

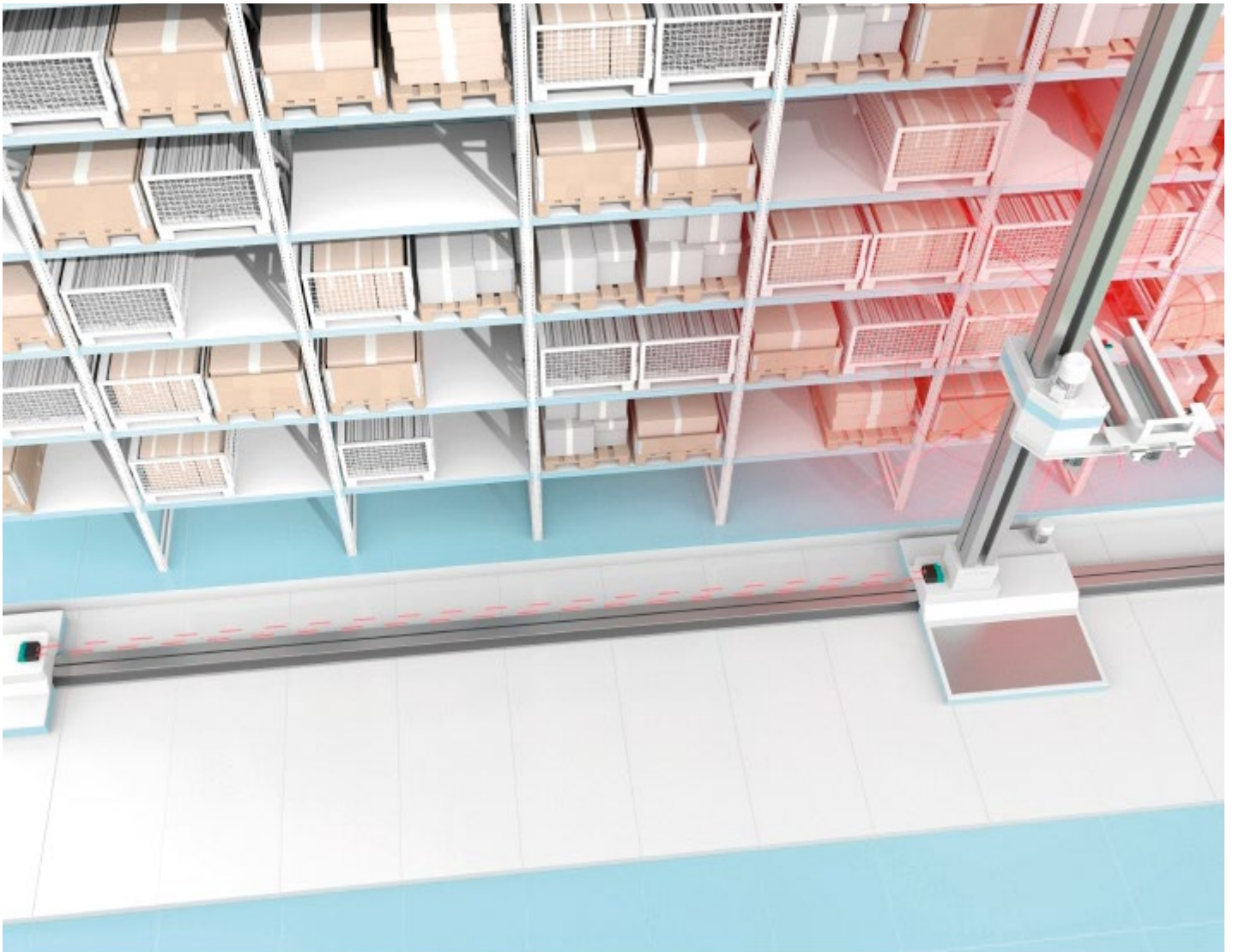
# Reliable Communication in High Bay Warehouses

LS682 Optical Data Coupler for Fast  
Wireless Data Transfer

## The Application

In the logistics industry, countless items are picked daily in high bay warehouses around the world. Automated storage technology enables “chaotic storage” systems and streamlines access to goods on individual shelves. The heart of these systems are state-of-the-art stacker cranes, which store and retrieve goods at incredibly fast speeds.

To ensure process reliability and fast throughput times, process data must be transferred quickly and reliably to the warehouse management system.





### The Goal

Stacker cranes are covering increasingly large distances in ever-expanding high bay warehouses. To ensure smooth operations, process data such as travel commands, diagnostic data, and safety information must be transmitted to the warehouse management system with virtually no delay. This is the only way to enable fast storage and retrieval of goods and, in turn, efficient use of the storage slots in high bay warehouses.

### The Solution

With a range of up to 300 meters, the LS682 data coupler enables reliable wireless data transfer in large-scale plants. A constant transfer rate of 100 Mbit/s is guaranteed, independent of other communication networks and ambient conditions. Data can be transmitted without minimum distance, from range 0, which optimizes storage utilization.

The device pair can be mounted directly on stacker cranes. The receive level of both devices can be read from colored LEDs on either device, allowing the devices to be aligned by one person.

### The Benefits

Completely wear-free and wireless, LS682 data couplers transmit process data in high bay warehouse from 0 m up to a range of 300 m. This optimizes storage utilization and offers a stable, reliable solution for large-scale warehouses. Optical data transfer is unaffected by environmental influences and provides a constant transfer rate.

#### At a Glance

- Range of up to 300 m enables use in large-scale plants
- Consistently high transfer rate of 100 Mbit/s ensures reliable communication
- Reliable data transfer from 0 m for optimized storage utilization
- LED signal strength indicator for fast and easy commissioning