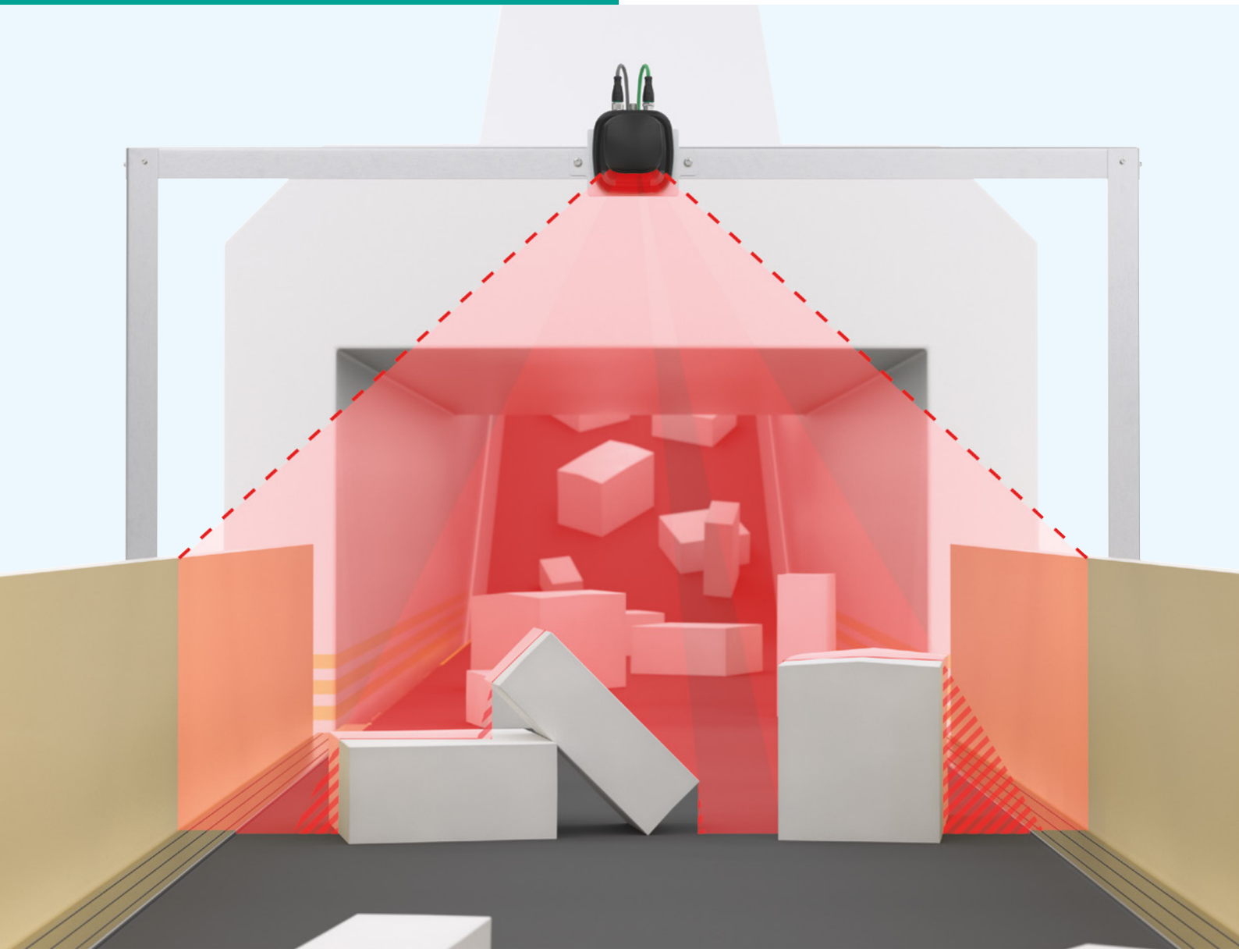
The Only One!

Efficient Contour Detection due to reliable shadow effect correction with only one LiDAR sensor.

