	part no.
V2D621P-2MDFGB5	1110849

Other models and accessories → www.sick.com/InspectorP62x



Detailed technical data

Features

Technology	2D snapshot
Programmable	✓
Configurable	✓
SensorApp	Nova Inspector
License included	Quality Inspection License Optional upgrade with the Intelligent Inspection Upgrade License, which enables productive use of the complete toolset.
Toolkit	HALCON
Image sensor	CMOS monochrome
Shutter technology	Global-Shutter
Optical focus	Adjustable focus (electric)
Working range	300 mm ... 1,500 mm ¹⁾
Illumination	Integrated
Illumination color	Infrared, LED, invisible, 850 nm, ± 25 nm
Feedback spot	LED, Visible, green, 525 nm, ± 15 nm
Alignment aid	Laser, Red, 630 nm ... 680 nm
Laser class	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)
LED class	Risk group 1 (IEC 62471 (2006-07) / EN 62471 (2008-09))
Spectral range	Approx. 800 nm ... 900 nm
Lens	
	Focal length 17.1 mm
Task	Detecting - Standard objects

¹⁾ For details see field of view diagram.

	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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¹⁾ For details see field of view diagram.

Mechanics/electronics

Connection type	1 x M12, 17-pin male connector (serial, I/Os, voltage supply) 1 x M12, 4-pin female connector (Ethernet)
Supply voltage	12 V DC ... 24 V DC, $\pm 10\%$
Power consumption	Typ. 4 W
Enclosure rating	IP65 (EN 60529 (1991-10), EN 60529/A2 (2002-02))
Protection class	III
Housing material	Aluminum die cast
Window material	Glass
Weight	170 g
Dimensions (L x W x H)	71 mm x 43 mm x 35.6 mm
MTBF	75,000 h

Performance

Sensor properties	
Sensor resolution	1,280 px x 1,024 px (1.3 Mpixel)
Scan/frame rate	50 Hz

Interfaces

Serial	✓, RS-232, RS-422
Remark	Not yet available in the pre-installed Quality Inspection SensorApp
Data transmission rate	300 Baud ... 115.2 kBaud
Ethernet	✓, TCP/IP
Function	FTP, HTTP
Data transmission rate	10/100 MBit/s
CAN	✓
Remark	Not yet available in the pre-installed Quality Inspection SensorApp
Function	SICK CAN sensor network (CAN controller/CAN device)
EtherNet/IP™	✓
Data transmission rate	10/100 MBit/s
EtherCAT®	✓
Type of fieldbus integration	Optional over external fieldbus module CDF600
Remark	Not yet available in the pre-installed Quality Inspection SensorApp
PROFINET	✓
Function	PROFINET Single Port
Data transmission rate	10/100 MBit/s

¹⁾ Not yet available in the pre-installed Quality Inspection SensorApp.

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

¹⁾ Not yet available in the pre-installed Quality Inspection SensorApp.

Ambient data

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

¹⁾ Permissible relative humidity: 0% ... 90% (non-condensing).

Licenses

License included	Quality Inspection License Optional upgrade with the Intelligent Inspection Upgrade License, which enables productive use of the complete toolset.
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Certificates

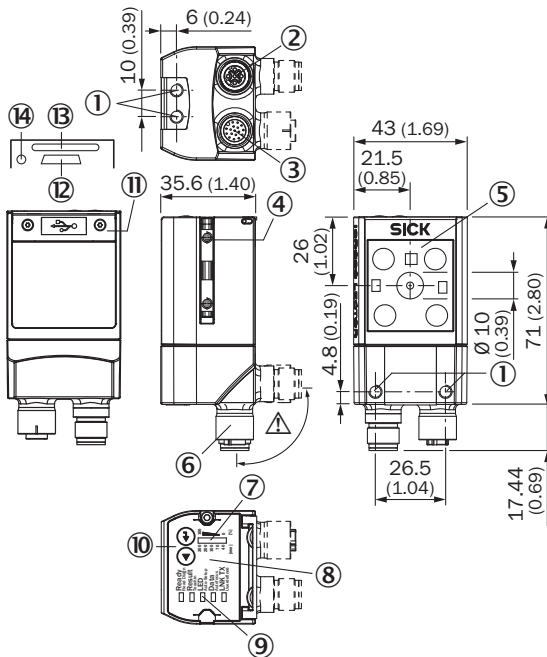
EU declaration of conformity	✓
UK declaration of conformity	✓
ACMA declaration of conformity	✓
China-RoHS	✓
Profinet certificate	✓
Information according to Art. 3 of Data Act (Regulation EU 2023/2854)	✓
4Dpro	✓

