Online data sheet



V2D632P-2MXCXB0

InspectorP63x

2D VISION

SICK
Sensor Intelligence.



Ordering information

Type	Part no.
V2D632P-2MXCXB0	1082300

Other models and accessories ➜ www.sick.com/InspectorP63x

Detailed technical data

Features

Task	Positioning, inspection, Measuring, reading
Technology	2D, snapshot, image analysis
Toolkit	HALCON
Sensor	CMOS matrix sensor, grayscale values
Focus	Adjustable focus
Light source	Illumination LEDs: (to be ordered separately as accessories) Aiming laser: visible red light (λ = 630 ... 680 nm)
Laser class	1, complies with 21 CFR 1040.10 except for the tolerance according to “Laser Notice No. 50” from June 24, 2007 (IEC 60825-1:2014, EN 60825-1:2014)
Spectral range	Approx. 400 nm ... 900 nm
Lens	Exchangeable (C-mount), to be ordered separately as an accessory
Optical format	1/1.8"

Performance

Sensor resolution	1,600 px x 1,200 px (1.9 Mpixel)
Scan/frame rate	50 Hz

Interfaces

Serial	✓, RS-232, RS-422
Data transmission rate	300 Baud ... 115.2 kBaud
Ethernet	✓, TCP/IP
Function	FTP, HTTP
Data transmission rate	10/100/1,000 Mbit/s
CAN	✓
Function	SICK CAN sensor network (master/slave)
Operator interfaces	Web server
Configuration software	SICK AppStudio

Data storage and retrieval	Image and data logging via microSD memory card and external FTP
Output current	≤ 100 mA
Maximum encoder frequency	1 kHz
Operating elements	2 buttons
Optical indicators	11 LEDs (5 x status display, 5 x LED bar graph, 1 green/red feedback spot)
Acoustic indicators	Beeper

Mechanics/electronics

Connections	1 x M12, 17-pin male connector (serial, I/Os, voltage supply) 1 x M8, 4-pin female connector (USB, not used) 2 x M12, 8-pin female connector (Gigabit Ethernet, only one connection used) 1 x M12, 4-pin male connector (external illumination)
Supply voltage	12 V DC ... 24 V DC, ± 20 %
Power consumption	Typ. 10 W ± 20 %
Enclosure rating	IP67
Protection class	III (EN 60950-1 (2014-08))
Housing material	Aluminum die cast
Window material	PMMA
Weight	430 g
Dimensions (L x W x H)	108 mm x 63 mm x 46 mm [1]

[1] Only housing without lens and protective hood.

Ambient data

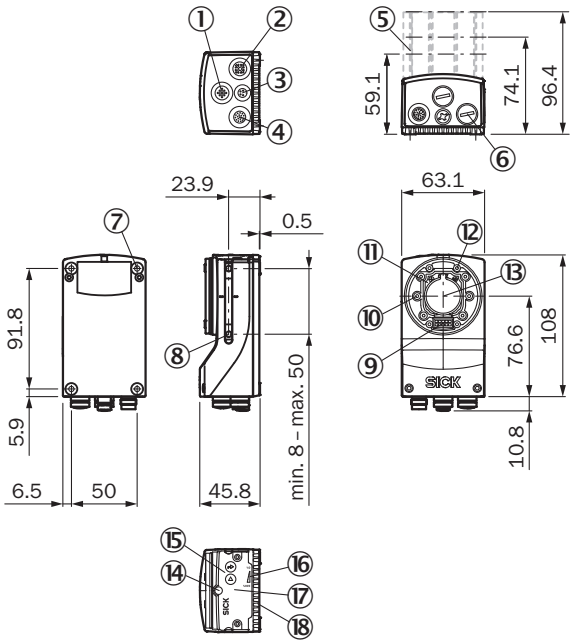
Shock load	EN 60068-2-27:2009-05
Vibration load	EN 60068-2-6:2008-02
Ambient operating temperature	0 °C ... +50 °C [1]
Ambient storage temperature	–20 °C ... +70 °C [1]

