

Blickfeld QbProtect S



Indoor 3D Security LiDAR, optimized for short-range security applications.

QbProtect S reliably detects security-critical events through high-resolution 3D sensing and advanced on-device security software. Security zones can be configured with centimeter-level accuracy, supporting precise volumetric protection of valuable assets, and even reliable detection of reach-through attempts. With a compact design, seamless integration capabilities, and lighting-independent performance, QbProtect S delivers discreet yet highly effective security for environments where precision is essential.

TECHNICAL DATA

PERFORMANCE

Technology	3-dimensional laser ranging (LiDAR) with edge processing	
Maximum field-of-view	90° x 50° (horizontal x vertical) ^a	
Range ^b	Non-foveated	Foveated
Description	Human detection up to 35 m under typical conditions with a uniform scan pattern across the entire field of view (human 150 x 50 cm)	Reach-through detection up to 25 m under typical conditions by focusing on a defined area of interest with a denser scan pattern
	35 m	25 m
Mounting height	0.5 – 12 m, recommended mount see accessories	
Max. scan lines	1200, configurable	
Number of returns	up to 3, configurable (highest, nearest, farthest)	
Frame rate	1 - 50 Hz depending on configured scan pattern	
Point spacing	0.25° ; 0.5° ; 0.75°	

LASER

Laser class	Class 1, eye-safe (IEC 60825-1:2014)
Laser wavelength	Infrared, 905 nm
Laser beam divergence	0.25° x 0.25°

ON-DEVICE SOFTWARE AND OUTPUT DATA

Integrated web interface	Interactive 3D LiDAR point cloud visualization, device configuration and setup, output specification, alarm history and data recording
Central processing unit	Broadcom Quad-core (ARM v8) 64-bit, 1.5 GHz
Zone management	Security zone configuration, object detection and tracking
Alarm types	Pre-alarms, intrusion detection, sabotage / tampering, malfunction detection
Alarm parameters	Object size (small, human, big) Direction Number of objects / points Alarm / intruding duration Object track length / lifetime Custom alarm logic (AND/OR/NOT)
Integrated inertial measurement unit (IMU)	TDK InvenSense ICM-20600
LiDAR data and IMU	available via API
Protocols	ARP, ICMP, DHCP, DNS, TLS, 802.1X, UDP, NTP, IPv4, IPv6, TCP/IP, HTTP, HTTPS, gRPC, MQTT, RTSP, ONVIF

INTERFACES

LAN connection	Ethernet 1000 Base-T (1 Gbit/s)
Ethernet connector	M12x1 Industrial Ethernet connector, 8-pole, X-coded (EN 61076-2-109), IP54 ^f
Security	User & API-key authentication (multiple access levels, read-only access), 802.1X & WPA2 (EAP)

