

easier & safer

# SAFETY<sub>ON</sub> BOARD

**SWD**   
Safety Wheel Drive



 **ez-wheel**  
The Electric Wheel

**EZ-WHEEL SAS**



# THE SIMPLEST MOBILE ROBOT SET-UP EVER

SWD® technology disrupts AGVs and AMRs  
architecture thanks to its unique level of integration



## COST REDUCTION

- Up to 50% less components
- Simpler and faster assembly



## TIME SAVING

- Shorter engineering time
- Simplified certification process



## FIRST-CLASS SAFETY

- Suitable for collaborative robots
- ISO 3691-4 compliance



## MODULAR ARCHITECTURE

- Freedom of integration
- Flexible and scalable



Rechargeable battery  
Li-ion 24V high power

Autonomy and ease of integration

Safe motor control and safety encoder integrated

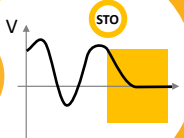
Heavy-duty cast iron frame

700 kg of vertical load  
1 500 kg of load moved

Interfaces  
**CANopen**  
safety

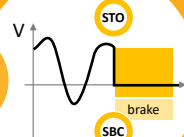
4 programmable safety inputs  
2 STO inputs

STO



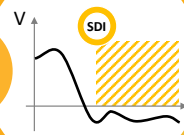
**Safe motor disconnection**  
when a stop is requested  
STO up to SIL3/PLe

SBC



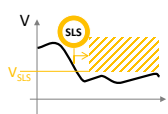
**Safe brake control**  
to ensure a lockout  
SBC or SBU (unlock) up to SIL2/PLd

SDI



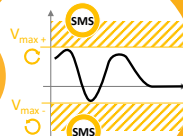
**Safe direction control**  
in case of collision risk  
SDI up to SIL2/PLd

SLS



**Safely limited speed**  
to prevent hazardous situations  
SLS (8 levels) or SLSa (asymmetric)  
up to SIL2/PLd

SMS



**Safe maximum speed**  
to secure operating range  
SMS up to SIL2/PLd





**SAFETY WHEEL DRIVES**

**NAVIGATION PC**

**SAFETY LASER SCANNER**

**E-STOPS**

**VS**

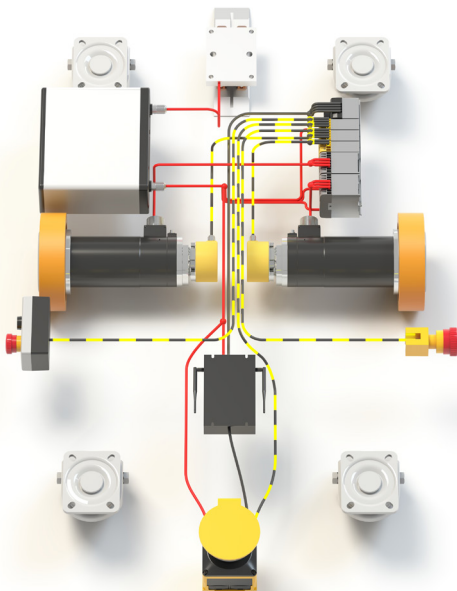
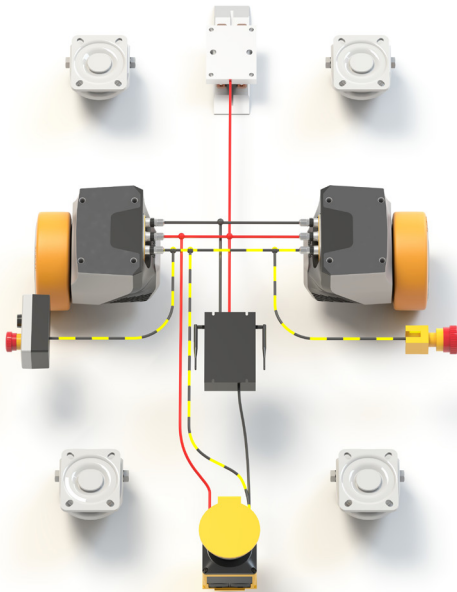
## **CONVENTIONAL SOLUTION**

**WHEELS  
GEARBOXES  
MOTORS  
SAFETY ENCODERS**

**PLC  
SAFETY PLC  
RELAYS  
MOTOR DRIVERS**

**BATTERY  
CIRCUIT BREAKERS**

**NAVIGATION PC  
SAFETY LASER SCANNER  
E-STOPS**







INDUSTRY



AUTOMOTIVE



LOGISTICS / RETAIL



FOOD PROCESSING



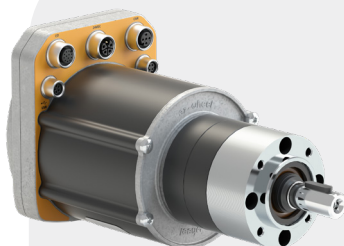
PHARMA / CHEMISTRY



MEDICAL

# UNIQUE TECHNOLOGICAL BRICK FOR ALL INTRALOGISTICS NEEDS

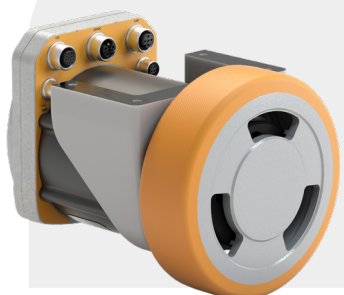
Drives and Wheel Drives with integrated safety



## SWD® Core Gear motor

Peak torque	37 Nm
Nominal power	185 W
Speed range	0 to 130 rpm

Values given for reference ezSWDcore.14/C



## SWD® 125 Medium duty wheel drive

Diameter	125 mm
Peak pushing effort	20 daN 500 kg moved
Max vertical load	250 kg
Speed range	0 to 11 km/h

Values given for reference ezSWD125IM.4/C

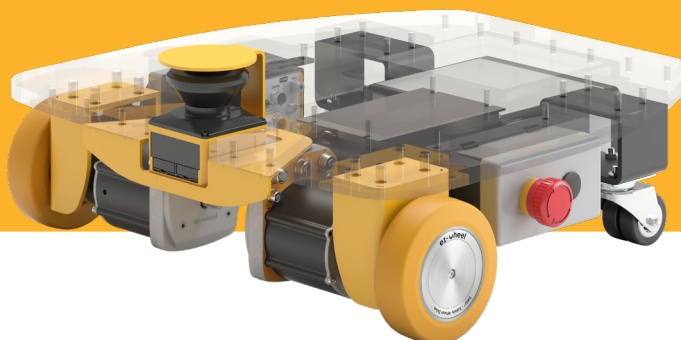


## SWD® 150 Heavy duty wheel drive

Diameter	150 mm
Peak pushing effort	60 daN 1 500 kg moved
Max vertical load	700 kg
Speed range	0 to 3.7 km/h

Values given for reference ezSWD150IH.14/C-x

Discover datasheets, manuals, product options, software support and our pre-packaged kits to accelerate the development of your mobile robot and much more!





## EZ-WHEEL SAS

Le Moulin de l'Abbaye,  
135 Route de Bordeaux, 16400 La Couronne - FRANCE

info@ez-wheel.com  
+33 531 615 580

[www.ez-wheel.com](http://www.ez-wheel.com)

