LASE
PeCo Systemtechnik GmbH

Product Broschure
SECURITY

Innovative complete solutions

Hardware and software solutions for highly sensitive surveillance areas, retailers, shopping centers etc.

INNOVATION
TEAMWORK
SOLUTIONS

ABOUT US

LASE PeCo Systemtechnik GmbH, a subsidiary of LASE Industrielle Lasertechnik GmbH founded in 1990, became independent at the beginning of 2008 and specialises in the use of laser measurement technology in the area of the survey of passenger frequencies and in the highly sensitive monitoring area of facades, access roads, open spaces and roofs, for example. For more than 25 years, LASE itself has also been involved in people counting using high-precision technology in addition to the use of laser measurement technology in industrial environments. LASE PeCo offers components and system solutions. Applications range from short-term measurements at events to complex and permanent installations in a wide variety of industries.

ABOUT SECURITY

The possibilities of comprehensive security applications for object protection today are more diverse and complex than ever. From walls, fences and intelligent detection techniques to state-of-the-art surveillance systems, you have a number of options to protect and secure your indoor and/or outdoor areas. We sometimes combine the robustness and precision of laser scanner technology with the image processing of camera technology. This enables us to protect open spaces and buildings against unauthorised entry or exit. Access and area surveillance is indispensable not only in highly sensitive areas such as nuclear facilities, prisons and forensic clinics, but also on roofs or in inner courtyards of banks, embassies and data centers. We also count logistics companies (buildings/open spaces), nuclear power plants, museums, chemical industries, stadiums and private properties among our customers.

APPLICATION AREAS SECURITY

- Perimeter / Fence / Masonry
- Open Spaces
- Storefronts
- Correctional facilities
- Roofs
- Approaches / Access
- Inputs and outputs
- Forensic clinics
- Computing centers
- Nuclear facilities
- Nuclear power plants
- Embassy

WHY CHOOSE US?

- Many years of expertise
- Innovative and reliable technologies
- Complete solutions from a single source
- Complete solutions from a single source

ABOUT COUNTING

Frequency is an important factor for the success of e.g. chain stores, shopping streets, pedestrian zones and shopping centres. **LASE PeCo** uses laser sensors - usually under the most difficult operating conditions. Cities in particular use this technology to survey their pedestrian frequencies. Only laser sensors can ensure the quality of the counting process at highly frequented and wide measuring points, even outdoors. **LASE PeCo** has a team of experienced engineers and technicians who support their customers competently from the planning to the operation of the measuring systems and also beyond in the context of data evaluation via analysis system and training.

APPLICATION AREAS COUNTING

- ✈ Airports/Main Stations
- 🏙 Towns, Retail
- 📅 Events
- 🏢 Banks

- 🛒 Shoppingcenter
- 🎡 Theme Parks
- 🏛 Exhibition halls
- 🖥 Musuems

OUR SERVICE

Excellent project consulting	Assembly and processing	After-Sales-Service

Surveillance systems

LASER-TRACKING-SYSTEM

LTS-400

ABOUT LTS-400

The **LTS-400** laser tracking system is a laser scanner-based building protection system that can be used both indoors and outdoors. The laser scanners continuously scan their surroundings. If the laser beams hit objects within the monitored area, their position is detected with centimetre accuracy. A PTZ dome camera, if connected, is aligned exactly to the position, zooms in on the object and tracks it. The continuously enhanced tracking software also reduces false alarm rates (through correspondingly adjustable parameters), enables day/night switching with different monitoring fields and protects against external access (software sealing).

FEATURES LTS-400

- Exact position determination
- Precise object coordinates
- Control of tracking
- Alarm generation
- Pivotable / tiltable (video dome)
- Controlled tracking (video dome)

- Evaluation of monitoring fields
- Flexible component connection
- Simultaneous multiple detection
- Weather resistance (5 echo technology)
- High-resolution image quality (video dome)
- Flexible, reliable, expandable (software modular server client)

APPLICATION AREAS LTS-400

- Perimeter / Fence / Masonry
- Open spaces
- Storefronts
- Correctional facilities

- Roofs
- Interiors
- Inputs and outputs
- Forensic clinics

- Computing centers
- Nuclear facilities
- Nuclear power plants
- Embassy

TECHNICAL DETAILS LTS-400

LTS (LASE 2000D 119)

