



2D vision
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 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:	20 mm x 20 mm ... 72 mm x 72 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
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)
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

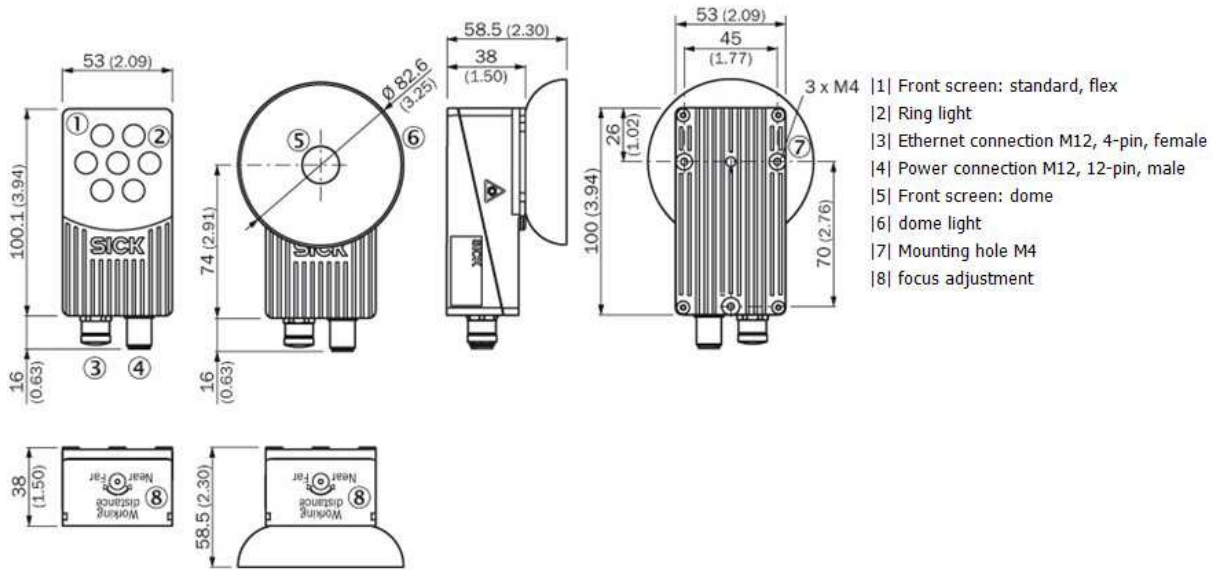
Connectors:	M12, 12-pin male connector M12, 4-pin female connector
Supply voltage:	24 V DC± 20 %
Power consumption:	< 450 mA Without output load
Ripple:	< 5 Vpp
Enclosure rating:	IP 67
Housing material:	Aluminum
Window material:	PMMA
Dimensions (L x W x H):	100 mm x 53 mm x 38 mm
Optics:	Exchangeable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

Ambient data

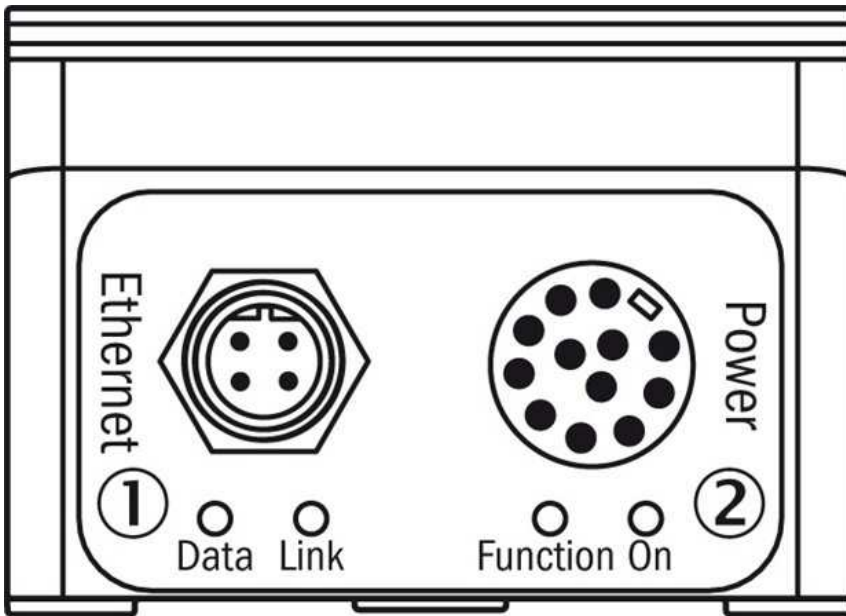
Shock load: EN 60068-2-27
 Vibration load: IEC 60068-2-6
 Ambient operating temperature ¹⁾: 0 °C ... +45 °C
 Ambient storage temperature ²⁾: -20 °C ... +70 °C

