

For more ergonomic workplaces.

ErgoMove® 1000. The Electric Drive System from Blickle.



Safety instructions

Please note that the positions of the swivel and fixed casters have a significant impact on the maneuverability of the unit. An apron must be attached to the user side of a cart in order to prevent potential foot injuries. As an alternative, we also offer swivel casters with integrated foot guards. We also recommend fitting one end of the unit with spring-loaded swivel casters on arrangements in which the drive casters are attached in the center.

The customer is entirely responsible for the transport unit and its operation. The drive system ErgoMove 1000 is suited for carts with a total load up to max. 1,000 kg with two swivel casters and two fixed casters with drive as well as for operation on a level indoor surface. If the application conditions differ, the permissible total weight of the unit must be established. We recommend using the electric drive system in an ambient temperature of between 41 °F and 104 °F. Please comply with the standards and regulations applicable to your application.

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We work for you. And with you. Blickle – A company in motion.

We have been one of the three leading manufacturers of wheels and casters in the world for decades because of our reliability, innovation and close customer relationships.

The name Blickle stands for uncompromising quality, high availability, delivery performance and global presence. Our motivated employees develop optimal products for diverse applications. Their tools: good ideas, creativity and inventiveness, years of experience and high competence in materials and manufacturing. Customer satisfaction is our highest priority. A continuous dialogue with users is the basis not only for our unique standard range of wheels and casters but also for countless individual solutions. This experience, paired with our own “Made in Germany” manufacturing facilities, guarantees you one thing for certain: “we innovate mobility”.

- Over 1,200 employees worldwide, around 850 based at the headquarters in Rosenfeld, Germany.
- 18 Blickle sales subsidiaries in Europe, North America, Asia and Australia
- Sales partners and representatives in over 120 countries of the world.
- Certifications according to DIN EN ISO 9001, DIN EN ISO 14001 and DIN EN ISO 50001.



As a family company, we value consistency.
Dr. Sarah Blickle-Fenner and David Blickle are the third generation of the family to be involved in the company, along with Reinhold and Denise Blickle.



Blickle in Canada.

We appreciate your business.



Originally established in 1987 as Bleutec Inc., Blickle Canada Inc. became a full subsidiary of Blickle in 2005. Blickle Canada's sales office and distribution center is based in Candiac, Québec just outside of Montreal.

This state of the art facility can best be described as a high speed, efficient, innovative, and customer focused solutions center. A customer home for both engineered and commodity solutions that meet or exceed demands for immediate shipping, diverse product line, in-stock inventory, engineered solutions, and fast quote turnaround.

Our customers are all directly supported by caster and wheel experts from our customer service team, regional sales managers, production and quality department and certified engineers.

We invite you to come experience the difference and join Blickle customers from around the world who call on us to innovate mobility.



The advantages of electric drive systems. Simple. Easy. More efficient.

1

Muscular and skeletal problems are the most common reasons for people being unable to work, particularly if they have a job that frequently involves physically strenuous activity like pushing and pulling loads. The electric drive systems of the Blicke ErgoMove series reduce these health risks considerably. The physical strain on the operator is decreased during internal material transport due to the considerably lower amount of effort required compared with manual operation. In the following areas, the electric drive systems offer major advantages:

Logistical process optimisation

- Easy transport of heavy loads
- Reduced travel distances
- Automation meets flexibility

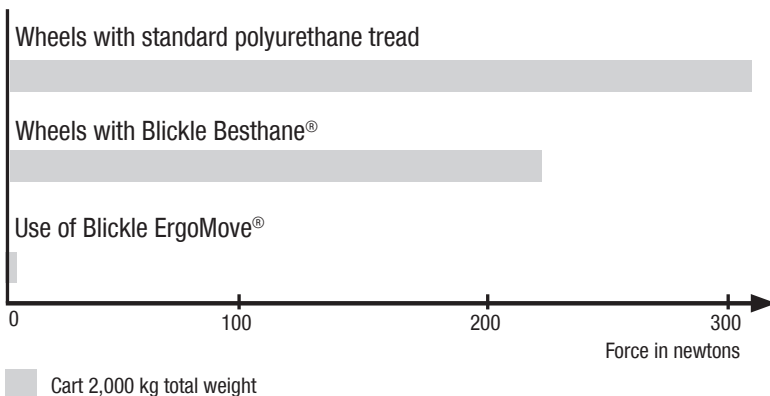
Improved ergonomics

- Ergonomically flawless working conditions
- Reduced strain during physically demanding work
- Transport of tall loads by ergonomic means

Efficiency

- Increased efficiency
- Reduction of sick days
- Decrease in the number of carts



Force required from the user to put a cart into motion*

* Values measured on even floor with wheel Ø 200 mm.

