V2D621P-2MSFFB5

InspectorP62x

2D MACHINE VISION

SICK
Sensor Intelligence.

Ordering information

Type	Part no.
V2D621P-2MSFFB5	1110848

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

Detailed technical data

Features

Task	Classification Identifying Position determination 1D code 2D code Presence inspection Quality check Measuring, 2D OCR
Technology	2D snapshot
Product category	Programmable, configurable
SensorApp	Nova InspectorP
License included	Quality Inspection License Optional upgrade with the Intelligent Inspection Upgrade License, which enables productive use of the complete toolset.
Toolkit	HALCON
Sensor	CMOS matrix sensor, grayscale values
Shutter technology	Global-Shutter
Optical focus	Adjustable focus (electric)
Working distance	300 mm ... 1,500 mm [1]
Illumination	Integrated
Illumination color	Red, LED, Visible, 617 nm, ± 15 nm Blue, LED, Visible, 470 nm, ± 15 nm
Feedback spot	LED, Visible, green, 525 nm, ± 15 nm
Alignment aid	Laser, Red, 630 nm ... 680 nm

[1] For details see field of view diagram.

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. 400 nm … 900 nm
Lens	
Focal length	17.1 mm

[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, ± 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	PMMA
Weight	170 g
Dimensions (L x W x H)	71 mm x 43 mm x 35.6 mm
MTBF	75,000 h

Performance

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
PROFIBUS DP	✓

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

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	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.
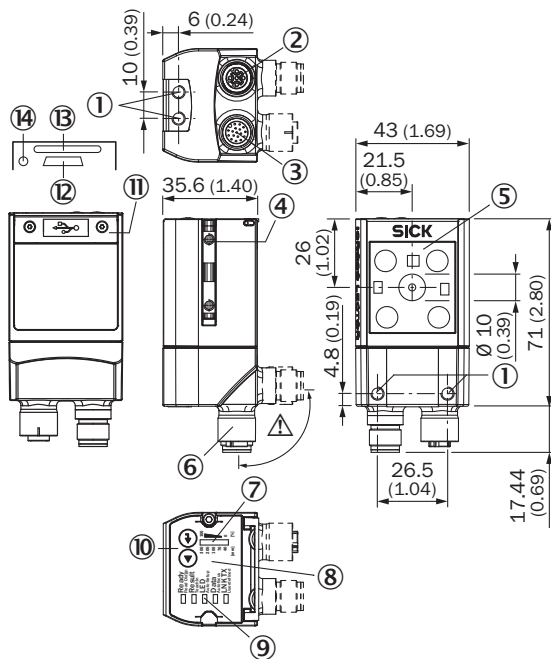
Ambient data

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]

