



PEOPLE COUNTER



Precision stereo camera



Count people – with precision like never before.

The HELLA People Counter: Innovative precision device ...



The bidirectional HELLA People Counter.
With stereo camera and analysis features.

98 % accurate counting. Always.

The HELLA People Counter defines a new precision class in electronic people counting. Even under difficult conditions, it yields a 98 % accurate count. Unfavourable, variable lighting or the casting of shadows does not affect the count accuracy. The HELLA People Counter reliably detects how many people enter or leave a transit vehicle, building or an event, for example – as well as how many people are currently present. The superior quality is based on HELLA's unique expertise in image processing and 3D camera technology.

Your advantage with the HELLA People Counter:

- Maximum counting accuracy
- More precise billing and distribution data
- More accurate key figures for marketing strategies
- More efficient staff planning
- More planning reliability in all people-dependent sectors
- Optimised energy and environment management
- More security
- Differentiability on the market by individually customizing / branding the series product.

Detect, analyse, communicate.

The device in the Embedded Design combines detection, analysis and transmission of data in a compact housing. Counting people is only the beginning. The HELLA People Counter offers valuable applications for your situation analysis. It can track behaviour of people in many different ways and therefore offers information about the efficiency of guidance systems, advertising campaigns, etc. (for more details, see right „Features“). Thanks to modular hardware and flexible software architecture, the HELLA People Counter can connect to virtually any backend system.

Easy installation, efficient operation.

You will enjoy unforeseen flexibility when installing the HELLA People Counter, because its high-performance sensor technology compensates for greater distances, vertical displacements, etc. The initial operation is as simple as the installation: Simply adjust a few parameters, and the setup takes place within minutes. Further calibrations during operation? Not necessary!

The innovative analysis algorithm computes 3-D-based data. Detected people cannot be identified. Therefore, all requirements for data privacy are met.

HELLA offers the following as a medium-sized industrial enterprise:

- Sustainable strategic quality
- Long-term supply chain
- Sustainable innovative strength
- Expertise and synergy transfer from automobile know-how

Figures on HELLA

- For over 100 years, HELLA has stood for progress in automobile technology –particularly in the areas of lighting and electronics.
- Of the 25 000 employees, 3 800 work in the areas of research and development.
- The German family enterprise is represented in 70 locations in more than 30 countries worldwide.



... and a strategic tool for your success.

Maximum precision, reliable operation

- Maximum precision in a compact form
- Counting accuracy of 98 % even under difficult conditions
- Stereo camera with 3D technology (height profile of objects)
- No impairments by shadows, reflections and small objects

Easy initial operation

- Large detection range of 110°
- High flexibility when installing the sensor
- Positioning, even off-centre, is possible for counting range
- Easy setup in a few minutes
- Remote configuration and maintenance is possible via web interface

More variable application

- Diverse application spectrum: Buses and trains, public buildings, airports, terminals, railway stations, retail outlets, department stores, shopping centres and trade fairs
- Multiple applications: Commerce, retail, trade fairs and events, etc.
- Transmission of the present door situation to a transport crew is possible
- Easy connection to security and facilities engineering
- Compact design, robust construction

Efficiency and reliability

- Strong price-to-performance ratio
- Inoffensive in terms of data privacy law
- Designed to accommodate add-on features – future-proof!
- Robust industry quality with long service life
- Integrated self-diagnosis reports damage to the optical system
- Innovative road map ensures a high degree of innovation
- The HELLA brand offers long-term investment protection
- Optional: Video streaming and video recording (separate activation necessary)
- Count-accurate video analysis reduces costs

- Offline video recording allows the conveyance of real figures
- As a result: Verification of counting ability reduces the costs of diagnosis

New... New... New

- Video streaming – and recording can be activated as an additional special feature
- Video streaming enables real-time transmission of the door area setting:
 - Increase in security; transport crew can see every door area if necessary
 - Situation assessment in the entrance (bottleneck) by security is possible
- Video recording enables automatic recording on network-integrated recording systems
- Reduces the effort to verify the counting accuracy through offline analysis of counting trips
- Sequence-based counting data of the sensors available in the video
- Objective and reproducible offline analysis allows efficient counting accuracy verification even during operation, (e. g., 1 x per year), by comparing counting data and video analysis

Individual connection and use

- Multiple communication protocols available via Ethernet, RS 485 and car bus
- Customer-specific communication protocols can be integrated
- Customer-specific functional software can be integrated
- Simple customer-specific branding is possible (e. g., customer-specific logo in operating software)
- Controllable functions through hardware switch contacts (input and output)



Passenger counting



Detection of streams of visitors



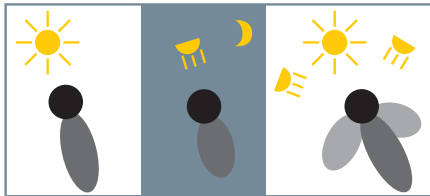
Facility management



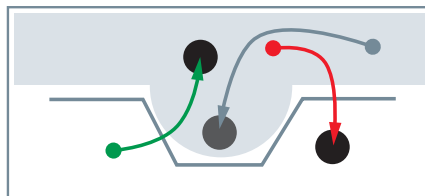
Customer counting / retail



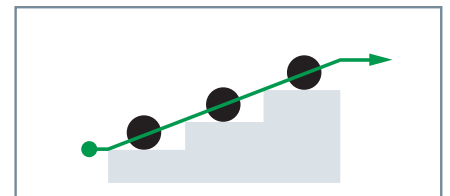
Because it can do more than others.



