TVS100 and LD-PeCo
People Counting Systems

These systems count people even in the largest of crowds – wherever they gather.

SICK
Sensor Intelligence.

People counting, access control, support for marketing and logistics, ...

Area monitoring in public places is gaining in importance. SICK has expanded its People Counting Systems with new functions and now offers five variants for indoor and outdoor use.

RETAIL & FACILITY MANAGEMENT

How many people are entering, how many are leaving? TVS100 and LD-PeCo indoor systems provide reliable statistical information on visitor numbers from heights of up to 15 m for the regulation of air conditioning systems or material planning.

Typical areas of use
- Shopping centres
- Hypermarkets
- Banks
- Museums and exhibitions
- Congress centres
- Commercial districts

TRANSPORTATION

How many people are in the monitored area? These systems help, for example, prevent potential overcrowding at frequented locations such as airport terminals and station platforms. Evacuation plans are supported during emergencies.

Typical areas of use
- Stations
- Airports
- Underground stations
- Bus stations
- Ferry ports

CITY MARKETING

How many people were in the pedestrian zone at the weekend? Such information is of enormous importance for town marketing. The LD-PeCo3100 outdoor system detects the number of individuals and supplies dependable figures.

Typical areas of use
- Shopping centres
- Shopping promenades
- Pedestrian zones
- Squares, plazas, etc.
- Markets

RECREATIONAL & SPORTS

How many spectators attended the game today? The LD-PeCo3100 system provides reliable data for the statistics in order to quantify the number of visitors to the stadium. Also useful for providing the right number of security staff.

Typical areas of use
- Theme parks
- Congresses
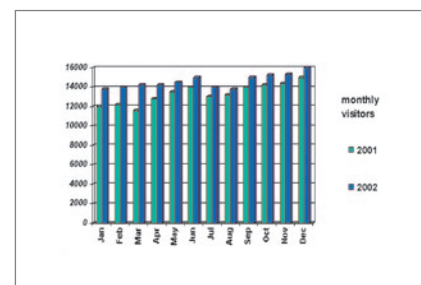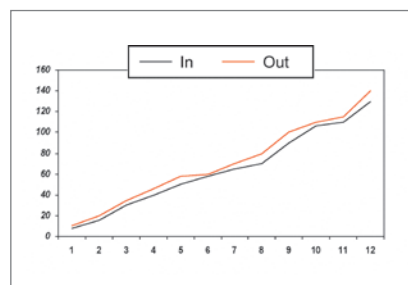- Trade fairs
- Casinos
- Sports stadiums

© Beonic Melbourne

Technical data

Type	TVS100-10000	TVS100-10100	LD-PeCo5,5	LD-PeCo15	LD-PeCo3100
Mounting height	2.3 m to 5.5 m		2.5 m to 5.5 m	5.5 m to 15 m	3 m to 15 m
Detection width	Up to 6.5 m Up to 8 m (reduced accuracy)		1 m to 26 m[1]		
Counting accuracy	> 95 %[2]				
Eye safety	Risk Group 1 to IEC 62471		To EN/IEC 60825-1		
Laser class	–		1		
Data interfaces	Ethernet, RS 232	Ethernet, RS 485	RS 422		
Switching outputs	2 x (Count IN, Count OUT)				
Housing	Aluminium		Polystyrene		Baseplate: Aluminium; Dome: PUR-IHS
Operating voltage	24 V DC ± 15 %		24 V DC ± 15 %		Electronic: 24 V DC ± 15 %; Heating: 24 V DC/AC (ripple max. 6 V)
Enclosure rating (to EN 60529)	Sensor IP 67 / Fan IP 40		IP 40		IP 67
Colour of housing	White aluminium (RAL 9006), anodised		White aluminium (RAL 9006)		
Power consumption	Operation[3]: typ. 65 W (2.7 A) at 24 V DC, max. 150 W (6 A) at 24 V DC (for 10 ms)		Switch-on: approx. 36 W (1.5 A) at 24 V DC, max. 50.5 W (2.1 A); Operation: 12 W (0.5 A) at 24 V DC, add. max. 0.5 A for each switching output		
Temperature (operation/ storage)	0 to +50 °C/−20 to +70 °C		0 to +40 °C / −20 to +80 °C		−25 to +50 °C[4]/ −30 to +80 °C
Rel. humidity	5 to 95 %, non condensing		5 to 85 %, non condensing		100 %
Weight	Approx. 2.3 kg (without mounting system)		Approx. 6 kg		Approx. 8.5 kg
Mounting	Mounting bracket		Hinged foot		Adjustable bracket