Contour2D Sensor System for Monitoring Conveyor Belt Utilization



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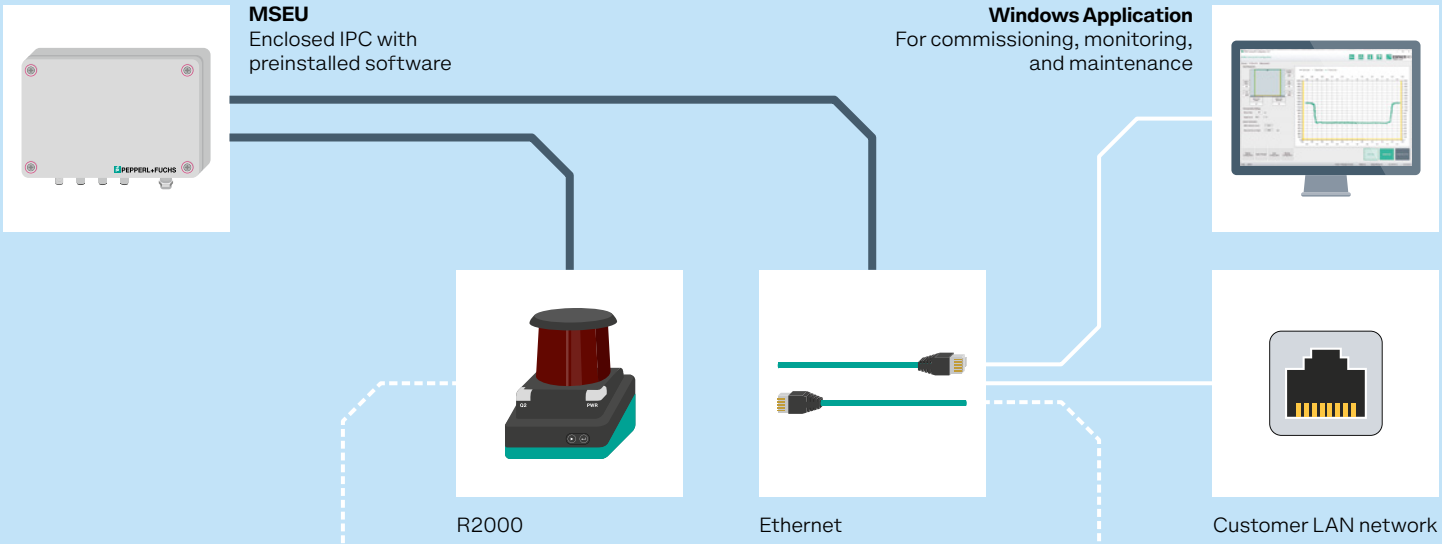
Contour2D Sensor System

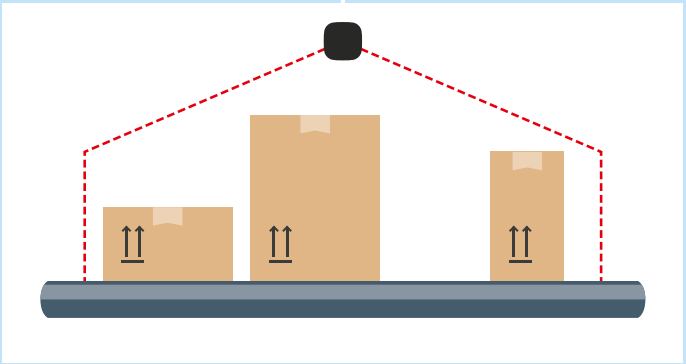
Maximum Efficiency in Monitoring Conveyor Belt Utilization

Minimal assembly effort and simple installation with maximum performance. As the most efficient solution on the market, the Contour2D sensor system reliably detects conveyor belt utilization to optimize logistics processes.

