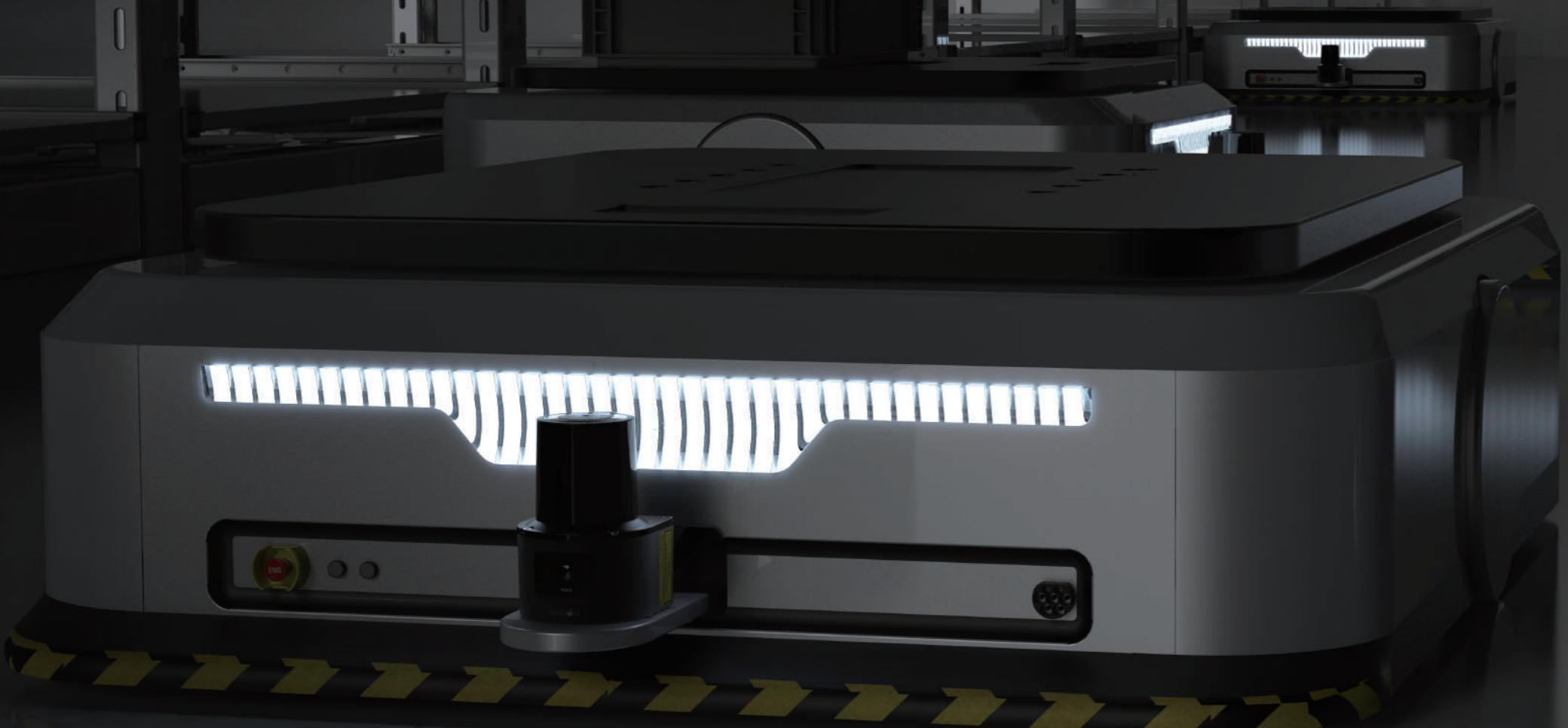




Compact LiDAR LSC Series

The perfect Solution for Presence Detection

Better, Wider, Autonics Compact LiDAR



Max. 270°

Detection Angle

Max. 25 m

Detection Distance

15 Hz

Scanning Frequency

0.33°

Angular Resolution

NPN/PNP

Open Collector Output Setting

Max. 16

Field Sets

Bluetooth

Communication

Compact

Size



* Bluetooth model availability may differ by country.



2D 270° Compact LiDAR LSC Series

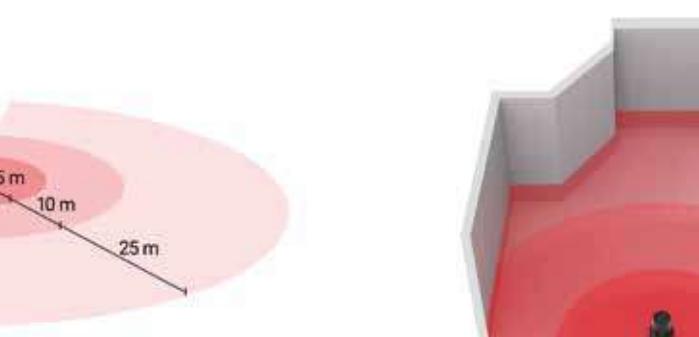
LiDAR sensors utilize time-of-flight (ToF) method to measure the round trip time of the infrared laser beam, to accurately detect presence of objects within a wide range area.

