V2D611P-MMSBE4

InspectorP61x

2D MACHINE VISION

SICK
Sensor Intelligence.

V2D611P-MMSBE4 | InspectorP61x

2D MACHINE VISION

Ordering information

Type	Part no.
V2D611P-MMSBE4	1114809

Other models and accessories ➜ www.sick.com/InspectorP61x

Detailed technical data

Features

Task	Quality inspection Positioning Measuring, 2D Code reading
Technology	2D snapshot, image analysis
Product category	Programmable, configurable
SensorApp	Quality Inspection SensorApp included, Based on the SICK Nova SensorApp foundation, which allows functional extensions via tool plug-ins and custom development Optional license for Intelligent Inspection Deep Learning SensorApp
Toolkit	SICK algorithm API HALCON
Sensor	CMOS matrix sensor, grayscale values
Shutter technology	Global-Shutter
Optical focus	Adjustable focus (manually)
Working distance	50 mm ... 300 mm, With internal illumination, can be extended to include external illumination [1]
Illumination	LED, LED
Illumination color	Amber, LED, Visible, 617 nm, ± 50 nm Blue, LED, Visible, 470 nm, ± 15 nm
Feedback spot	LED, Visible, green, 525 nm, ± 15 nm
Alignment aid	Laser, Red, 630 nm, ± 15 nm
Laser class	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)
LED class	Risk group 1 (IEC 62471 (2006-07) / EN 62471 (2008-09))
Spectral range	Approx. 400 nm ... 900 nm
Lens	
Focal length	6 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, ± 15 %
Power consumption	Typ. 3.5 W
Enclosure rating	IP54 (EN 60529, EN 60529/A2)
Protection class	III
Housing material	Zinc diecast
Window material	PMMA
Weight	165 g
Dimensions (L x W x H)	50 mm x 40.3 mm x 29.6 mm
MTBF	75,000 h

Performance

Sensor resolution	1,280 px x 960 px (1.2 Mpixel)
Scan/frame rate	40 Hz [1]

[1] Exposure time, does not include processing time. Lower at slow shutter speeds.

Interfaces

|	
Serial	✓, RS-232
Remark	Not yet available in the pre-installed Quality Inspection SensorApp
Data transmission rate	300 Baud ... 115.2 kBaud
Ethernet	✓, TCP/IP
Function	FTP (not yet available in the pre-installed Quality Inspection SensorApp)
Data transmission rate	10/100 MBit/s
EtherNet/IP™	✓
Data transmission rate	10/100 MBit/s
PROFINET	✓
Function	PROFINET Single Port
Data transmission rate	10/100 MBit/s
Operator interfaces	Web server
Configuration software	Web GUI (SensorApp configuration), SICK AppManager (IP determination and configuration, SensorApp installation), SICK AppStudio (programming)
Data storage and retrieval	Image and data logging via external FTP (FTP is not yet available in the pre-installed Quality Inspection SensorApp)
Inputs/outputs	2 × input, physical, switching 3 x configurable input / output, physical, switching Physical, switching
Output current	≤ 50 mA
Maximum encoder frequency	300 Hz
External illumination control	Via digital output (max. 24 V trigger)
Control elements	1 pushbutton
Optical indicators	9 LEDs (6 status displays, 2 LED alignment aids, 1 feedback spot)

