



Vision sensors 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, 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:	22 mm x 15 mm ... 79 mm x 58 mm
Light source:	Infrared
Spectral range:	Ca. 370 nm ... 900 nm
LED class:	Risk group 0 (exempt 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

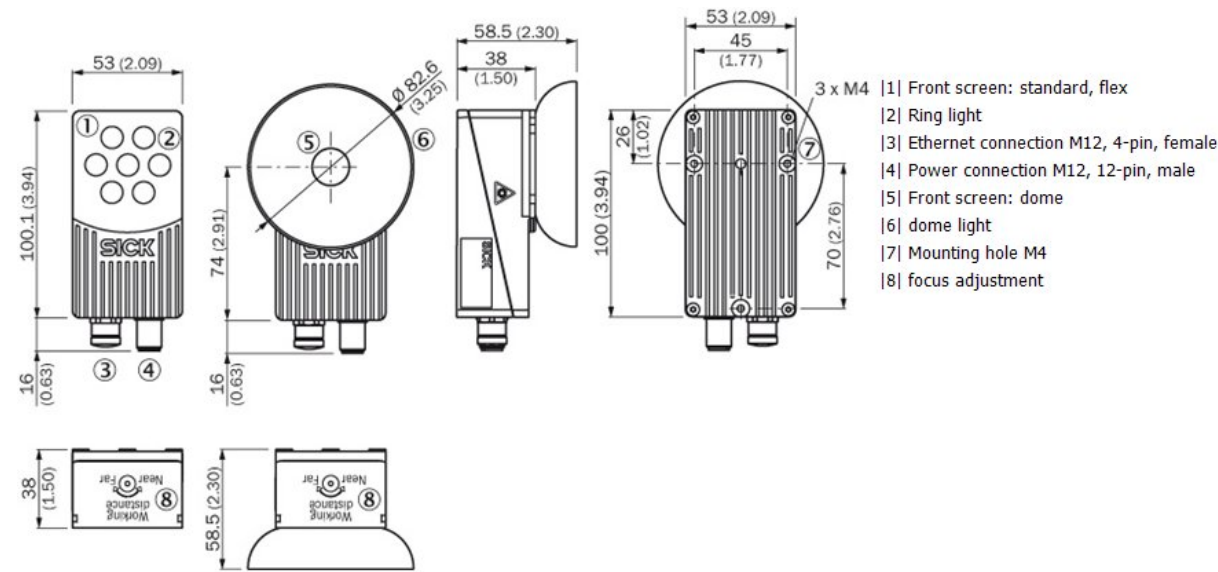
Connectors:	M12, 12-pin male connector M12, 4-pin female connector
Supply voltage:	24 V DC± 20 %
Power consumption:	< 450 mA Without output load
Ripple:	< 5 Vpp
Enclosure rating:	IP 67 (with front window mounted)
Housing material:	Aluminum
Window material:	PMMA
Weight:	350 g
Dimensions (L x W x H):	100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

Ambient data

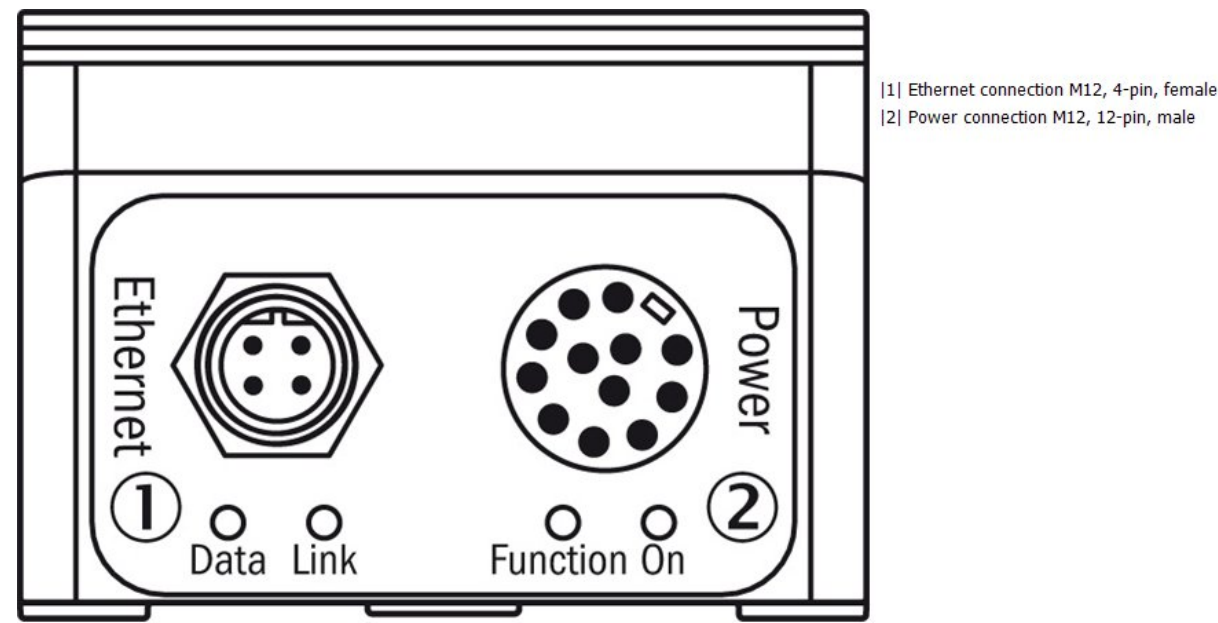
Shock load:	EN 60068-2-27
Vibration load:	IEC 60068-2-6
Ambient operating temperature ¹⁾ :	0 °C ... 45 °C
Ambient storage temperature ²⁾ :	-20 °C ... 70 °C