Hallmarks	
Working range	0 m ... 80 m
Grasp	0 m ... 40 m (10 % diffuse reflection)
Spot size	11,9 mrad
Light	Infrared 905 nm
Laser class	Class 1 (eye-safe)
Scan and profile measurements	
Aperture angles	190°
Scanning frequency	25 Hz / 35 Hz / 50Hz / 75 Hz / 100 Hz
electrical system	
Electrical connection	4 x M12 round plug connector
Operating voltage	DC 24V +/- 20 %
Power input	22 W (without heating) + 55 W heating
Dimensions (L x W x H)	160 x 155 x 185 mm
Heaviness	3.7 kg
Environmental data	
Operating ambient temperature	- 30°C ... + 50°C
Storage temperature	- 30°C ... + 70°C
Insensitivity to extraneous light	70.000 lx

ℹ Different scanner types (range up to 120 m at 10 % reflectance, opening angle up to 360°, relay contacts and digital switching outputs) can be used in the portfolio.

Surveillance systems

LASER-TRACKING-SYSTEM

LTS-500

ABOUT LTS-500

The **LTS-500** laser tracking system is a laser scanner-based building protection system that can be used both indoors and outdoors. The laser scanners continuously scan their surroundings. If the laser beams hit objects within the monitored area, their position is detected with centimetre accuracy. The continuously enhanced tracking software also reduces false alarm rates (through correspondingly adjustable parameters), enables day/night switching with different monitoring fields and protects against external access (software sealing). All system-relevant parameters are set in the server software.

FEATURES LTS-500

- Exact position determination
- Precise object coordinates
- Weather Resistance (5-Echo Technology)
- Alarm generation
- Flexible component connection
- Simultaneous multiple detection

- Evaluation of monitoring fields
- Flexible, reliable, expandable (software modular server client)
- optional software sealing
- optional redundancy server/clients

APPLICATION AREAS LTS-500

- Perimeter / Fence / Masonry
- Open spaces
- Storefronts
- Roofs

- Interiors
- Inputs and outputs
- Forensic clinics
- Correctional facilities

- Computing centers
- Nuclear facilities
- Embassy
- Banks

TECHNICAL DETAILS LTS-500

LTS (LASE 2000D 119)

Hallmarks	
Working range	0 m … 80 m
Grasp	0 m … 40 m (10 % diffuse reflection)
Spot size	11,9 mrad
Light	Infrared 905 nm
Laser class	Class 1 (eye-safe)
Scan and profile measurements	
Aperture angles	190°
Scanning frequency	25 Hz / 35 Hz / 50Hz / 75 Hz / 100 Hz
electrical system	
Electrical connection	4 x M12 round plug connector
Operating voltage	DC 24V +/- 20 %
Power input	22 W (without heating) + 55 W heating
Dimensions (L x W x H)	160 x 155 x 185 mm
Heaviness	3.7 kg
Environmental data	
Operating ambient temperature	- 30°C … + 50°C
Storage temperature	- 30°C … + 70°C
Insensitivity to extraneous light	70.000 lx

SOFTWARE LTS-500

Interfaces alarm output

✓ potential free contacts

✓ Modus TCP

Server-client based

✓ Connection laser scanner per client 10 pcs.

✓ Connection clients per server 10 pieces

Surveillance Systems

ACCESS CONTROL

LTS Gate

ABOUT LTS Gate

Our **LTS Gate** system solution for securing/monitoring access areas via tracks or roads protects against unauthorised access. By means of software parameterised field monitoring within a "virtual fence", intruders can be detected and safely detected in both trafficked and untraveled condition. Likewise, the passing delivery traffic (train/truck) caused by simultaneous evaluation fields no alarm.

FEATURES LTS Gate

- ✓ Powerful, efficient laser scanners
- ✓ Weather resistance (multi-echo technology)
- ✓ Flexible mounting
- ✓ Synchronization of several sensors possible

- ✓ Multiple inputs/outputs
- ✓ Multiple monitoring fields
- ✓ Compact housing (IP67) incl. heating for outdoor devices

APPLICATION AREAS LTS Gate

- 🔒 Tracks / Gates / Accesses
- 🔒 Inputs and outputs
- 🔒 Perimeter / Fence / Masonry

TECHNICAL DETAILS LTS Gate

LTS GATE (LASE 2000D 125)