Ambient data

Shock load	EN 60068-2-27:2009-05
Vibration load	EN 60068-2-6:2008-02
Ambient operating temperature	0 °C ... +40 °C [1]
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
ECl@ss 10.0	27310205
ECl@ss 11.0	27310205
ECl@ss 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))
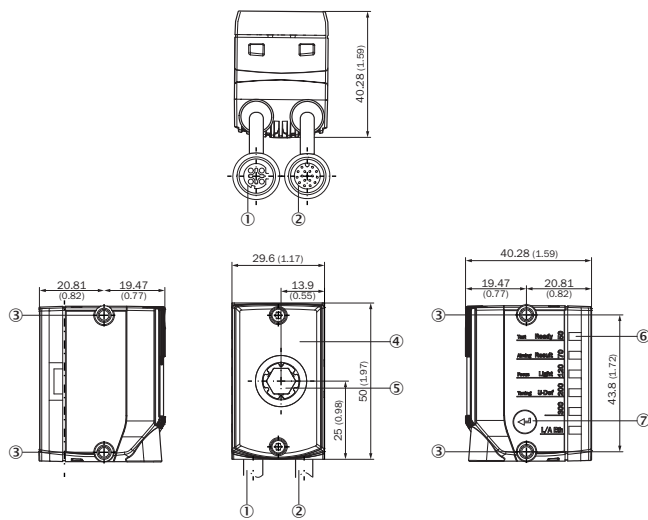
① Connecting cable with "Ethernet" connection (female connector, M12, 4-pin, D-coded), length of cable: 0.25 m
② Connecting cable with "Power/Serial Data/CAN/I/O" connection (male connector, M12, 17-pin, A-coded), length of cable: 0.35 m
③ 4 x M4 blind tapped holes, 6.4 mm deep for mounting the device
④ Viewing window with 8 integrated illumination LEDs, 2 LED alignment aids, 1 feedback LED, 1 time-of-flight sensor
⑤ Optics, manual focus adjustment with the help of a focus adjustment tool
⑥ 6 status LEDs to display the focus position and working distance, device status and device function (3 display levels)
⑦ Function key

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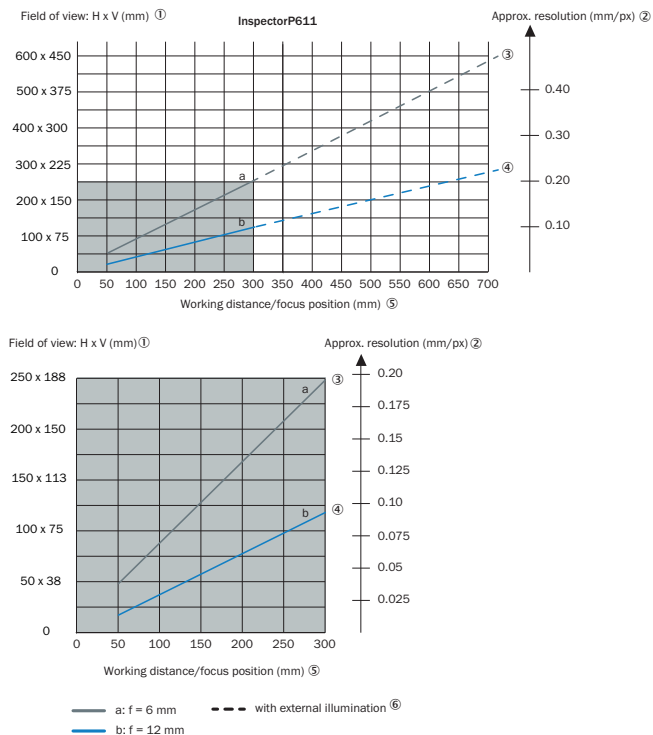
Take into account the following aspects when designing the application: the field of view geometry of the device, and the position of the field of view in the space in front of the device. Possible angles at which the objects can arise in relation to the device. For the planned working distance: resultant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

① Field of view: Horizontal x vertical in mm
② Approximate resolution in mm/px
③ F = 6 mm. Solid line with internal lighting, and dashed line with appropriate external illumination accessories.
④ F = 12 mm. Solid line with internal lighting, and dashed line with appropriate external illumination accessories.
⑤ Working distance/Focus position in mm
⑥ With external illumination

