MOBOT® FlatRunner HT (002) mobile robot

A mobile robot used to automate internal transport and transport heavy loads such as pallets or parcels. Automatically moves along the route.

▶ Easy to use
Works safely with people while carrying your loads
▶ Increases production efficiency and reduces costs
▶ Automates production lines and intralogistics
▶ Can work with palletizing robots

8h operating time up to 8 h on a single charge

500 kg payload up to 500 kg
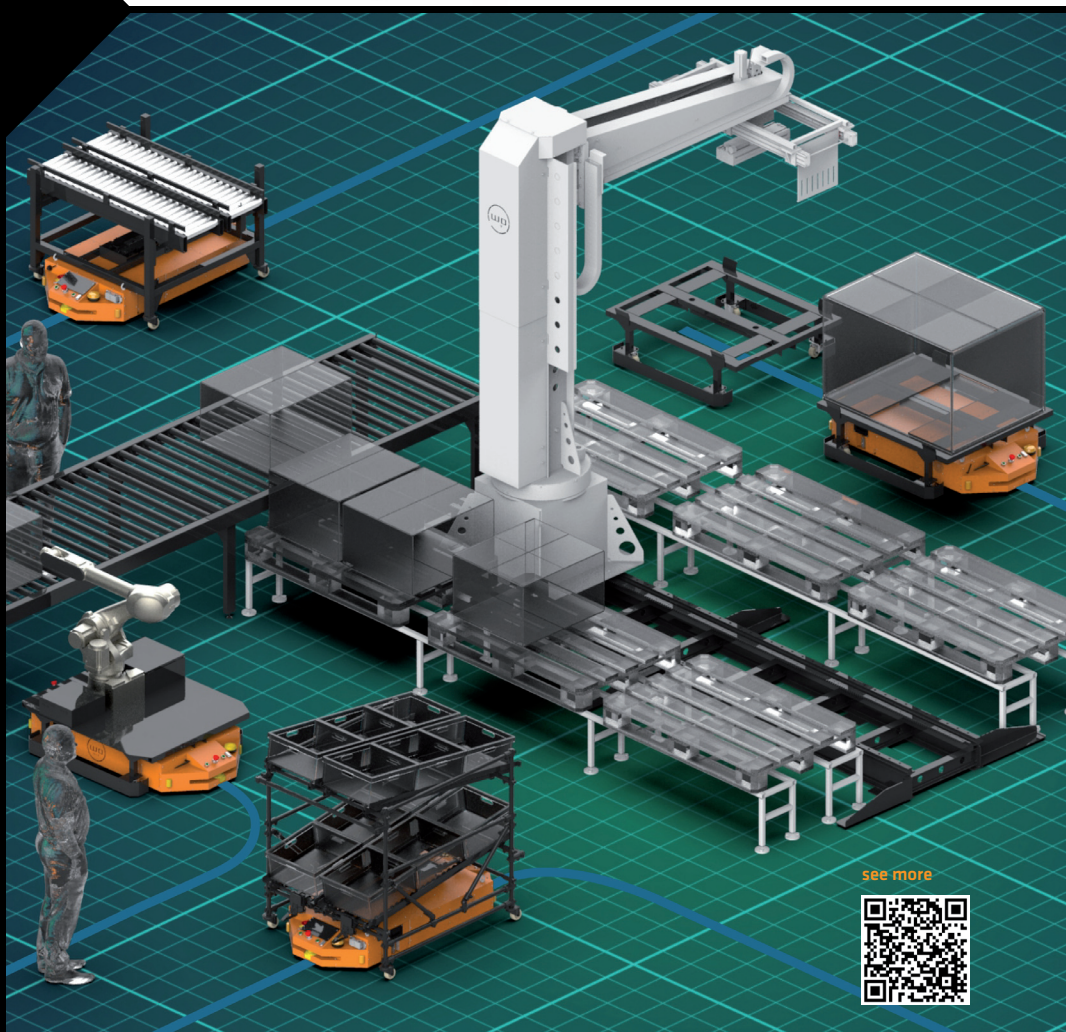
Wi-Fi Wi-Fi communication

