



VSPM-6F2313

Inspector

2D VISION

SICK
Sensor Intelligence.



Ordering information

Type	Part no.
VSPM-6F2313	1062409

Other models and accessories → www.sick.de/Inspector



Detailed technical data

Features

Task	Inspection, Positioning, Measuring
Technology	2D, snapshot, image analysis
Toolkit	Object locator, pixel count, edge pixel count, pattern, blob locator, Polygon, edge, circle, distance, angle, edge counter, find maximum
Sensor	CMOS matrix sensor, grayscale values
Focus	Adjustable focus (manually)
Calibration	Perspective and lens distortion correction, mm results
Robot coordinate alignment	✓
Working distance	≥ 50 mm
Operating distance with internal illumination	50 mm ... 200 mm
Focal length	10 mm
Field of view of internal illumination	22 mm x 15 mm ... 79 mm x 58 mm
Internal lighting	UV
LED class	Risk group 1 (low risk, IEC62471 : 2006)
Spectral range	Approx. 400 nm ... 750 nm
Offline support	Emulator

Performance

Sensor resolution	640 px x 480 px
Maximum performance	200 fps
Typical performance	40 fps
Number of inspections	64
Reference images	32 objects

Interfaces

Operator interfaces	Web server
Configuration software	SOPAS ET

Data storage and retrieval	Log for 30 images, record images on PC, store images to FTP
Ethernet	✓
Data transmission rate	100 Mbit/s
Protocol	TCP/IP, EtherNet/IP
Ethernet communication	Web API
Digital inputs	4 inputs (24 V)
Configurable inputs	External trigger, encoder input, External teach, reference object selection
Digital outputs	3 outputs, 24 V (B-type)
Configurable outputs	Output by logical expressions, store images to FTP overflow
Output current	≤ 100 mA
Standard outputs	No object detected, Everything OK, Detail error
Maximum encoder frequency	40 kHz
External illumination control	5 V TTL
I/O box extension	5 x inputs for object selection, 16 outputs

Mechanics/electronics

Connections	M12, 12-pin male connector M12, 4-pin female connector
Supply voltage	24 V DC, ± 20 %
Ripple	< 5 V _{pp}
Current consumption	< 450 mA without output load
Enclosure rating	IP 67
Housing material	Aluminum
Window material	Glass
Weight	350 g
Dimensions (L x W x H)	100 mm x 53 mm x 38 mm
Optics	Exchangeable (M12-mount)

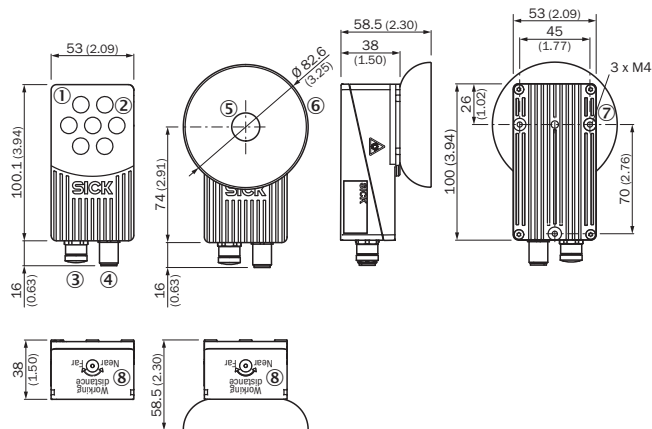
Ambient data

Shock load	EN 60068-2-27
Vibration load	IEC 60068-2-6
Ambient operating temperature	0 °C ... +45 °C ¹⁾
Ambient storage temperature	-20 °C ... +70 °C ¹⁾

¹⁾ Relative humidity: 35% ... 85%, 95% in operation.

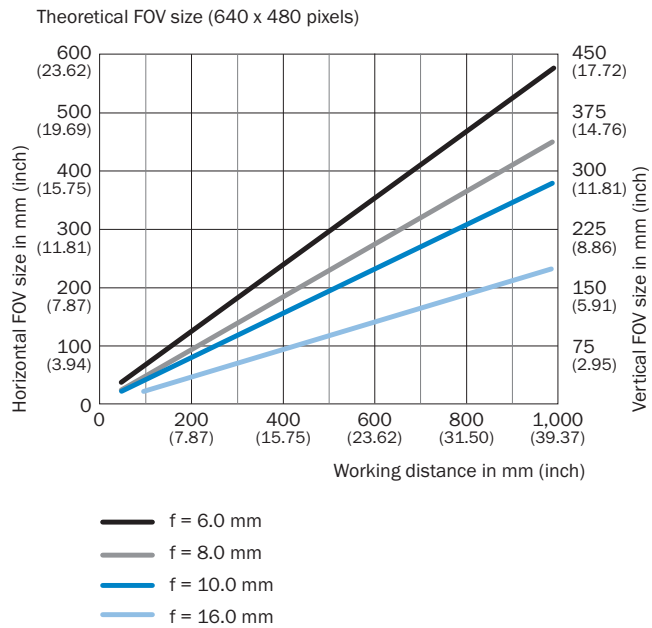
Dimensional drawing (Dimensions in mm (inch))

Standard

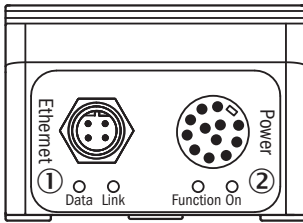


- ① Front screen: standard, flex
- ② Ring lighting
- ③ Ethernet connection M12, 4-pin, female
- ④ Power connection M12, 12-pin, male
- ⑤ Front screen: dome
- ⑥ Dome light
- ⑦ Mounting hole M4
- ⑧ Focus

Field of view

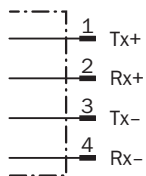
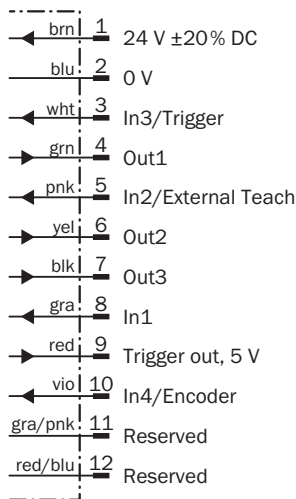


Connection type



- ① Ethernet connection M12, 4-pin, female
- ② Power connection M12, 12-pin, male



Connection diagram



Recommended accessories

Other models and accessories → www.sick.de/Inspector

	Brief description	Type	Part no.
Plug connectors and cables			
	Head A: female connector, M12, 12-pin, straight Head B: Cable Cable: PUR, shielded, 5 m	DOL-1212-G05MAS01	6036556
	Head A: male connector, M12, 4-pin, straight, D-coded Head B: male connector, RJ45, 8-pin, straight Cable: Ethernet, drag chain use, PUR, shielded, 2 m	SSL-2J04-G02ME	6034414

	Brief description	Type	Part no.
Lens and accessories			
	Interchangeable lens, focal length 6 mm, Round connector M12 x 0.5	OBJ-B06025BA	2049668
	Interchangeable lens, focal length 16 mm, including distance ring, Round connector M12 x 0.5	OBJ-B16018BA	2049418

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