

ONLINE DATA SHEET
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2D vision
Inspector, Inspector I-series, Inspector I40

VSPI-4F2111



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Sensor Intelligence.

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2D vision
Inspector, Inspector I-series, Inspector I40

Model Name > VSPI-4F2111
Part No. > 1047913



At a glance

- High-speed part inspection in VGA resolution
- Robust pattern match algorithm to locate parts independent of position, rotation and scale
- Powerful part inspection tool set with pattern inspection
- 32 reference objects
- Unlimited image storing to FTP
- PLC communication control using EtherNet/IP
- High flexibility through wide range of accessories
- Easy-to-use step configuration in PC, including emulator

Your benefits

- High-speed part inspection ensures high resolution quality without production overhead
- The excellent pattern match algorithm in combination with the inspection tool kit enables part inspection at smart camera performance levels but with vision sensor ease-of-use
- EtherNet/IP and image storing to FTP provides excellent support for production control
- The large selection of adjustments and accessories makes the Inspector an excellent choice for production plants for a variety of applications
- The unique dome and filter accessories enable excellent performance on glossy or colored objects with a simple exchange



Features

Task:	Inspection
Technology:	2D Image analysis Snapshot
Toolset:	Pattern Object locator Edge pixel count Contour Pixel count
Focus:	Adjustable focus (manually)
Sensor:	CMOS matrix sensor, gray scale values
Sensing distance:	≥ 50 mm
Working distance internal illumination:	50 mm ... 200 mm
Field of view internal illumination:	22 mm x 15 mm ... 79 mm x 58 mm

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Spectral range:	Ca. 400 nm ... 750 nm
LED class:	Risk group 1 (low risk, IEC62471 : 2006)
Focal length:	10 mm
Offline support:	Emulator
Sensor resolution:	640 px x 480 px
Internal lighting:	White
Robot coordinate alignment:	-

Performance

Maximum performance:	250 fps
Typical performance:	40 fps
Number of inspections:	32
Reference images:	32 objects

Interfaces

Operator interfaces:	Inspector Viewer
Data store and retrieve:	Record images on PC Store images to FTP 30 images device log
Ethernet communication:	EtherNet/IP
Digital inputs:	4 inputs (24 V)
Configurable inputs:	Reference object selection Encoder input External trigger External teach
Digital outputs:	3 outputs, 24 V (B-type)
Configurable outputs:	Output by logical expressions, Store images to FTP overflow
Output current:	100 mA
Default outputs:	All pass Any fail No object detected
Maximum encoder frequency:	40 kHz
Control of external illumination:	5 V TTL
I/O Box extension:	16 outputs 5 x inputs for object selection
Serial (RS-232, RS-422):	-
Ethernet:	✓
Data transmission rate (Ethernet):	100 Mbit/s
Protocol (Ethernet):	EtherNet/IP
Configuration software:	SOPAS

Mechanics/electronics

Connectors:	M12, 12-pin male connector M12, 4-pin female connector
Supply voltage:	24 V DC± 20 %
Power consumption:	< 450 mA Without output load
Ripple:	< 5 Vpp
Enclosure rating:	IP 67
Housing material:	Aluminum
Window material:	PMMA
Dimensions (L x W x H):	100 mm x 53 mm x 38 mm
Optics:	Exchangeable (M12-mount)
Weight:	350 g

