



Vision sensors
Inspector, Inspector PI-series, Inspector PI50

VSPP-5F2113



Model Name > [VSPP-5F2113](#)
Part No. > [1056082](#)



At a glance

- High-speed positioning and inspection
- Expanded toolbox for locating taught-in and free-form objects
- Multiple, simultaneous inspection of blobs, patterns, edges and pixel counting
- Easy device cloning via the web interface
- Image calibration, including mm output
- Configurable communication through EtherNet/IP, TCP/IP and EtherCAT
- HMI integration via web API
- Simple, out-of-the-box web server

Your benefits

- Powerful yet simple tools enable flexibility in various positioning and inspection applications
- Device cloning saves time in deployment using only standard web browser
- Web interface enables import/export of unlimited number of reference objects, increasing production flexibility
- Ethernet communication and web API gives excellent connectivity and freedom to customize user's HMI
- The built-in web server is an easy and cost-efficient way to monitor the production process
- The image calibration ensures reliable inspection results on moving and rotated objects in tilted setups, or when using wide angle lenses
- Result calibration gives easy-to-use mm data, simplifying alignment and gripping



Features

| | |
|---|---|
| Task: | Inspection Positioning |
| Technology: | 2D Image analysis Snapshot |
| Toolset: | Pattern Blob locator Object locator Polygon 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: | White |
| Spectral range: | Ca. 400 nm ... 750 nm |
| LED class: | Risk group 1 (low risk, IEC62471 : 2006) |
| Offline support: | Emulator |
| Calibration: | Perspective and lens distortion correction, mm results |

Performance

| | |
|------------------------|-----------------|
| Resolution: | 640 px x 480 px |
| Maximum performance: | 200 fps |
| Typical performance: | 40 fps |
| Number of inspections: | 32 |
| Reference images: | 32 objects |

Interfaces

| | |
|-----------------------------------|---|
| Operator interfaces: | Inspector Viewer, Web server |
| Configuration software: | SOPAS |
| Data store and retrieve: | Record images on PC Store images to FTP 30 images device log |
| Communication interfaces: | 100 MBit/s Ethernet |
| Ethernet communication: | EtherNet/IP, TCP/IP, Web API |
| 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, Store images to FTP overflow |
| 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 5 x 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

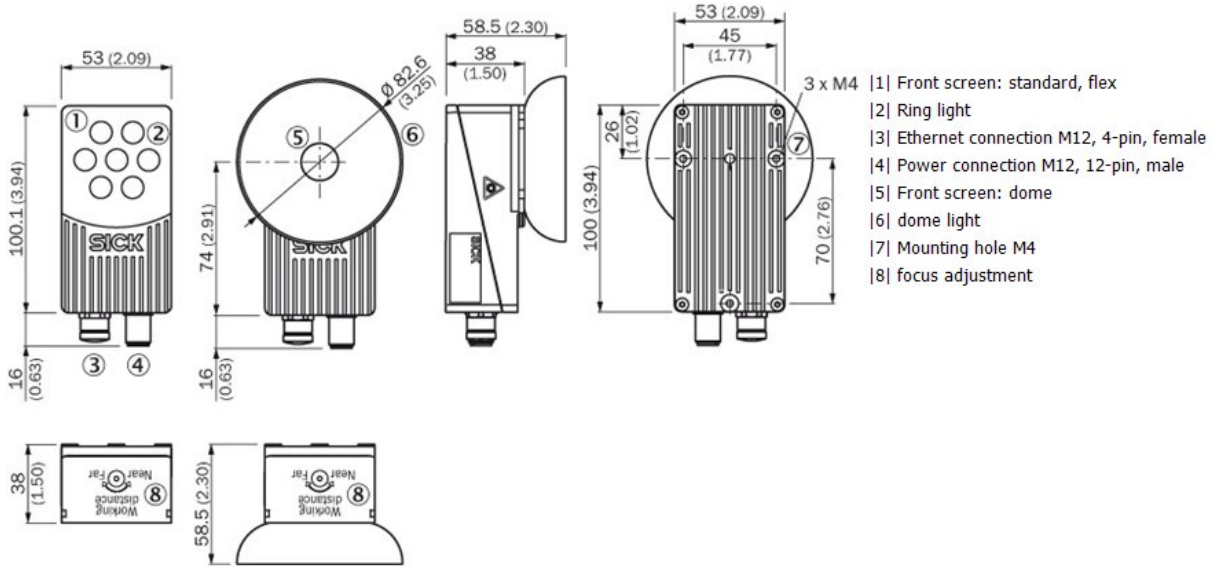
| | |
|---|----------------|
| Shock load: | EN 60068-2-27 |
| Vibration load: | IEC 60068-2-6 |
| Ambient operating temperature ¹⁾ : | 0 °C ... 45 °C |

Ambient storage temperature ²⁾:

