



Vision sensors  
Inspector, Inspector PIM-series, Inspector PIM60

VSPM-6F2113



**Model Name** > [VSPM-6F2113](#)  
**Part No.** > [1062407](#)



**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 Pixel count, Edge pixel count Distance, Angle Edge, Circle
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

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Resolution:	640 px x 480 px
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
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

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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 (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

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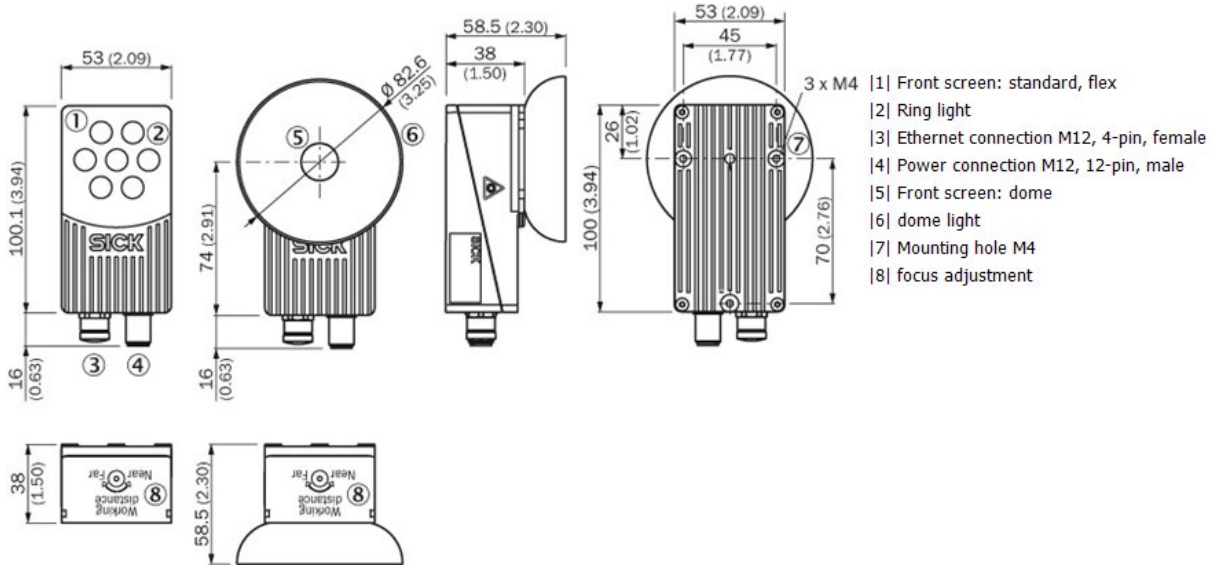
Shock load:	EN 60068-2-27
Vibration load:	IEC 60068-2-6
Ambient operating temperature <sup>1)</sup> :	0 °C ... 45 °C

Ambient storage temperature <sup>2)</sup>:

