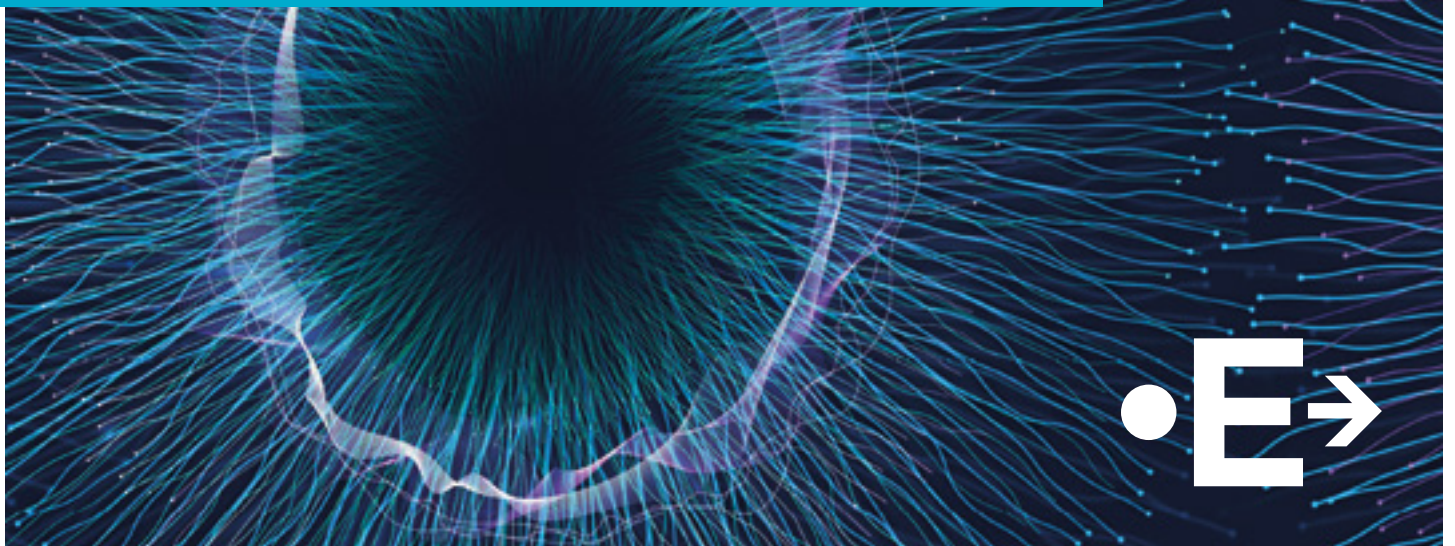




RCD S⁺ Counting and Detection

Automated inventory management
of returnable containers





Engineering is our Nature!

Green circular economy

Logistics automation for more sustainability

The camera-based RCD S⁺ vision system is used for the automated bulk detection of pallets with stacking containers of various designs, such as folding crates or reusable boxes. It can be used at goods inwards or goods outwards.

This application saves time and money - including added safety for people and goods. Eckelmann's automated solution for digitally recording and counting returnable containers reduces manual input errors and increases throughput.



The camera-based RCD S⁺ vision system

The RCD S⁺ automatically identifies, records and counts containers stacked on pallets and returnable containers in seconds. Even if they are stacked together. It can also detect and count standard European carrier pallets.

Containers and pallets are recognized and identified using 1D and 2D barcodes, plain text reading as well as contours and colors. The results are made available to the logistics depot for further processing in higher-level systems.

Eckelmann supplies the complete system development from a single source: if required, the necessary required interfaces are developed for connection to your in-house systems.

The reader portal can be integrated into the warehouse to save space. It is tailored to the gate width of standard logistics depots, so that several adjacent truck gates can be equipped with reading gantries without obstructing the flow of goods.