The electric drive system ErgoMove® 1000. Set components and options.

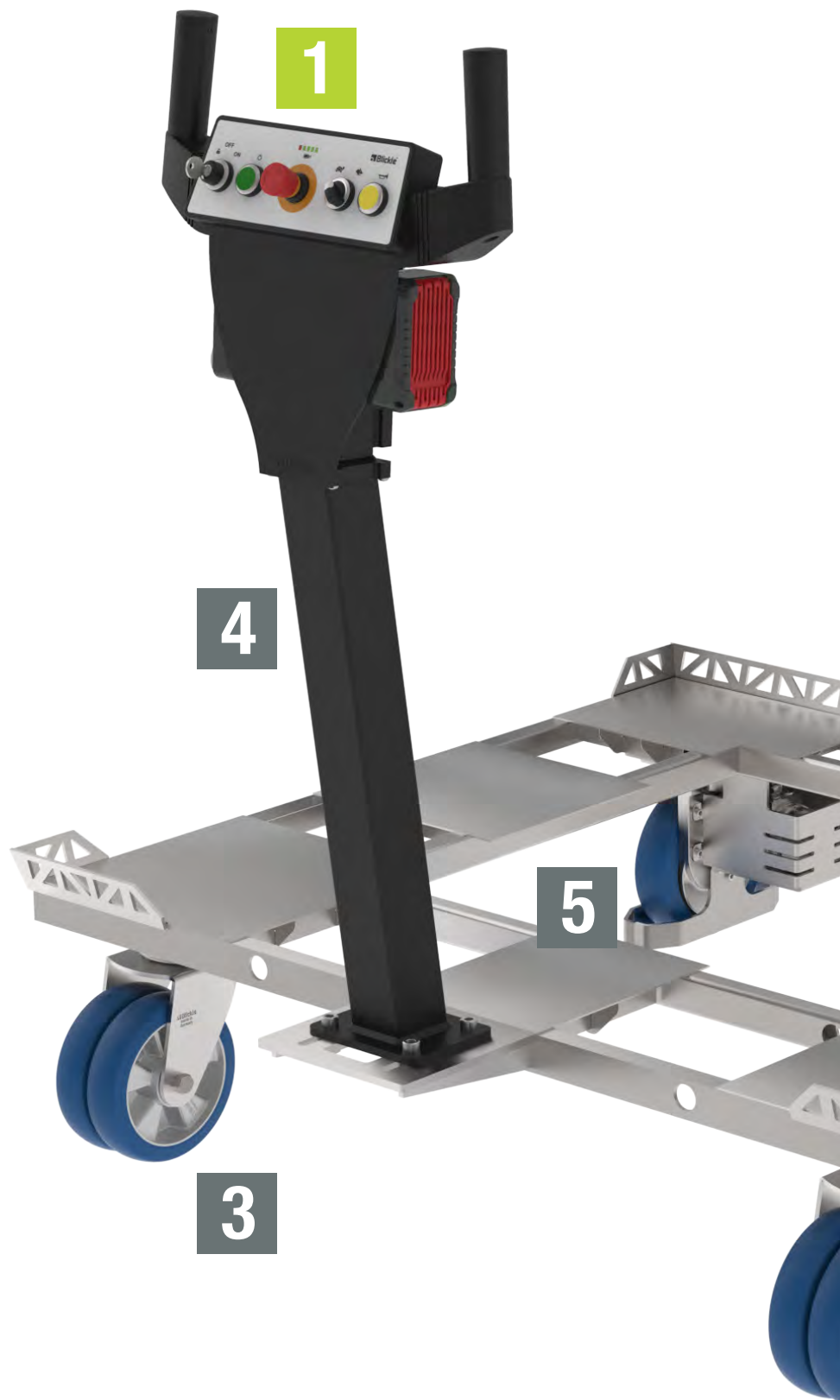
The ErgoMove 1000 is a manually operated system for transporting loads of up to 1,000 kg. In addition to the drive assistance, the ErgoMove 1000 also features steering and braking assistance. As part of the support structure, the driven fixed casters of the ErgoMove 1000 support the weight of the cart. In combination with the intelligent control system, this ensures smooth movement no matter the cart weight.