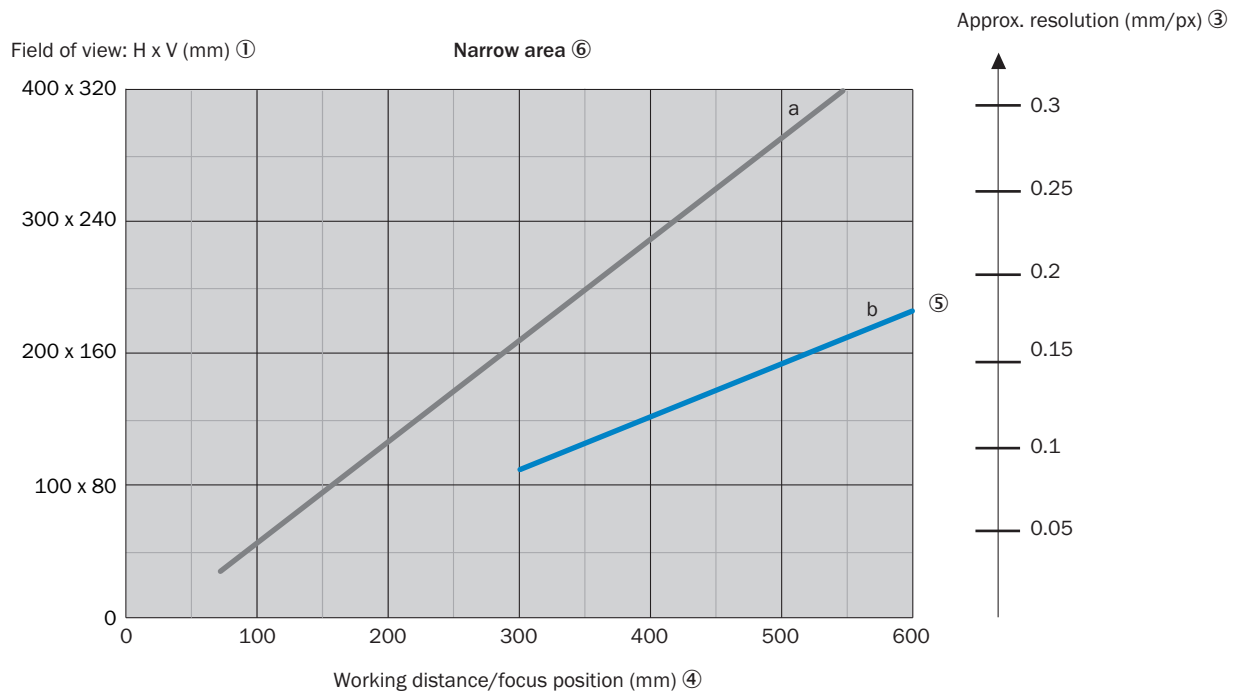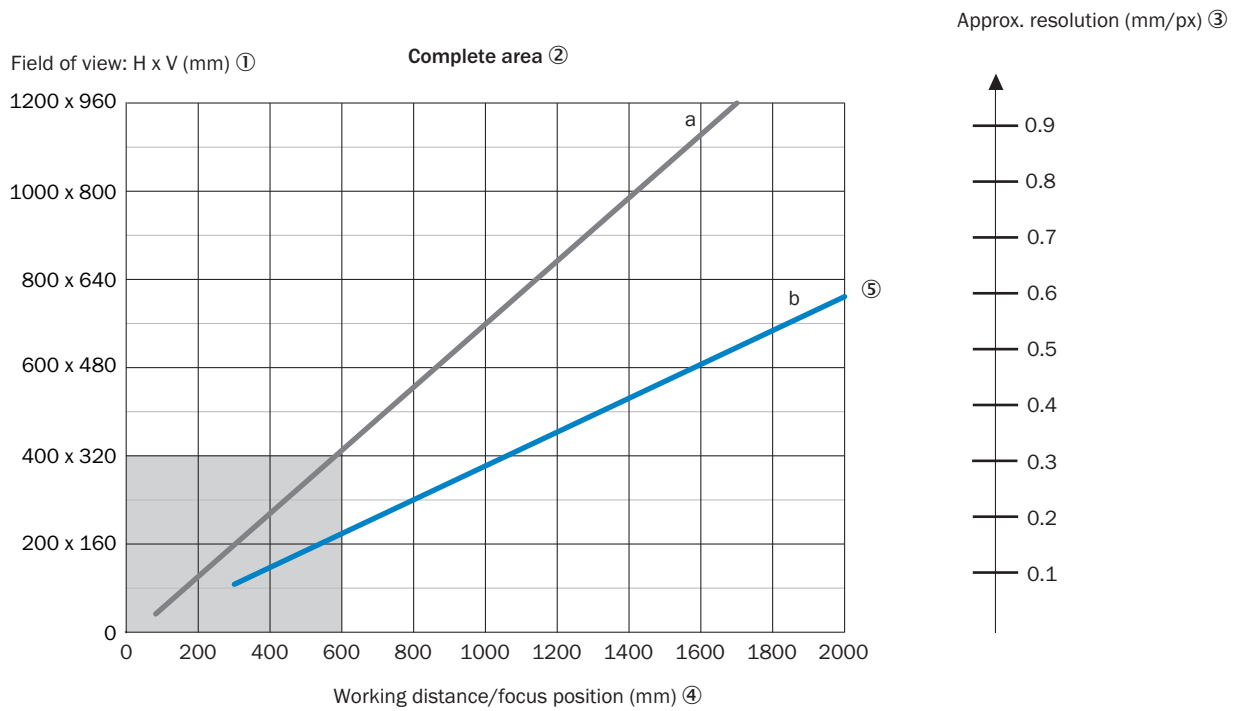[1] Permissible relative air humidity: 0 % ... 90 % (non-condensing).

