

Designated use

Collaborative mobile robot with hook for fully-automated pick-up and delivery of carts

Dimensions

Length 1180 to 1275 mm (highest to lowest positions of hook arm)
 Width 580 mm
 Height 550 to 900 mm (lowest to highest positions of hook arm)
 Height above floor Robot: 50 mm; Gripping height: 50-390 mm
 Weight (without load) 98 kg

Color

RAL 9010 Pure White

Towing capacity

Load on cart up to 300 kg at <1 % incline - 200 kg at 5% incline

Speed and performance

Running time 8-10 hours or 15-20 km (depending on load)
 Maximum speed 1.5 m/s (5.4 km/h)
 Turning radius (without cart) 520 mm (around center of robot)
 Swinging radius (with cart) Total length of robot and cart plus 550 mm
 Positioning accuracy (placing cart) +/- 200 mm from center of position, 10° accuracy

Power

Battery Li-NMC, 24 V, 40 Ah; charging time: up to 3 hours (0-80%: 2 hours)
 Internal charger Input: 100-230 V ac, 50-60 Hz / Output: 24 V, max 15 A

Environment

Ambient temperature range +5°C to 50°C (humidity 10-95% non-condensing)
 IP class IP20

Communication

WiFi Dual-band wireless AC/G/N/B
 Bluetooth 4.0 LE, range: 10-20 m
 I/Os USB and Ethernet

Sensors

SICK safety laser scanners S300 (front and back) 360° visual protection around robot
 3D camera Intel RealSense™ on robot detection of objects ahead 50-500 mm above floor
 3D camera Intel RealSense™ on front of hook detection of objects ahead up to 2000 mm above floor
 Ultrasonic scanners (4 pcs.) detection of transparent objects ahead, e.g. glass doors

Cart

Length 500 to 2400mm
 Width 400 to 1500mm
 Height 200 to 2000mm