Plug and Play:

The 3 m long cables come attached to the cockpit. All that needs to be done before using the ErgoMove 1000 is to connect them to the fixed casters, making the assembly process cheaper and quicker. This makes retrofitting existing carts with the ErgoMove system a quick and easy process.

Safety:

The electric drive system already possesses all relevant safety features, such as emergency stop, anti-trap protection and electrical-mechanical dead man's brake. This increases the personal protection and ensures safe goods transport without generating additional costs for upgrading the safety aspects of the system. Furthermore, the ErgoMove 1000 corresponds to the Machinery Directive 2006/42/EC. In the US-version it is delivered with an ANSI-compliant installation instruction and US-product labelling.





Modular set components

1

Cockpit

The standard ErgoMove 1000 set includes the ergonomic handle and two preassembled cables. Two different versions of the handle are available: one with a power sensor, and one with two rotary joysticks. The cockpit has an integrated control system and replaceable batteries. More information can be found on pages 10 and 11.



2

Electrically-driven fixed casters

The set contains one left and one right fixed caster with a thrust force of max. 30 daN each. These are available in different sizes (see page 12).



Optional features

3

Suitable swivel casters

A large selection of suitable swivel casters can be found on page 13. Antistatic versions (-AS) are also available.

4

Console extension

For additional information about a console extension, please refer to page 12.

5

Foot guard and/or motor cover

For additional information about these and other accessories, please refer to page 12.



ErgoMove® 1000.

The cockpit and its functions.

✓ Protection class IP 40

The ergonomic handle with integrated power sensor was designed in collaboration with the Institute for Materials Handling Technology and Logistics in Stuttgart and the Heilbronn University to meet demanding ergonomic requirements. It uses a sensor system to measure the operating forces

on the ergonomic handle. The motors on the drive casters are controlled based on the amount of force applied to the handle and the direction. Two different versions of the ergonomic handle are available for the ErgoMove 1000. The first version uses a power sensor system. The second

uses two rotary joysticks. In case of the second version, the motors are controlled simultaneously with single hand usage and separately with two hand usage. The motors are controlled separately in this version. The two hand usage guarantees maximum maneuverability even in tight spaces.

2

Version 1: The ergonomic handle with power sensor



- 1) Handle with hand detection
- 2) Key switch
- 3) On button
- 4a) Battery level display
- 4b) Replaceable batteries
- 5) Mode "Turtle" / "Hare"
- 6) Horn button
- 7) Anti-trap protection
- 8) Emergency stop button
- 9) Integrated power sensor

Version 2: The ergonomic handle with two rotary joysticks

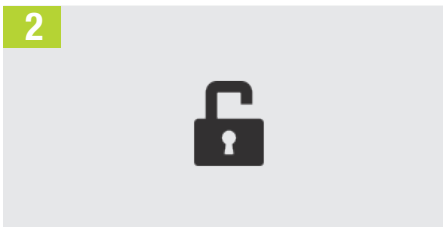


- 1) Handle with hand detection and rotary joysticks
- 2) Key switch
- 3) On button
- 4a) Battery level display
- 4b) Replaceable batteries
- 5) Mode "Turtle" / "Hare"
- 6) Horn button
- 7) Anti-trap protection
- 8) Emergency stop button



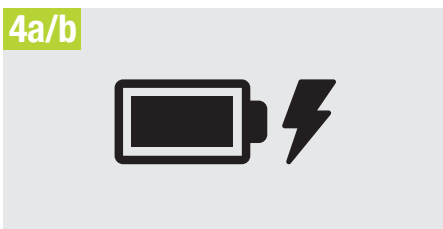
Intuitive control

The ergonomic handle with integrated power sensor detects the force applied by the operator in two dimensions: front / back, left / right. This force is converted into control signals to support the steering. This in turn provides simple and intuitive handling. The cockpit with two rotary joysticks controls the driven casters with the joysticks.