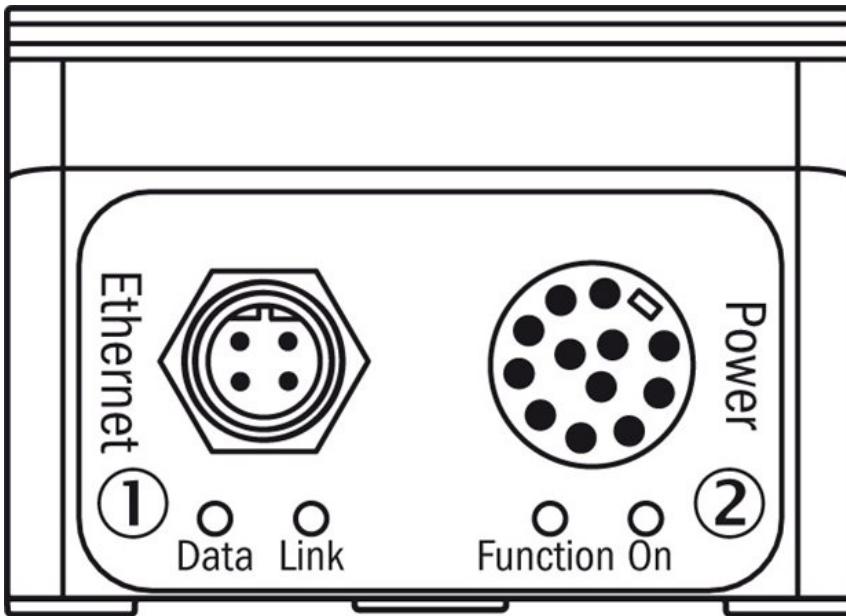
-20 °C ... 70 °C

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

Dimensional drawing

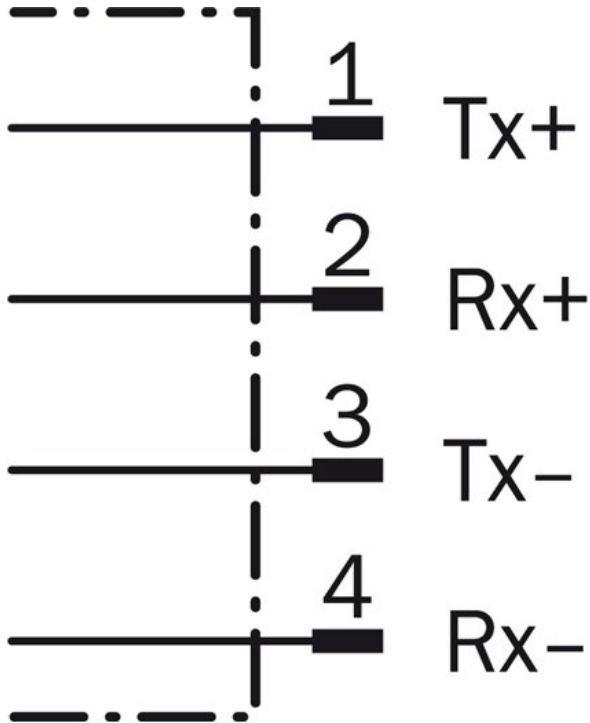


Connection type

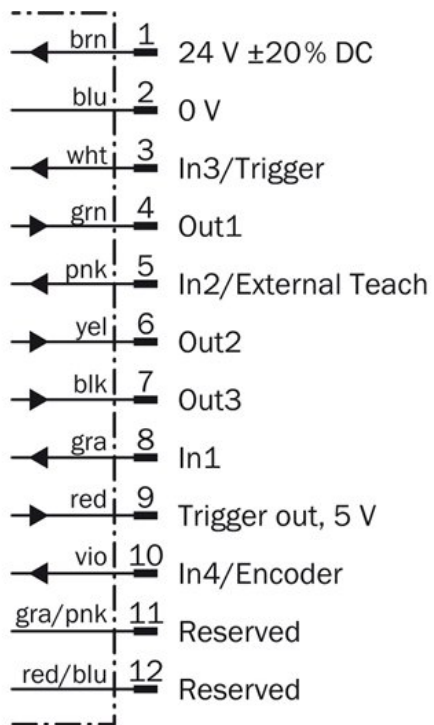


- [1] Ethernet connection M12, 4-pin, female
- [2] Power connection M12, 12-pin, male

Connection diagram Ethernet



Connection diagram M12, 12-pin



Australia

Phone +61 3 9457 0600
1800 334 802 – 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 sac@sick.com.br

Canada

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

Ceská 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 kundenservice@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 +972-4-6801000
E-Mail info@sick-sensors.com

Italia

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

Japan

Phone +81 (0)3 3358 1341
E-Mail support@sick.jp

Magyarország

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

Nederlands

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

Norge

Phone +47 67 81 50 00
E-Mail austefjord@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 admin@sicksgp.com.sg

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 8865 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