As the logistics robots and service market has grown, interest in LiDAR sensors is increasing. This technology can be applied in various industries such as AGV, OHT, drone, automobile, aircraft, and satellite to detect the surrounding environment, autonomous driving, collision prevention, and entrances. In addition, LiDAR sensors are highly utilized to detect objects within a wide range flexibly and accurately.

The new LSC series LiDAR sensors from Autonics is available in 3 detection distance models (5 m / 10 m / 25 m). The compact size makes it optimal for use in small and medium-sized equipment. The laser scanners feature horizontal 270° detection angle, angular resolution of 0.33°, and uses a 905 nm laser to meet Laser Class 1 for precise detection and measurement.

The scanners offer 16 field sets and teaching function for flexible installation and Ethernet / Bluetooth communication allows easy configuration with PC and mobile application. The ROS (Robot Operation System) driver is also supported for SLAM (Simultaneous Localization and Mapping) function of AGV/AMR.

Detailed Features



270° Detection Angle, 25 m Detection Distance

The LSC series laser scanners offer wide range detection area with horizontal 270° detection angle and up to 25 m detection distance.



Flexible Field Configuration

The laser scanners can set 16 types of field sets with 4 input types. Each field set consists of 3 sub-fields and each sub-field are individually connected to outputs.



Easy Parameter Setting with Mobile Application

The LSC series offer Bluetooth communication for parameter setting with mobile (Android) devices.

* Bluetooth model availability may differ by country

* Bluetooth model availability may differ by country

Application



Autonomous Mobile Robot

Laser scanners are used in Automated Guided Vehicle and Autonomous Mobile Robot to prevent collisions with personnel and objects.



Collision Prevention

Laser scanners used to prevent collisions between objects in OHT (Overhead Hoist Transport) equipment operation.



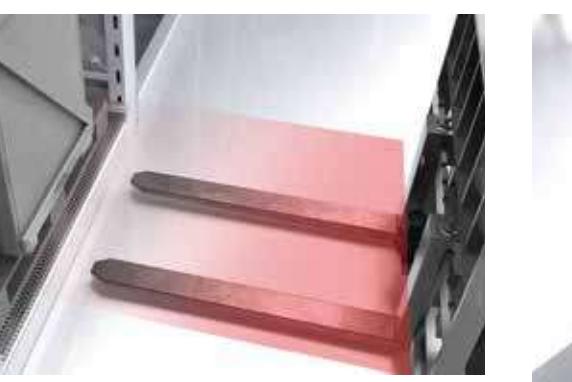
Interactive Media

Laser scanners can be used in various interactive contents for education, promotion, arts and more.



Security

Laser scanners used for security purposes at retail stores.



Environment Detection

Laser scanner can be used to detect occupancy status of tray and to detect size of pallet for pick-up.



Abnormality Detection

Laser scanners are used to identify the inner condition of tote boxes on shipping conveyor belts.

Ordering Information

This is only for reference, the actual product does not support all combinations. For selecting the specified model, follow the Autonics website.

LSC	-	①	②	③	④	-	⑤
-----	---	---	---	---	---	---	---

① Scan angle

C: 270°

② Detection distance

Number: Detection distance (unit: m)

