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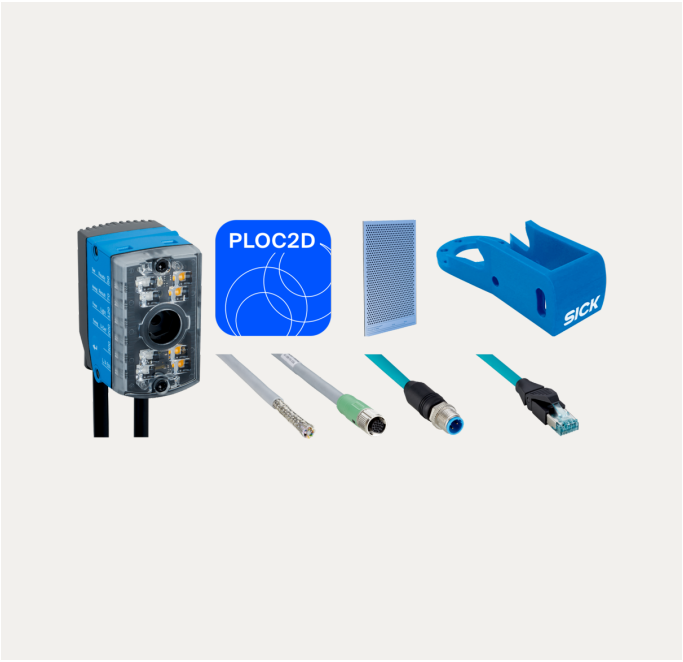


DATA SHEET

PLOC2D-611-6RB ABB GoFa

PLOC2D
Robot guidance systems

SICK Sensor Intelligence



ROBOT GUIDANCE SYSTEMS

PLOC2D-611-6RB ABB GoFa

ORDERING INFORMATION

Type	part no.
PLOC2D-611-6RB ABB GoFa	1136307

Further device versions and accessories at www.sick.com/PLOC2D

DETAILED TECHNICAL DATA

FEATURES

Product name	PLOC2D-611-6RB ABB KIT GOFA
System features	Stand-alone sensor with easy teach, for localization of parts using 2D measurements
Robot controller	ABB: Omnicore
Example field of view	For details see field of view diagram
Working distance	50 mm ... 300 mm
Light source	
Internal lighting	LED, visible red light, 617 nm, ± 15 nm
Internal lighting	LED, visible blue light, 470 nm, ± 15 nm
Feedback spot	LED, visible green light, 525 nm, ± 15 nm
Adjustment aid	Laser, visible red light, 630 nm, ± 15 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
Optical focus	Teach auto focus (liquid lens)
LED class	Risk group 1 (low risk, IEC 62471 (2006-07) / EN 62471 (2008-09))
Localization principle	Shape comparison
Sensor resolution	1,280 px x 960 px (1.2 MP)
Lens	
Mounting method	Integrated
Focal length	6 mm
Technology	2D snapshot, image analysis
Description	Medium resolution 2D localization of parts in medium/large fields of view at medium/long reading distances

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 ... 24 V, ± 15 %
Power consumption	3.5 W

Housing material	Die-cast zinc
Housing color	Light blue (RAL 5012)
Window material	PMMA
Dimensions (L x W x H)	50 mm x 40.3 mm x 29.6 mm
Weight	165 g
Enclosure rating	IP65

PERFORMANCE

Part localization time	< 0.5 seconds for the first part in the image and then < 100 ms for additional parts in the image
Localization accuracy	± 0.5 px, ± 0.1°
Output data	X, Y (mm), rotation around Z (degrees)

INTERFACES

Ethernet	✓
Data transmission rate	100 Mbit/s
Protocol	TCP/IP XML and CSV (robot), TCP/IP (operator) PROFINET EtherNet/IP™ FTP
Electrical connection	M12 female connector, 4-pin
Supply voltage	
Electrical connection	Male connector M12, 17-pin
User interface	Web server
Data storage and retrieval	Image and data logging via microSD memory card and external FTP