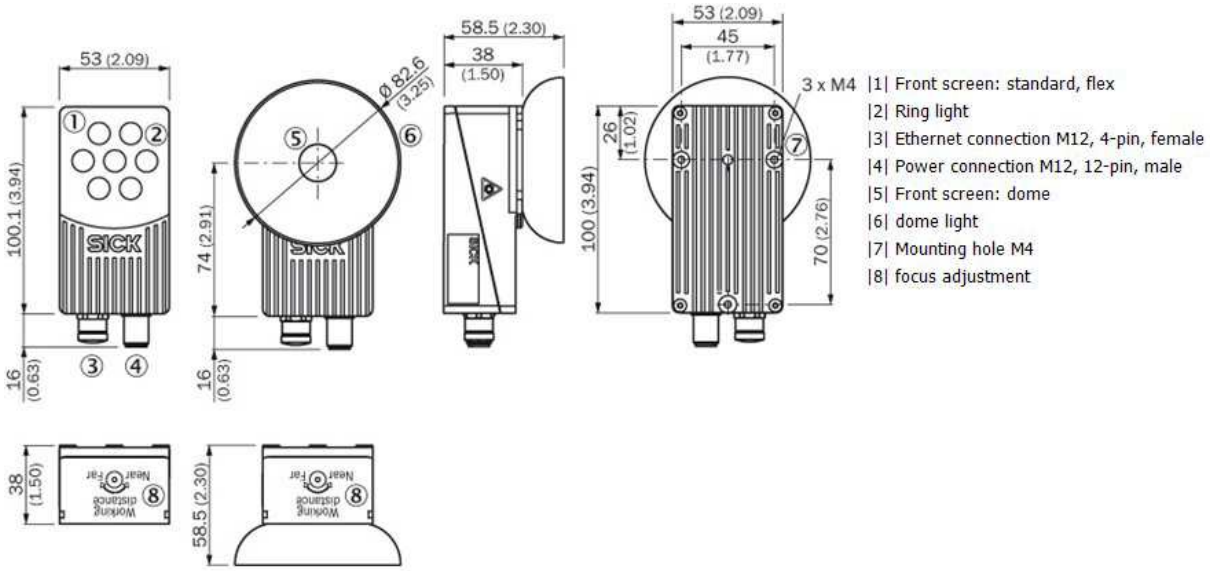
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Ambient data

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

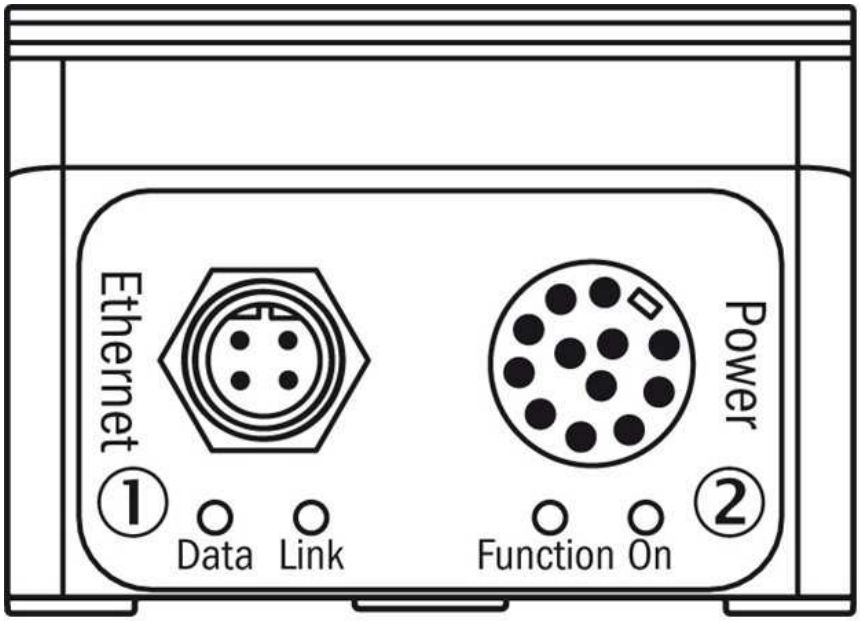
[1] [2] Relative humidity: 35 % ... 85 %, 95 % at operation

