

## AMS 100i: The most compact positioning system on the market

### Millimeter-precise positioning up to 120 m



The automation of positioning applications is becoming more and more flexible and warehouse vehicles are becoming ever more compact. The small design in combination with the minimal dead zone of just 100 mm makes our laser positioning system the most compact on the market.

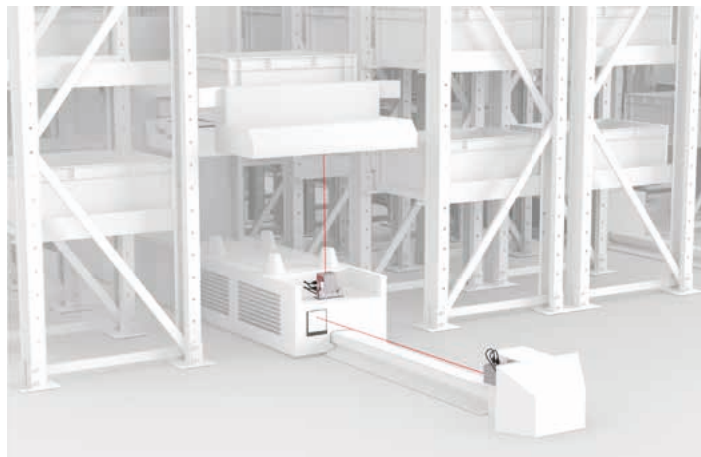
## Advantages for you at a glance

- **Solution of positioning tasks up to 120 m in intralogistics:** Applications on stacker cranes, guided vehicles (AGV) and lift systems
- **Outstanding integration in tight installation spaces:** Compact design (105 × 68 × 75 mm) with the smallest dead zone (100 mm) of any positioning sensor currently available on the market
- **Implementation of positioning applications extremely close to the sensor:** Available space is efficiently utilized
- **No minimum distances between positioning sensor and optical data transceiver thanks to insensitivity to interference:** For maximum freedom in design and installation
- **Flexible mounting:** Modular installation possibilities and mounting options as well as easy alignment by visible Light spot
- **Use also at freezing temperatures (–30 °C) and in hot environments (+60 °C):** Device model available with integrated device and window heating

Operating range	0,1 – 120 m
Accuracy	± 2 mm
Repeatability (3 sigma)	0.6 mm
Light spot diameter	≤ 80 mm
max. traverse rate	≤ 10 m/s
Transmitter	Laser diode, red light, wavelength 660 nm
Operating temperature	–5 – 60 °C without heating / –30 – 60 °C with heating
Degree of protection	IP 65
Interfaces	SSI, TCP/IP
Certifications	CE, UL, CDRH, ISO 9001

### Positioning tasks on stacker cranes

In a high-bay warehouse with an aisle length of 120 m, load carriers (boxes, cartons and pallets) are to be stored and retrieved using a stacker crane. For positioning, distance values accurate to the millimeter are required. Mechanical distance sensors, which are subject to wear or prone to contouring errors, are not to be used. The position of the stacker crane can be ascertained by means of an optical system which determines the distance between the vehicle and the end of the aisle. The new AMS 100i provides a reliable solution for positioning tasks up to 120 m and impresses with a traverse rate of up to 10 m/s as well as an accuracy of  $\pm 2$  mm. And, unlike mechanical systems, it is absolutely free from wear.



### Lifting positions of corridor conveyors / load receptacles

A compact, optical system is to replace mechanical, wear-prone distance sensors used for lift positioning applications on corridor conveyors. The sensors must be optimally integrated and it must be possible to mechanically mount them flexibly according to the type of vehicle and at as many different positions as possible. An optical system – like the new AMS 100i – is free from mechanical wear. The positioning sensor, which measures 105 x 68 x 75 mm and has a dead zone of just 100 mm, is the smallest on the market.



### Most compact design with smallest dead zone on the market

Measuring 105 x 68 x 75 mm and with a dead zone of just 100 mm, the new AMS 100i positioning sensor is the most compact device on the market. This provides design engineers with maximum constructional freedom: The AMS 100i can be implemented without problem in innovative applications in confined spaces as well as in mobile and increasingly compact vehicles.



### Positioning possible up to a close range of 100 mm

The minimal measurement range of up to 100 mm – even just a few millimeters if a deflecting mirror is used – enables an extremely high level of constructional freedom. As a result, it is possible to implement a positioning application extremely close to the sensor. This ensures that the available space is utilized efficiently.



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