



2D vision
Inspector, Inspector I-series, Inspector I10 Dome

VSPI-1D111



Model Name > [VSPi-1D111](#)
Part No. > [1044038](#)



At a glance

- High-speed part inspection
- Robust pattern match algorithm to locate parts independent of position, rotation and scale
- Multi-reference object teaching and multi-feature inspections per object
- Unique, even dome illumination or high-power ring light
- Easy-to-use step configuration in PC, including emulator
- Log, statistics and record
- Industrial Ethernet

Your benefits

- High-speed part inspection ensures quality control without production overhead
- The robust pattern match algorithm will give you excellent quality and reliable proof of production
- Multi-reference object teach-in saves time at batch production switches
- Multi-feature inspections provide you increased output reliability
- The unique, even dome illumination is the easiest solution on the market for inspection on glossy surfaces
- The easy-to-use step configuration provides a fast solution even with little vision knowledge
- The pre-defined results message, “pass/fail/not located,” ensures a reliable and precise result in your production
- The log, statistics and record functions of SOPAS offers a ready-to-use production control package



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

Field of view internal illumination:	30 mm x 30 mm
Spectral range:	Ca. 400 nm ... 750 nm
LED class:	Risk group 1 (low risk, IEC62471 : 2006)
Focal length:	6 mm
Offline support:	Emulator
Sensor resolution:	384 px x 384 px
Internal lighting:	White dome light
Robot coordinate alignment:	-

Performance

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

Interfaces

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)
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
Serial (RS-232, RS-422):	-
Ethernet:	✓
Data transmission rate (Ethernet):	100 Mbit/s
Configuration software:	SOPAS

Mechanics/electronics

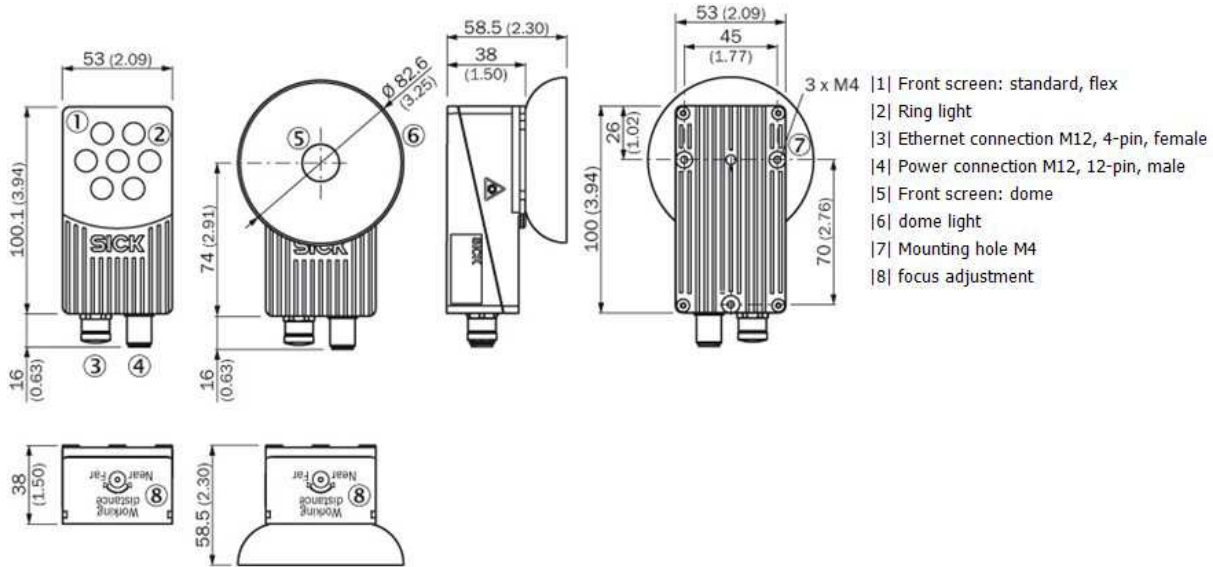
Connectors:	M12, 12-pin male connector M12, 4-pin female connector
Supply voltage:	24 V DC± 20 %
Power consumption:	< 450 mA Without output load
Ripple:	< 5 Vpp
Enclosure rating:	IP 67
Housing material:	Aluminum
Window material:	PMMA
Dimensions (L x W x H):	100 mm x 53 mm x 38 mm
Optics:	Integrated
Weight:	400 g

