



PINS632

Pinspector 2D

2D MACHINE VISION

SICK
Sensor Intelligence.



Illustration may differ



Ordering information

Type	Part no.
PINS632	1107738

Other models and accessories → www.sick.com/Pinspector_2D

Detailed technical data

Features

Technology	2D snapshot
Light source	Illumination LEDs: (to be ordered separately as accessories) Laser alignment aid: visible red light ($\lambda = 630 \text{ nm} \dots 680 \text{ nm}$)
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)
Focus	Adjustable focus (manually)
Sensor	CMOS matrix sensor, grayscale values, 1.9 Mpixel, 1,600 px, 1,200 px
Spectral range	Approx. 400 nm ... 900 nm
Lens	C-mount

Mechanics/electronics

Dimensions, system (L x W x H)	108 mm x 63 mm x 46 mm (Housing only, without lens and optics protection hood)
Enclosure rating	IP67 (EN 60529 (1991-10), EN 60529/A2 (2002-02))
Protection class	III (EN 60950-1 (2014-08))
Power consumption	Typ. 10 W, $\pm 20 \%$
Housing material	Aluminum die cast
Output current	$\leq 100 \text{ mA}$
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, $\pm 20 \%$
Window material	PMMA
Weight	430 g

Performance

Bar code types	2/5 Industrial
-----------------------	----------------

	Interleaved 2 of 5 Codabar Code 39 Code 93 Code 128 EAN-8 EAN13 Pharmacode
2D code types	Data Matrix ECC200 QR code Micro QR code PDF417 Aztec
OCR/OCV fonts	Universal, industrial, document, DotPrint, pharma, OCR-A, OCR-B, Arabic numbers
Maximum encoder frequency	1 kHz

Interfaces

Serial (RS-232, RS-422)	✓
Data transmission rate	(300 Baud ... 115.2 kBaud)
Ethernet	✓, TCP/IP
Function	EtherNet/IP UDP / PROFINET FTP HTTP
Data transmission rate	10/100/1,000 Mbit/s
Operator interface	Web server
Optical indicators	5 x status display, 5 x LED bar graph, 1 green/red feedback spot
Data storage and retrieval	Image and data logging via microSD memory card and external FTP
Control element	2 buttons
Acoustic indicators	Beeper

Ambient data

Ambient temperature, operation	0 °C ... +50 °C, permissible relative humidity: 0% ... 90% (non-condensing)
Ambient temperature, storage	-20 °C ... +70 °C ¹⁾
Shock load	EN 60068-2-27:2009-05
Vibration load	EN 60068-2-6:2008-02

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

General notes

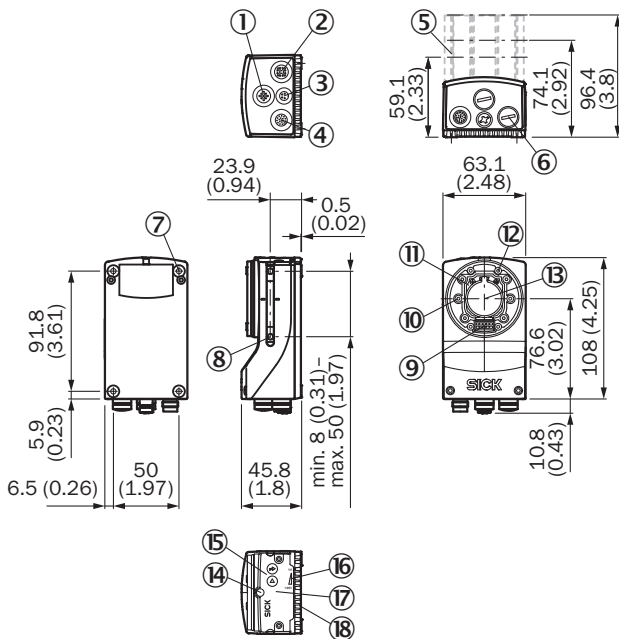
Items supplied	InspectorP V2D621P-2MSFBB5 LabelChecker software
-----------------------	---

