

easier & safer

SAFETY ON BOARD

SWD
Safety Wheel Drive



 **ez-wheel**
The Electric Wheel

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

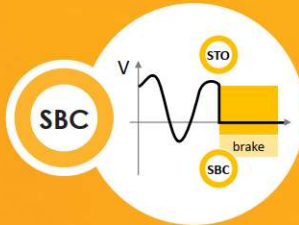
4 programmable safety inputs
2 STO inputs



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

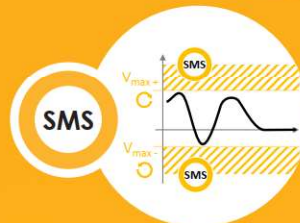
in case of collision risk
SDI up to SIL2/PLd



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

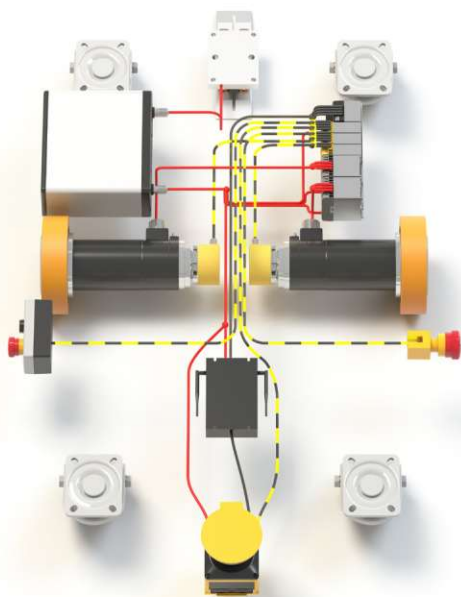
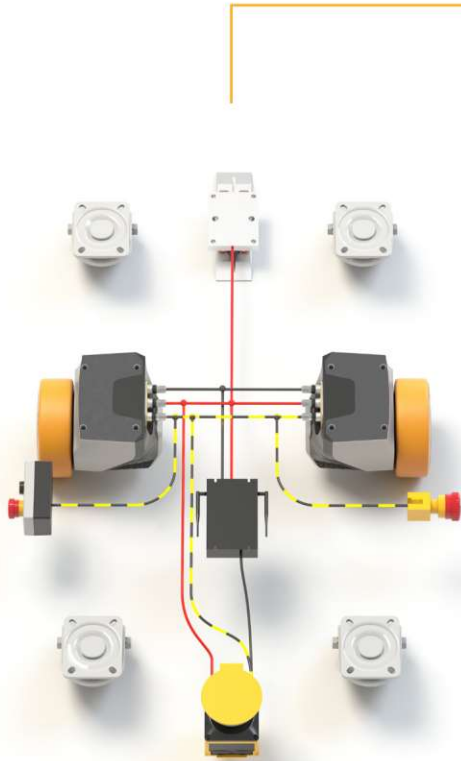
**CONVENTIONAL
SOLUTION**

**WHEELS
GEARBOXES
MOTORS
SAFETY ENCODERS**

**PLC
SAFETY PLC
RELAYS
MOTOR DRIVERS**

**BATTERY
CIRCUIT BRAKERS**

**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!





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