



Vision sensors
Inspector, Inspector I-series, Inspector I20

VSPI-2F111



Model Name > [VSPi-2F111](#)
Part No. > [1046732](#)



At a glance

- High-speed part inspection
- Robust pattern match algorithm to locate parts independent of position, rotation and scale
- Unique, even dome illumination or high-power white or UV ring light
- Easy-to-use step configuration in PC, including emulator
- Log, statistics and record
- Exchangeable lens
- Input and output extensions via I/O box
- Configurable outputs by logical expressions

Your benefits

- High-speed part inspection ensures quality without production overhead
- The robust pattern match algorithm locates parts independent of position, rotation and scale and guarantees high-quality results even in your toughest production conditions
- Unique UV illumination provides a quick return on investment in solar cell manufacturing by detecting broken wafers
- The compact, IP 67-rated exchangeable lens optimizes performance on different object sizes and working distances and is designed for the best price/performance ratio
- The increased I/O support via the I/O extension box gives you an easy solution for extended production control
- Configurable outputs by logical expression enables reduced cost of additional logical equipment in your production



Features

Task:	Inspection
Technology:	2D Image analysis Snapshot
Toolset:	Object locator, Contour Pixel count, Edge pixel count
Sensor:	CMOS matrix sensor, gray scale values
Focus:	Manually adjustable focus
Working distance:	≥ 50 mm
Working distance internal illumination:	50 mm ... 200 mm
Field of view internal illumination:	20 mm x 20 mm ... 72 mm x 72 mm
Light source:	White
Spectral range:	Ca. 400 nm ... 750 nm

LED class: Risk group 1 (low risk, IEC62471 : 2006)
Offline support: Emulator

Performance

Resolution: 384 px x 384 px
Maximum performance: 250 fps
Typical performance: 40 fps
Number of inspections: 32
Reference images: 16 objects

Interfaces

Operator interfaces: Inspector Viewer
Configuration software: SOPAS
Data store and retrieve: Record images on PC
30 images device log
Communication interfaces: 100 MBit/s Ethernet
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
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
4x inputs for object selection

Mechanics/electronics

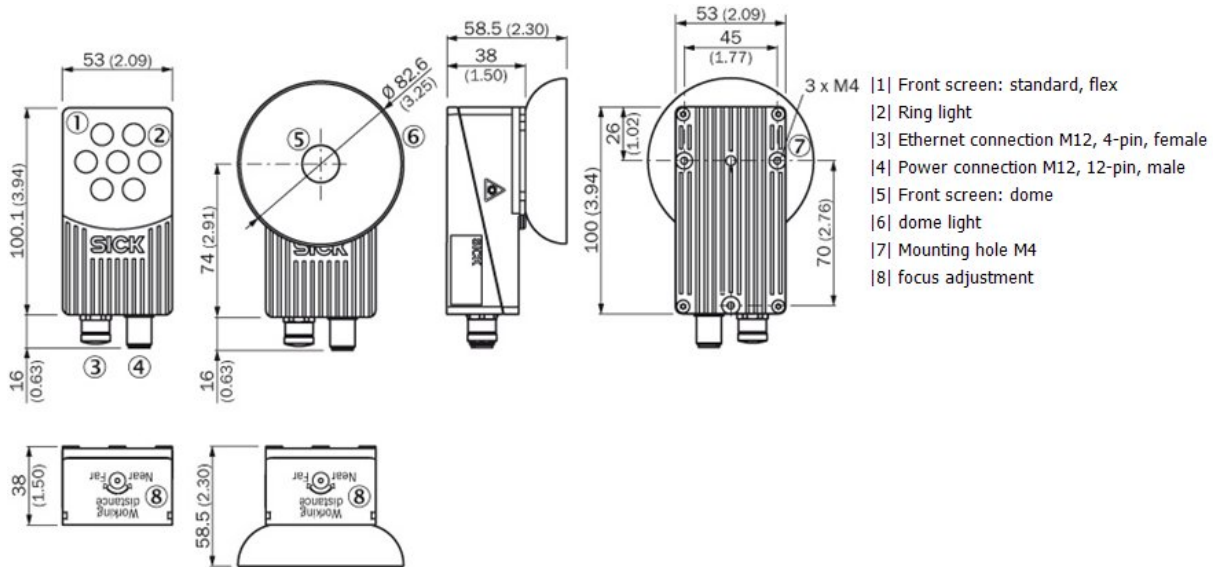
Connectors: M12, 12-pin male connector
M12, 4-pin female connector
Supply voltage: 24 V DC± 20 %
Power consumption: < 450 mA Without output load
Ripple: < 5 Vpp
Enclosure rating: IP 67 (with front window mounted)
Housing material: Aluminum
Window material: PMMA
Weight: 350 g
Dimensions (L x W x H): 100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