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

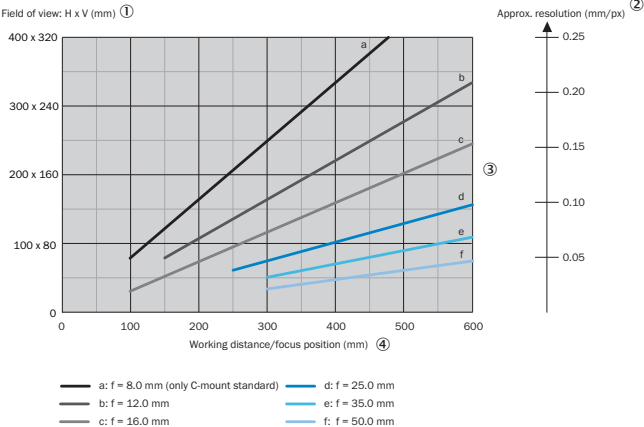
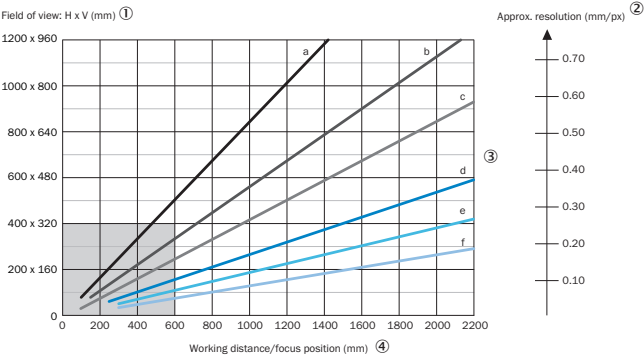
ECLASS 10.0	27289090
ECLASS 11.0	27289090
ECLASS 12.0	27289090
ETIM 5.0	EC001820
ETIM 6.0	EC001820
ETIM 7.0	EC001820
ETIM 8.0	EC001820
UNSPSC 16.0901	43211731

Dimensional drawing (Dimensions in mm (inch))



- ① “External light” connection (external illumination unit, female connector, M12, 4-pin, A-coded)
- ② “Ethernet” connection (Gigabit Ethernet, female connector, M12, 8-pin, X-coded)
- ③ “USB” connection (female connector, type M8, 4-pin), for temporary use as a service interface only
- ④ “Power/Serial Data/CAN/I/O” connection (male connector, M12, 17-pin, A-coded)
- ⑤ Optics protection hood (length: 22.7 mm, 37.7 mm or 60 mm)
- ⑥ 4 protective caps for sealing off the electrical connections as required for enclosure rating IP67 (delivery condition)
- ⑦ 4 tapped blind holes, M5, 5.5 mm deep for mounting the device
- ⑧ 2 sliding nuts, M5, 5.5 mm deep, as an alternative method of mounting the device
- ⑨ Connection for an integrable illumination unit (VI55I ring illumination unit)
- ⑩ 2 laser alignment aids
- ⑪ S-mount or C-mount optics module
- ⑫ 4 blind tapped holes, 2.5 mm for mounting the spacers for the integrable illumination (VI55I ring illumination unit)
- ⑬ Optical axis and center of the image sensor
- ⑭ Basic device: Manual focus screw for an S-mount lens, accessible via the round opening in the housing cover. To secure the focus setting, cover the round opening with a self-adhesive label. Complete device: The opening is already covered by a label.
- ⑮ 2 function keys
- ⑯ 5 bar graph LEDs
- ⑰ Hinged cover on the top side of the device, access to the microSD memory card and the manual focus screw (S-mount)
- ⑱ 5 status LEDs (2 levels)

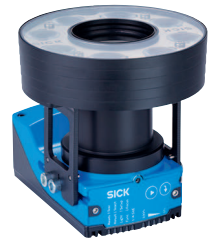
Characteristic curve



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.

- ① Field of view: Horizontal x vertical in mm
- ② Approximate resolution in mm/px
- ③ Lens focal length
- ④ Working distance/Focus position in mm