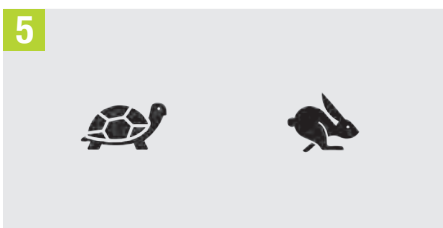
Emergency release

If necessary, the key switch (🔑) can be used to release the dead man's brakes. This makes it possible to move the cart without a power supply.



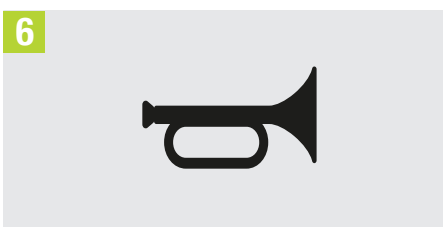
Replaceable batteries and battery level display

The battery unit uses standard replaceable batteries, which can be quickly replaced with a simple plug mechanism. In this way the permanent operation is guaranteed through replacement batteries. Full batteries can get 1,000 kg loads moving up to 300 times on an even surface.



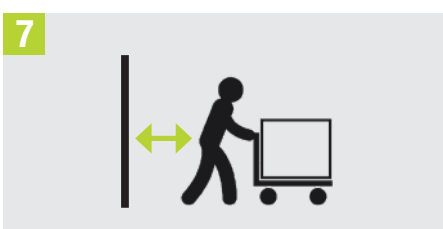
Modes "Turtle" / "Hare"

Turtle mode forwards 2 km/h, reverse 2 km/h.
Hare mode forwards 4 km/h, reverse 2 km/h.



Horn

Both the power sensor and joystick versions come with a horn. This is integrated into the cockpit. It makes an important contribution to the safety of goods transports and is therefore required for a valid CE declaration.



Anti-trap protection

The anti-trap protection on the ergonomic handle with rotary joysticks is implemented with a pressure-sensitive mushroom button. If the button is pressed against the operator, the cart will go back a little in the opposite direction. In case of the ergonomic handle with power sensor, the power sensor has the function of an anti-trap protection. The handle is capable of detecting very small levels of force (max. 28 N required at 1,000 kg).

The ErgoMove[®] 1000 set. Order overview and scope of delivery.

The ErgoMove 1000 is a modular system. The possible combinations with the two cockpit versions are listed in the following table. Additional options and spare parts are also available.



Description illustration*	Drive caster with wheel Ø 160 mm and total height 202 mm	Drive caster with wheel Ø 190 mm and total height 235 mm	Ergonomic handle with integrated control and operation via power sensor (-EG)	Ergonomic handle with integrated control and operation via 2 rotary joysticks (-2FG)
Set EM1000-POBS 160K-ET-EG-NOBAT-US	X	-	X	-
Set EM1000-POBS 160K-ET-2FG-NOBAT-US	X	-	-	X
Set EM1000-POBS 190K-ET-EG-NOBAT-US	-	X	X	-
Set EM1000-POBS 190K-ET-2FG-NOBAT-US	-	X	-	X

* The system includes two 3 m long cables for connecting the cockpit to the drive casters. The cables come preassembled on the ergonomic handle. A connector with a bayonet lock is used to connect the cables to the drive casters. The charger is available as an option.

Accessories**



	Foot guard***	Motor cover***	Charger	Spare battery***	Base plates****	Console extension
Article no.	For wheel Ø 160mm: EM1000-FOOT-GUARD-160 For wheel Ø 190 mm: EM1000-FOOT-GUARD-190	EM1000-MOTOR-PROTECTION	EM-CHARGER-18V2x3A	EM-BATTERY-18V5.2AH	EM1000-BASEPLATE EM1000-BASEPLATE-L	EM1000-CONSOLE
Description	Foot guard for preventing foot injuries.	Motor cover for protection against impacts and other mechanical damages.	Charger for two replaceable batteries, charging voltage 18V; charging current 2 x 3 A.	Replaceable battery in original manufacturer quality, 18V; 5.2 Ah.	For connecting the ergonomic handle with power sensor or the console extension (steel, with cable hole).	Four-sided adapter pipe for extending the handrail under the ergonomic handle with power sensor. Total height adjustment of 577 mm.

