

# GoPal<sup>®</sup>

THE COMPLETE SOLUTION  
FOR SAFE AND SIMPLE  
AUTOMATION



robotize

# A NEW STANDARD FOR FLEXIBILITY AND SAFETY

GoPal® is a comprehensive range of fully approved solutions for automating internal pallet transport in factories and warehouses.

Our Autonomous Mobile Robots (AMRs) are designed and approved for safe collaboration with humans and support a wide range of pallet types and payloads.

The GoPal solution provides a fully integrated solution with robots, pallet stations and software, which can be deployed in a matter of days and with only minor changes to existing infrastructure.

## THE GOPAL SAFETY PHILOSOPHY IS INTEGRATED IN ALL OUR SOLUTIONS



### FAST ROI

The GoPal solution will typically begin saving you money within 4-18 months after deployment - depending on salary levels and the shift plan used in your facility.

### MAXIMIZE SAFETY

Deploying AMRs both reduces manual labor as well as reduces accidents caused by forklifts and pallet jacks. The GoPal solution will simply make your workplace safer.

### MINIMIZE DAMAGES

On occasion, forklift and pallet jack drivers may accidentally destroy goods, materials or even damage parts of your infrastructure. With GoPal, all these costs are minimized.

# HEAVILY LOADED WITH BENEFITS

## EASY ADMINISTRATION

GoPal operates as a single shift - 24/7/365. Never again will you have to plan shifts or call-in replacements. Our AMRs never call-in sick or need a day off.

## DATA & COMMUNICATION

GoPal provides you with a steady stream of valuable data to enable you to continuously optimize your internal pallet operations. GoPal can also be integrated with your ERP/WMS for advanced operations.



# WIDE RANGE OF PALLET STATIONS

- **PICK-UP, DELIVERY AND TRANSIT POINTS**

GoPal stations are used as pick-up, delivery, and transit points. Robotize offers a wide range of stations, which allow for seamless integration in your facility - whether you require a conveyor belt interface or a non-standard pick-up/delivery height.

- **SAFE HUMAN-ROBOT COLLABORATION**

All GoPal stations are fully approved for collaboration with humans. The GoPal solution sets new standards for safety in the automation of internal pallet transport, while challenging the notion that robots are unsafe or difficult to handle.



**Pallet Station**



**Pallet Station Expansion**



**Conveyor Stations**



**Lift Stations**

# WIDE RANGE OF ACCESSORIES

## ••••• SAFE AND SIMPLE AUTOMATION

To further facilitate the safe and simple automation of your internal pallet transport, all our accessories are designed, produced, and approved to work seamlessly with our AMRs and our GoControl Fleet Manager. The GoPal is a fully integrated plug-and-play solution that is safe and simple - with no surprises or hidden costs.



**IO  
Box**



**Single  
Button**



**Multi  
Button**



**Virtual  
Buttons**



**GoControl  
Fleet Manager**



**Pallet Sensor**



**Warning Beacon**



**GoPal® Stations**

Pickup/delivery/transit



**GoPal® AMR**

Autonomous Mobile Robot



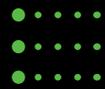
# COMPLETE CONTROL - FOR MAXIMUM SAFETY AND SIMPLICITY

All robots, buttons and stations are monitored and controlled by the GoControl Fleet Management System – the heart of the GoPal® Solution.



## TRAFFIC CONTROL

In a multi-robot solution, GoControl maintains the optimal traffic flow for maximum safety and efficiency.



## DISPATCHER

GoControl receives and organizes all orders in the system and dispatches robots according to order priority.



## INPUT/OUTPUT BOX

The IO Box provides an auxiliary interface to enable features such as wireless automatic door activation, automatic robot deactivation (in case of fire), automatic detection/transport ordering for pallets on pallet stations and hardwired interface for transport ordering from control devices (e.g. local machines/PLCs).



## SIMPLE INTERFACE AND DATA PRESENTATION

GoControl captures and presents all system data (robot position on map, distance driven, pallets moved and much more). GoControl also interfaces with your ERP/WMS system.



# TECHNICAL SPECIFICATIONS

## GoPal® E22 / E24 / E24W / U22W / U24W

		E22	E24	E24W	U22W	U24W
<b>DIMENSIONS</b>	Length (mm // in)	1400 // 55.12				
	Width (mm // in)	860 // 33.85		1060 // 41.73		
	Height (mm // in)	340 // 13.39				
<b>MASS</b>	Robot (kg // lbs)	187 // 412		215 // 474	242 // 534	
<b>PERFORMANCE</b>	Battery time (autonomy)	6-14 hours or ~ up to 20 km // 12.4 miles*				
	Max. speed (m/s // ft/s)	2.4 // 7.8		2.2 // 7.2		
	Turning radius** (mm // in)	950 // 37.4		1000 // 39.4		
<b>LOAD</b>	Max. weight incl. pallet (kg // lbs)	500 // 1100	1000 // 2200	1200 // 2640	500 // 1100	1200 // 2640
	Max. dimensions, L x W x H (mm // in)	1240 x 820 x 2400* // 48.82 x 32.28 x 94.50*		1240 x 1020 x 2400* // 48.82 x 40.16 x 94.50*		
<b>PALLET TYPES</b>	Standard Euro pallets	●	●	●	-	-
	Standard half-Euro pallets	●	●	●	-	-
	Industrial Euro pallets	-	-	●	-	-
	US/UK pallets	-	-	-	●	●
	Other/custom pallets	On inquiry				
<b>LANE CONDITIONS</b>	Min. lane width (mm // in)	1200 // 47.24		1400 // 55.12		
	Recommended lane width (mm // in)	2100 // 82.68		2300 // 90.50		
	High speed lane width (mm // in)	2800 // 110.24		3000 // 118		
<b>FLOOR REQUIREMENTS</b>	Max. average slope	Near-level (2%)				
	Min. friction coefficient	0.60				
	Max. edge height (mm // in)	4 // 0.15		3 // 0.12		

\*Depending on load conditions \*\*From robot center

### SAFETY

Laser scanners (360° protection)  
Mechanical bumper (360° protection)  
4 x emergency stop buttons

### ADDITIONAL OBSTACLE AVOIDANCE SENSORS

3 x 3D cameras (two front facing and one rear facing)

### CHARGER INTERFACE

Automatic docking interface (at robot front)  
Connector for manually charging (at robot rear)

Due to a policy of continued product development, Robotize reserves the right to change any specification without notice.

### BATTERY

Type / voltage LiFePO<sub>4</sub> (LFP) / 48 V  
Charge time 45 min. (full charge)  
Number of charges About 5,000

### ENVIRONMENTAL

Operating temperature -10°C to +45°C // +14°F to +113°F  
Humidity (max.) 95% (non-condensing)

### PALLET CONDITION

Undamaged, original strength maintained

### COMMUNICATION

Wi-Fi 802.11AC

## **AUTOMATED INTERNAL MATERIAL TRANSPORTATION MADE SIMPLE, SAFE AND SCALABLE**

Robotize specializes in the design and manufacture of Autonomous Mobile Robots (AMRs), which are certified for automated and safe internal material transport within factories and warehouses.

Our unique GoPal® AMR solution optimizes intralogistics by automatically and safely picking up, transporting, and delivering goods and materials with minimal changes to existing infrastructure or impact on daily operations.

The GoPal® solution is deployed across various industries, such as automotive, pharmaceutical, food and beverage, and e-commerce.

Robotize is headquartered in Copenhagen, Denmark with offices in the U.S. and Germany.

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For more information about the GoPal® AMR solution, please contact

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