Ambient data

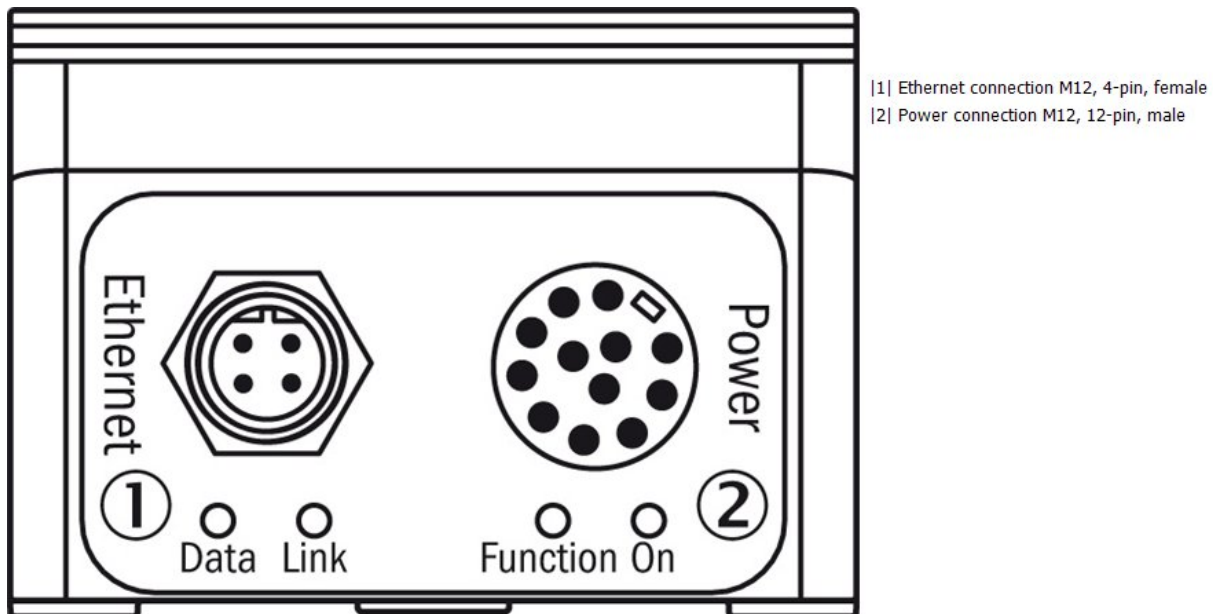
Shock load: EN 60068-2-27
Vibration load: IEC 60068-2-6
Ambient operating temperature ¹⁾: 0 °C ... 45 °C
Ambient storage temperature ²⁾: -20 °C ... 70 °C