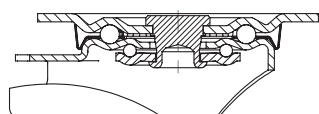
** The extension cable **EM1000-CABLE-2M** (2 m) incl. plug for connection between the cockpit and drive casters is optional (***).

*** Two pieces are required for a complete set. Foot guard and motor cover can also be combined.

**** **EM1000-BASEPLATE** (140 x 110 x 8 mm, untreated steel): mounted in a lying position to the frame. **EM1000-BASEPLATE-L** (160 x 160 x 8 mm; zinc-plated, blue-passivated): mounted in a overhanging position to the frame. For additional information about the accessories, please refer to the relevant product data sheet.

Set add-on. Suitable swivel casters.

The Blickle standard range contains more than 30,000 products. This includes a number of swivel casters that can be combined with the ErgoMove 1000.



Housing: Series L

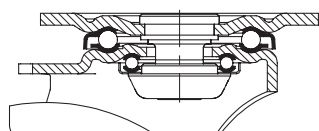
- Pressed steel, zinc-plated, blue-passivated, Cr6-free
- Double ball bearing in swivel head
- Stable central kingpin
- Swivel head seal
- Minimum swivel head play and smooth rolling characteristic, increased service life thanks to the special dynamic Blickle riveting process

ALBS



Wheels: ALBS series

- Tread: High-quality polyurethane-elastomer Blickle Besthane® Soft, hardness 75 Shore A, blue, non-marking, non-staining
- Wheel center: Die-cast aluminium



Housing: LH/LHD series

- Strong pressed steel, zinc-plated, blue-passivated, Cr6-free
- Heavy fork and top plate fitting
- Double ball bearing in the swivel head, very stable central kingpin, bolted and secured
- Particularly resistant to shocks and impact thanks to **specially shaped, hardened bearing seats**

ALST-AS



Wheels: ALST-...-AS series

- Tread: High-quality polyurethane-elastomer Blickle Softthane®, hardness 75 Shore A, grey, non-marking, **antistatic**
- Wheel center: Die-cast aluminium

Accessories Suitable swivel casters (see below for images)	Wheel Ø [mm]	Wheel width [mm]	Load capacity at 4 km/h [kg]	Total height [mm]	Plate size [mm]	Bolt hole spacing [mm]	Bolt hole Ø [mm]
LH-ALBS 160K	160	50	550	202	140 x 110	105 x 75-80	11
LH-ALST 160K-AS	160	50	550	202	140 x 110	105 x 75-80	11
L-ALBS 200K	200	50	400	235	140 x 110	105 x 75-80	11
L-ALST 200K-AS	200	50	400	235	140 x 110	105 x 75-80	11
LH-ALBS 200K*	200	50	700	245	140 x 110	105 x 75-80	11
LH-ALST 200K-AS*	200	50	700	245	140 x 110	105 x 75-80	11
LHD-ALBS 181K	180	2 x 44	800	235	140 x 110	105 x 75-80	11
LHD-ALST 181K-AS	180	2 x 44	800	235	140 x 110	105 x 75-80	11

Accessories



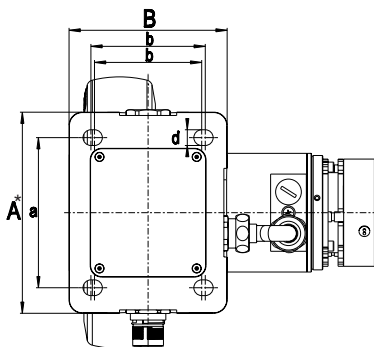
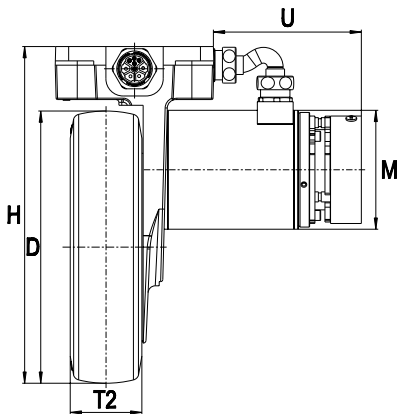
Article no.	Illustration for LH-ALBS series*	Illustration for LH-ALST-...-AS series*	Illustration for LHD-ALBS 181K series	Illustration for LHD-ALST 181K-AS series	Illustration for L-ALBS 200K	Illustration for L-ALST 200K-AS	Swivel caster with foot guard
Description	Pressed steel swivel caster	Pressed steel swivel caster, antistatic	For perfect swivel	For perfect swivel, anti-static	Pressed steel swivel caster	Pressed steel swivel caster, antistatic	Item suffix -FS, on request