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

Dimensional drawing

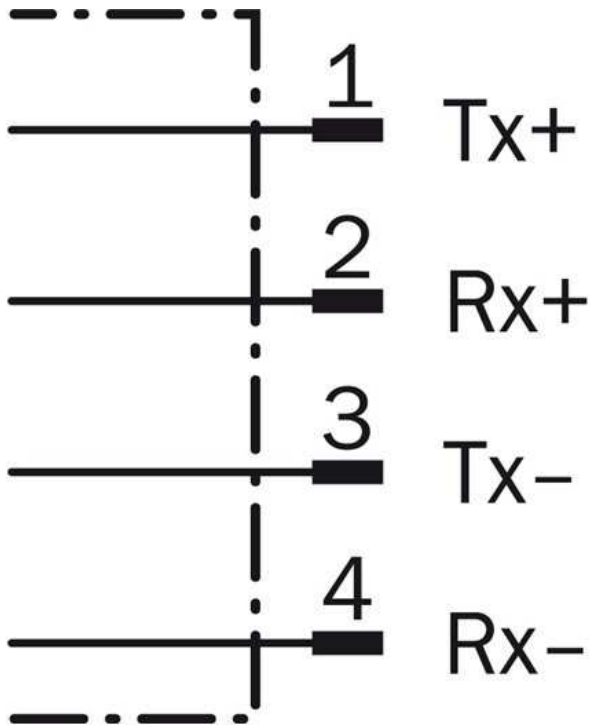


Connection type

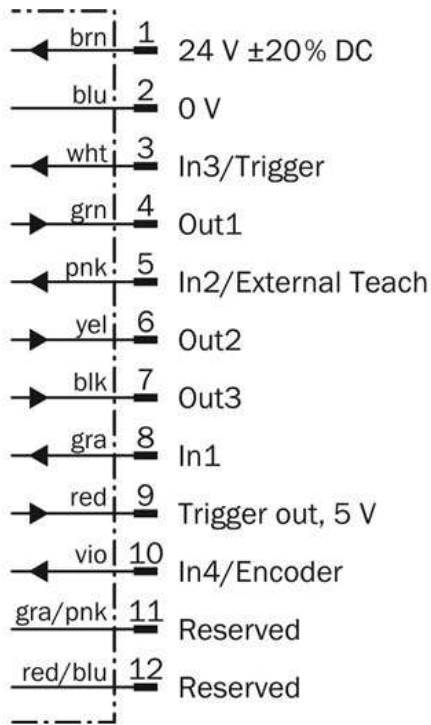


- [1] Ethernet connection M12, 4-pin, female
- [2] Power connection M12, 12-pin, male