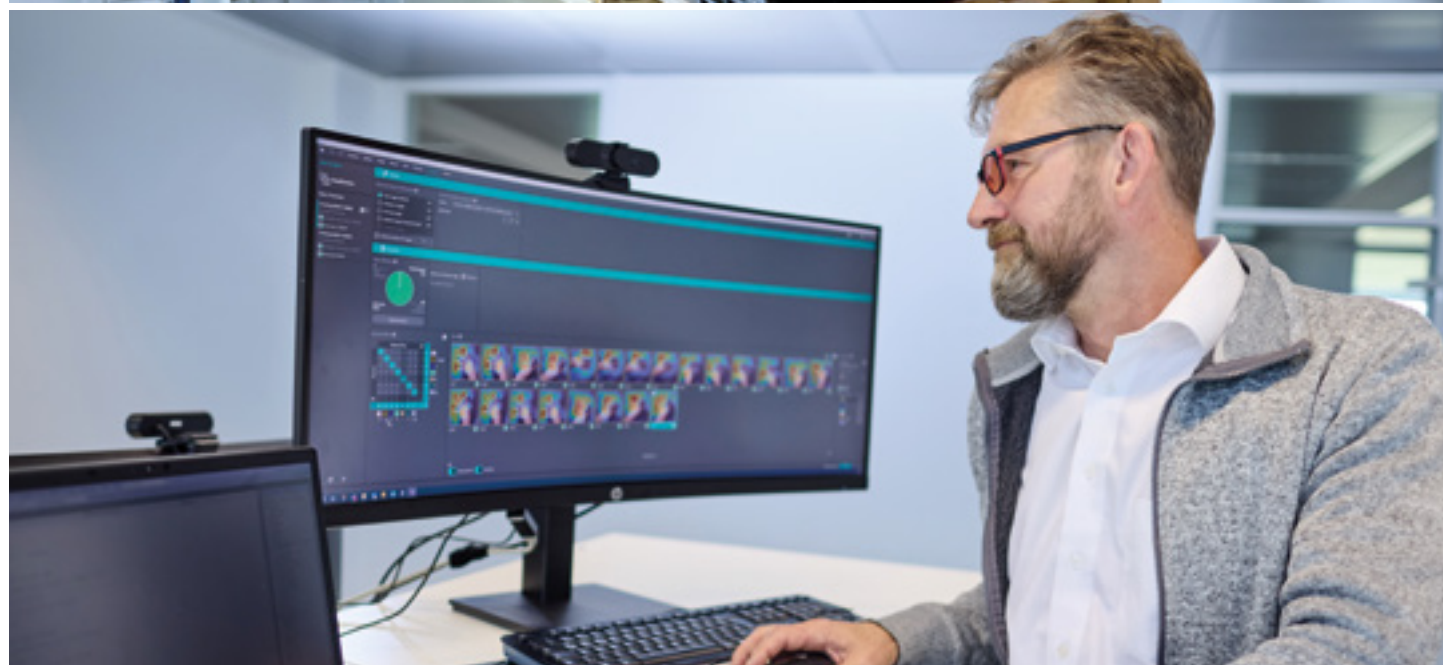
The reading and evaluation speed of the system is optimally utilized in conjunction with a conveyor system. It can then process existing read orders autonomously and is not influenced by the speed at which the forklift truck is loaded. Manual loading of the system is also possible.

The RCD S⁺ is the perfect solution for the mass collection of stacked containers in distribution logistics and serves to optimize supply chain processes.

Your benefits

- Reduction of manual input errors
- Throughput increase
- Reduction in workload and therefore cost savings
- Clear, fast counting of stacked units
- Reliable inventory control
- Detection of foreign containers and foreign pallets
- Documentation and thus traceability
- Paperless processing
- Tracking & Tracing of the containers





Features

Product description

- Powder-coated, ventilated metal housing with integrated cameras
- Camera system with AI-based image processing software
- Powerful, energy-saving lighting, to minimize the effects of ambient light
- Monitor for the visualization of delivery bills/ loading lists and display of error messages with acknowledgement function
- Intuitive user interface for quick and uncomplicated operation
- Quantity comparison with delivery bill details
- Duplicate detection and foreign container detection
- Remote access possible via remote maintenance access
- Connection to higher-level systems is possible (ERP, LVS, MFS)
- Interface to existing conveyor technology via digital inputs and outputs
- For incoming or outgoing goods configurable (option)
- KPI recording and provision (option)

Space required

- Width: 2880 mm
- Length: 700 mm or 1200 mm with conveyor system with movable monitor support arm
- Reading height: Up to 2400 mm
- Entry modes: single pallet or pallet groups