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

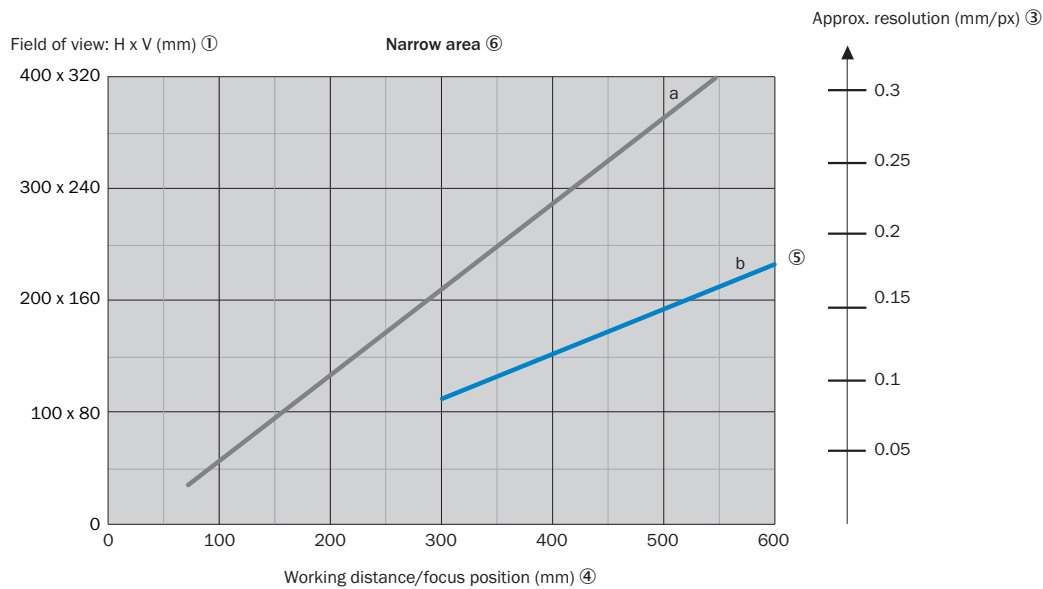
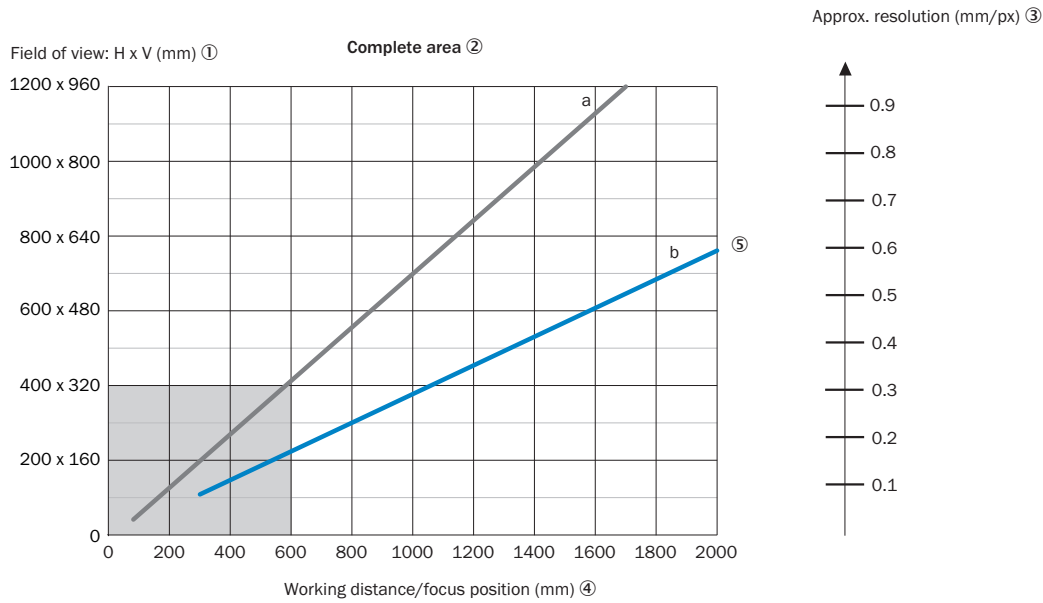
Dimensional drawing



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

Overview SICK AppSpace



Recommended accessories

Other models and accessories → www.sick.com/InspectorP62x

	Brief description	Type	part no.
Mounting systems			
	Description: Bracket with adapter board	Mounting bracket	2042902

	Brief description	Type	part no.
connectors and cables			
	• Connection type head A: Female connector, M12, 17-pin, straight, A-coded • Connection type head B: Male connector, M12, 17-pin, straight, A-coded • Signal type: Power, serial, CAN, digital I/Os • Cable: 3 m, 17-wire • Description: Power, suitable for 2 A, shielded, Serial, CAN, Digital I/Os • Application: Drag chain operation	YM2A8D-030XXXF2A8D	6051194
	• Connection type head A: Male connector, M12, 4-pin, straight, D-coded • Connection type head B: Male connector, RJ45, 4-pin, straight • Signal type: Ethernet, PROFINET • Cable: 2 m, 4-wire, PUR, halogen-free • Description: Ethernet, shieldedPROFINET • Application: Drag chain operation, Zones with oils and lubricants	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