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

Field of view: H x V (mm) ①   **Complete area ②**   **Approx. resolution (mm/px) ③**

Working distance/focus position (mm) ④

Field of view: H x V (mm) ①   **Narrow area ⑥**   **Approx. resolution (mm/px) ③**

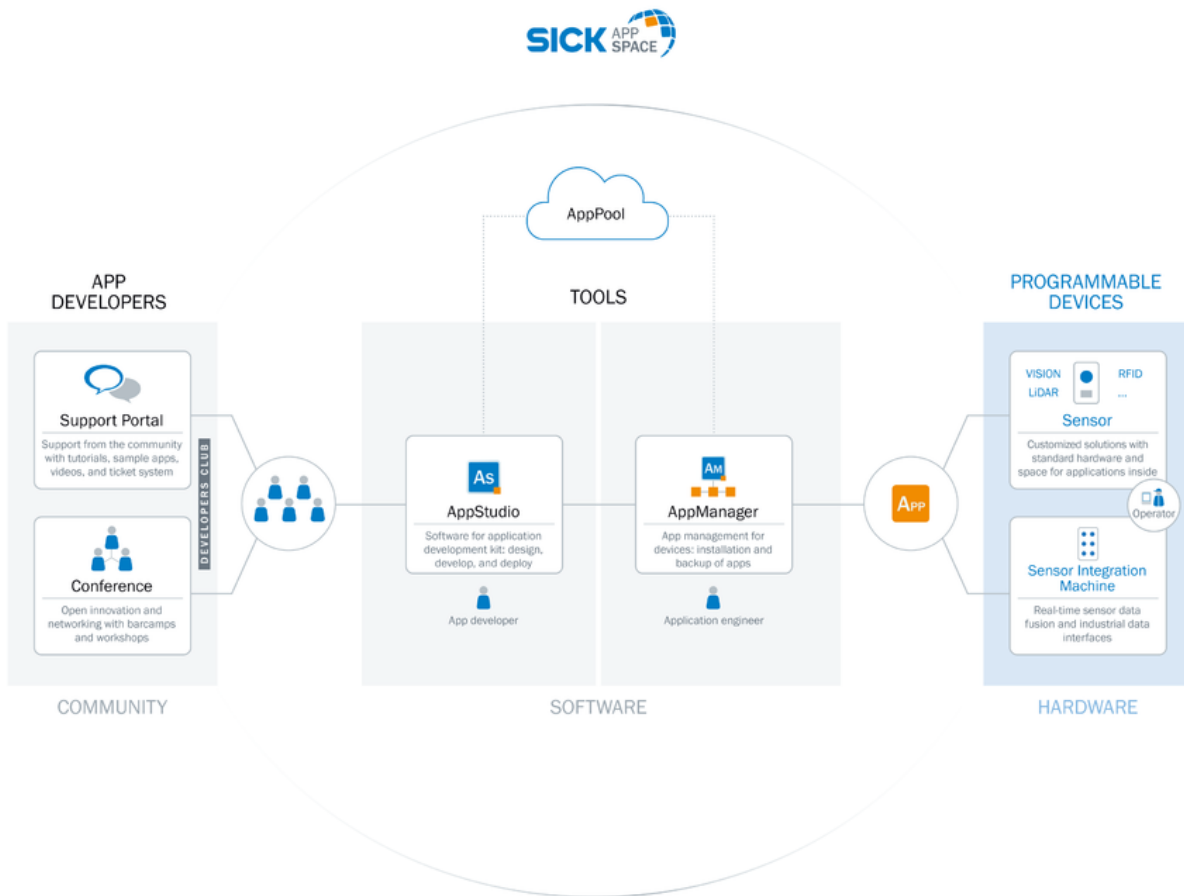Working distance/focus position (mm) ④

—— 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 brackets and plates		
Bracket with adapter board	Mounting bracket	2042902

	Brief description	Type	Part no.
Plug connectors and cables			
	• **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, PROFINET, shielded • **Application:** Drag chain operation, Zones with oils and lubricants	YM2D24-020PN1MRJA4	2106182
Others			
	• **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, serial, CAN, digital I/Os, suitable for 2 A, shielded, to connection module CDB650 • **Application:** Drag chain operation	YM2A8D-030XXXF2A8D	6051194
Modules			
	• **Sub product family:** CDB650 • **Supported products:** Lector® series, CLV62x - CLV64x (depending on type), CLV69x, RFID read/write device, InspectorP series • **Brief description:** 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.	CDB650-204	1064114

Recommended services

Additional services ➜ www.sick.com/InspectorP62x

	Type	Part no.
Extended warranty		
• **Product area:** Identification solutions, machine vision, Detection and ranging solutions, safety camera sensors, Safety laser scanners, Safety radar sensors • **Range of services:** The services correspond to the scope of the statutory manufacturer warranty (SICK general terms of delivery). • **Duration:** Five-year warranty from delivery date.	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**

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