



2D vision  
Inspector, Inspector I-series, Inspector I20-IR

VSPI-2F141



**Model Name** > [VSPI-2F141](#)  
**Part No.** > [1054704](#)



**At a glance**

- Integrated IR light
- Optional visible block filter
- Advanced object locator tool to locate parts independent of position, rotation and scale
- Input and output extensions via I/O box
- Configurable outputs by logical expressions
- Flexible housing supports optional lenses, filters and dome accessory

**Your benefits**

- The IR light reduces color dependency in inspections, decreasing the need for reprogramming on line changes by using the same configuration
- The invisible IR light reduces eye strain for operators
- The IR version, in combination with the optional visible block filter, is the easiest and most cost-effective method to gain immunity to changes in environmental lighting
- The advanced object locator locates parts independent of position, rotation and scale and ensures high-quality results even in tough production conditions
- The increased I/O support via the external I/O box provides an easy solution for extended production control



**Features**

Task:	Inspection
Technology:	2D Image analysis Snapshot
Toolset:	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
Spectral range:	Ca. 370 nm ... 900 nm
LED class:	Risk group 0 (exempt risk, IEC62471 : 2006)
Focal length:	6 mm

Offline support:	Emulator
Sensor resolution:	384 px x 384 px
Internal lighting:	Infrared
Robot coordinate alignment:	-

### Performance

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Maximum performance:	250 fps
Typical performance:	40 fps
Number of inspections:	32
Reference images:	16 objects

### Interfaces

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Operator interfaces:	Inspector Viewer
Data store and retrieve:	Record images on PC 30 images device log
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
Serial (RS-232, RS-422):	-
Ethernet:	✓
Data transmission rate (Ethernet):	100 Mbit/s
Configuration software:	SOPAS

### Mechanics/electronics

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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

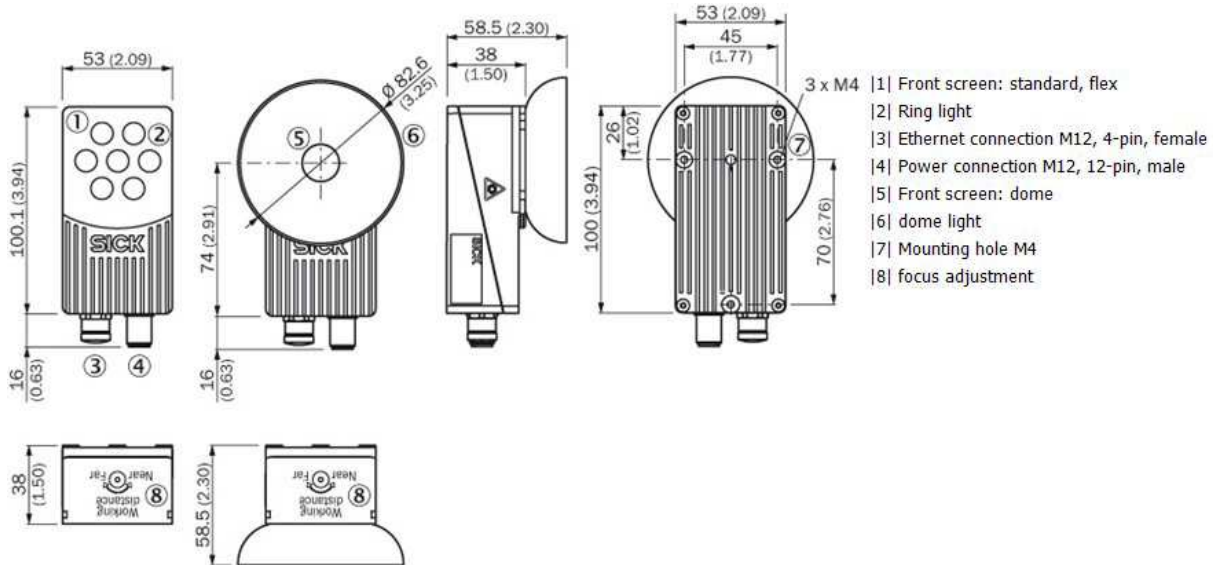
### Ambient data

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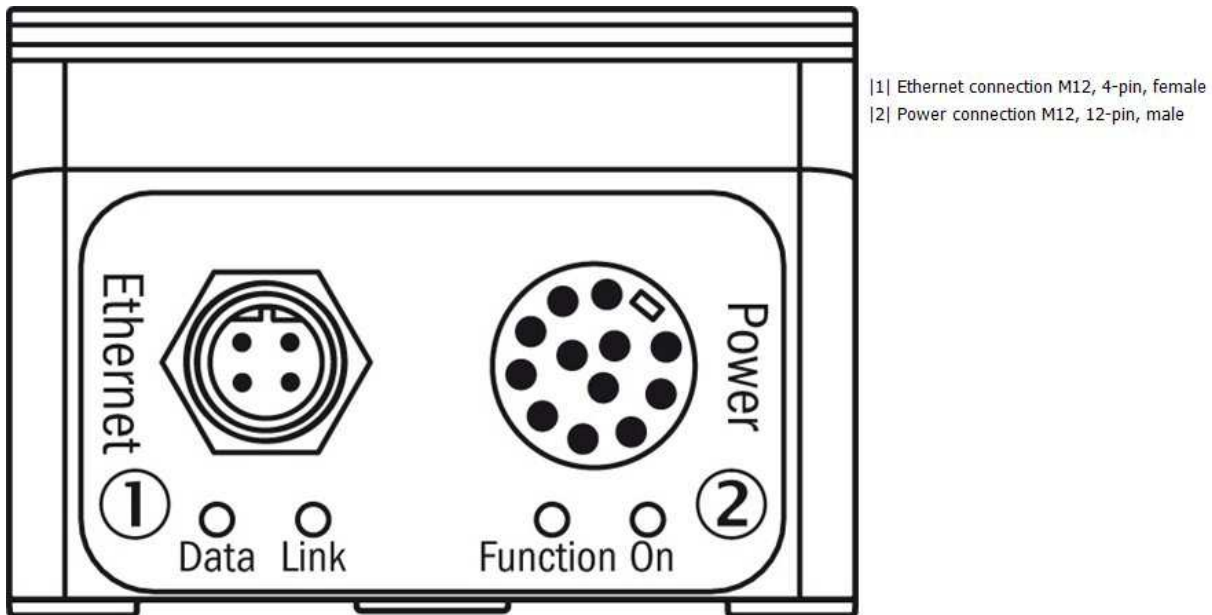
Shock load:	EN 60068-2-27
Vibration load:	IEC 60068-2-6
Ambient operating temperature <sup>1)</sup> :	0 °C ... +45 °C
Ambient storage temperature <sup>2)</sup> :	-20 °C ... +70 °C