[1] Depending on mounting height; [2] In typical counting applications, cumulated accuracy within an adequate long counting period; [3] When switching outputs are not connected; [4] Warm up time approx. 90 minutes at −25 °C
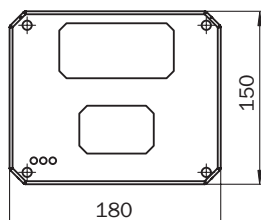
Visualisation of the presence and movement of visitors in a shopping mall[5]
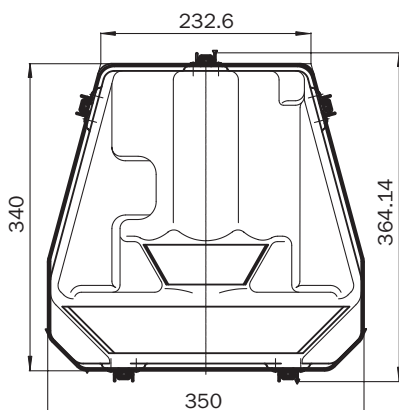

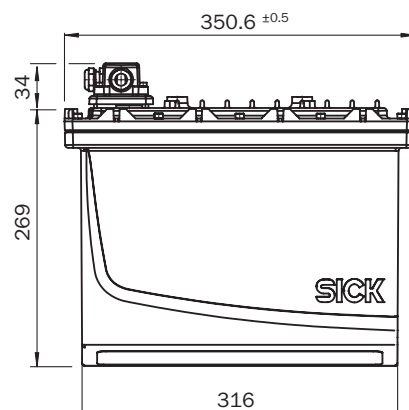[5] Example – visualisation tool not included in SICK AG's scope of delivery

AUDIN - 8, avenue de la malle - 51370 Saint Brice Courcelles - Tel : 03.26.04.20.21 - Fax : 03.26.04.28.20 - Web : http: www.audin.fr - Email : info@audin.fr

Dimensional drawings

All dimensions in mm

232.6 **340** **364.14** **350**

Indoor variant TVS100

180 **150**

Indoor variant LD-PeCo5,5/LD-PeCo15

350.6 ±0.5 **34** **269** **316**

SICK

Outdoor variant LD-PeCo3100

Ordering information devices

Order No.	Type	Description
1046848	TVS100-10000	Indoor variant, sensor IP 67, fan IP 40, mounting height 2.3 m to 5.5 m, RS 232 data interface, Ethernet, 90° optics
1047333	TVS100-10100	Indoor variant, sensor IP 67, fan IP 40, mounting height 2.3 m to 5.5 m, RS 485 data interface, Ethernet, 90° optics
1023382	LD-PeCo5,5	Indoor variant, IP 40, mounting height 2.5 m to 5.5 m, RS 422 data interface
1023383	LD-PeCo15	Indoor variant, IP 40, mounting height 5.5 m to 15 m, RS 422 data interface
1044564	LD-PeCo3100	Outdoor variant, IP 67, mounting height 3 m to 15 m, RS 422 data interface

Ordering information accessories indoor variants TVS100-10000 and TVS100-10100

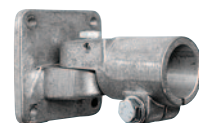| Order No.	Description
2050262	Bracket for mounting the TVS100 (alignment adjustable in 2 axes), metal, see figure
6039488	Data cable for Ethernet with 4-pin M12 plug (angled)/8-pin RJ45 plug, 5 m
6039489	Data cable for Ethernet with 4-pin M12 plug (angled)/8-pin RJ45 plug, 10 m
6039486	Data cable for RS 232/RS 485/switching outputs with 12-pin M12 socket (angled)/ open stand ends, 5 m
6039487	Data cable for RS 232/RS 485/switching outputs with 12-pin M12 socket (angled)/ open stand ends, 10 m
6039484	Power supply cable with 4-pin M12 socket (angled)/open stand ends, 5 m
6039485	Power supply cable with 4-pin M12 socket (angled)/open stand ends, 10 m
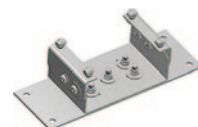
Mounting bracket for TVS100 (2050262)