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

Classifications

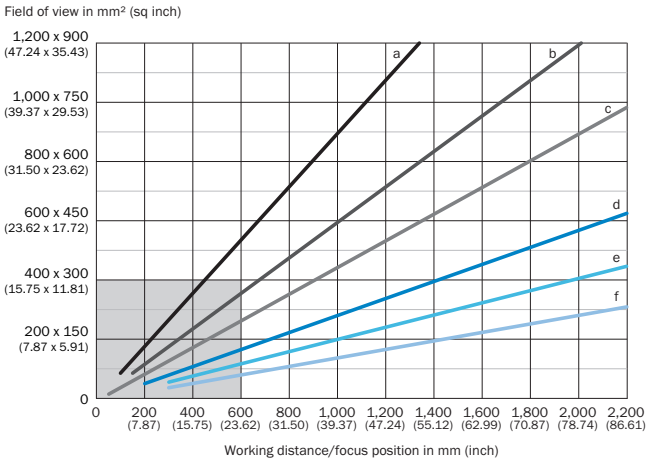
ECl@ss 5.0	27310205
ECl@ss 5.1.4	27310205
ECl@ss 6.0	27310205
ECl@ss 6.2	27310205
ECl@ss 7.0	27310205
ECl@ss 8.0	27310205
ECl@ss 8.1	27310205
ECl@ss 9.0	27310205
ETIM 5.0	EC001820
ETIM 6.0	EC001820
UNSPSC 16.0901	43211731

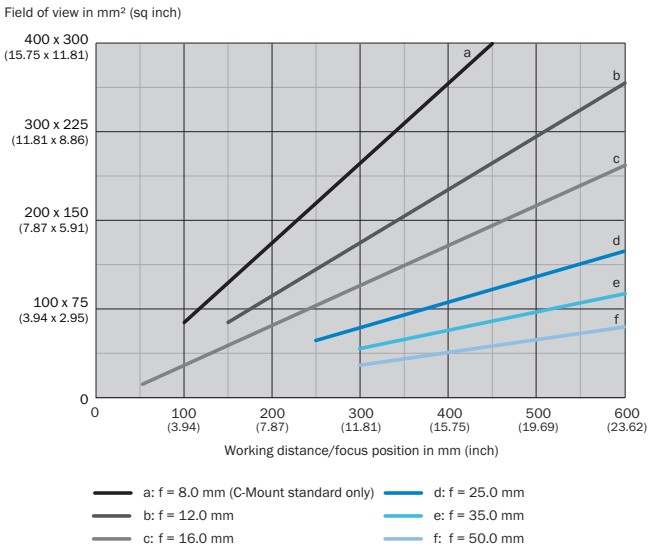
Dimensional drawing (Dimensions in mm (inch))



① External illumination connection
② Gigabit Ethernet port
③ USB port
④ Power, serial, CAN, and I/O connection
⑤ 22.7 mm, 37.7 mm, or 60 mm protective cover for optics
⑥ Protective caps/plugs to seal any electrical connections that are not in use
⑦ M5 blind tapped holes, 5 mm deep (4 x), for mounting the sensor
⑧ M5 sliding nut, 5.5 mm deep (4 x), pivoting, for an alternative method of mounting the sensor
⑨ Integrated illumination connection
⑩ Aiming laser (2 x)
⑪ S-mount or C-mount optics module
⑫ 2.5 mm blind tapped holes (4 x) for mounting the spacers for the integrable illumination
⑬ Optical axis and center of the image sensor
⑭ Manual focus screw, underneath cover/label (S-mount Flex)
⑮ Function button (2 x)
⑯ Bar graph display
⑰ Removable cover for microSD memory card slot and manual focus screw (S-mount)
⑱ LEDs for status display (2 levels), 5 x

Field of view





For S-mount and standard C-mount lenses, spacer rings are needed for working distances shorter than approximately 10 times the focal length. For compact C-mount lenses, spacer rings are not needed, but the built-in illumination cannot be used for distances shorter than 300 mm.