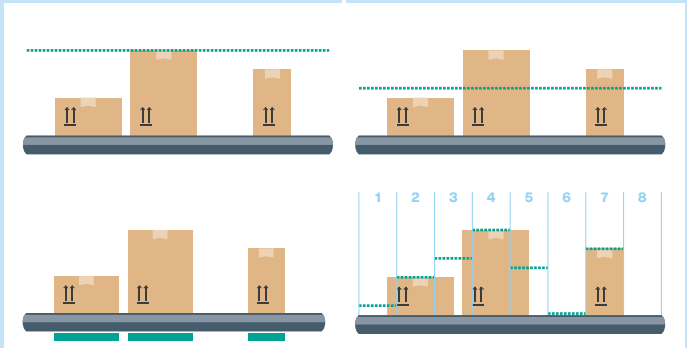
Optimized Logistics Processes

In order to distribute the packages on a conveyor belt evenly to subsequent stations, it is important to reliably detect the utilization of the conveyor belt. The Contour2D sensor system offers the most efficient solution on the market for this purpose. Only a single LiDAR sensor in combination with an intelligent algorithm is required to correct the shadow effect. The minimal installation effort and fast commissioning make the Contour2D a highly economical solution for conveyor systems.

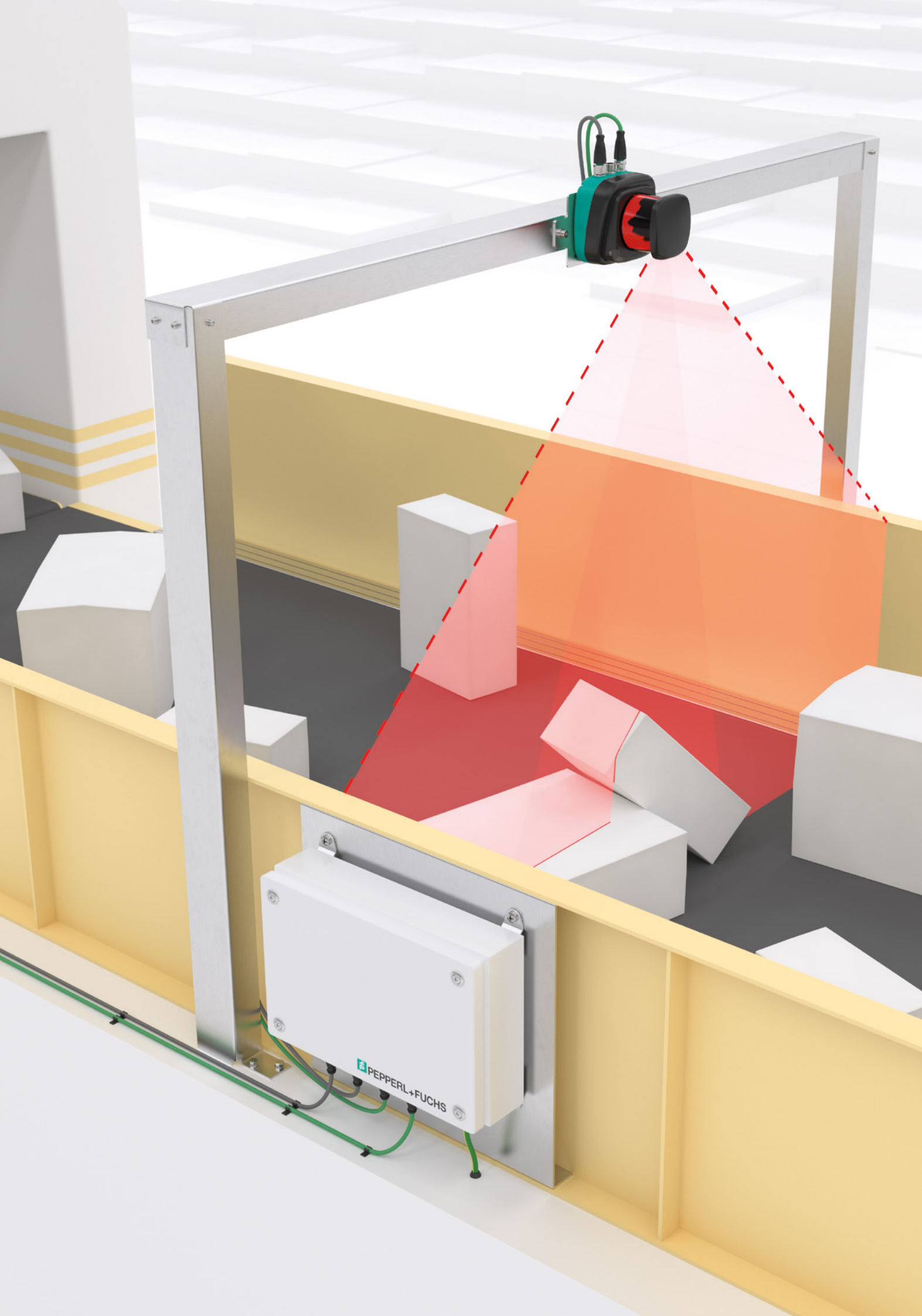




Application: contour detection



Output telegram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Contour2D Sensor System

Outstanding Performance with Only One LiDAR Sensor

R2000 2-D LiDAR Sensor

- Highly accurate contour detection with an angular resolution of 0.042° and a scan rate up to 50 Hz
- Reliable shadow effect correction through precise edge detection