Dimensional drawing



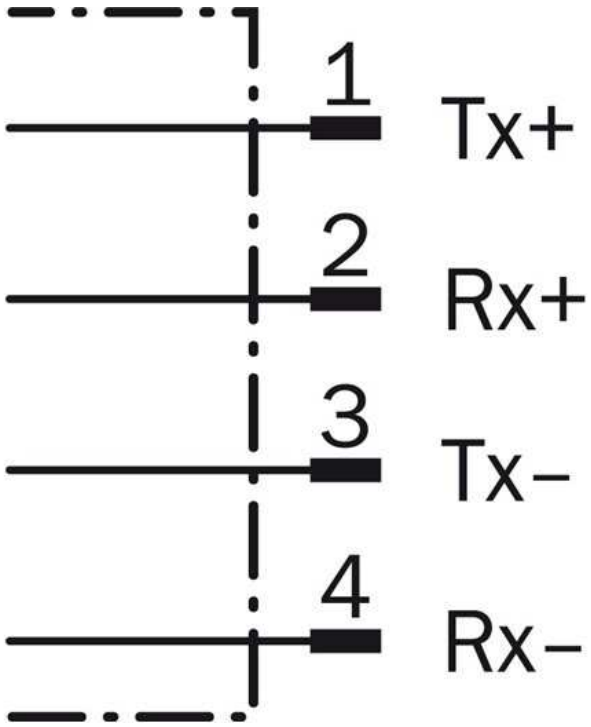
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Connection type



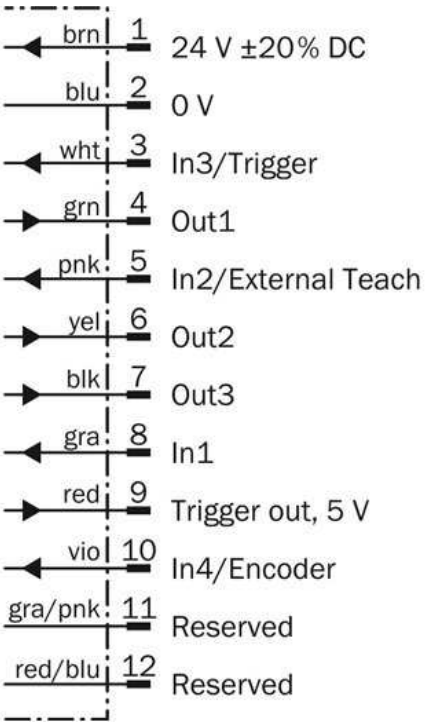
|1| Ethernet connection M12, 4-pin, female
|2| Power connection M12, 12-pin, male

Connection diagram Ethernet

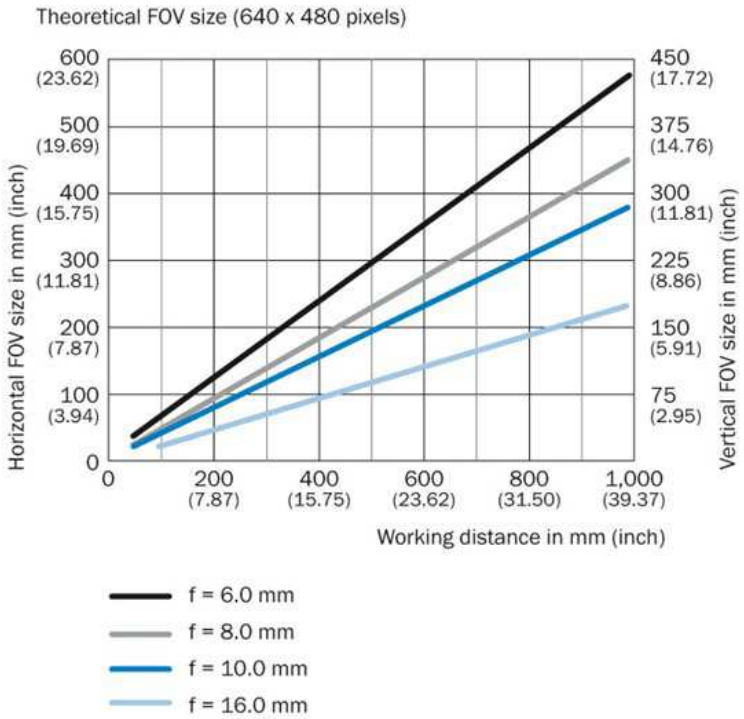


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Connection diagram M12, 12-pin



Field of view



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