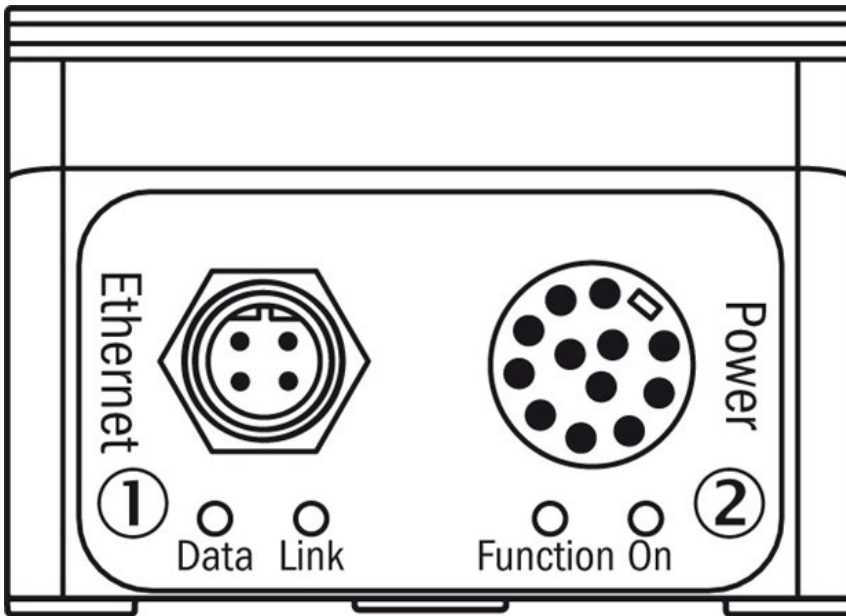
-20 °C ... 70 °C

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

### Dimensional drawing

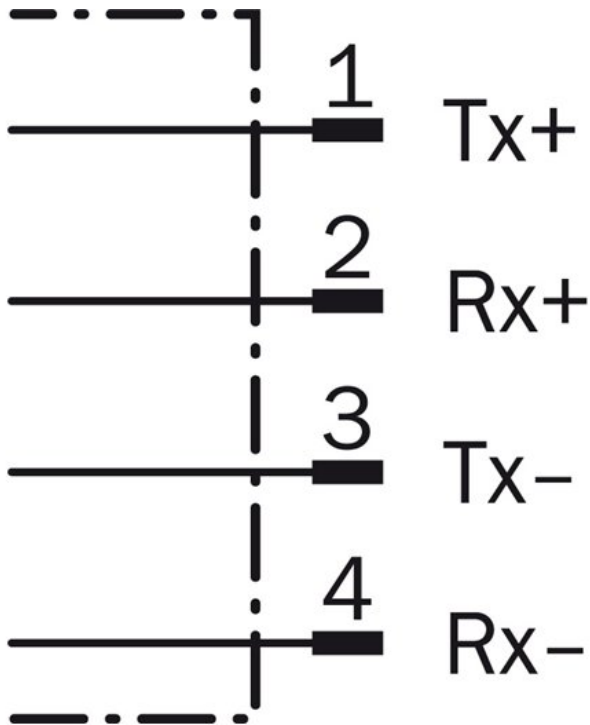


## Connection type

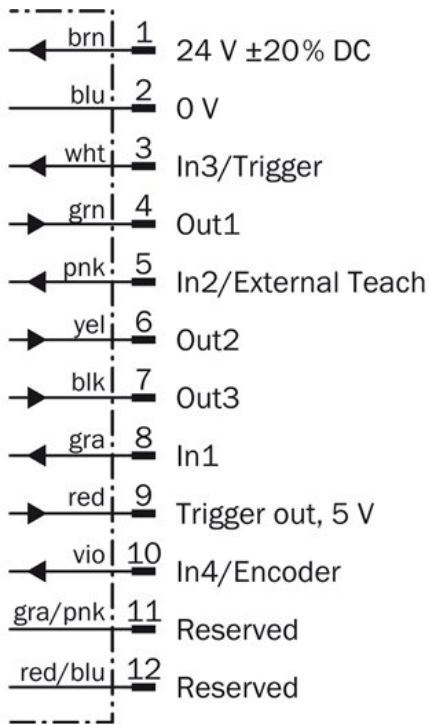


- [1] Ethernet connection M12, 4-pin, female
- [2] Power connection M12, 12-pin, male

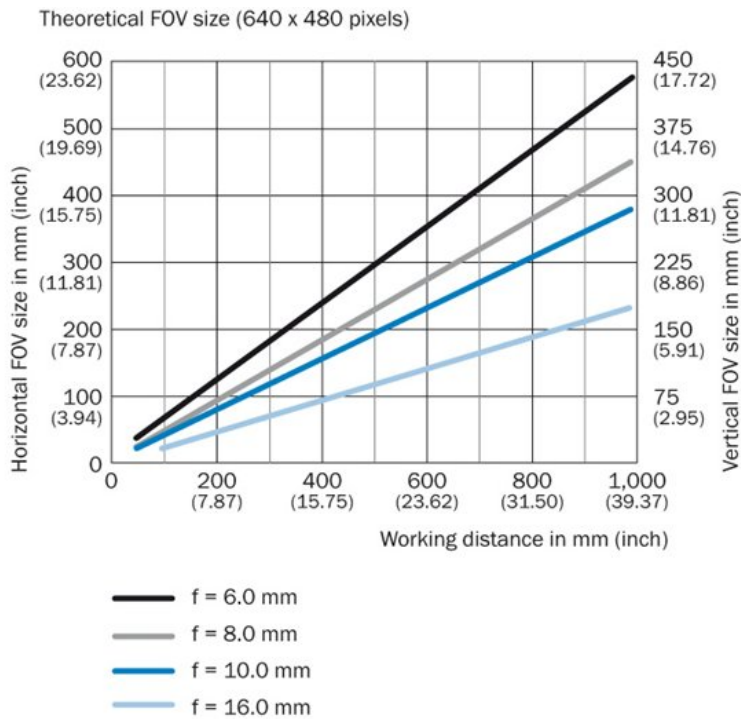
## Connection diagram Ethernet



**Connection diagram M12, 12-pin**



**Field of view**



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