

3-D stereo sensor

VSE1000-F400-B12-A1000

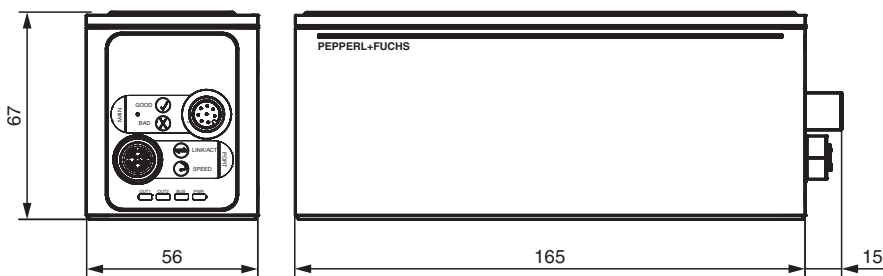


- Resolution 1300 x 1080 pixel
- Gigabit-Ethernet (GigE) interface
- Measurement data preprocessing
- Simple and fast mounting
- Intuitive and user-friendly operating software ViSolution
- Sturdy metallic housing
- C# API

The sensor uses stereo-vision technology and structured light to capture objects in 3-D. It can acquire raw 3-D data at a range of 300 to 900 mm with an image resolution of 1.4 MP and a frame rate of 10 fps. The sensor features a Gigabit Ethernet interface, intuitive operating software, rugged metal housing, and an API interface. As a raw data sensor, it is suitable for a variety of applications that require detailed contour detection.



Dimensions



Technical Data

Search characteristics		
Structured light		yes
General specifications		
Detection range		max. 900 mm
Measurement range		horizontal: 400 mm vertical: 300 mm deep : 300 mm
Light source		LED projector
Light type		Infrared Wave length 850 nm
Light direction		Structured light
Laser nominal ratings		
Laser class		
Target velocity		max. 1 m/s
Object reflectivity		> 18 %
Picture detail		dependant of operating distance
Depth of focus		max. 300 mm
Resolution		X 0.5 mm Y 0.5 mm Z 1 mm at 900 mm read distance
Nominal ratings		
Camera		

Release date: 2023-12-15 Date of issue: 2023-12-15 Filename: 70123992-100000_eng.pdf

Refer to "General Notes Relating to Pepperl+Fuchs Product Information".

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Technical Data

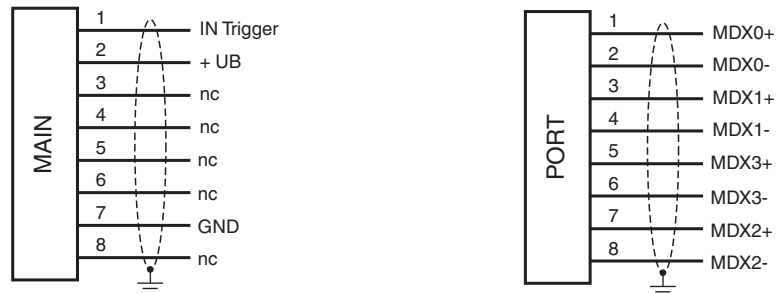
Number of pixels	1300 x 1080 pixels
Shutter	Global shutter
Frame rate	10 fps
Image resolution	1.4 MP
Disparity	128
Functional safety related parameters	
MTTF _d	20 a
Mission Time (T _M)	10 a
Diagnostic Coverage (DC)	0 %
Indicators/operating means	
Operation indicator	4 LEDs (OUT 1, OUT 2, BUS, PWR)
Electrical specifications	
Operating voltage	U _B 24 V ± 20 % , PELV
No-load supply current	I ₀ max. 450 mA
Power consumption	P ₀ max. 10 W , Outputs without load
Interface	
Interface type	Ethernet TCP/IP
Transfer rate	1 GBit/s
Input	
Control input	1 digital input and External trigger
Conformity	
Photobiological safety	Risk group 0 according to IEC 62471
Compliance with standards and directives	
Standard conformity	
Noise immunity	EN 61000-6-2:2005
Emitted interference	EN 61000-6-4:2007/A1:2011
Degree of protection	EN 60529
Shock and impact resistance	EN 60068-2-27:2009
Function and system design	
Measuring principle	3-D image data Stereo vision Structured light
Application	3-D raw data
Approvals and certificates	
CE conformity	CE
UKCA conformity	UKCA
CCC approval	CCC approval / marking not required for products rated ≤36 V
Ambient conditions	
Operating temperature	-20 ... 45 °C (-4 ... 113 °F) , (noncondensing; prevent icing on the lens!)
Relative humidity	< 99 % , noncondensing
Mechanical specifications	
Degree of protection	IP65/IP67
Connection	M12 connector, 8-pin , A-coded 8-pin M12 socket , X-coded
Material	
Housing	metal
Optical face	Plastic pane
Installation	M5 screws
Mass	approx. 800 g
Tightening torque, fastening screws	max. 2 Nm
Dimensions	
Height	180 mm
Width	56 mm
Depth	67 mm

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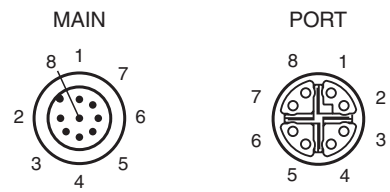
Technical Data

General information	
Note	INVISIBLE LED , DO NOT STARE INTO BEAM DO NOT VIEW DIRECTLY WITH OPTICAL INSTRUMENTS

Connection Assignment



Connection



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