



2D vision  
Inspector, Inspector PIM-series, Inspector PIM60  
Base

VSPM-6B2113



**Model Name** > [VSPM-6B2113](#)  
**Part No.** > [1064565](#)

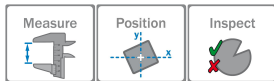


**At a glance**

- High-speed positioning, inspection and measurement
- Expanded toolbox for diameter, angle and flexible distance measurement
- Multiple, simultaneous inspection of blobs, patterns, edges and pixel counting
- Image calibration, including mm output
- Configurable communication through EtherNet/IP and TCP/IP
- Simple, out-of-the-box web server
- Import of customized web pages

**Your benefits**

- The multi-functional vision toolbox offers smart camera-level performance but with sensor ease-of-use
- Flexible measurement tools enable super easy pass/fail verification of dimensions over digital outputs as well as exact measurement value over Ethernet
- 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
- The built-in web server is an easy and cost efficient way to monitor the production process
- Ability to design a customized user interface (style, logo and functionality) to easily visualize and control the data you need



**Features**

Task:	Inspection Measuring Positioning
Technology:	2D Image analysis Snapshot
Toolset:	Pattern Blob locator Object locator Polygon Edge counter Find maximum Edge pixel count Pixel count Distance Edge Circle Angle

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:	Free of choice by lens selection
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
Sensor resolution:	640 px x 480 px
Internal lighting:	White
Robot coordinate alignment:	✓

## Performance

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Maximum performance:	200 fps
Typical performance:	40 fps
Number of inspections:	64
Reference images:	32 objects

## Interfaces

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Operator interfaces:	Web server
Data store and retrieve:	Record images on PC Store images to FTP 30 images device log
Ethernet communication:	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
Serial (RS-232, RS-422):	-
Ethernet:	✓
Data transmission rate (Ethernet):	100 Mbit/s
Protocol (Ethernet):	TCP/IP, EtherNet/IP
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

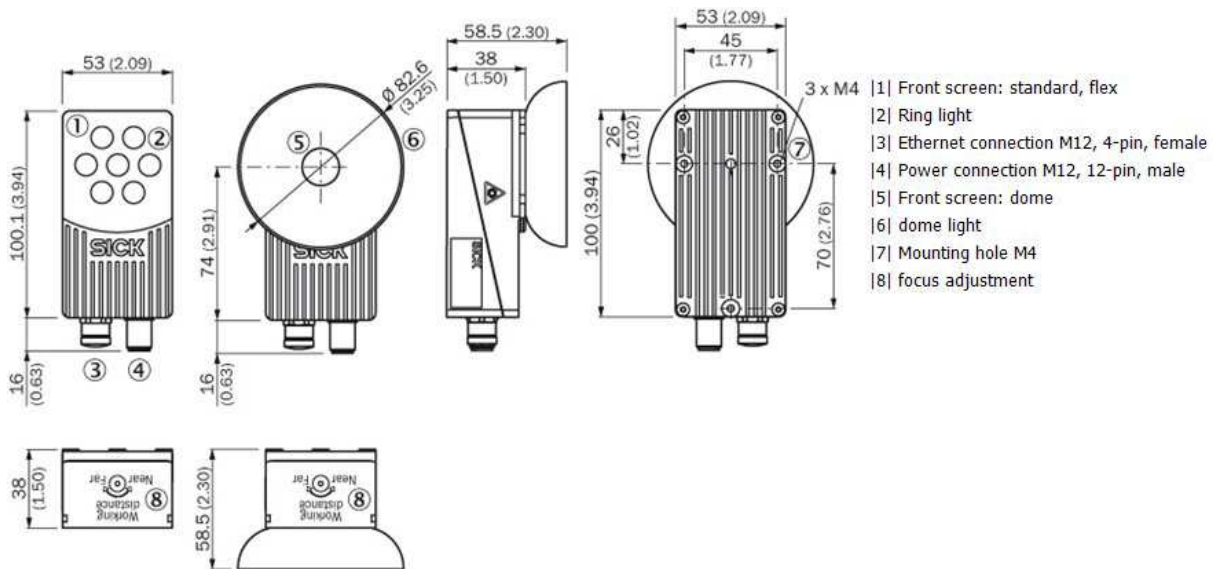
Window material: No front window included  
 Dimensions (L x W x H): 100 mm x 53 mm x 38 mm  
 Optics: Not included (M12-mount)  
 Weight: 350 g

**Ambient data**

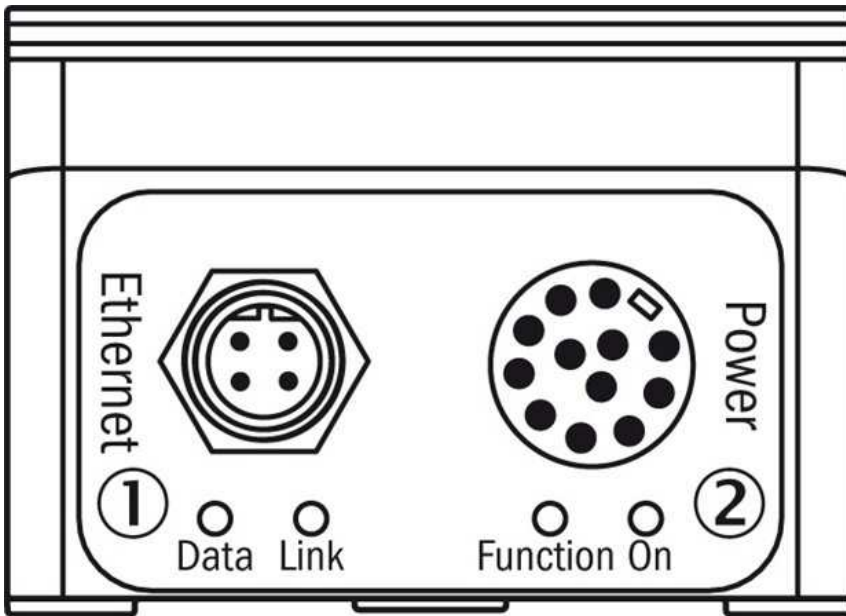
Shock load: EN 60068-2-27  
 Vibration load: IEC 60068-2-6  
 Ambient temperature operation <sup>1)</sup>: 0 °C ... +45 °C  
 Ambient storage temperature <sup>2)</sup>: -20 °C ... +70 °C