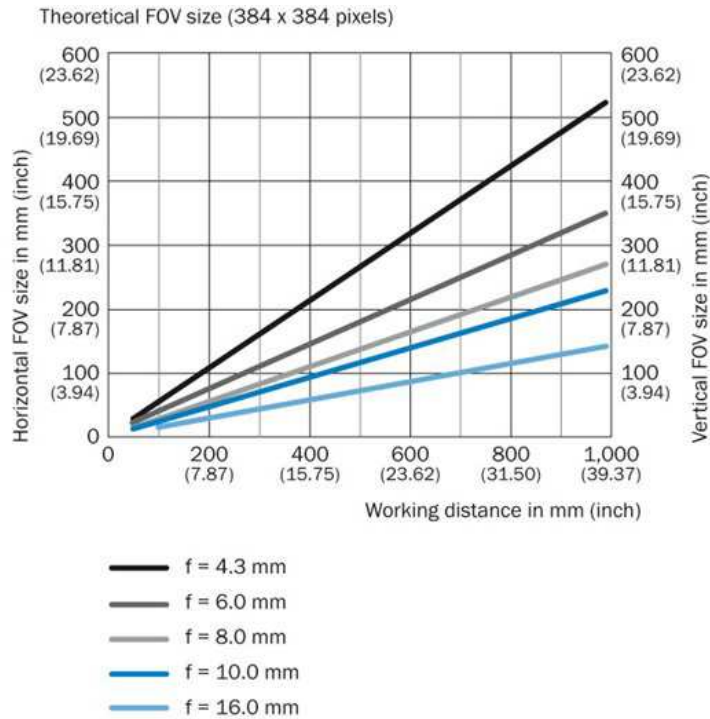
Connection diagram Ethernet



Connection diagram M12, 12-pin



Field of view



Australia

Phone +61 3 9457 0600
1800 33 48 02 – tollfree
E-Mail sales@sick.com.au

Belgium/Luxembourg

Phone +32 (0)2 466 55 66
E-Mail info@sick.be

Brasil

Phone +55 11 3215-4900
E-Mail marketing@sick.com.br

Canada

Phone +1 905 771 14 44
E-Mail information@sick.com

Česká republika

Phone +420 2 57 91 18 50
E-Mail sick@sick.cz

China

Phone +86 4000 121 000
E-Mail info.china@sick.net.cn
Phone +852-2153 6300
E-Mail ghk@sick.com.hk

Danmark

Phone +45 45 82 64 00
E-Mail sick@sick.dk

Deutschland

Phone +49 211 5301-301
E-Mail info@sick.de

España

Phone +34 93 480 31 00
E-Mail info@sick.es

France

Phone +33 1 64 62 35 00
E-Mail info@sick.fr

Great Britain

Phone +44 (0)1727 831121
E-Mail info@sick.co.uk

India

Phone +91-22-4033 8333
E-Mail info@sick-india.com

Israel

Phone +972-4-6881000
E-Mail info@sick-sensors.com

Italia

Phone +39 02 27 43 41
E-Mail info@sick.it

Japan

Phone +81 (0)3 5309 2112
E-Mail support@sick.jp

Magyarország

Phone +36 1 371 2680
E-Mail office@sick.hu

Nederland

Phone +31 (0)30 229 25 44
E-Mail info@sick.nl

Norge

Phone +47 67 81 50 00
E-Mail sick@sick.no

Österreich

Phone +43 (0)22 36 62 28 8-0
E-Mail office@sick.at

Polska

Phone +48 22 837 40 50
E-Mail info@sick.pl

România

Phone +40 356 171 120
E-Mail office@sick.ro

Russia

Phone +7-495-775-05-30
E-Mail info@sick.ru

Schweiz

Phone +41 41 619 29 39
E-Mail contact@sick.ch

Singapore

Phone +65 6744 3732
E-Mail sales.gsg@sick.com

Slovenija

Phone +386 (0)1-47 69 990
E-Mail office@sick.si

South Africa

Phone +27 11 472 3733
E-Mail info@sickautomation.co.za

South Korea

Phone +82 2 786 6321/4
E-Mail info@sickkorea.net

Suomi

Phone +358-9-25 15 800
E-Mail sick@sick.fi

Sverige

Phone +46 10 110 10 00
E-Mail info@sick.se

Taiwan

Phone +886 2 2375-6288
E-Mail sales@sick.com.tw

Türkiye

Phone +90 (216) 528 50 00
E-Mail info@sick.com.tr

United Arab Emirates

Phone +971 (0) 4 88 65 878
E-Mail info@sick.ae

USA/México

Phone +1(952) 941-6780
1 (800) 325-7425 – tollfree
E-Mail info@sickusa.com

More representatives and agencies
at www.sick.com