Selection Guide



Body, incl.
C-mount module

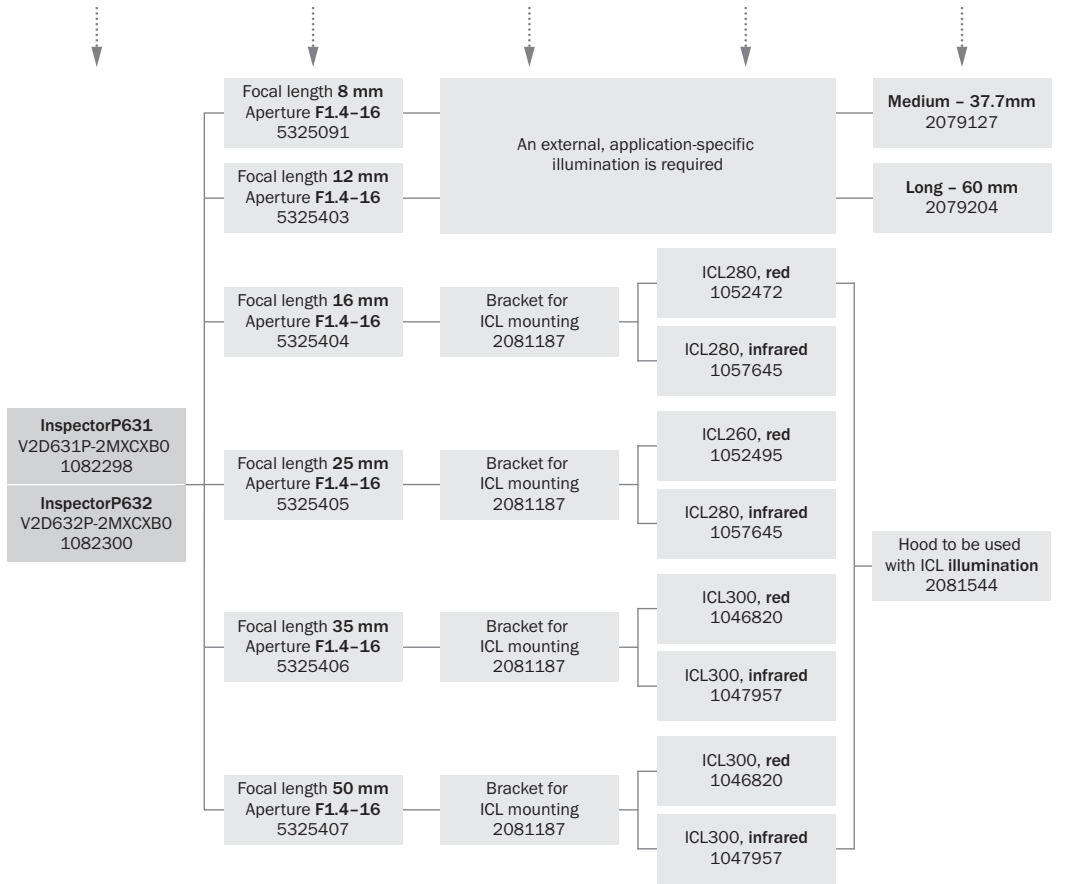
C-mount lens

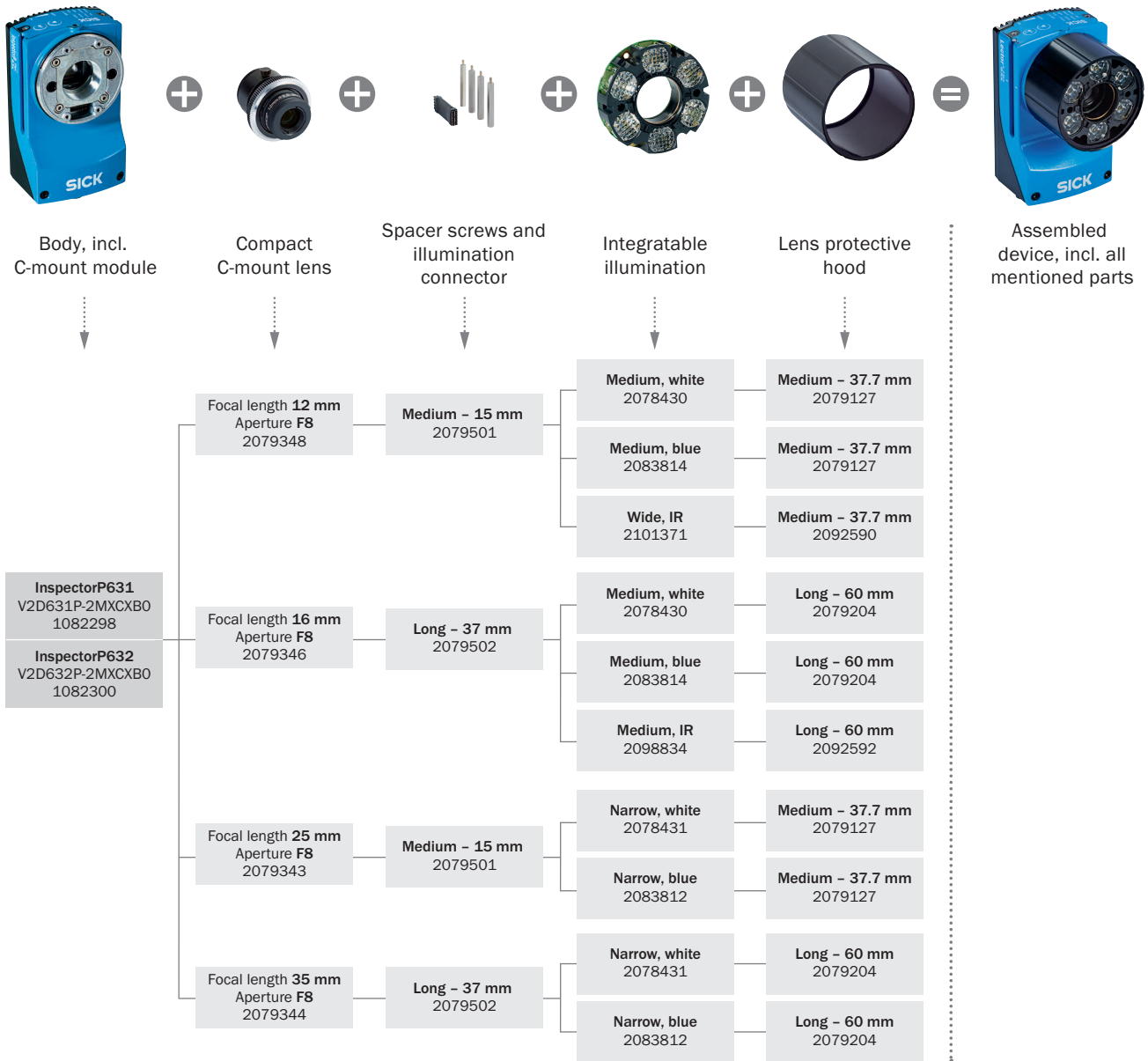
Mounting bracket

External
illumination

Lens protective
hood



Assembled
device, incl. all
ICL parts









Recommended accessories

Other models and accessories → www.sick.com/Pinspector_2D

	Brief description	Type	Part no.
Lenses and accessories			
	C-mount 2/3", focal length 35 mm, aperture 1.4 - 16, 36.5 mm (Without C-mount thread)	C-mount lens	5325406
	C-mount 1/1.8", focal length 50 mm, aperture 1.4 - 16, 62.6 mm (Without C-mount thread)	C-mount lens	5325407
	Optics protection hood, long, enclosure rating IP 67, length: 60 mm, PMMA, for use with compact C-mount lens with focal length 16 mm or 35 mm	Optics protection hood (PMMA)	2079204

	Brief description	Type	Part no.
	Adapter ring, from CS-mount to C-mount lenses, 17.5 mm focal length	Spacer ring	2047711
Mounting brackets and plates			
	Mounting bracket set consisting of mounting bracket, cooling plate, includes angle display for setting the tilt angle	Mounting bracket	2076735
Others			