- Easy mounting above the conveyor belt without major adjustments to the system
- Maximum belt width and maximum mounting height of 4 meters

With its unique angular resolution of 0.042° and a scan rate of up to 50 Hz, the R2000 2-D LiDAR sensor guarantees reliable shadow effect correction for valid measurement results.

Intelligent Shadow Effect Correction

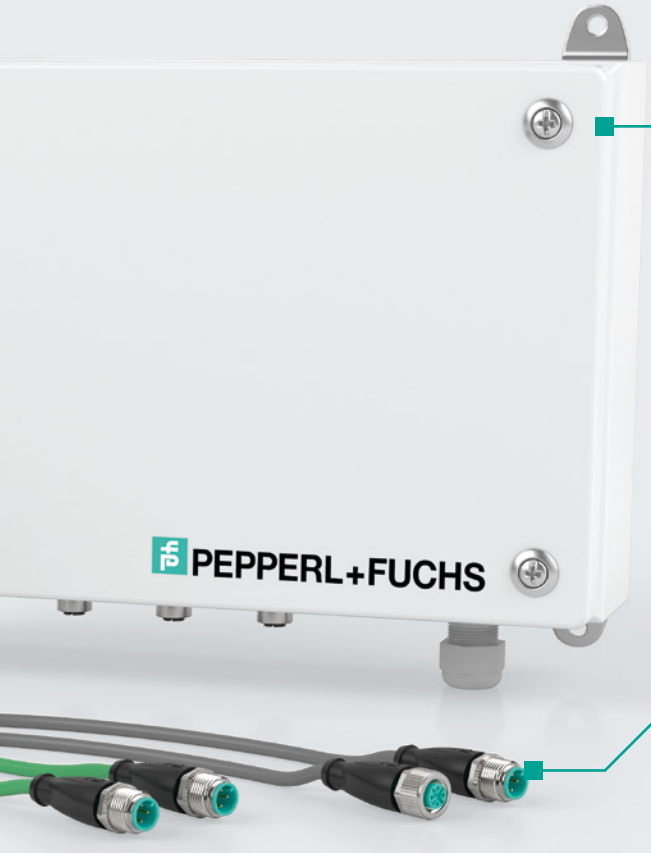
To determine the utilization of the conveyor belt, the current height profile is captured by the LiDAR sensor. The key challenge is to correct shadow effects on the conveyor belt. While conventional solutions use multiple sensors for this, the Contour2D sensor system manages with a single LiDAR sensor.

This is made possible by the outstanding performance of the R2000. High-precision contour detection enables the intelligent algorithm in the Multi Scan Evaluation Unit (MSEU) to realize high-precision edge detection. Therefore, the measurement results can be reliably corrected.