③ Connection

C: Connector type

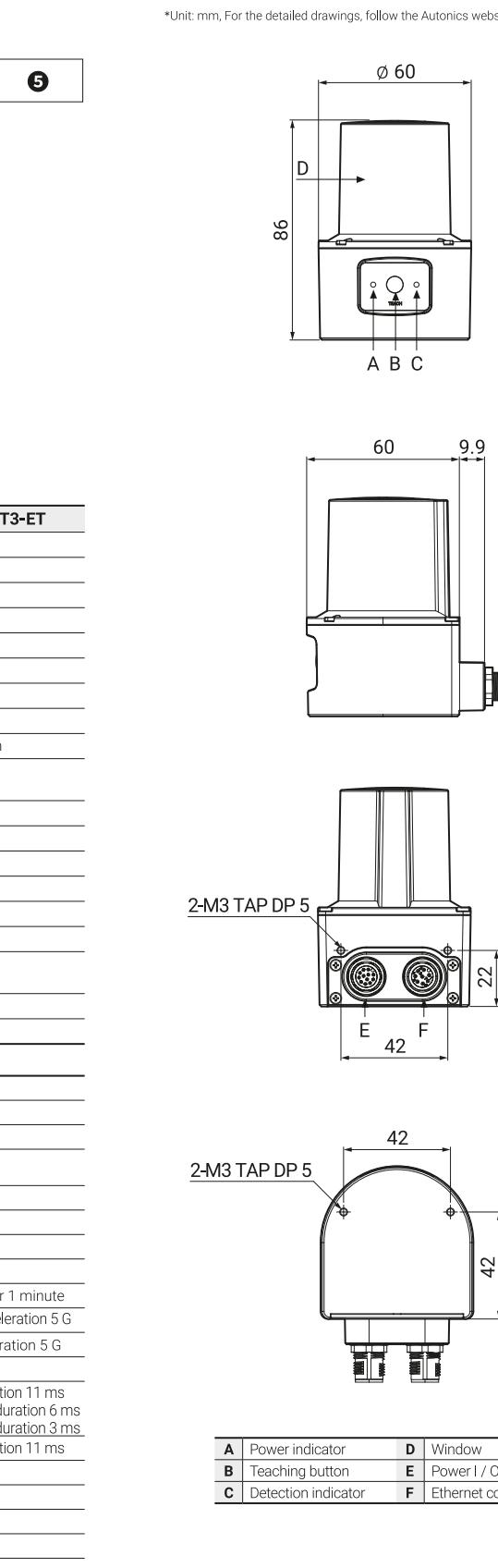
④ Control output

T3: 3 (Transistor)

⑤ Ethernet TP/P

ET: Support

Dimensions



Specifications

Model	LSC-C5CT3-ET	LSC-C10C3-ET	LSC-C25C3-ET
Environment of use	Indoor		
Emitting property	Infrared laser		
Laser class	CLASS 1		
Wave length band	905 nm		
Max. pulse output power	6 W		
Light beam emitting angle	14.5 mrad		
Scanning frequency	15 Hz		
Response time	Typ. 67 ms		
Detection distance range	0.05 to 5 m	0.05 to 10 m	0.05 to 25 m
Detection distance of 10 %	5 m	8 m	
Reflector			
Detection distance error	System error: Typ. \pm 60 mm, statistical error: Typ. 0.2 m		
Min. object size ⁽¹⁾	At detection distance of 8 m: = 121 mm		
Angular resolution	0.33°		
Aperture angle	270°		
Object reflectivity	> 4 %		
Number of field sets	16 (1 set: consists of subfields 1,2,3)		
Number of field sets that can be used concurrently	1		
Unit weight (package)	= 228 g (314 g)		
Certification	CE		
(1) Even objects smaller than the set min. object size can be detected depending on the environment.			
Power supply	9 ~ 28 VDC=		
Power consumption ⁽²⁾	< 4 W		
Input	4 Photocoupler inputs - H: \geq 9 ~ 28 VDC, L: \leq 0 VDC		
Output signal	4: 3-output + 1-Ready / Error, Sync out NPN-PNP open collector output setting (sg, vfw, vfe)		
Load voltage	9 ~ 28 VDC=		
Load current	\leq 100 mA		
Residual voltage	\leq 3.0 VDC=		
Insulation resistance	\geq 5 MQ (500 VDC= megger)		
Dielectric strength	Between the charging part and the case: 5 kVAC / 50 Hz for 1 minute		
Vibration	10 sweep cycles in each X, Y, Z axes at sine wave, 10 to 1000 Hz, acceleration 5 G		
Vibration (malfunction)	10 minutes in each X, Y, Z axes at sine wave, 10 to 50 Hz, acceleration 5 G		
Vibration (irregular)	5 hours in each X, Y, Z axes at 5 to 250 Hz, 4.2 m/s ²		
Shock	3 times in each X, Y, Z axes at sine half wave, acceleration 50 G, duration 1 ms		
Ambient illuminance	1000 times in each X, Y, Z axes at sine half wave, acceleration 50 G, duration 1 ms		
Ambient temperature	-10 to 50 °C, storage: -30 to 70 °C (no freezing or condensation)		
Ambient humidity	0 to 95 %RH, storage: 0 to 95 %RH (no freezing or condensation)		
Protection structure	IP67 (IEC standard)		
Connector specification	Power I/O: M12 12-pin, Ethernet: M12 8-pin		
Material	Case: AL, Window: PC		

(1) Excluding power supplied to the load

A

B

C

D

E

F



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Products

Sensors, Controllers, Motion Devices, Safety, Measuring Equipment, Connection Equipment and more

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- Displacement Sensors • Ultrasonic Sensors • Rotary Encoders • Temperature Sensors • Temperature Transmitters • Pressure Sensors
- Pressure Transmitters • Smart Camera • Vision Sensors • Safety Light Curtains • Safety Door Switches • Safety Switches • Safety Controllers • Temperature Controllers • Solid State Relays • Power Controllers • Counters • Timers • Digital Panel Meters
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- Industrial Networking • I/O Terminal Blocks • Distribution Boxes • Cables • Control Switches / Pilot Lights / Buzzers • Software

* The dimensions or specifications on this product guide may change and some models may be discontinued without notice.

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