dimensions
1600 x 750 x 239 mm

max speed
3 km/h

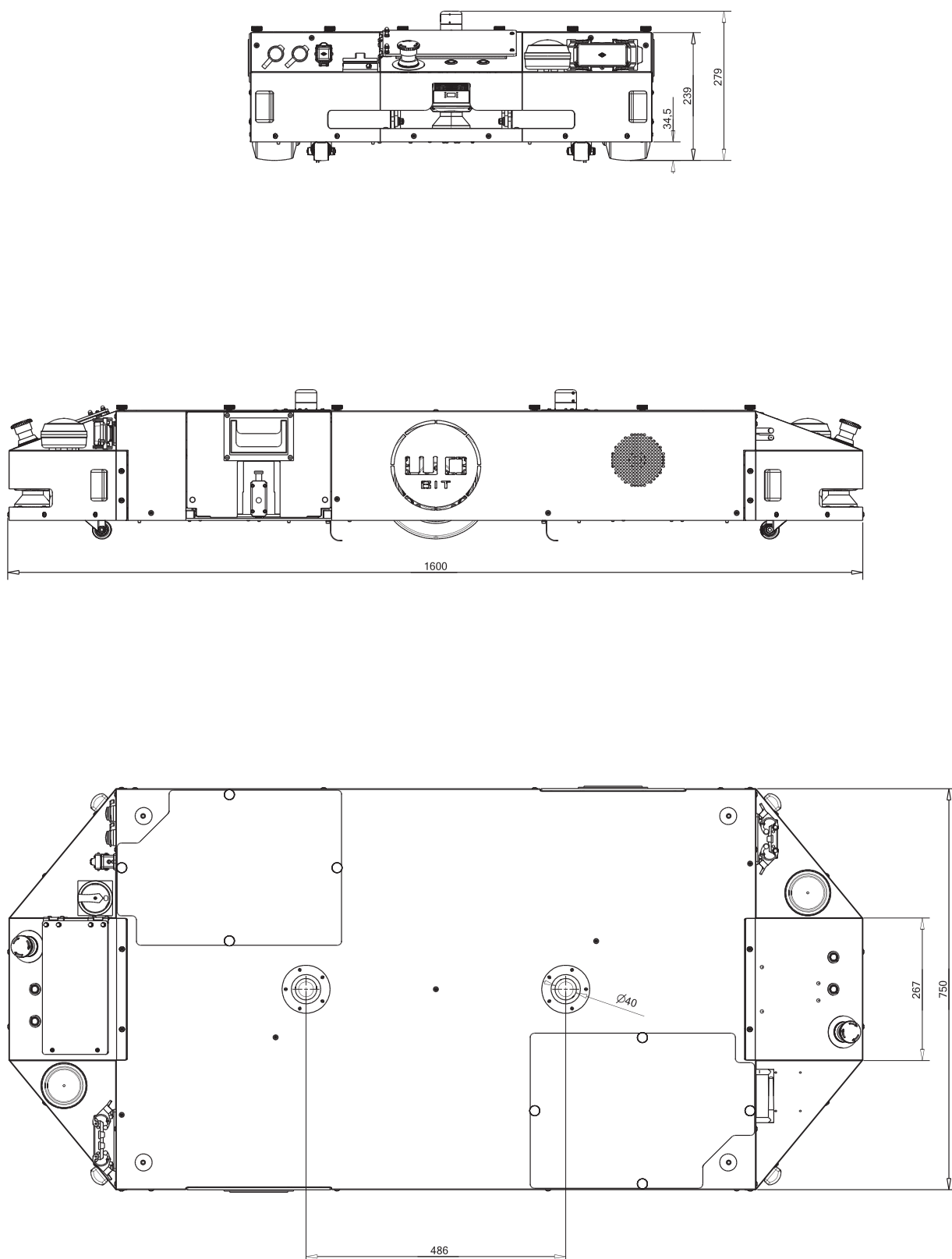line navigation using the vision system

system of rectactable pins

Intended use: transport of heavy loads in industry and logistics

see more

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Robot type	MOBOT®AGV FlatRunner HT (002)
Payload and transport method	
Transport method	Cart guided over the robot with the possibility of attaching using two automatic pins
Permissible total weight of the cart with load	500 kg
Power supply	
Manual battery charging connector	YES (24 V DC, max. 30 A)
Automatic battery charging connector	A contact connector mounted on the bottom of the robot enables automatic battery charging during operation
Robot power supply	2 x traction battery 85 Ah /12 V The battery is mounted in a cassette allowing for quick replacement in the robot
Charger	- 30 A / 24 V charger connected manually - Optional charging station with 30A / 24V charger for charging replaceable battery cartridges - Optional contact module for automatic charging
Operating time at full load	~ 8 h
Operating time in standby mode	~ 40 h
Battery charging time	~ 3 h
Speed and performance	
Maximal speed	3 km/h
Nominal power	1200 W
Movement directions	Move forward / backward, turn
Turning radius	The possibility of turning back in place
Maximum surface slope	Robot designed for driving on a flat surface
Navigation	
Navigation	Navigation along the line using vision system
Communication	
Communication	2.4 GHz Wi-Fi, optional 2.4 GHz industrial radio module (RS232)
Connector	- Ethernet RJ45 - communication with PC, MODBUS TCP / IP - 18 pin connector, E-Stopx2, Reset, RS485 (Modbus RTU), CANopen, 2 x input, 24 VDC power supply output (2A) + 24 VDC power supply output (10 A)
Drive and control	
Drive	2x BLDC motor, wheels diameter 215 mm
Control and steering	- 1 x 7 "touch operator panel - 2 x emergency stop - 2 x emergency stop reset confirmation buttons - 1 x main power switch - 2 x function button - 1 x USB connector - 1 x Ethernet connector
Sensors	
Sensors	- 2 x vision system for tracking the line - 2 x 2D laser scanner with security function
Signaling	-- 2 x light and sound signaling devices - 2 x speaker (voice / music messages) - 4 x direction indicator
Environment	
Operating temperature range	5 ÷ 45 °C
Humidity range	< 80 %, no condesation
Protection degree	IP30
The intensity of external light	< 1500 lx
Dimensions and weight	
Dimensions (L x W x H)	1600 x 750 x 239 mm
Total weight (with batteries)	~ 220 kg

279

239

34,5

1600

Ø40

267

750

486

All dimensions are approximate values and can change.

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Accessories

Transport cart for pallets

The transport cart is suitable for transporting standard EURO pallets. On the bottom of the cart, is located a guide that enables attach the robot through its hitch pins.

Cart with gravity roller conveyor

The gravity roller feed system allows to transport and automatically receive and transfer goods placed in the cuvettes. The system consists of a movable conveyor attached to the mobile robot using pins and a fixed conveyor permanently attached to the ground.

When the conveyors have docked, the latches on both conveyors are automatically released and shift the load on them.

Cart with automatic rollers

Designed for transporting various types of containers, packages. The system consists of an automatic roller feeder attached to the mobile robot using its mandrels. The rollers are powered by powered engines from robot batteries and ensure fast and smooth flow of goods.

Robotic arm adapter

It is a flexible solution ensuring maximum mobility and autonomous robot operation that optimizes production processes. The adapter is equipped with four additional wheels to ensure perfect stability, as well as a housing for a robot controller.

Charging station

Cart trolley with batteries