

Cube 1

VERSATILE SOLID-STATE
LiDAR FOR PERFECT
USE CASE FIT

Available now



Blickfeld
LiDAR / scan your world

Cube 1

Cube 1 is a versatile 3D LiDAR sensor that features an adaptable field-of-view, unique scan pattern, and a long-range while maintaining small dimensions and light weight. It comes with a point cloud interface and no additional adapter boxes are required for operation. The associated recognition software makes the Cube 1 a smart solution for numerous applications.

DISTINCTIVE FEATURES



Wide field-of-view



Small size and light weight



Configurable scan pattern



Low power consumption



Easy installation and setup



Resilience to environmental factors



APPLICATION AREAS



Traffic management



People detection & counting



Drones



Robotic automation

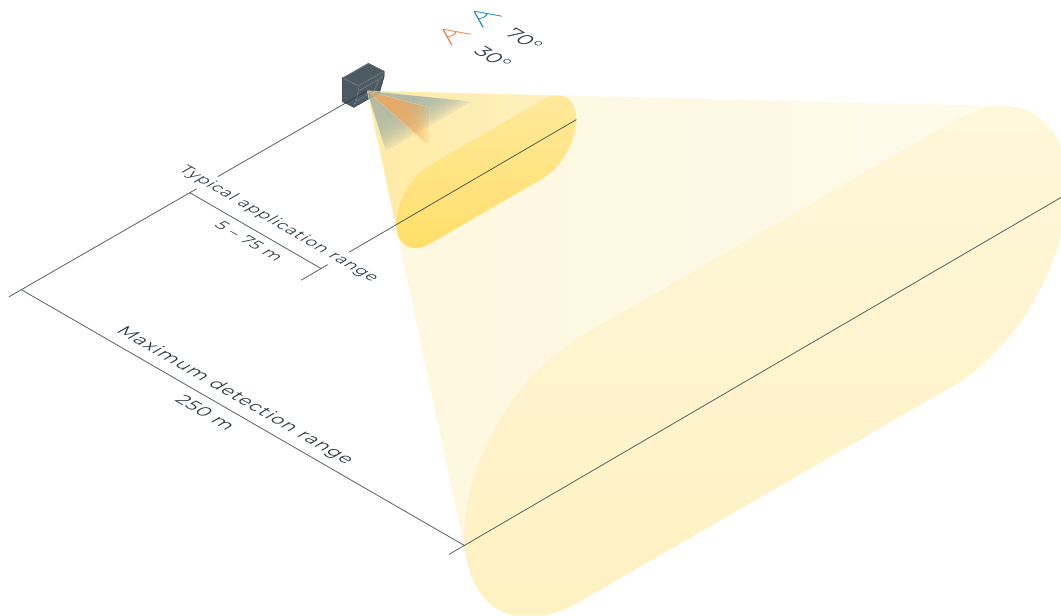


Volume measurement & level sensing



Manufacturing

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SPECIFICATIONS

OPTICAL PERFORMANCE*

Typical application range	5 – 75 m
Maximum detection range	250 m (> 30m for 10% reflectivity target, pixel-filling, 100 klux, 90% detection rate, false positive rate < 0.2%, 0.6° horizontal angular spacing)
Range resolution	< 1cm
Range precision	< 2 cm (bias-free RMS, 10 m, 50% reflectivity target)
Scan lines	> 500 scan lines per second (scan lines are software configurable, preprogrammed scan patterns include e.g. 70° x 20°, 0.4° horizontal point spacing, 50 scan lines, min. 10 Hz frame rate)
Maximum field-of-view (H x V)	70° x 30° (dependent on selected scan pattern)
Frame rate	1 – 30 Hz (dependent on number of configured scan lines)
Returns	Up to 3 (configurable)