Overview

SICK AppSpace
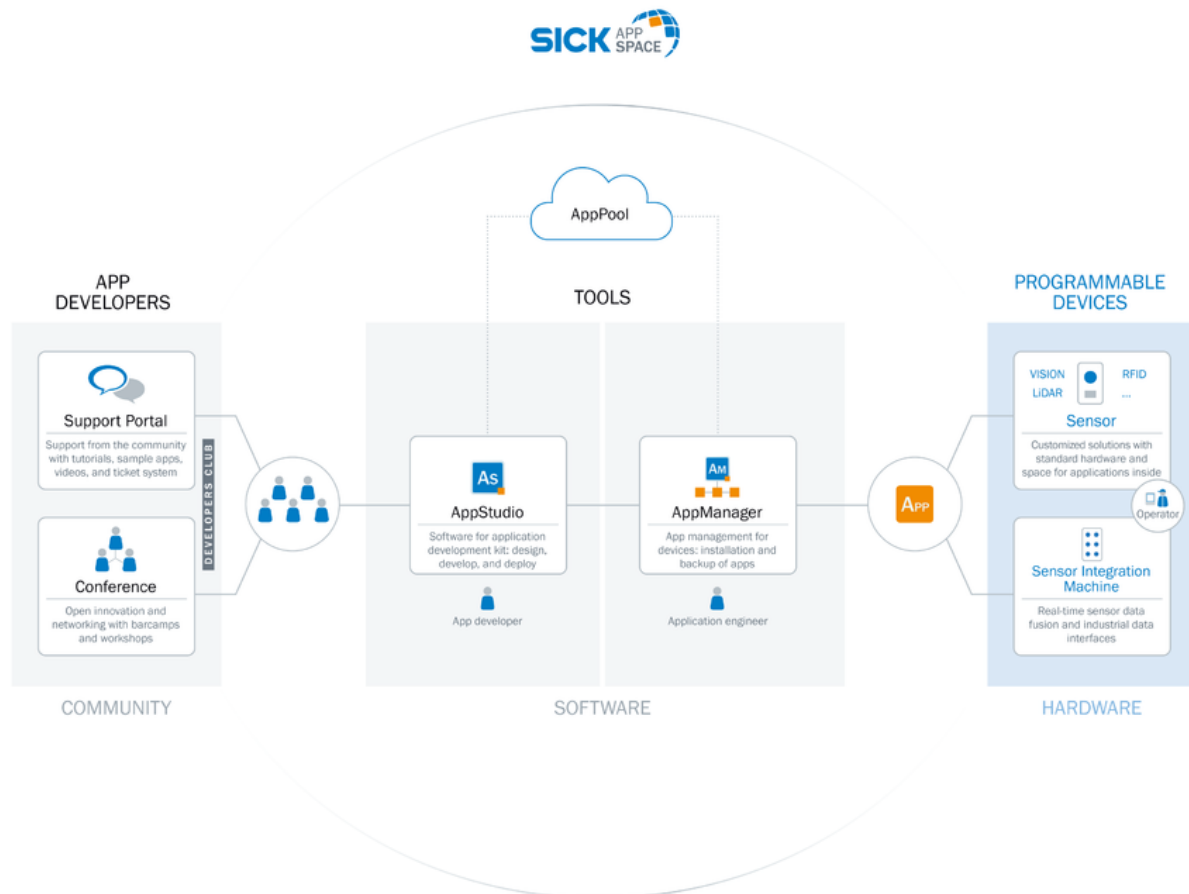
Recommended accessories

Other models and accessories ➔ www.sick.com/InspectorP61x

	Brief description	Type	Part no.
Plug connectors and cables			
	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	YM2A8D-030XXXF2A8D	6051194
	Head A: male connector, M12, 4-pin, straight, D-coded Head B: male connector, RJ45, 4-pin, straight Cable: Ethernet, PROFINET, PUR, halogen-free, shielded, 2 m	YM2D24-020PN1MRJA4	2106182
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/InspectorP61x

	Type	Part no.
Warranty extensions		
• **Product area:** Identification solutions, machine vision, Distance sensors, Detection and ranging solutions • **Range of services:** The services correspond to the scope of the statutory manufacturer warranty (SICK general terms and conditions of purchase) • **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."

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