

DATASHEET - One 1



DIMENSIONS and WEIGHT

Vehicle size
L = 3.460 mm
W = 660 mm
H = 1.050 mm

Equipment
Customized bucket mechanism

Nr of independent movements 2

Nr of independent actuators 4 + 4

Vehicle weight w/o batteries
1.230 kg

PAYLOAD and REQUIREMENTS

Nominal payload 100% deliveries	100 kg
Maximum payload 30% deliveries	150 kg
Payload max size	Lmax = 2.400 mm
	Ø min = 100 mm
	Ø max = 440 mm
Center of gravity footprint	L = 2.280 mm
	W = 380 mm
Center of gravity height	H = 500 mm

PERFORMANCE

Kinematics and Drive	Double trike omnidirectional
Speed	0,1 m/s min
	1,0 m/s max
X, Y accuracy	+/- 10 mm
θ accuracy	+/- 1°
Localization rate	5 Hz
Minimum bending radius	0 m; the vehicle turns on its vertical axis
Slope	3% (1,7°)
Slope min bending radius	15 m
Step	±5 mm
Gap	10 mm
Motor wheel power	2x700 W
Braking torque	2x8 Nm

MATERIALS

Wheels coating	Polyurethane grip
Chassis material	AISI 304
Shell material	Painted Steel

BATTERY

Battery	PureLead 24V 240 Ah
Depth of discharge	40%
Autonomy	10 h
Recharging time	8 h
Battery weight	172 kg
Battery cycle life	1.200 cycles

COMMUNICATION

Communication	WI-FI - WLAN 802.11a/b/g/n - 2,4/5 GHz
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SAFETY

Safety devices

- Nr. 2 Sick S300 laser scanners
- Sensitive board (front/rear)
- N.3 E-stop buttons
- Safety control central unit Sick Flexi

Performance Level	c
Safety field shape	360°

NAVIGATION

Navigation	Odometric closed loop via laser scanner (natural navigation)
Mapping	Auto acquisition by Mobile Robot

ENVIRONMENT

Temperature	from +5 to 35 °C
Working relative humidity	from 30% to 80% (absence of condensation)
IP degree	13

REGULATIONS

Regulations	<ul style="list-style-type: none">• 2006/42/EC Machinery Directive
	<ul style="list-style-type: none">• 2014/35/EU Low Voltage Directive
	<ul style="list-style-type: none">• 2014/30/EU Electromagnetic Compatibility Directive
	<ul style="list-style-type: none">• ISO 3691-4: 2020 Safety of driverless industrial trucks