Ambient data

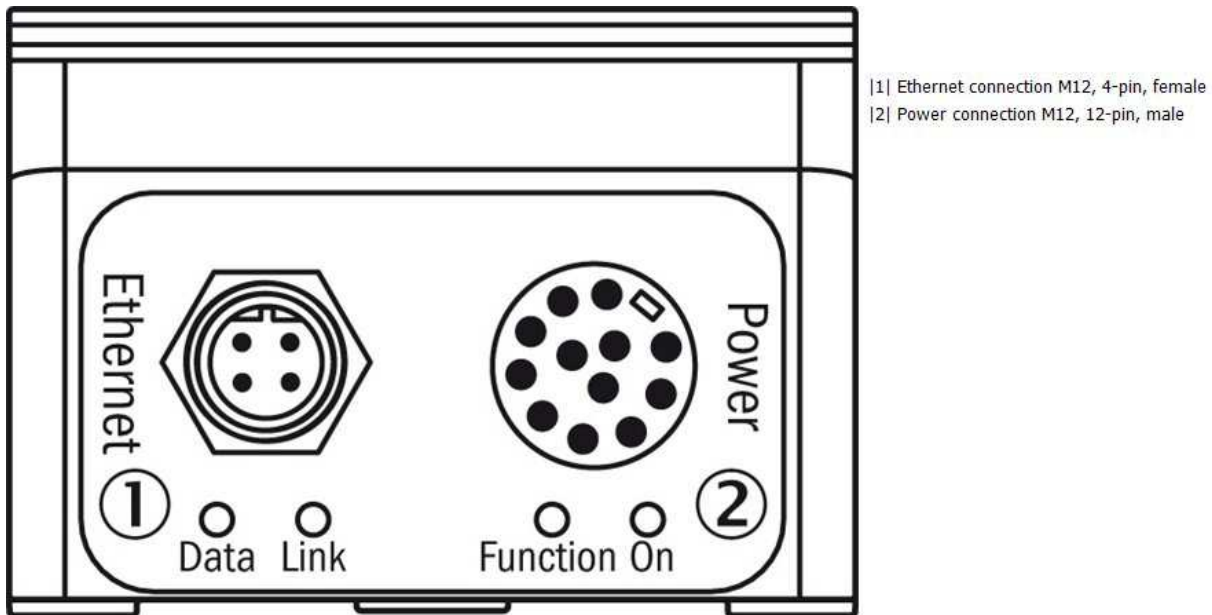
Shock load:	EN 60068-2-27
Vibration load:	IEC 60068-2-6
Ambient operating temperature ¹⁾ :	0 °C ... +45 °C
Ambient storage temperature ²⁾ :	-20 °C ... +70 °C

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

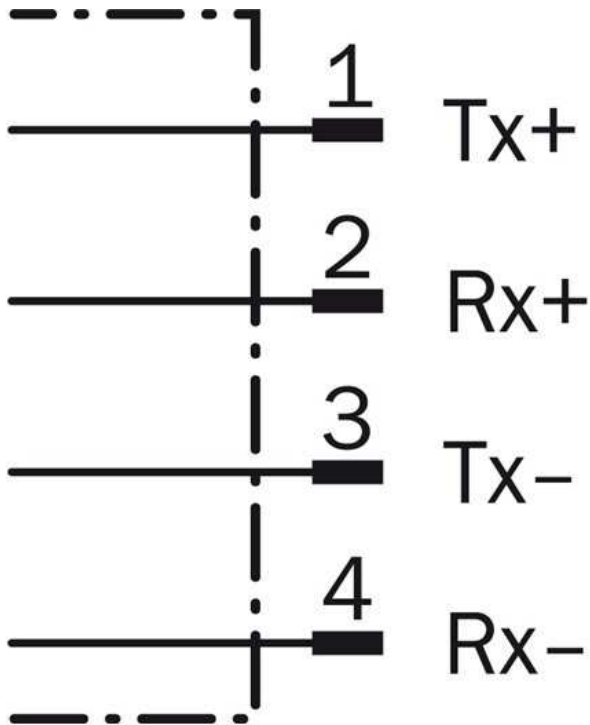
Dimensional drawing



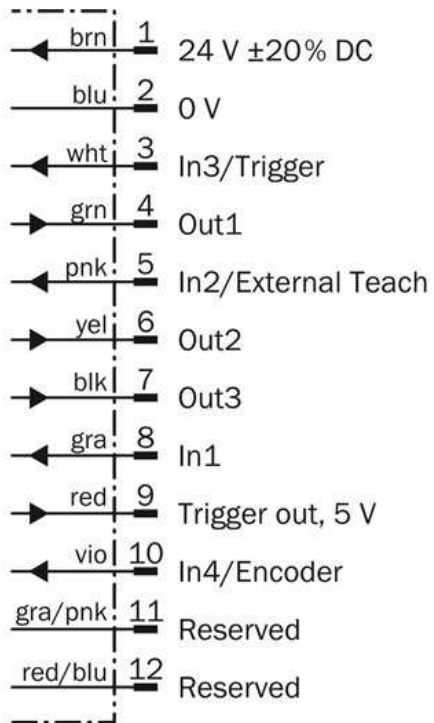
Connection type



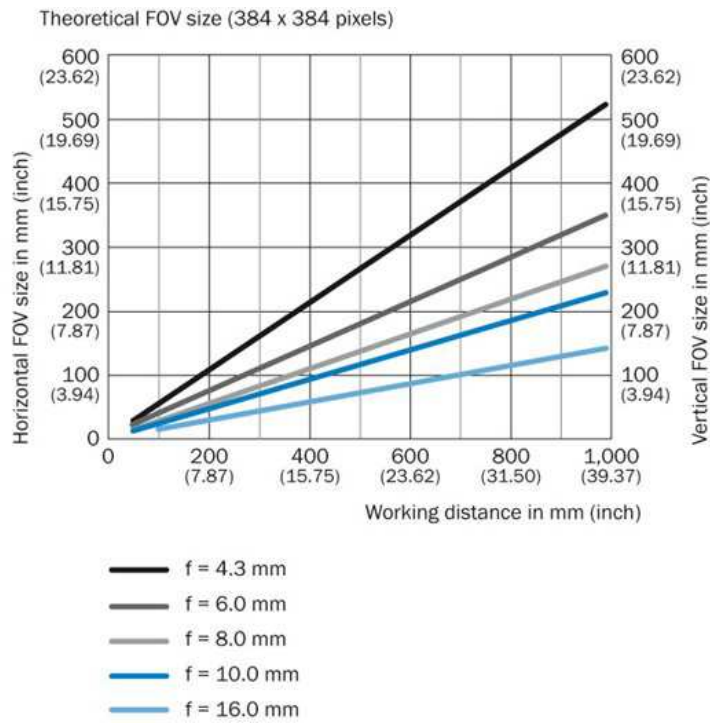
Connection diagram Ethernet



Connection diagram M12, 12-pin



Field of view



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