Minimal Installation Effort—Even for Retrofits

Since only two components—the sensor and the MSEU—need to be installed, the Contour2D impresses with particularly low hardware costs and minimal installation effort. Compared to conventional systems, there is no need for the complex configuration that would be required to align multiple sensors with each other. Moreover, since only one sensor is mounted centrally above the conveyor belt, no major adjustments to the conveyor belt are necessary. This means that existing systems can also be retrofitted without any problems.

For more information, visit:
pepperl-fuchs.com/pf-contour2d



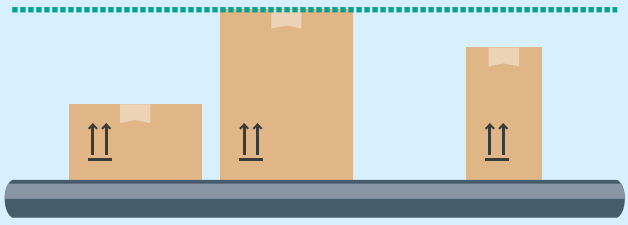
Multi Scan Evaluation Unit (MSEU)

- Robust IP66 housing with integrated industrial PC
- Easy integration due to easy-to-use data output
- Intuitive Windows software
- Simple commissioning in three steps: installation, configuration, and initialization
- Application-specific adaptations possible due to own flexible software platform

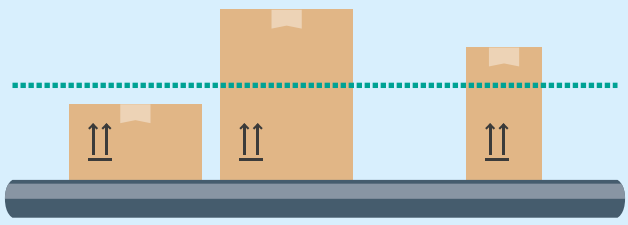
Connection Cable Set

- Complete package consisting of hardware components and the required connection cables
- Cable for power supply
- Ethernet cable for connecting the R2000 with the MSEU

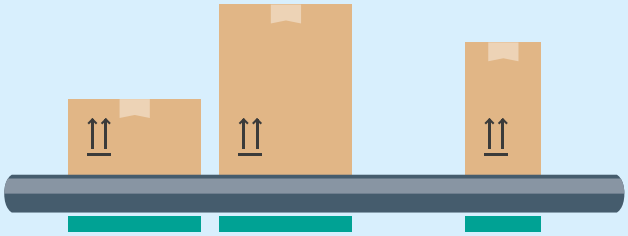
Output Telegram



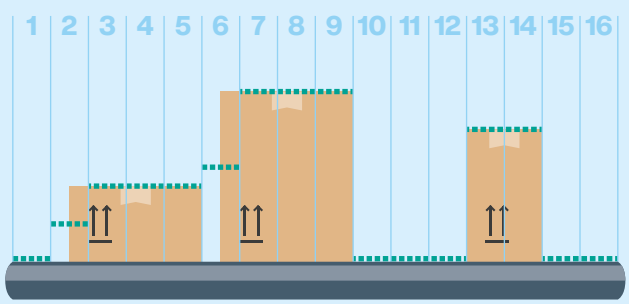
Maximum height in mm



Mean height in mm



Conveyor belt utilization in percent and mm



Mean height in mm of 8 or 16 zones

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- Signal Conditioners
- FieldConnex® Fieldbus Infrastructure
- Remote I/O Systems
- Electrical Explosion Protection Equipment
- Purge and Pressurization Systems
- HMI Systems
- Mobile Computing and Communications
- HART Interface Solutions
- Surge Protection
- Wireless Solutions
- Level Measurement

Industrial Sensors

- Proximity Sensors
- Photoelectric Sensors
- Industrial Vision
- Ultrasonic Sensors
- Rotary Encoders
- Positioning Systems
- Inclination and Acceleration Sensors
- Vibration Monitoring
- Industrial Ethernet
- AS-Interface
- IO-Link
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- Connectivity

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