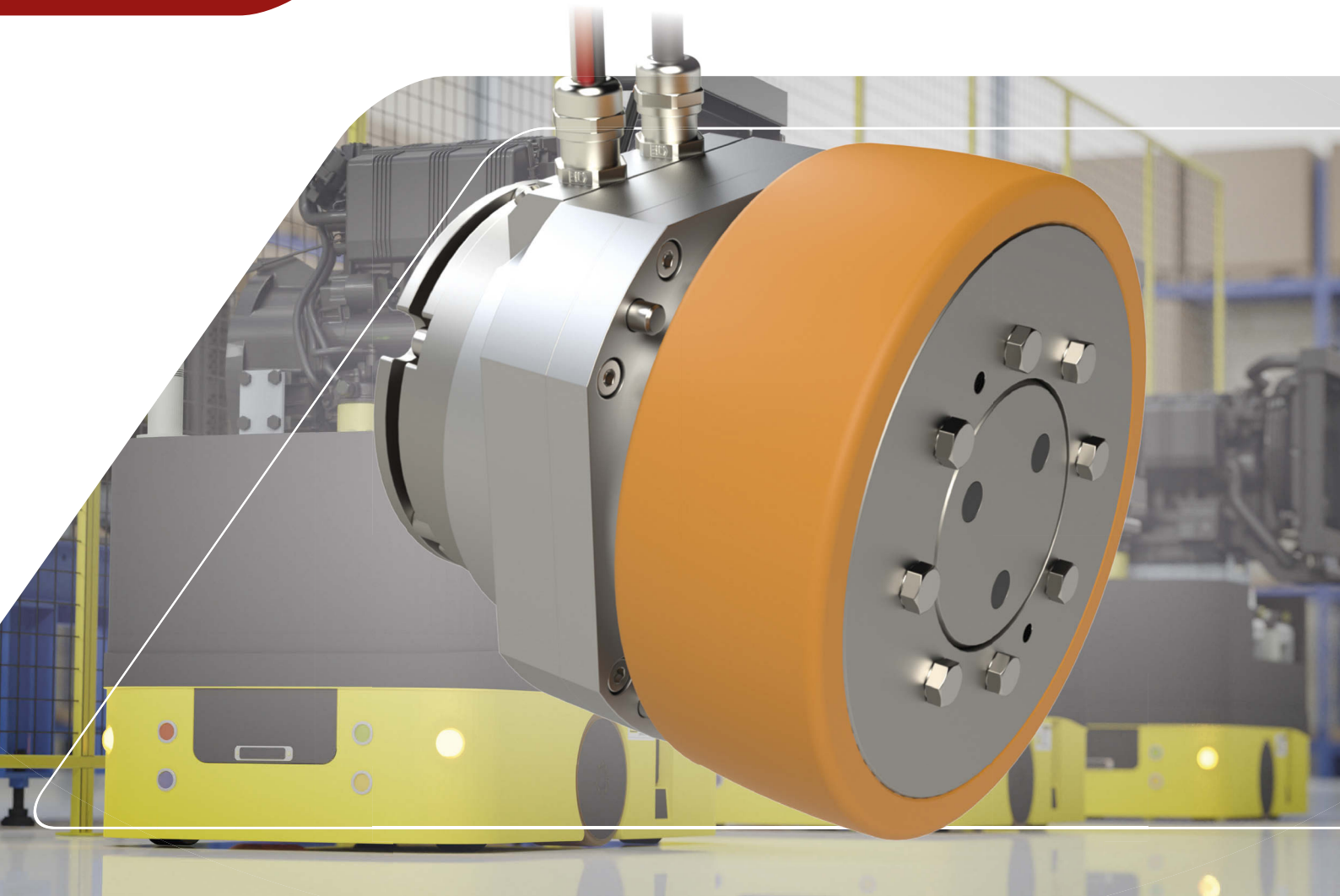
WHEEL DRIVE
DIFFERENTIAL

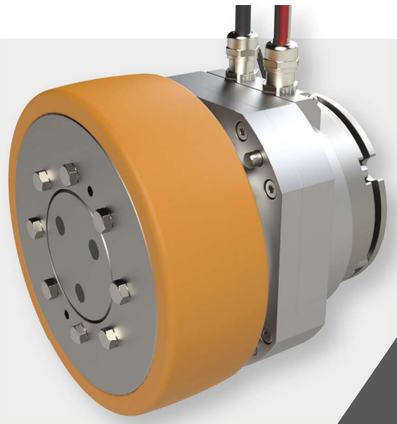
MTA
innovation is our drive

Powerful differential drives for all applications



COMPACT, POWERFUL, INTELLIGENT

Our product family for limitless possibilities



Our **product family of differential drives** enables unlimited application possibilities for all types of driverless transport systems.