* If using the LH-ALBS 200K and LH-ALST 200K-AS, the steel adapter plate APS3-10 is required for the set **SET EM1000-POBS 190K...**

Technical details. The drive casters.



✓ Protection class IP 40



Heavy duty fixed caster with electric drive and integrated dead man's brake. Wheel with Blickle Besthane® Soft polyurethane tread, with synthetic wheel center.

Housing:

- Made from robust cast-iron, zinc-plated, blue-passivated, Cr6-free, with integrated motor controller

Tread:

- High-quality polyurethane-elastomer Blickle Besthane® Soft, hardness 75 Shore A
- Outstanding operational comfort thanks to particularly thick, elastic tread
- Excellent floor preservation, low-noise operation
- Very low rolling resistance
- High dynamic load capacity
- High abrasion resistance
- High cut and tear propagation resistance
- Colour blue, non-marking, non-staining
- Very good chemical bond with the wheel center

Wheel center:

- High quality synthetic material, impact-resistant, black

Drive:

- Brushless DC motor with integrated electro-mechanical brake system (dead man's function, 30 Nm static holding torque)
- Thrust force max. 30 daN per motor used

Fixed caster with electric drive systems	Wheel Ø (D) [mm]	Wheel width (T2) [mm]	Load capacity at 4 km/h [kg]	Total height (H) [mm]	Plate size (A* x B) [mm]	Bolt hole spacing (a x b) [mm]	Bolt hole Ø (d) [mm]	Motor Ø (M) [mm]	Motor protrusion (U) [mm]
Drive caster version Ø 160 mm	160	50	400	202	140 x 110	105 x 75-80	11	85	105
Drive caster version Ø 190 mm	190	50	480	235	140 x 110	105 x 75-80	11	85	105

"-L" for left caster and "-R" for right caster.

* When the connector is attached, the protrusion over the top plate is 78 mm.

Technical details.

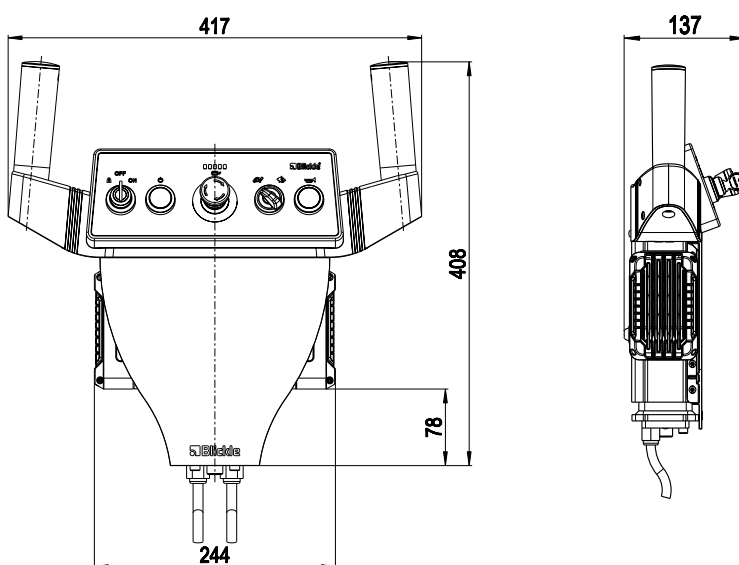
The different versions of the cockpit.