	<ul style="list-style-type: none"> • Connection type head A: Female connector, M12, 17-pin, straight, A-coded • Connection type head B: Flying leads • Signal type: Power, serial, CAN, digital I/Os • Cable: 3 m, 17-wire, stripped, PE-X • Description: Power, serial, CAN, digital I/Os, suitable for 2 A, Changed color coding of the flying leads, shielded • Connection systems: Flying leads • Application: Drag chain operation 	YF2ASD-030XXXLECX	2070425
	<ul style="list-style-type: none"> • Connection type head A: Male connector, M12, 8-pin, straight, X-coded • Connection type head B: Male connector, RJ45, 8-pin, straight • Signal type: Gigabit Ethernet • Cable: 2 m, 8-wire, AWG26, PUR, halogen-free • Description: Gigabit Ethernet, twisted pair, shielded • Application: Zones with oils and lubricants 	YM2X18-020EG2MRJA8	6049728
	<ul style="list-style-type: none"> • Connection type head A: Male connector, M12, 8-pin, straight, X-coded • Connection type head B: Male connector, RJ45, 8-pin, straight • Signal type: Gigabit Ethernet • Cable: 5 m, 8-wire, AWG26, PUR, halogen-free • Description: Gigabit Ethernet, twisted pair, shielded • Application: Zones with oils and lubricants 	YM2X18-050EG2MRJA8	6049729

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