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

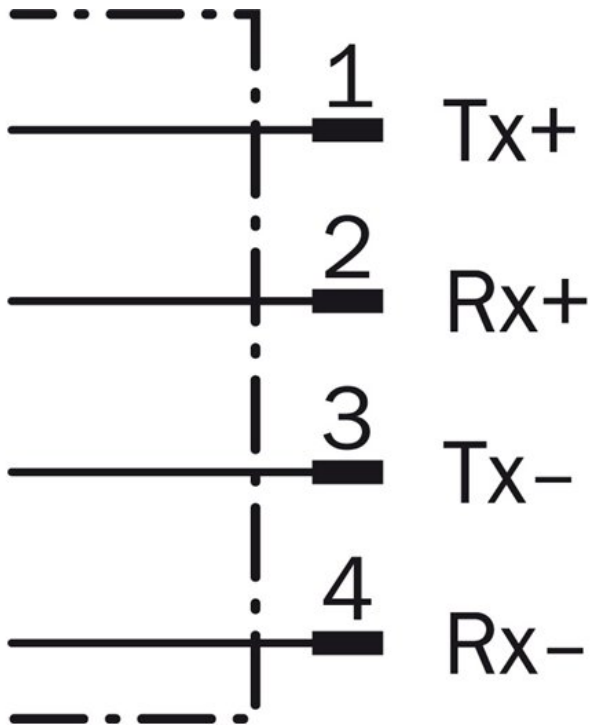
Dimensional drawing



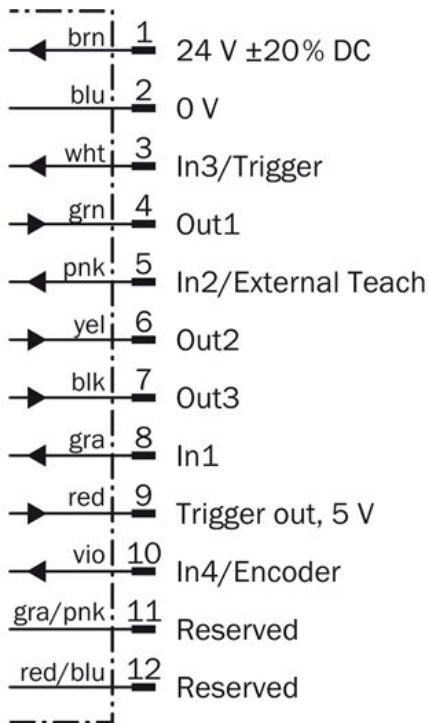
Connection type



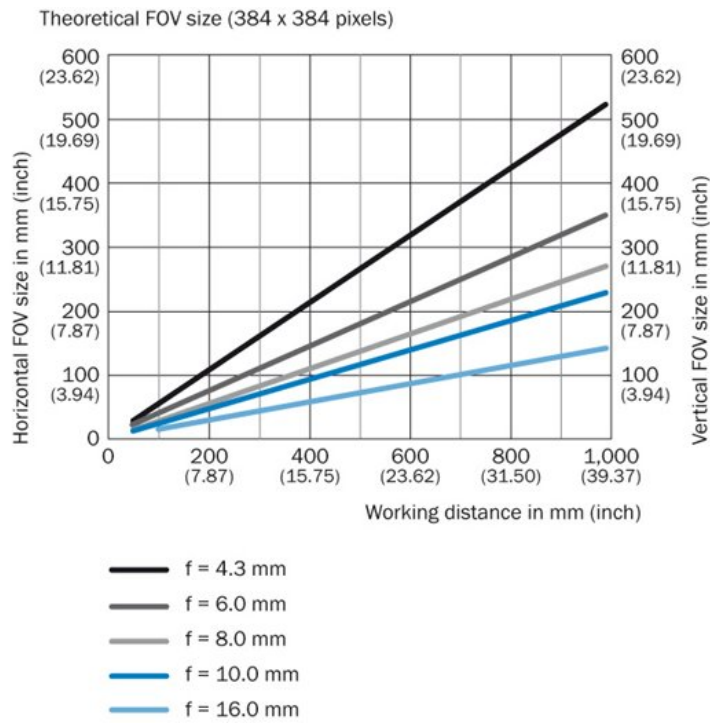
Connection diagram Ethernet



Connection diagram M12, 12-pin



Field of view



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