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

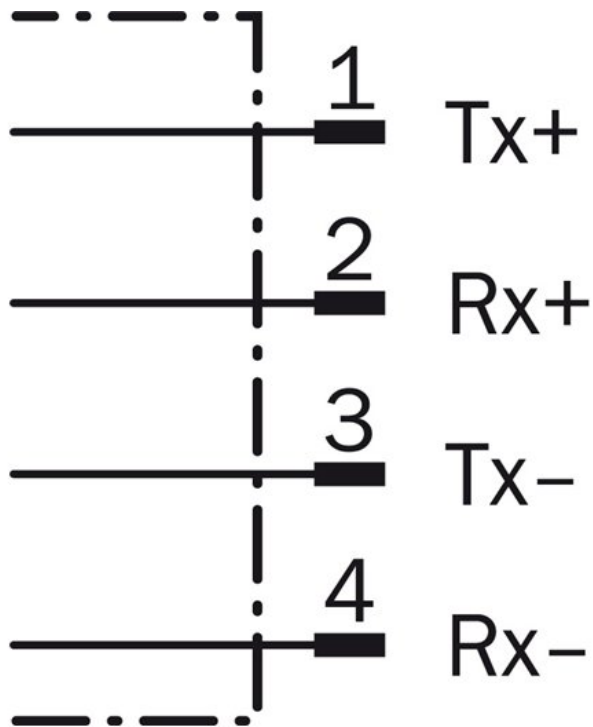
Dimensional drawing



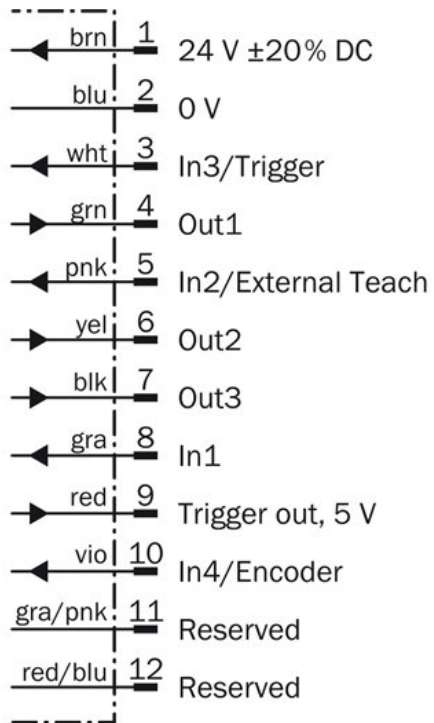
Connection type



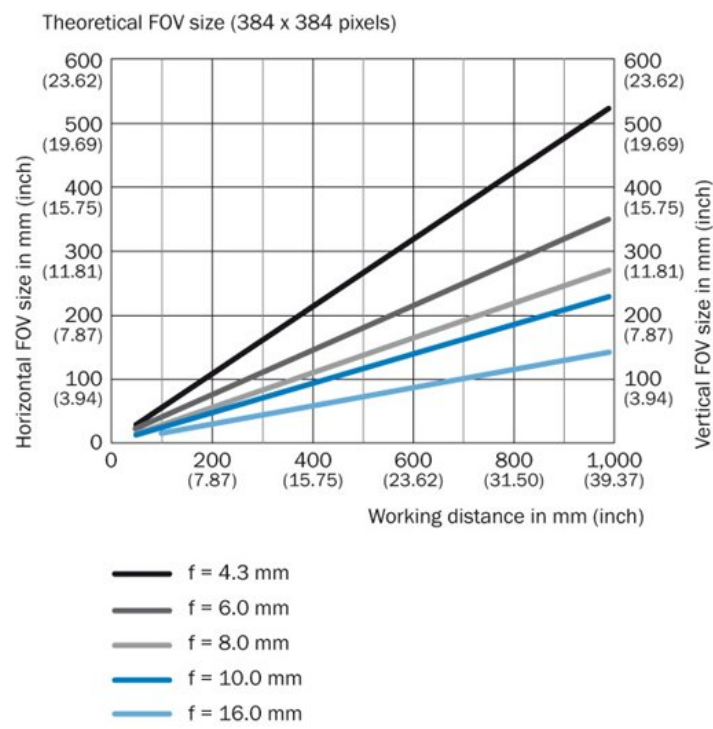
Connection diagram Ethernet



Connection diagram M12, 12-pin



Field of view



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