OPERATIONAL

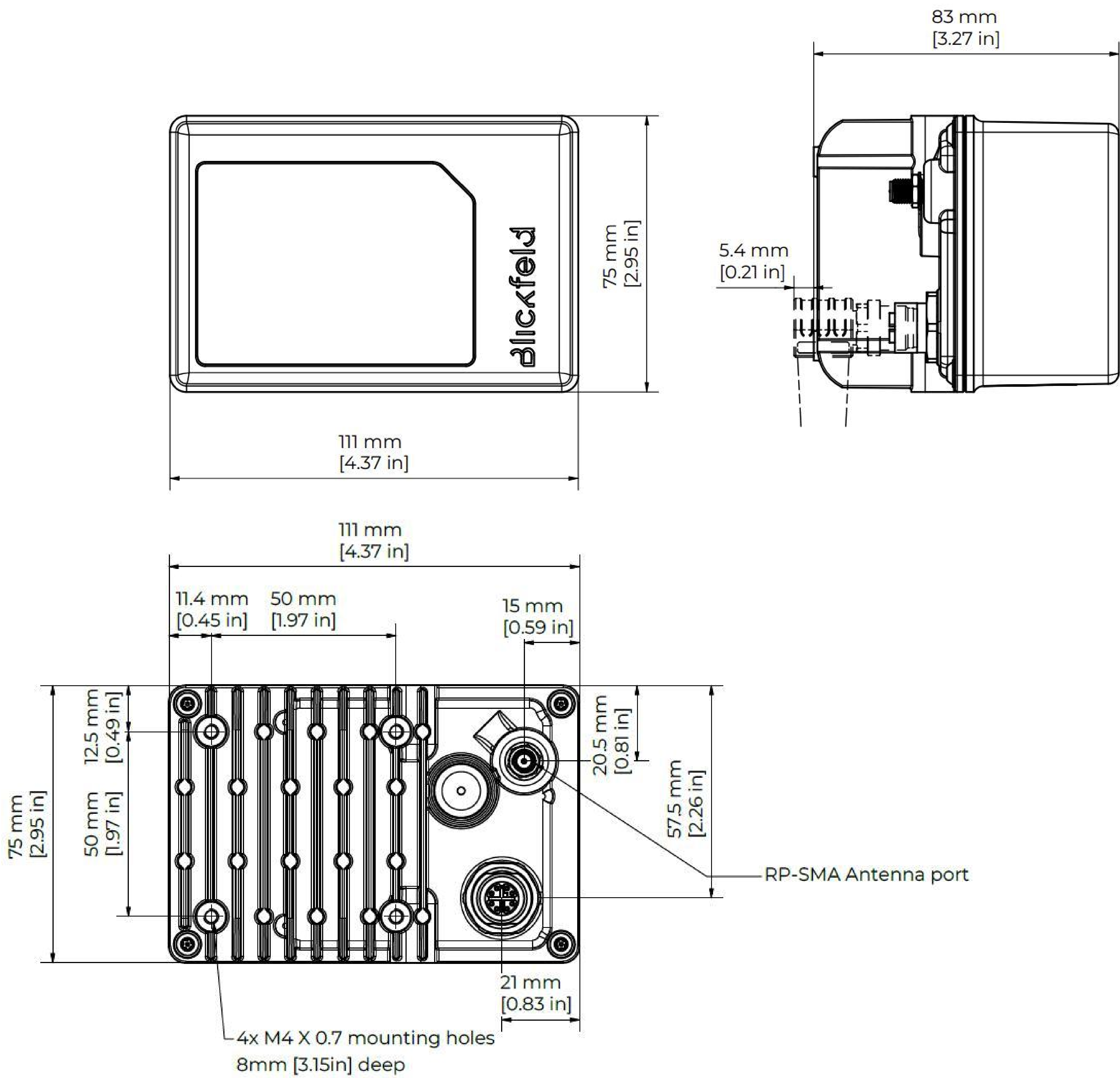
Dimensions (H x W x D) ^c	Ca. 75 mm x 111 mm x 83 mm
Weight ^c	Ca. 535 g
Color	White; black
Voltage input	Power over Ethernet (PoE) ; IEEE 802.3at Type 1
Power consumption	Typ. 10 W; max. 13 W
Ingress Protection ^d	IP54 (IEC 60529)
Operating ambient temperature ^e	-20 °C ... +60 °C
Storage temperature	-40 °C ... +60 °C
Conformity marks / compliance	CE, UKCA, REACH, FDA, FCC, SRRC TAA-compliant product variants available upon request

OPTIONS & ACCESSORIES

Cable	Matching Ethernet cable, length: 3 / 7 / 10 m. M12x1 Industrial Ethernet connector to RJ45, straight, Cat. 6a, X-coded, 8-pole, UV-resistant, halogen-free, PUR jacket
Mounting	Pan-tilt mounting bracket

- a Non-rectangular field-of-view
- b Range performance depends on many factors including but not limited to object reflectivity, orientation, surface texture, ambient light level, and ambient temperature. Reduced accuracy and resolution in small areas of the field of view in close distance to the sensor. Stated numbers measured at 25%.
- c Without Ethernet cable attached
- d With Ethernet cable attached or with protective caps attached
- e Continuous operation between -37°C and 60°C. Increased start-up time (max. 30 min) for temperatures below -30°C
- f IP54 with Ethernet cable and protective cap attached

DIMENSIONS



values in brackets are calculated and may contain round-off errors