



3D vision

Gigabit Ethernet , ScanningRuler, ScanningRuler
S1200, ScanningRuler S1200

Ruler-S2114



Model Name > [Ruler-S2114](#)
Part No. > [1051660](#)



At a glance

- 3D imaging of stationary objects
- Large field of view for scanning U.S. and Euro pallets
- Accurate and reliable acquisition of factory-calibrated 3D data in millimeters
- High immunity to ambient light and contrast variation
- Rugged housing with built-in laser light source
- Point cloud 3D data with grayscale information

Your benefits

- 3D imaging of stationary objects reduces the effort and the costs required to develop robot picking applications
- Large field of view within a single device allows for cost-efficient solutions
- Reliable factory-calibrated 3D measurements provide easy integration, use and replacement
- High immunity to ambient light ensures accurate measurements and increased throughput in factory conditions
- Industrial design with a built-in laser light source ensures problem-free operation



Features

Task:	Measuring, Positioning
Description:	ScanningRuler S1200 - Snapshot 3D camera with built-in class 2M laser. For field of view up to size of Euro and U.S. pallets. Factory calibrated and Gigabit Ethernet interface.
Technology:	3D snapshot
Sensing distance:	1,000 mm ... 2,000 mm
Data synchronization:	External trigger Free running
Grayscale measurements:	✓
Spectral range:	Ca. 630 nm ... 690 nm
Light source:	Visible red light (laser, 660 nm, ± 15 nm)
Laser class:	2M (IEC 60825-1 : 2008-01)
Factory calibrated:	✓
Example volume of view (L x W x H):	1,000 mm x 1,200 mm x 750 mm (max. image area), 800 mm x 1,200 mm x 1,000 mm (max. height range)

Performance

Image sensor:	CMOS
Maximum performance:	2.5 s per 3D image
Sensor resolution:	756 px x 512 px
Typical resolution (X, Y, Z):	1 mm ... 4 mm, depending on distance to camera

Interfaces

Configuration software:	Ranger Studio
Communication interfaces:	Gigabit Ethernet
Operating system:	Windows 7, Windows XP Pro
Development environment:	.Net, C++
Programming interface:	iCon API
Digital inputs:	2 x HIGH = 10 V ... 28.8 V
Digital outputs:	1 x B-type, < 100 mA in total

Mechanics/electronics

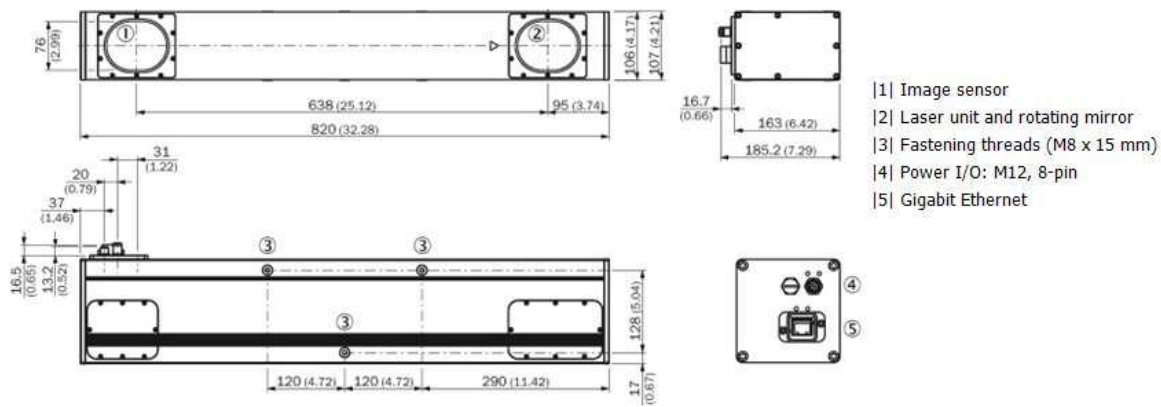
Connectors:	Harting Push Pull (Ethernet) M12, 8-pin male connector (power I/O)
Connector material:	Ethernet: thermoplast/anodized aluminum, M12: nickel-plated brass
Supply voltage:	24 V DC± 20 %
Power consumption:	10 W
Power consumption:	< 1 A
Ripple:	< 5 Vpp
Enclosure rating:	IP 65
Housing material:	Aluminum
Housing color:	Gray, varnished
Window material:	Float glass, AR-coated
Weight:	13.5 kg
Dimensions (L x W x H):	820 mm x 107 mm x 145 mm