To achieve **scalable vehicle sizes**, two **product lines** are available, which enable flexible adaptation to different requirements.

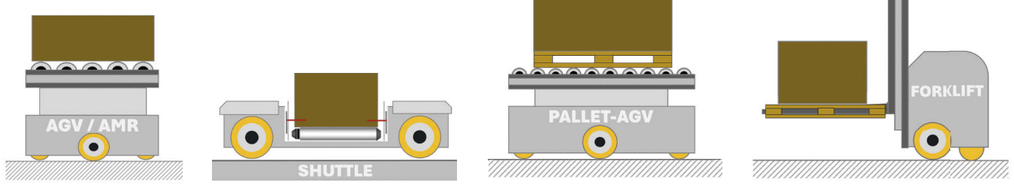
For the smaller design, the **version with an integrated motor controller is** available, which provides all safety functions up to Performance Level e (PL e) as well as various communication interfaces.

Properties

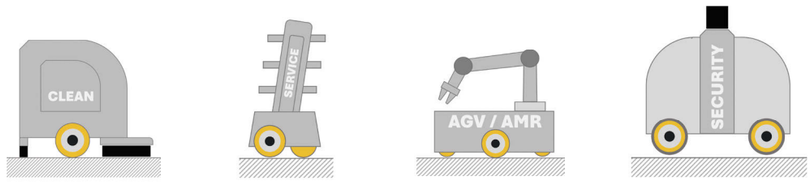
- **Compact design** for a light, space-saving vehicle design
- **Maximum efficiency** through synchronous technology
- **Intelligent** thanks to the option with an integrated motor controller for precise control and maximum efficiency
- **Maintenance-free** thanks to a permanently lubricated gearbox
- Easy replacement of the wheels

Sector / Area of use

The drives open up **unlimited application possibilities**, ranging from **storage technology** and **order picking** to **cleaning technology** through to **handling robots** and vehicles for **serving** and **courier services**.



Intralogistics- / Storage and picking vehicles



Cleaning technology / Cleaning robots

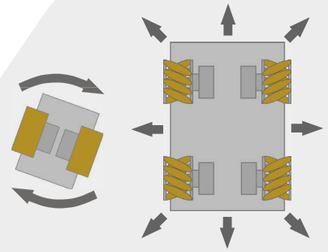
Hotel industry and tourism / Service and courier service

Production and installation / AGV for handling robots

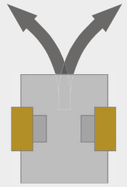
Security / Surveillance robots

Driving movements

Depending on the mechanical design, the drives can be used for universal forms of movement, be it in **differential** or **omnidirectional** operation.



Thanks to the extremely compact design, very space-saving **turntable drives** can be implemented for **omnidirectional operation**. An alternative implementation for omnidirectional operation is also possible by using Mecanum wheels.



In **differential drive operation**, precise cornering, outstanding accuracy and optimum drive performance are guaranteed.

Options

A wide range of options enable unlimited application possibilities in various fields of application.

- Version with high-resolution encoder system and brake (holding brake with emergency stop function) for operation on a decentralised motor controller
- Version with integrated brake (holding brake with emergency stop function), integrated motor controller, redundant multiturn absolute encoder and integrated safety functions up to Performance Level e (PL e)

Fully integrated motor controller

With this version, MTA sets new standards in performance and safety. The **integrated motor controller precisely** controls **speed, torque** and **position**. In addition, numerous **safe motion functions** up to Performance Level e (PL e) are available. Our innovative drive uses the power of **EtherCAT** and **FSOE**, a state-of-the-art communication protocol, to ensure seamless and efficient data exchange.

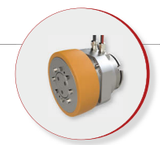
This not only allows you to control and optimise your drive system **in real time**, but also **to carry out diagnostics** and implement advanced **condition monitoring.**

Integrated safety PL e

- STO
- SBC
- SS1, SS2
- SOS
- SLS
- SMS

EtherCAT
Safety over EtherCAT

Differential drives



		BR100	BR200
Design			
Voltage	VDC	48	24/48
Speed	m/s	2	1.6
Nominal torque	Nm	24	91
Maximum torque	Nm	75	177
Wheel load	kg	500	500
Wheel diameter	mm	135	250
Length with brake	mm	100	123
Length with brake and motor controller	mm	135	n.a.

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www.mta-innovation.com

MTA
innovation is our drive

Westbahnstraße 32
A-4482 Ennsdorf
Österreich

T +43 720 920 500
E office@mta-innovation.com
W www.mta-innovation.com

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