

ONLINE DATA SHEET
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2D vision
Inspector, Inspector PIM-series, Inspector PIM60-IR

VSPM-6F2413



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Sensor Intelligence.

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Model Name > VSPM-6F2413
Part No. > 1062408

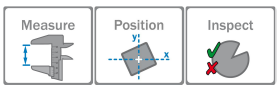


At a glance

- 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

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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:	22 mm x 15 mm ... 79 mm x 58 mm
Spectral range:	Ca. 370 nm ... 900 nm
LED class:	Risk group 0 (exempt risk, IEC62471 : 2006)
Focal length:	10 mm
Offline support:	Emulator
Calibration:	Perspective and lens distortion correction, mm results
Sensor resolution:	640 px x 480 px
Internal lighting:	Infrared
Robot coordinate alignment:	✓

Performance

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

Interfaces

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

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

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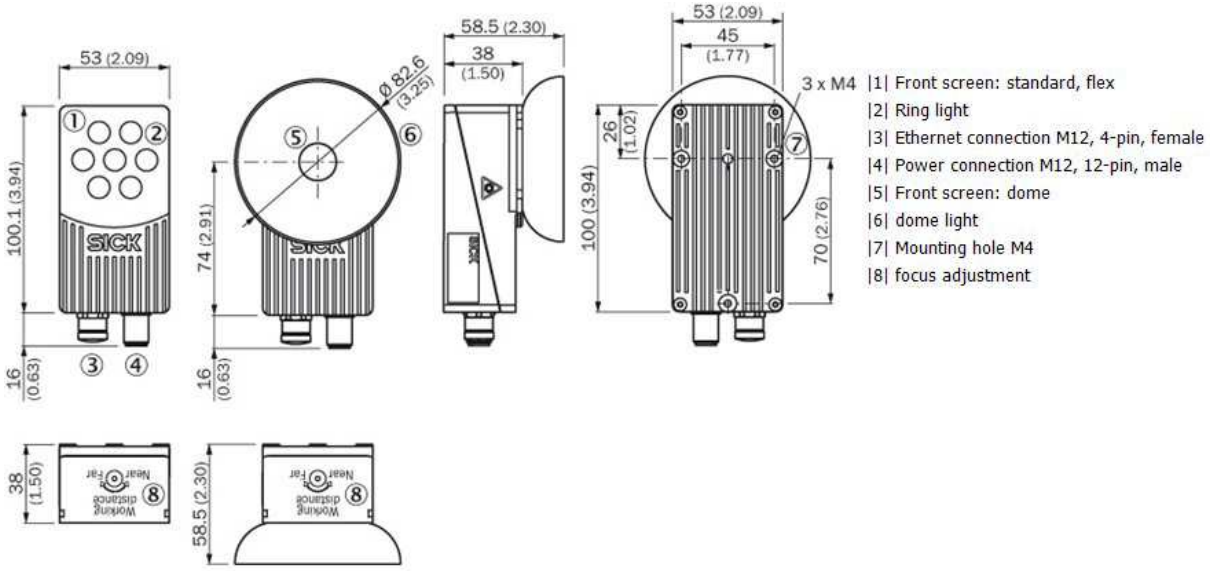
Housing material:	Aluminum
Window material:	PMMA
Dimensions (L x W x H):	100 mm x 53 mm x 38 mm
Optics:	Exchangeable (M12-mount)
Weight:	350 g

Ambient data

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

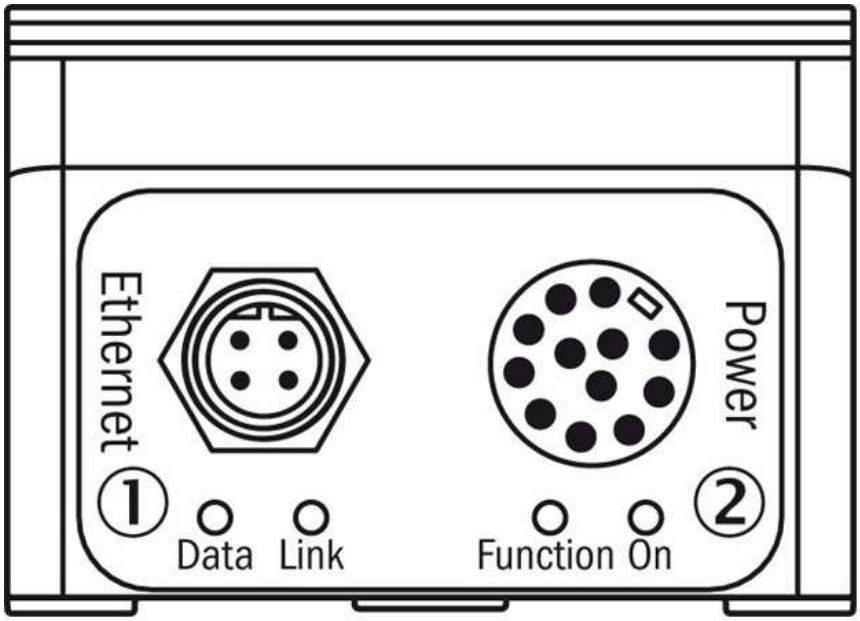
[1) 2)] Relative humidity: 35 % ... 85 %, 95 % at operation

