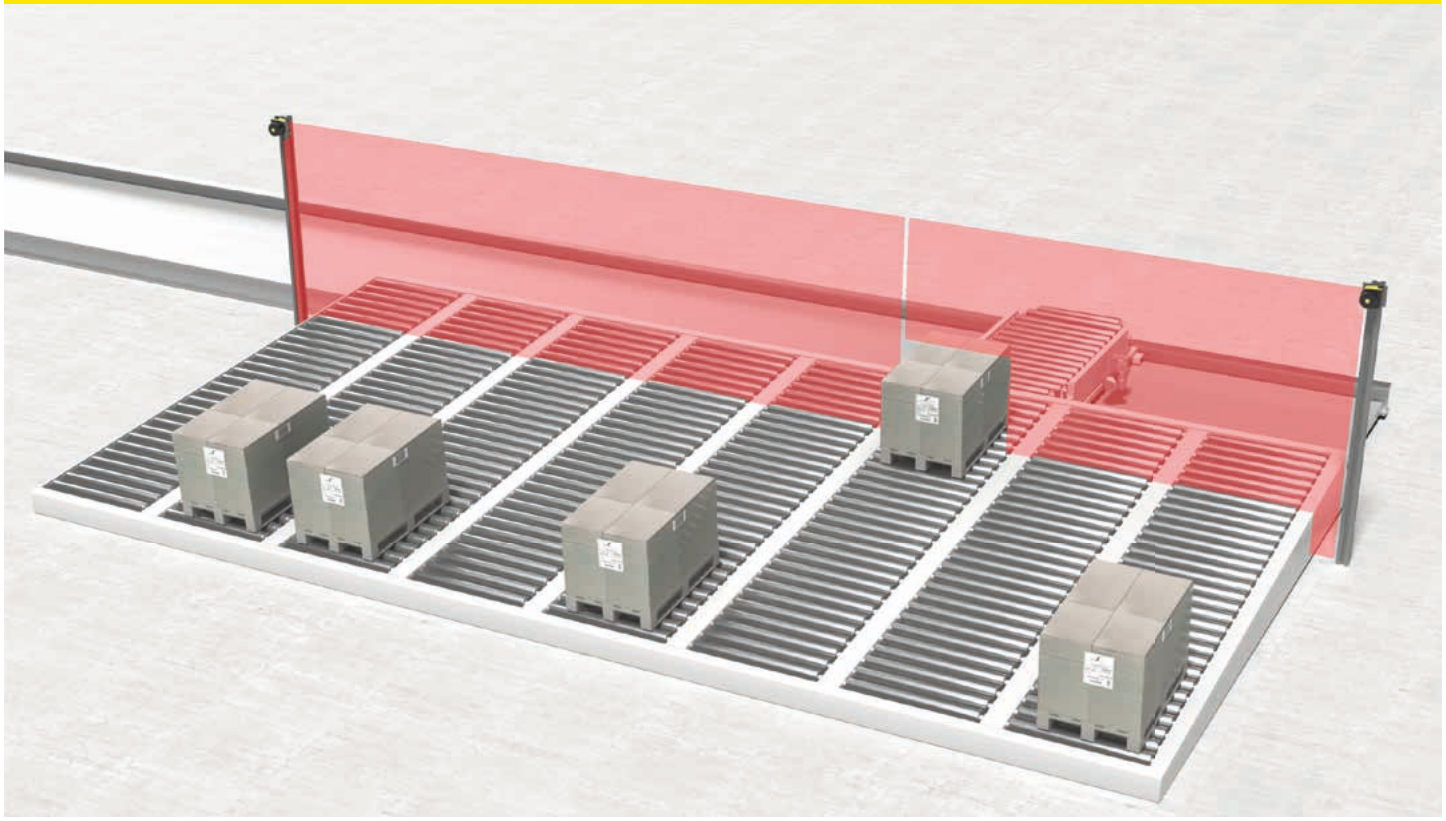
Leuze

Safety Solutions
Access guarding at multi-track transport systems

Safety at Leuze



Simple. Safe. Productive.

From risk assessment to validation: our safety solutions provide complete solutions for your systems. The innovative safety concepts of our expert teams ensure efficient material flow, gapless safety and high availability of your system. Even in applications where classic concepts are pushed to their limits. Always with legal certainty, CE certification and compliance with standards.