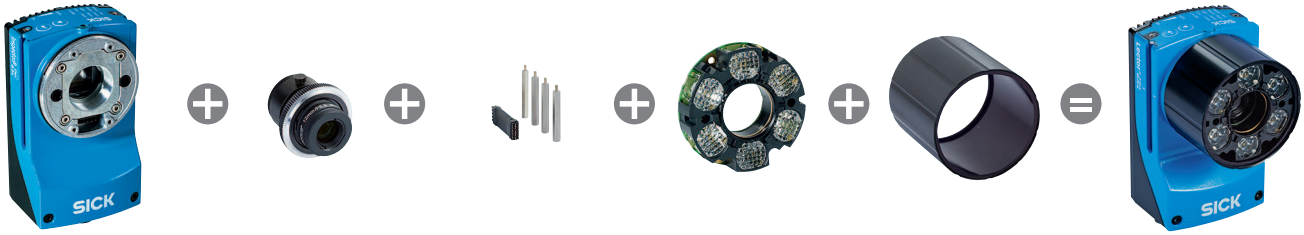
Selection Guide

SICK AppSpace





Body, incl. C-mount module	C-mount lens	Mounting bracket	External illumination	Lens protective hood	Assembled device, incl. all ICL parts
InspectorP631 V2D631P-2MXCXB0 1082298 **InspectorP632** V2D632P-2MXCXB0 1082300	Focal length **8 mm** Aperture **F1.4–16** 5325091	An external, application-specific illumination is required		**Medium – 37.7mm** 2079127	
	Focal length **12 mm** Aperture **F1.4–16** 5325403			**Long – 60 mm** 2079204	
	Focal length **16 mm** Aperture **F1.4–16** 5325404	Bracket for ICL mounting 2081187	ICL280, **red** 1052472 ICL280, **infrared** 1057645	Hood to be used with ICL **illumination** 2081544	
	Focal length **25 mm** Aperture **F1.4–16** 5325405	Bracket for ICL mounting 2081187	ICL260, **red** 1052495 ICL280, **infrared** 1057645		
	Focal length **35 mm** Aperture **F1.4–16** 5325406	Bracket for ICL mounting 2081187	ICL300, **red** 1046820 ICL300, **infrared** 1047957		
	Focal length **50 mm** Aperture **F1.4–16** 5325407	Bracket for ICL mounting 2081187	ICL300, **red** 1046820 ICL300, **infrared** 1047957		



InspectorP631
V2D631P-2MXCXB0
1082298

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Compact C-mount lens	Spacer screws and illumination connector	Integratable illumination	Lens protective hood
Focal length **12 mm** Aperture **F8** 2079348	**Medium – 15 mm** 2079501	**Medium, white** 2078430	**Medium – 37.7 mm** 2079127
		Medium, blue 2083814	**Medium – 37.7 mm** 2079127
Focal length **16 mm** Aperture **F8** 2079346	**Long – 37 mm** 2079502	**Medium, white** 2078430	**Long – 60 mm** 2079204
		Medium, blue 2083814	**Long – 60 mm** 2079204
Focal length **25 mm** Aperture **F8** 2079343	**Medium – 15 mm** 2079501	**Narrow, white** 2078431	**Medium – 37.7 mm** 2079127
		Narrow, blue 2083812	**Medium – 37.7 mm** 2079127
Focal length **35 mm** Aperture **F8** 2079344	**Long – 37 mm** 2079502	**Narrow, white** 2078431	**Long – 60 mm** 2079204
		Narrow, blue 2083812	**Long – 60 mm** 2079204

Recommended accessories

Other models and accessories ➜ www.sick.com/InspectorP63x

	Brief description	Type	Part no.
Mounting brackets and plates			
	Mounting bracket set consisting of mounting bracket, cooling plate, includes angle display for setting the tilt angle	Mounting bracket	2076735
Other mounting accessories			
	Sliding nut, M5, short	Sliding nut	5324896
Terminal and alignment brackets			
	Distance bracket and light extension connector (medium) for mounting integratable lighting, length 15 mm, used with compact C-mount lenses with focal length of 12 mm or 25 mm and S-mount lens with focal length 25mm	Distance bracket	2079501

	Brief description	Type	Part no.
Plug connectors and cables			
	Head A: female connector, M12, 17-pin, straight, A-coded Head B: Flying leads Cable: Power, serial, CAN, digital I/Os, suitable for 2 A, Changed color coding of the flying leads, shielded, 3 m	Connecting cable (female connector - open)	2070425
	Head A: female connector, M12, 17-pin, straight, A-coded Head B: male connector, M12, 17-pin, straight, A-coded Cable: Power, serial, CAN, digital I/Os, suitable for 2 A, shielded, 3 m	Connection cable (male connector - female connector)	6051194
	Head A: male connector, M12, 8-pin, straight, X-coded Head B: male connector, RJ45, 8-pin, straight Cable: Gigabit Ethernet, twisted pair, PUR, halogen-free, shielded, 2 m	SSL-2J08-G02MACE	6049728
Lenses and accessories			
	Compact C-mount 2/3", focal length 12 mm, aperture 8	C-mount lens	2079348
	Lens protective hood medium, enclosure rating IP 67, length 37.7 mm, PMMA, used with compact C-mount lenses with focal length of 12 mm or 25 mm and S-mount lens with focal length 25mm	Protective hood for optical chamber	2079127
Modules			
	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

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