✓ Protection class IP 40

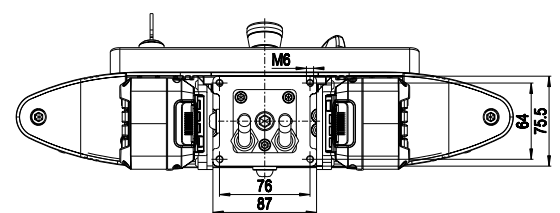
All dimensions in [mm]

Version 1: The ergonomic handle with power sensor

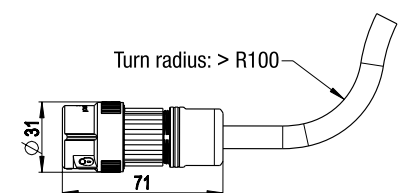
Dimensions ergonomic handle with power sensor



Dimensions top plate fitting
(View from below)

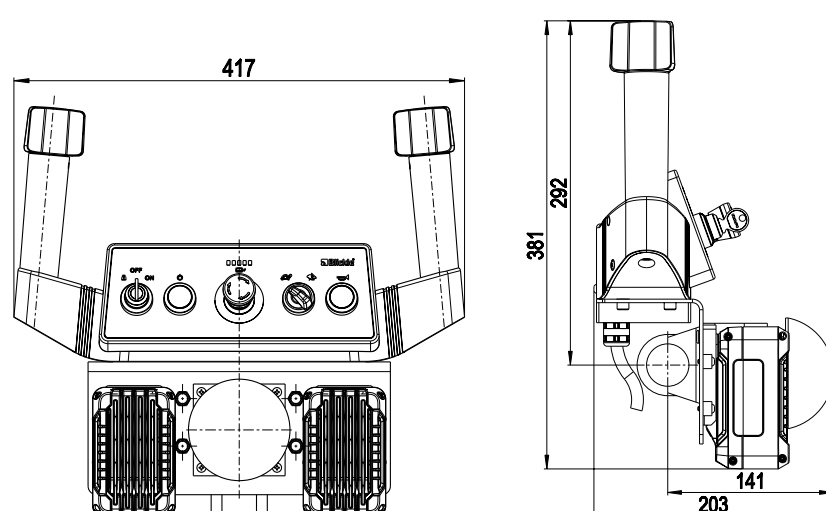


Dimensions connector

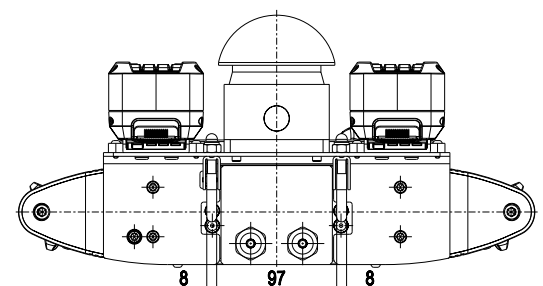


Version 2: The ergonomic handle with two rotary joysticks

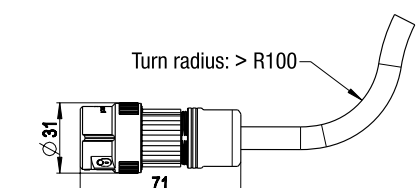
Dimensions ergonomic handle with two rotary joysticks. Bracket clips for pipe diameter 33–36 mm are used for assembly.



Dimensions bracket clips
(View from below)



Dimensions connector



“Ergonomic and safe e-mobility solutions for every working person.”

Blickle's electric drive systems and ergonomic e-mobility solutions marketed under the ErgoMove brand provide a safe and easy way to transport loads up to 1,000 kilograms in a variety of sectors. The experts at ErgoMove work closely together with customers to develop solutions which are tailored to their specific requirements.

Blickle's effective service team provides around the clock support for users before and after they start using the ErgoMove system. As a reliable partner, Blickle provides a comprehensive range of logistical services to complement ErgoMove's e-mobility solutions:

1 Analysis of logistical challenges

- Ergonomics
- Safety
- Efficiency

2 Development of a solution in partnership with customers

- Customized solutions
- CAD implementation
- Prototyping

3 Implementation of custom-made system

- On-site installation
- Remote support
- Employee training

4 After-sales

- Helpdesk ErgoMove®
- Proactive maintenance and repair
- Safety checkup

The EM1000 line of the Blickle ErgoMove system can be used to create custom-made solutions capable of handling loads of up to one ton.

To find out more, please contact your Blickle ErgoMove specialists:

Email: info@blickle.ca

Arrange a
demonstration
now!

To find out more about ErgoMove systems, please visit www.blickle.com/ErgoMove