AMBIENT DATA

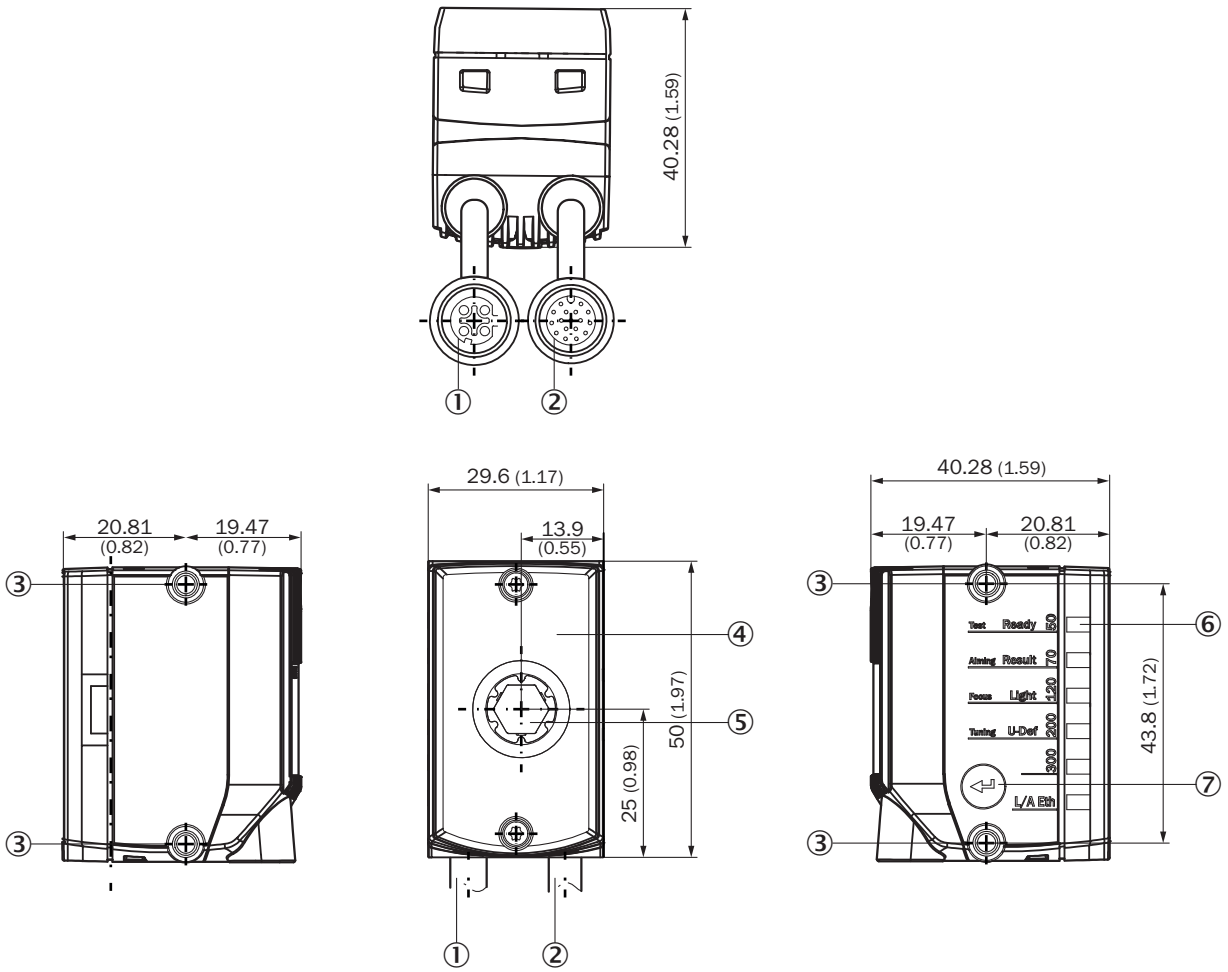
Ambient temperature, operation	0 °C ... +40 °C, permissible relative humidity: 0% ... 90% (non-condensing)
Ambient temperature, storage	–20 °C ... +70 °C [1]
Shock load	EN 60068-2-27:2009-05
Vibration load	EN 60068-2-6:2008-02