Ambient data

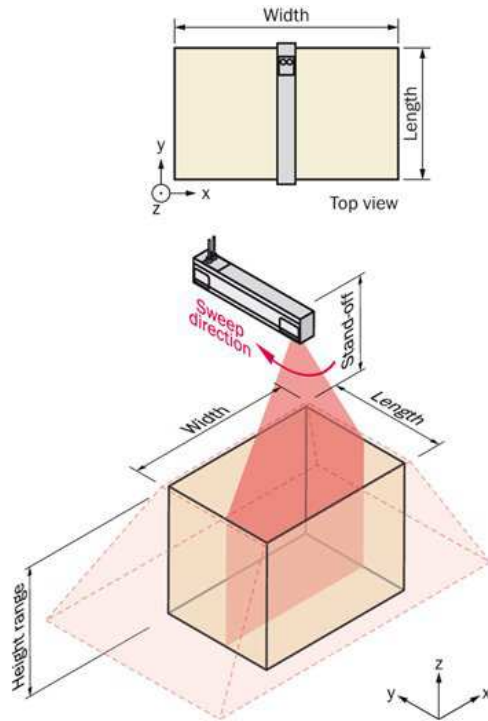
Shock load:	15 g, 3 x 6 directions
Vibration load:	5 g, 58 Hz ... 150 Hz
Ambient operating temperature:	0 °C ... +40 °C ¹⁾
Ambient storage temperature:	-30 °C ... +70 °C ²⁾

1) 2)
Non-condensing

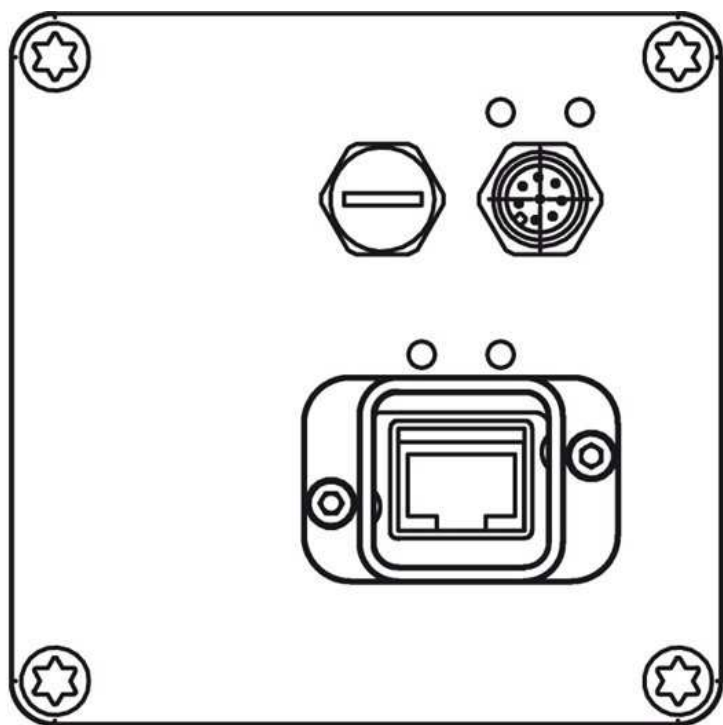
Dimensional drawing



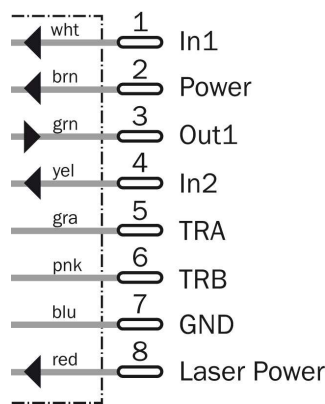
Measuring details



Connection type



Connection diagram Power I/O



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