Dimensional drawing



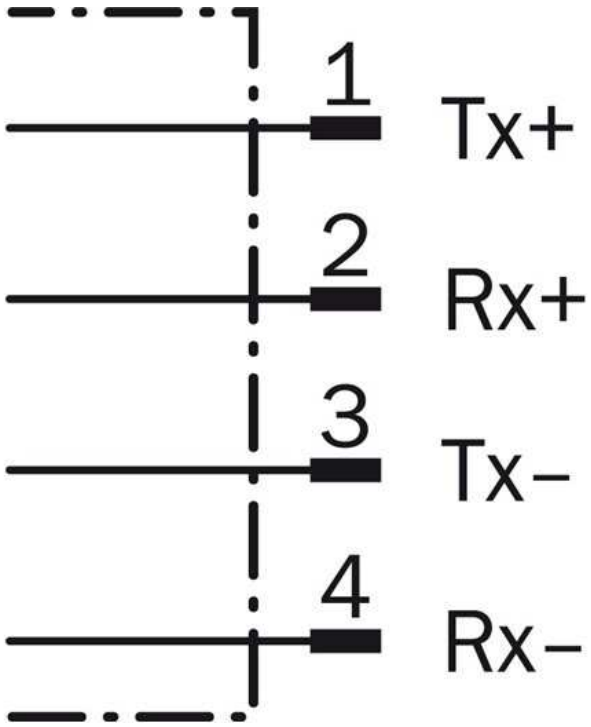
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Connection type



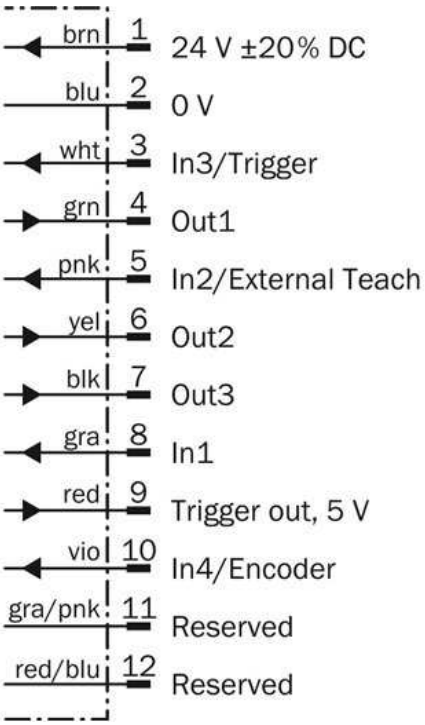
|1| Ethernet connection M12, 4-pin, female
|2| Power connection M12, 12-pin, male

Connection diagram Ethernet

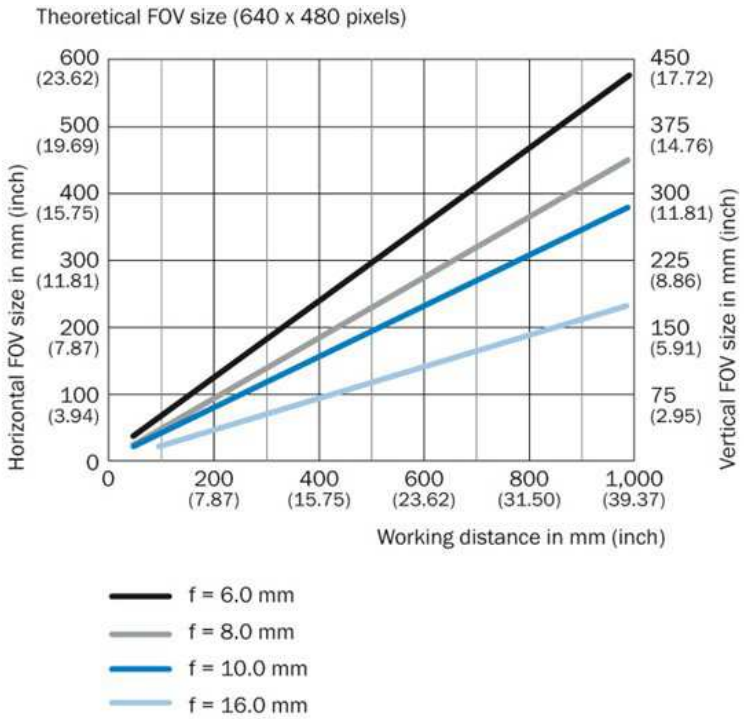


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Connection diagram M12, 12-pin



Field of view



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