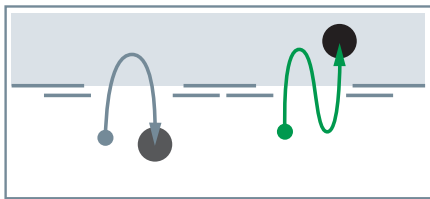
Counting accuracy:
Over 98 % – even under difficult conditions.



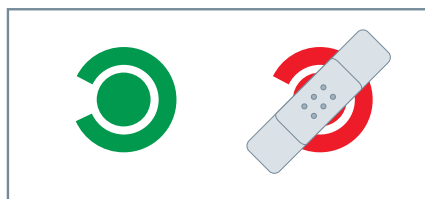
Polygonal counting lines:
The position of the counting lines is variable and can be adapted on-site to meet requirements.



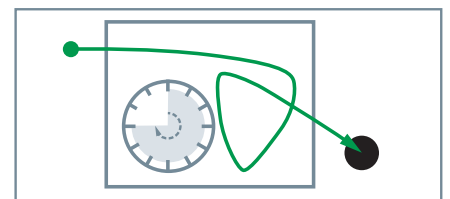
Levels handling:
Height differences > 20 cm are compensated in the detection range. It is possible to count people on stairways.



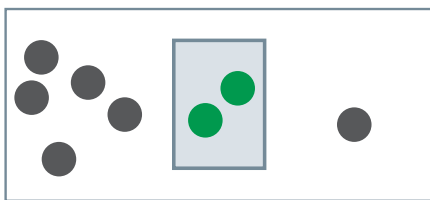
Returning people:
Movement of people in the door area (e. g., at stops) is compensated with no repeated counting. Returners are detected again.



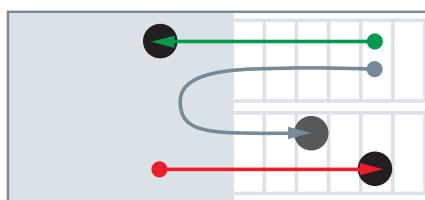
Optical self-diagnosis:
Monitoring the optical path. Disturbances by masking or spraying the optics are detected and communicated to the system.



Turnaround time:
The system detects how long people stay at a place, and gives information e. g., about the efficiency of advertising campaigns.



Occupancy:
The current number of people in the detection range is always transparent and allows situational access limitations.



Balancing of floors:
Distinguishes between a floor's entrance, a floor's exit and people moving on using the escalator.

Data transfer:
Real-time operation over interfaces.
Storage in CSV files in the event of an IBIS communication loss.

Option:
Storage in CSV files for individual transfer.



Facts and figures

TECHNICAL DATA		INTERFACES	
Operating nominal voltage	24 V DC	Communication	1 x Ethernet (M12 plug), 1 x RS485 (2 wire) Optional: 1 x IBIS car bus
Operating voltage tolerance	9 V – 36 V DC	Logical protocol	IBIS-based implementation for all 3 physical interfaces, Optional: proprietary Ethernet protocol, Optional: Integration of customer-specific protocols is possible
Power consumption	approx. 4 W	Inputs / outputs	1 x digital input, for door contact 1 x digital output, potential-free
Operating temperature*	-25 °C to +70 °C	Setup / service	User interface for setup and service of the counter via Ethernet on the browser-based software stored in the counter
Storage temperature	-40 °C to +85 °C		
Degree of protection	IP50 (DIN IEC 60529)		
EMC	EN 50022, in addition E1 for buses and EN 50121-3-2 for rail		
Installation height*	2.10 m to 4.00 m		
Detection range*	0.80 m to 3.50 m		
Dimensions	141.4 x 71.5 x 35 mm		
Weight	approx. 450 g		
Housing	Vandalism-proof aluminium die-cast housing		
Colour*	white RAL9010		

* different properties available on request



HELLA Aglaia Mobile Vision GmbH

Treskowstraße 14

13089 Berlin / Germany

Tel. +49 030 2000 429 140

Fax +49 030 2000 429 149

peoplecounter@hella.com

www.hella.de/peoplecounter

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HELLA INDUSTRIES

Street lighting

Interior lighting

Airport lighting

People counter

You can find additional information at:

www.hella.de