Hallmarks	
Working range	0 m ... 80 m
Grasp	0 m ... 40 m (10 % diffuse reflection)
Spot size	11,9 mrad
Light	Infrared 905 nm
Laser class	Class 1 (eye-safe)
Scan and profile measurements	
Aperture angles	190°
Scanning frequency	25 Hz / 35 Hz / 50Hz / 75 Hz / 100 Hz
Electrical system	
Electrical connection	4 x M12 round plug connector
Operating voltage	DC 24V +/- 20 %
Power input	22 W (without heating) + 55 W heating
Dimensions (L x W x H)	160 x 155 x 185 mm
Heaviness	3.7 kg
Environmental data	
operating ambient temperature	- 30°C ... + 50°C
storage temperature	- 30°C ... + 70°C
Insensitivity to extraneous light	70.000 lx

ℹ Different scanner types (range up to 120 m at 10 % reflectance, opening angle up to 360°, relay contacts and digital switching outputs) can be used in the portfolio.

Surveillance Systems

AIRFIELD LUGGAGE DETECTION

LaseALD

ABOUT LaseALD

The application **LaseALD** - Airfield Luggage Detection -is a laser scanner-based free space inspection system for the highly accurate and reliable detection of objects on runways of airports, ship bridges and railway tracks. As part of the integration into a barrier and traffic light system, the tarmac of this solution is actively measured in order to ensure obstacle-free operation for passing aircraft, cars and ships. With the help of 3D laser scanners, the operators in the tower can rule out a possible danger from e.g. lost objects or suitcases (Lost Luggage Control). This prevents any damage to the aircraft caused by objects being sucked into the engine/jet turbines. Furthermore, time can be saved because suppliers or (refrigerated) transport vehicles can cross the taxiway without any further detours.

FEATURES LaseALD

- High-precision 3D laser scanning technology
- Large-area taxiway monitoring
- Weatherproof (temperature range: -25°C ... +50°C)
- Reliable detection even in darkness or bad weather
- Mast mount with weather protection cover and adjustment function +/-45°.

- Alarm generation on object detection
- Self-monitoring function via reference marker
- Use of several laser scanners possible

APPLICATION AREAS LaseALD
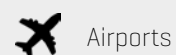
- ✈ Airports
- 🚆 Tracks
- 🌉 Bridges
- 🚢 Pontoon bridges

TECHNICAL DETAILS LaseALD

LaseALD

Hallmarks		
Distance range for white	2,5 m … 250 m	0,5 m … 200 m
Distance range with black	2,5 m … 80 m	0,5 m … 30 m
Horizontal divergence	0,5 mrad	2,2 mrad
Divergence vertical	1,32 mrad	10,9 mrad
Laser class	Class 1 (eye-safe)	
Scan and profile measurements		
Scan angle	90°	horizontal: 120° ; vertical: 15°
Swivelling range	up to 90°	
Scanning frequency	20/40 Hz	10 Hz
Angular resolution	0,09° … 0,18°	
Scanning profile	1	24
Electrical system		
Interface Laser	Ethernet 100 MBit/s - UDP	1000 MBit/s - TCP/IP
Power supply	DC 24V +/- 5V	10-29V

Surveillance Systems

ANTI-THEFT-SECURITY SYSTEMS

TIM-Series LASE 2000D-3

ABOUT LASE 2000D-3

The lasers from the **LASE 2000D-3** product group use the new HDDM technology, which reduces machine downtimes due to the very high measurement accuracy and extraneous light safety. The design of the **LASE 2000D-3** allows a surveillance zone of up to 10 m - and that in an extremely compact housing. Thanks to the "touch and teach" function, the monitoring area can now be used without PC to be set up. Its 16 preconfigured field sets (each with 3 fields), which are selected via the input circuit, enable quick and easy commissioning. Der **LASE 2000D-3** is a flexible, cost-effective and user-friendly laser scanner for mobile and stationary applications. With its low power consumption and robust, industrial design the **LASE 2000D-3** is versatile and can be used for numerous industries.

FEATURES LASE 2000D-3

- Low running costs
- Flexible attachment thanks to compact dimensions
- Low implementation and replacement costs
- Long battery life
- Easy installation thanks to preconfigured field sets
- Low costs through minimal use of hardware
- Large-area field surveillance (up to 235m²)

At a glance

- „"touch and tach" configuration without a PC
- Small, light and economical sensor
- Field evaluation with intelligent software algorithms
- Configuration interface accessible from the side
- One of the most compact sensors on the market
- Industrial design
- Low power consumption (typ. 4 W)

APPLICATION AREAS LASE 2000D-3

- Museums
- Open spaces
- Facades
- Correctional facilities

- Roofs
- Interiors
- Inputs and Outputs
- Forensic clinics

- Computing centers
- Nuclear facilities
- Nuclear power plants
- Embassy building