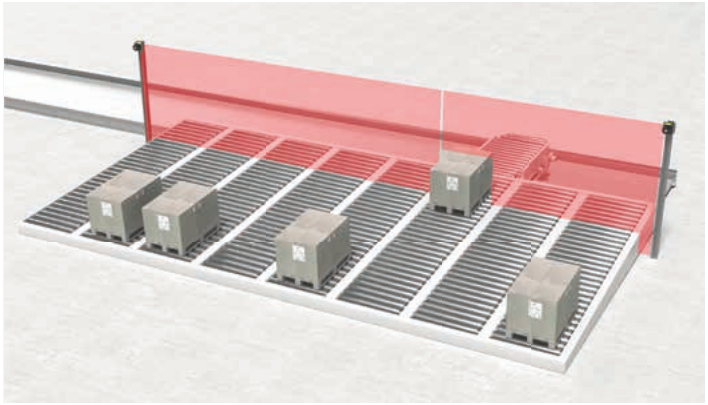
Multiple-track transport systems often span over many meters. With common safety concepts, a great deal of work is then needed to safeguard the danger zone. In practice, the lack of economical safety concepts results in compromises that demand a high level of individual responsibility and discipline by the operating personnel. Safety-related gaps are especially likely to occur during material outfeed, e.g. alongside the active track. It would then technically be possible for the operating personnel to enter the danger zone during the transport process. If additional organizational safety measures are taken, the system capacity can thereby often be reduced as well.

Our safety solution for multiple-track transport systems is optimized especially for these application cases. With little installation effort, its innovative safety concept ensures seamless safety and a high degree of utilization of the system.

Safety at Leuze

Access guarding at multi-track transport systems

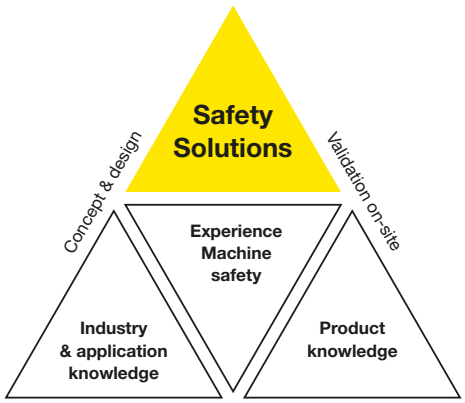
Requirement: Pallets are output on individual tracks that are fed via a cross conveyor. The cross conveyor and the area located behind it are to be safeguarded against entry by persons. The protection should only release the track on which the pallet is output.



Solution: Access guarding takes place via two vertically oriented safety laser scanners. From the system control, the safety system receives the information about the track onto which the pallet is output and adapts the protective field for the passage of the pallet accordingly. The entire process is monitored for safety.

Advantages for you

- Continuous monitoring of the entire transfer area for up to 10 tracks and width of up to 9 m
- Gapless safety during the transport cycles
- High reliability and availability
- Optimum protection against manipulation
- No additional trigger sensors necessary
- Easy to retrofit



Simple. Safe. Productiv.

Working principle

Two safety laser scanners produce a vertical protective field that is installed in front of the danger zone of the transport system. For the track on which the material is to be output, a release signal is sent by the PLC just before the protective field is reached. The safety solution now releases a window of predefined size in the protective field for the desired track through which the material can be transported without interruption. All other tracks continue to be safeguarded by the protective field. After the material has passed through the opened protective field window, the protective field is again reset to its original state.

System components and safety parameters

Safety sensors: safety lase scanner RSL 400
System control: safety control MSI 400
Leuze safety program
PL d in accordance with EN ISO 13849-1, SILCL 2 in accordance with IEC 620611
2-channel safety output

Your partner for professional safety solutions

For more than 35 years, we have been supporting safety-related applications in different industries by offering a broad range of products. Our certified safety experts have extensive experience in designing safety concepts and comprehensive knowledge of the latest norms and standards.
In the projects, we accompany you from the risk assessment up to the safety-related acceptance. Our teams make sure that our solution meets your requirements and ensure that your project runs smoothly.

Complete solutions – Tailored to your needs

Our solutions are based on qualified safety concepts which, if necessary, can also be extended or created new. Every solution is individually tailored to your system layout and includes

- All necessary hardware and software components
- Engineering services, such as PLC programming and configuration according to project requirements
- Comprehensive, CE-compliant documentation
- Start-up support
- Validation of the safety function

Leuze electronic GmbH + Co. KG
In der Braike 1, 73277 Owen · T +49 7021 573-0 · F +49 7021 573-199 · info@leuze.com · www.leuze.com
en 03-2024/04 PDF version · Subject to modifications and errors