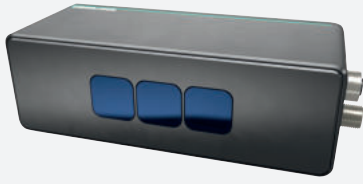


## 3-D Time-of-Flight sensor

### SmartRunner Explorer 3-D

#### VTE7500-F400-B12-A1500

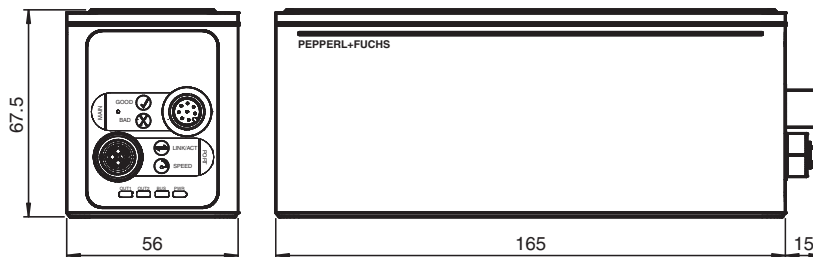


- Resolution 640 x 480 pixel
- Gigabit-Ethernet (GigE) interface
- Simple and fast mounting
- Intuitive and user-friendly operating software ViSolution
- Sturdy metallic housing
- C# API
- DuraBeam technology

The 3-D time-of-flight sensor is based on the principle of measuring time-of-flight of infrared light. This allows raw 3-D data from objects at a range of 400 to 7500 mm to be acquired with an image resolution of 0.3 MP and a frame rate of 30 fps. The sensor features a Gigabit Ethernet interface, intuitive operating software, rugged metal housing, and an API interface. The sensor is especially suitable for dynamic applications with a larger measuring range.



### Dimensions



### Technical Data

#### General specifications

Detection range	max. 7500 mm min. 400 mm
Light source	Vertical-cavity surface-emitting laser
Light type	Infrared
Laser nominal ratings	
Laser class	1
Wave length	940 nm
Target velocity	max. 1 m/s
Object reflectivity	> 18 %
Picture detail	dependant of operating distance
Opening angle	47 ° x 35 °

#### Nominal ratings

Camera	
--------	--

Release date: 2024-11-04 Date of issue: 2024-11-04 Filename: 70123993-100000\_eng.pdf

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

Pepperl+Fuchs Group  
www.pepperl-fuchs.com

USA: +1 330 486 0001  
fa-info@us.pepperl-fuchs.com

Germany: +49 621 776 1111  
fa-info@de.pepperl-fuchs.com

Singapore: +65 6779 9091  
fa-info@sg.pepperl-fuchs.com

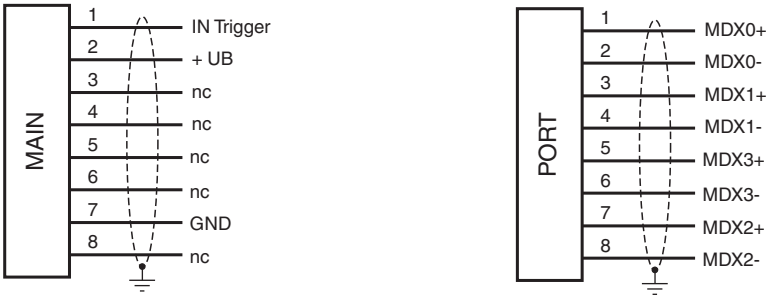
PEPPERL+FUCHS

## Technical Data

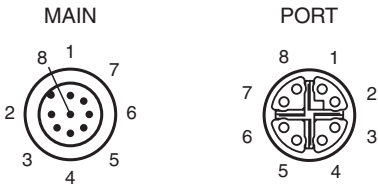
Number of pixels	640 x 480 pixels	
Shutter		4 - Phases Global shutter
Frame rate		30 fps
Image resolution		0.3 MP
<b>Functional safety related parameters</b>		
MTTF <sub>d</sub>		20 a
Mission Time (T <sub>M</sub> )		10 a
Diagnostic Coverage (DC)		0 %
<b>Indicators/operating means</b>		
Operation indicator		4 LEDs (OUT 1, OUT 2, BUS, PWR)
<b>Electrical specifications</b>		
Operating voltage	U <sub>B</sub>	24 V ± 20 % , PELV
No-load supply current	I <sub>0</sub>	max. 450 mA
Power consumption	P <sub>0</sub>	max. 13 W , Outputs without load
<b>Interface</b>		
Interface type		Ethernet TCP/IP
Transfer rate		1 GBit/s
<b>Input</b>		
Control input		1 digital input and External trigger
<b>Compliance with standards and directives</b>		
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
Laser class		IEC 60825-1:2014
<b>Function and system design</b>		
Measuring principle		Time-of-Flight
Application		3-D raw data
<b>Approvals and certificates</b>		
CE conformity		CE
UKCA conformity		UKCA
CCC approval		CCC approval / marking not required for products rated ≤36 V
<b>Ambient conditions</b>		
Operating temperature		-20 ... 45 °C (-4 ... 113 °F) , (noncondensing; prevent icing on the lens!)
Relative humidity		< 99 % , noncondensing
<b>Mechanical specifications</b>		
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		67.5 mm
<b>General information</b>		
Note		INVISIBLE LASER RADIATION , DO NOT STARE INTO BEAM DO NOT VIEW DIRECTLY WITH OPTICAL INSTRUMENTS , LASER ENERGY EXPOSURE NEAR APERTURE MAY CAUSE BURNS

Release date: 2024-11-04 Date of issue: 2024-11-04 Filename: 70123993-100000\_eng.pdf

Connection Assignment



Connection



Release date: 2024-11-04 Date of issue: 2024-11-04 Filename: 70123993-100000\_eng.pdf

## Safety Information



**LASERLICHT**  
**LASER LIGHT**

**LASER KLASSE 1**  
**CLASS 1 LASER PRODUCT**

## Safety Information

### Laser Class 1 Information

The irradiation can lead to irritation especially in a dark environment. Do not point at people!

Maintenance and repairs should only be carried out by authorized service personnel!

Attach the device so that the warning is clearly visible and readable.

The warning accompanies the device and should be attached in immediate proximity to the device.

Caution – Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.