Ordering information accessories indoor variants LD-PeCo5,5 and LD-PeCo15

Order No.	Description
5313008[1]	Pipe for pipe clamping system, Ø 30 mm, length 130 mm, aluminium
4039006[1]	Hinged foot, see figure
1025633[1]	Safety cord for pipe clamping system, steel cable with 2 karabiners
1025703	Commissioning cable Setup 1, with 9-pin D Sub socket/9-pin D Sub plug and two power supply cables, designed for the RS 422/RS 232 converter B&B Model 4WSD9R, 10 m
1027214	Commissioning cable Setup 3, with 9-pin D Sub plug/open wire ends and two power supply cables, designed for the RS 422/RS 232 converter B&B Model 4WSD9R, 10 m

[1] Enclosed in the scope of delivery of the LD-PeCo5,5 and LD-PeCo15

Hinged foot (4039006)

Ordering information accessories outdoor variants LD-PeCo3100

Order No.	Description
2018303	Adjustable bracket for wall mounting on flat surfaces, metal, weight approx. 1.6 kg, incl. mounting material, see figure
2018304	Mast bracket for mounting on vertical pipes with external diameter 70 to 140 mm, metal, weight approx. 400 g. Adjustment bracket No. 2018303 is also necessary.
5306222	Steel clamping strip for mast bracket (by the metre), 19 mm x 0.7 mm. 2 units are required.
5306221	Steel clamping strip lock. 2 units are required.
6032770	Y version configuration cable with 20-pin Harting socket (receptacle strip). Consisting of a connection cable for RS 422 data interface with 15-pin D Sub plug and a power supply cable with open end.

Adjustable bracket (2018303)

... with TVS100 and LD-PeCo.

Reliable people counting systems are essential for optimising business processes and complying with safety regulations. The most varied of requirements can be met with the wide range of device variants available.

TVS100

LD-PeCo15,
LD-PeCo5,5

LD-PeCo3100

⚠ **Safety note:**
TVS100 and LD-PeCo people counting systems are not devices for personal protection within the sense of valid safety standards for machines.

Overview of available device variants:

Type	TVS100-10000	TVS100-10100	LD-PeCo5,5	LD-PeCo15	LD-PeCo3100
Area of use					
Indoor	●	●	●	●	
Outdoor					●
Mounting height					
2.3 to 5.5 m	●	●			
2.5 to 5.5 m			●		
3 to 15 m					●
5.5 to 15 m				●	
Data interfaces					
Ethernet	●	●			
RS 232	●				
RS 422			●	●	●
RS 485		●			

TVS100 and LD-PeCo at a glance:

- Precise counting of persons – regardless of their body size
- Detection and counting of groups of persons
- Detection of direction of movement of persons
- Immune to temperature and light conditions
- Large monitored area (up to 26 m with the LD-PeCo)
- Installation heights of up to 15 m (LD-PeCo15 and LD-PeCo3100)
- Easy and rapid mounting thanks to variety of mounting accessories
- Maintenance-free

Worldwide presence with subsidiaries in the following countries:

Australia

Belgium/Luxembourg

Brasil

Ceská Republika

China

Danmark

Deutschland

España

France

Great Britain

India

Israel

Italia

Japan

Nederland

Norge

Österreich

Polska

Republic of Korea

Republika Slovenija

România

Russia

Schweiz

Singapore

Suomi

Sverige

Taiwan

Türkiye

United Arab Emirates

USA/Canada/México

Please find detailed addresses and additional representatives and agencies in all major industrial nations at **www.sick.com**

Handed over by:

Our Competence in the Business Segments

Factory automation

With its intelligent sensors, safety systems, and auto ident applications, SICK realises comprehensive solutions for factory automation.

- Non-contact detecting, counting, classifying, and positioning of any types of object
- Accident protection and personal safety using sensors, as well as safety software and services

Logistics automation

Sensors made by SICK form the basis for automating material flows and the optimisation of sorting and warehousing processes.

- Automated identification with bar code and RFID reading devices for the purpose of sorting and target control in industrial material flow
- Detecting volume, position, and contours of objects and surroundings with laser measurement systems

Process automation

Optimised system solutions from SICK ensure efficient acquisition of environmental and process data in many industrial processes.

- Precise measurement of gases, liquids and dust concentrations for continuous monitoring of emissions and the acquisition of process data in production processes
- Gas flow measurements with maximum accuracy thanks to compact gas metres

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Sensor Intelligence.

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