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

**Dimensional drawing**

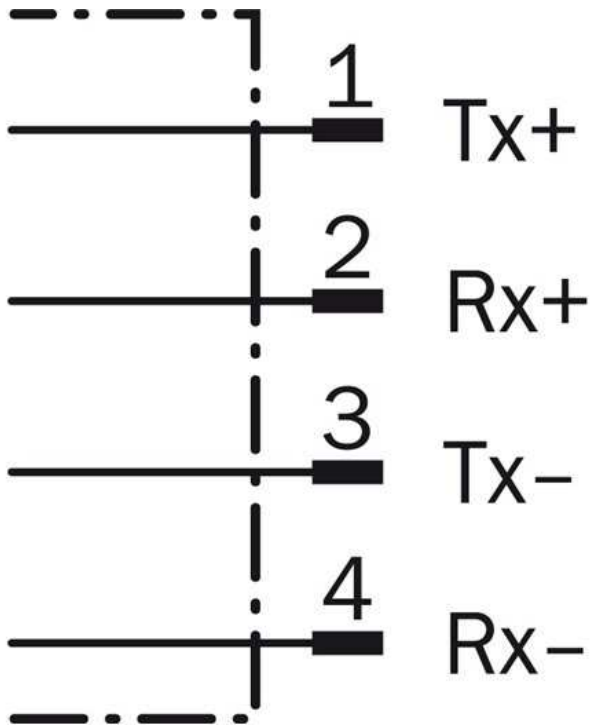


## Connection type

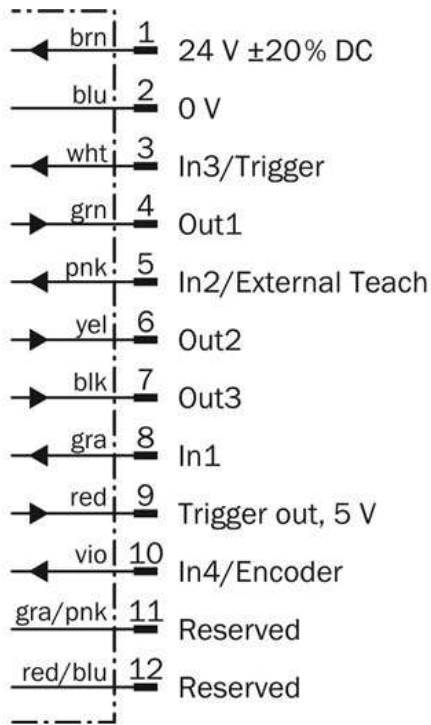


- [1] Ethernet connection M12, 4-pin, female
- [2] Power connection M12, 12-pin, male

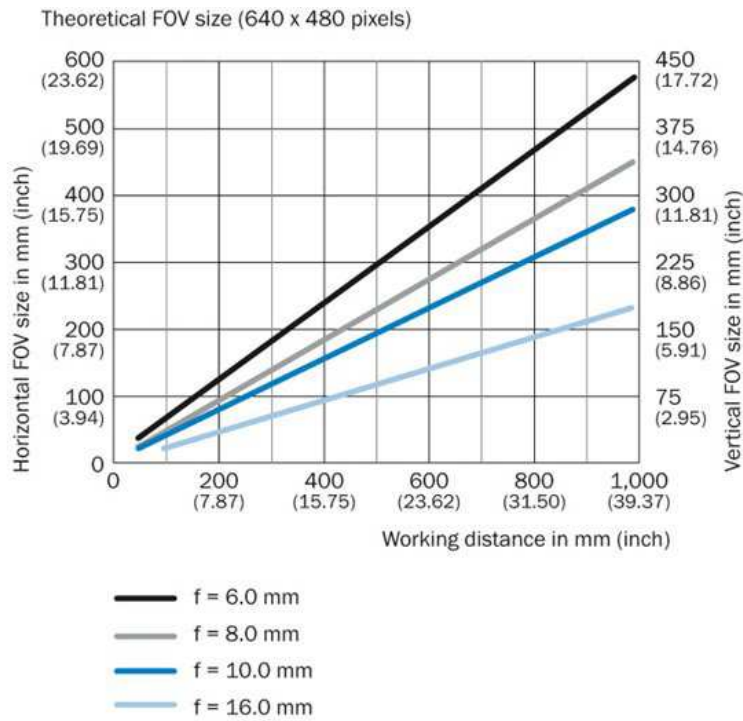
## Connection diagram Ethernet



**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](http://www.sick.com)