Reading conditions

- Labels visibly oriented to the longitudinal or front outer sides to the camera system
- Container free of stretch film and straps
- Neatly stacked containers, all sides aligned
- Container feed on Euro pallet (1200 × 800 × 15 mm) or industrial pallet (1200 × 1000 × 15 mm), other pallet sizes on request
- Single positioning in the basic version; Multiple positioning optionally possible

Performance features

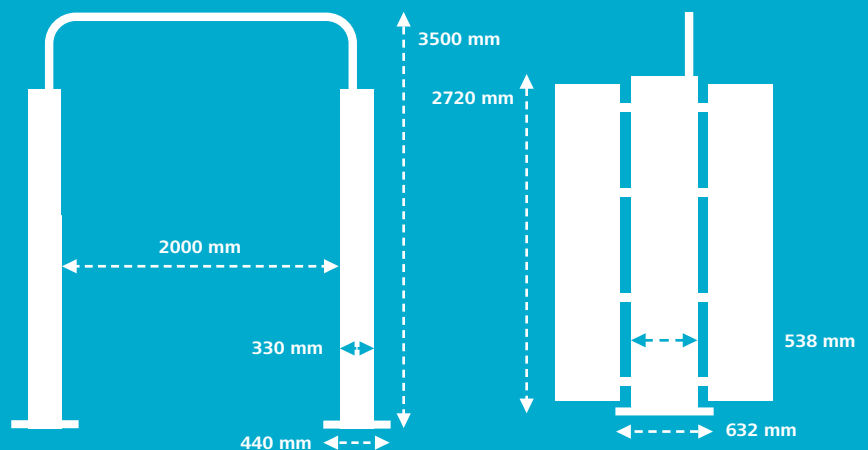
RCD column pair

Column 1

- Powder-coated sheet steel enclosure
- 4 cameras
- LED panel lighting
- Reading field height up to 2400 mm
- Reading field height up to 1000 mm
- 21" touch panel PC
- Floor space 440 mm x 632 mm
- Portal height 2720 mm

Column 2

- As column 1, without monitor



Standard gantry dimensions: Manual feed without conveyor technology

RCD S⁺ – Detection and counting made easy

The portal is already equipped with numerous basic functions as a basic model. It can be expanded with additional mechanical and software modules and adapted to your requirements for readings and evaluations. As your tasks grow, the RCD S⁺ can be adapted to these requirements.

RCD S⁺ – Basic model

The basic model consists of a reading gantry equipped with 4 cameras per gantry column. This system can be used to read and count your containers or packs. The data history is stored either locally on the integrated panel PC or at a central storage location.

RCD S⁺ – Extension modules mechanics

- Hand scanner for reading delivery bills
- Base element for adaptation to a conveyor system

RCD S⁺ – Extension modules Software

- Interface to an ERP, e.g. SAP
- Interface to an MFS or document archive
- Interface to a conveyor system, expansion and adaptation
- Reading of 1D or 2D codes on the front or front side of the container with existing conveyor technology with driven turntable
- Detection of two pallets with containers stacked on top of each other
- Pallet-Tracking
- Color recognition of carrier pallets and containers
- KPI recording



Digital optimization of your logistics processes

- Traceable history of your load data and analysis values
- Transparency of your logistics processes
- Display of errors and malfunctions
- Simple revision
- Very high level of detection reliability thanks to redundant double-sided column arrangement
- Simple operation via 21" touch panel
- Short training and maintenance times
- Numerous features for later adaptation to growing analysis requirements
- Network connection to your IT solutions

Your benefits from using an RCD S⁺

- Comprehensive documentation of your incoming and outgoing shipments through paperless image and data storage
- Improving the inventory
- Error prevention by minimizing manual processes
- Increased process reliability
- Reduction of complaints during invoicing
- Reduction in personnel costs through higher process speed and automation
- Low assembly and installation costs thanks to delivery of a pre-installed system





About us

The Wiesbaden-based Eckelmann Group is a full-service provider for industrial automation and digitalization. Our vision is a world without wasting manpower, raw materials and energy. To achieve this, Eckelmann engineers offer system integration from a single source: consulting, individual hardware and software solutions, turnkey automation systems, lifecycle management and smart service.



Sites & partnerships – national & international
480 + employees



Talk with us.

Eckelmann AG
Berliner Strasse 161
65205 Wiesbaden
Germany
Phone: +49 611 7103-0

projects-sales@eckelmann.de
www.eckelmann.de



www.eckelmann.de/en