*Measured at 25 °C, 60% humidity, single return

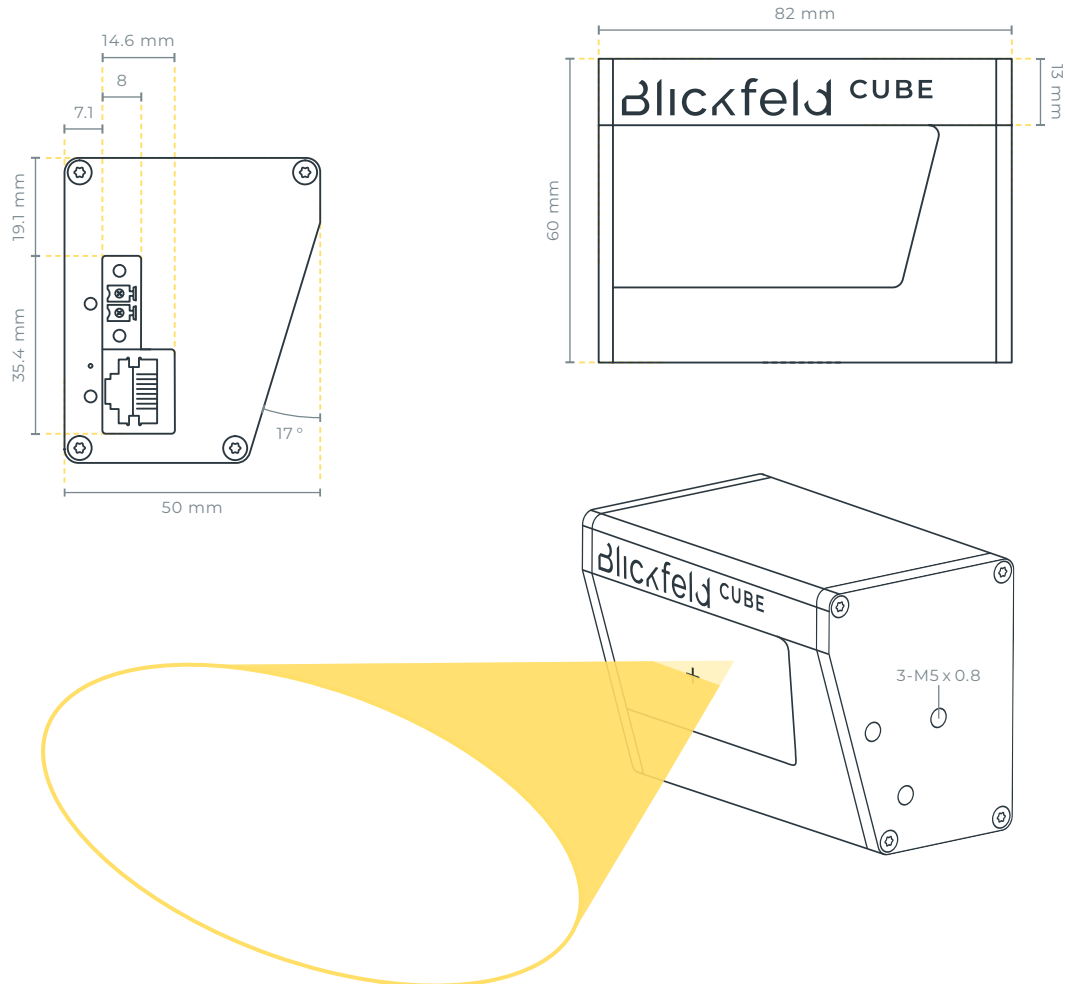
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LASER	
Laser class	Class 1, eye-safe (IEC 60825-1:2014, Ed. 3)
Wavelength	905 nm
Beam divergence	0.4° Examples: 10 m: 0.07 m x 0.07 m 50 m: 0.35 m x 0.35 m 100 m: 0.7 m x 0.7 m
OUTPUT	
Connection	TCP/IP over Gigabit Ethernet
Data output per point	Azimuth and elevation angle, timestamp in μ s per point, range, and Cartesian coordinates per return
CONTROL INTERFACE	
Configuration interface	Cross-platform graphical web interface
Control & stream interface	TCP connection with Blickfeld protocol. C++ library and Python package as client software interface
Time synchronization	NTPv4
MECHANICAL / ELECTRICAL	
Power consumption	Typ. 8.5 W (max. 15 W)
Operating voltage	Recommended: 12 V Absolute maximum ratings: Min.: 10 V Max.: 26 V
Dimensions (H x W x D)	60 x 82 x 50 mm
Weight	ca. 275 g
Data connector	Ethernet, RJ45
Power connector	Phoenix Contact 1817615 Compatible power supply connector: Phoenix Contact 1845219
OPERATIONAL	
Operating air temperature (angle mount attached)	-30 °C – 60 °C
Storage temperature	-30 °C – 60 °C
Humidity	85% at 30 °C, non-condensing

Specifications are subject to change without notice

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DIMENSIONS



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About Blickfeld

Founded in 2017 and based in Munich, Germany, Blickfeld provides cutting-edge LiDAR sensors and perception software, enabling countless mobility and IoT applications. The Blickfeld LiDAR products meet extremely demanding technical specifications with regard to the performance, cost and dimensions required for the mass market. Blickfeld is backed by Continental, Bayern Kapital, Fluxunit (the corporate venture arm of lighting company Osram), TEV (Tengelmann Ventures), High-Tech Gründerfonds, and Unternehmertum Venture Capital Partners.