TECHNICAL DETAILS LASE 2000D-3

LASE 2000D-36XT | **LASE 2000D-32XT**

Features		
Operation area	Outdoor	Indoor
Workspace	0,05 … 10 m	0,05 … 4 m
Range	8 m	2 m
Light Source	Infrared (850 nm)	
Laser class	Class 1 (eye-safe)	
Scan and profile measurements		
Opening angle	270°	
Angular resolution	0,33°	1°
Scan frequency	15 Hz	
Interfaces		
Ethernet	TCP/IP	–
USB	Micro USB, AUX, parameterization	
Electrics		
Electrical connection	• 1 x connection „Ethernet" 4-pin M12 socket • 1 x connection „power supply" 12-pin M12 connector • 1 x Micro USB socket, Typ B	• 1 x 12-pin M12-device plug (0,8 m)
Operating voltage	9 V DC … 28 V DC	
Power consumption	Typ. 4 W	
Protection class	III (IEC 61140:2016-1)	
Dimensions (L x B x H)	60 mm x 60 mm x 86 mm	60 mm x 60 mm x 79 mm
Weight	250 g (without connecting cables)	150 g (without connecting cables)
Environmental data		
Operating ambient temperature	-25°C … + 50°C	–10°C … +50°C
Storage temperature	-40°C … + 75°C	–30°C … +70°C
Ambient light immunity	80.000 lx	15.000 lx

ANTI-THEFT-SECURITY SYSTEMS

VdS-Series LASE 2000D-1

ABOUT **LASE 2000D-1**

The laser measurement systems **LASE 2000D-1** are particularly suitable as curtain detectors by being in front of the to be protected objects, or as a penetration detector for walls and windows. They can be used indoors and outdoors for vertical monitoring of fence systems or for horizontal monitoring of level open spaces such as meadows, squares, walkways and driveways. They are also suitable for monitoring roof and ceiling areas. Persons or objects entering the detection range of the **LASE 2000D-1** laser scanner are reliably detected. Interventions with and without tools are detected depending on the distance as well as climbing over or climbing through. The sensors from the **LASE 2000D-1** series are also good at detecting people and vehicles walking, running, crawl or drive.

FEATURES **LASE 2000D-1**

- ✓ Day/Night switching
- ✓ Opening angle 270°
- ✓ 2 relay outputs (alarm + fault)
- ✓ Individual settings of the detection sharpness to secure against climb-through or penetration
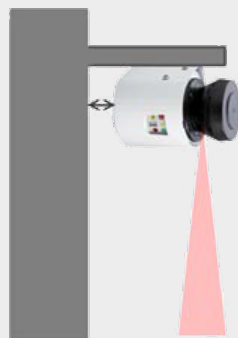
APPLICATION AREAS **LASE 2000D-1**

- 🔒 Museums
- 🔒 Open spaces
- 🔒 Facades
- 🔒 Correctional facilities

- 🔒 Roofs
- 🔒 Interiors
- 🔒 Inputs and Outputs
- 🔒 Forensic clinics

- 🔒 Computing centers
- 🔒 Nuclear facilities
- 🔒 Nuclear power plants
- 🔒 Embassy building

TECHNICAL DETAILS LASE 2000D-1

	LASE 2000D-13XV	LASE 2000D-12XV
Features		
Operation area	Outdoor	Indoor
Workspace	0,5 … 20 m	
Range	18 m	
Light Source	Infrared (905 nm)	
Laser class	Class 1 eye-safe)	
Scan and profile measurements		
Opening angle	270°	
Angular resolution	0,25°, 0,5°	
Scan frequency	50 Hz	
Interfaces		
Ethernet	TCP/IP	
Serial	RS-232	
Electrics		
Electrical connection	1 x system plug with screw terminal block	
Operating voltage	9 V DC … 30 V DC	
Power consumption	20 W, typ. 8 W; heater typ. 35 W	20 W, typ. 8 W
Protection class	III (EN 50178 1997, 10)	
Dimensions (L x B x H)	105 mm x 102 mm x 152 mm	
Weight	1,1 kg, without connecting cables	
Case Color	Black or grey (various colors possible)	
Environmental data		
Operating ambient temperature	-30°C … + 50°C	0°C … +45°C
Storage temperature	-30°C … + 70°C	
Ambient light immunity	40.000 lx	

Kontakt

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