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

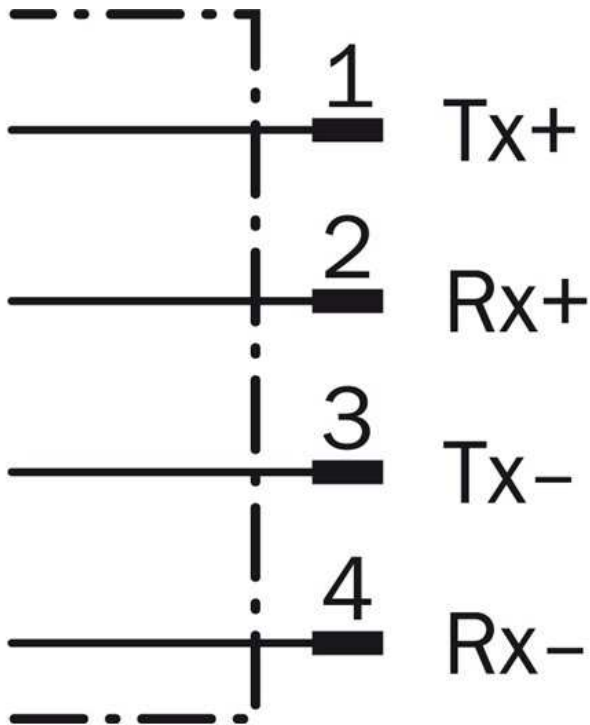
### Dimensional drawing



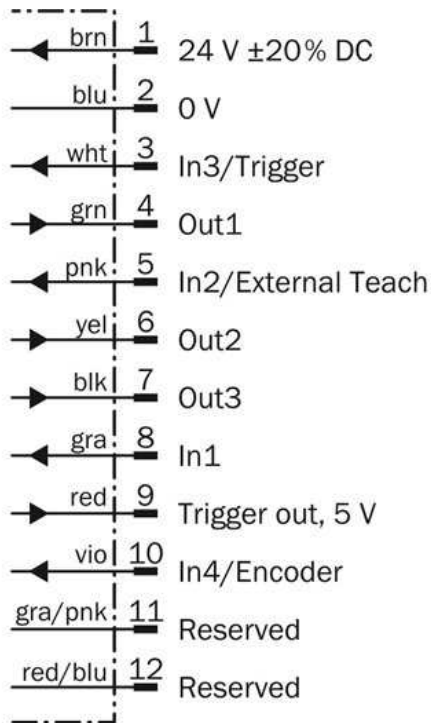
### Connection type



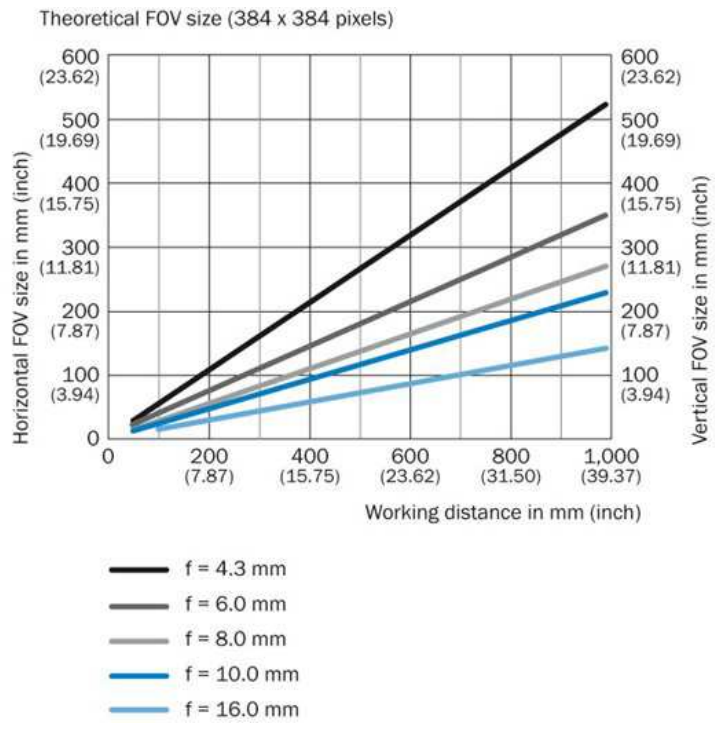
Connection diagram Ethernet



Connection diagram M12, 12-pin



# Field of view



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