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

GENERAL NOTES

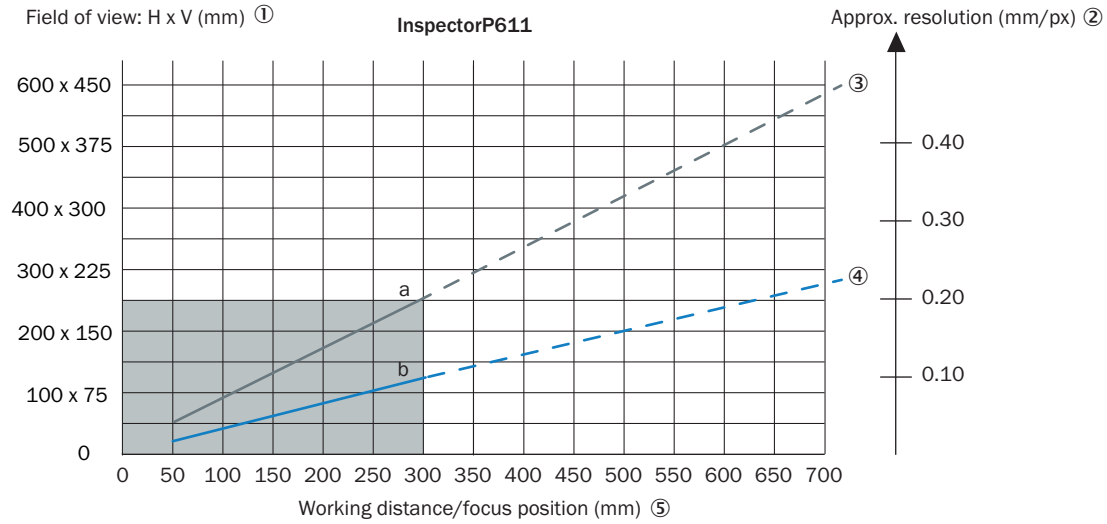
Items supplied	Camera, complete with integrated optics and illumination PLOC2D software

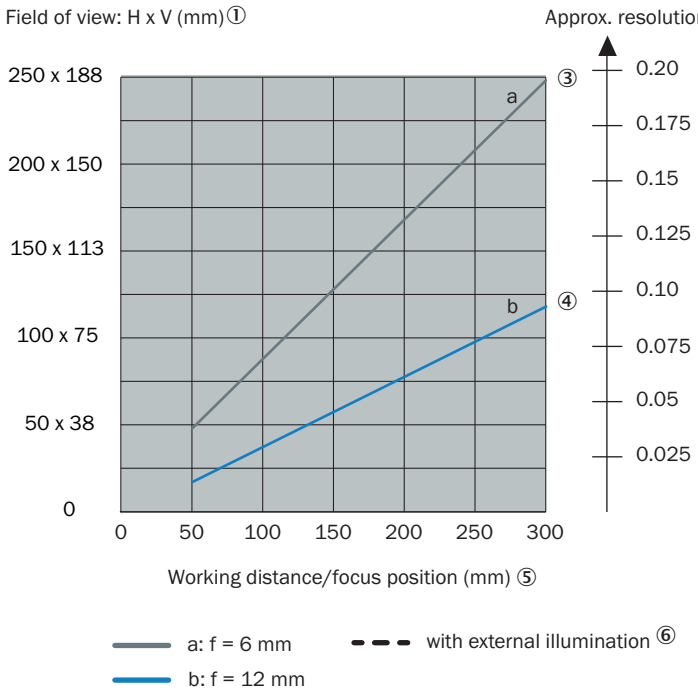
DIMENSIONAL DRAWING



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

CHARACTERISTIC CURVE





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

Further information as well as suitable accessories, example applications and downloads such as CAD dimensional models, operating instructions and software can be found at www.sick.com/1136307

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SICK AT A GLANCE

SICK is a leading global technology company for intelligent sensors and integrated solutions in industrial automation. Our technologies set benchmarks, making your industrial processes more efficient, safer and more sustainable – both in logistics and manufacturing operations.

SICK combines sensor intelligence with industry expertise and certified consulting services. We provide the ideal foundation for scalable as well as tailor-made automation solutions and create added value along the entire value chain. Our close partnerships with our customers are more than just a promise: Together, we optimize productivity, improve quality, protect health and safety, and help build a sustainable future. All with empathy and trust.

Since 1946, we have been developing innovative technologies with passion and a pioneering spirit. With a global network in around 40 countries, SICK has a global presence and is always close by. The company's headquarters are located in Waldkirch near Freiburg, Germany. Our customers benefit from our understanding of both local and global requirements, which enables us to deliver tailor-made solutions

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