

YOUR ACCESS TO REVOLUTION

mMAGNETIC®
ACCESS TO PROGRESS



FlowMotion®
Pedestrian Gates



*"If you are truly innovating,
you don't have a prototype you can refer to."*
Jonathan Ive



YOUR ACCESS TO REVOLUTION

Development of pedestrian gates has long been a matter of evolution. Reading devices have become wireless, biometric recognition methods have sprung up, and personal data on authorised users are now digitalised and centrally administrated. Nothing very much has changed regarding the pedestrian gates themselves: housings made of steel sheet still stand in the way of authorised users.

We here at Magnetic have now set a new course towards revolution and completely reinterpreted security in buildings – with the FlowMotion® product line of pedestrian gates. We no longer see access control systems as artificially superimposed security mechanisms, but as integral components of buildings. They are no longer external barriers, but paths within that welcome those entering the building and show them the way. We therefore not only increase user acceptance – we also make a major contribution towards greater security in buildings through the consistent and systematic assessment of all persons entering them.

In order to achieve this reinterpretation we have started again from scratch and fundamentally redeveloped our access systems from the bottom up. The result is a unique design whose flowing lines and wide range of colours permit seamless integration in the demanding architectures of companies, cultural institutions and public facilities. The prerequisite for the extraordinary design is a new material: mDure® is not only extremely tough and long-lived, but its warm and friendly feel also gives visitors a comfortable first contact. And because we see our access systems as the path into buildings we have equipped them with versatile illumination that shows visitors the way and intuitively guides them through the access process.

Even if revolutions radically challenge what is old, in one regard we have remained true to our former concept: as before, you can rely on our energy-efficient, reliable and extremely long-lived drive and control technology.

COME ON IN!

A large family

The FlowMotion® range of models



mWing

The elegant one: an open housing, short opening times and flowing non-contact passage – no access solution is safer and more elegant than mWing.

Barrier technology

Pedestrian passageway with wing gates

Opening and closing speed

High

Security level

Medium to high
(depending on the barrier element)

mTripod / mTripod short

The comfortable one: its smooth drive and sensitive impact detection make passage through the mTripod and mTripod short particularly simple and comfortable.

Barrier technology

Turnstile

Opening and closing speed

Medium

Security level

Low

mSwing

The versatile one: you not only design optically appealing entrances with the mSwing swing door, it is also our specialist for wheelchair-friendly access and safe escape routes.

Barrier technology

Swing door

Opening and closing speed

Low

Security level

Low



mPost

The matching one: The mPost control column offers the right design if with mSwing an additional access control is required.



mGuide

The final one: If the room is wider than the passageway, the guiding elements from mGuide come into play. They reliably guide visitors to and through the barrier.

Revolutionary design.

Proven technology.

With FlowMotion®, we are reinterpreting access control – with versatile functions, a new housing material and a unique design. At the same time, every member of our FlowMotion® family features Magnetic's proven core technology – power supplies, controllers and drive units that have proven their reliability hundreds of thousands of times over in our barriers and turnstiles. FlowMotion® thus combines innovation and tradition in a unique way.

Minimal energy.

Maximum safety.

Protection against injury is essential for the safe and reliable operation of our pedestrian gates. That is why we rely on MSDS®, the Magnetic Safe Drive Solution. Our approach: We only supply the drive with enough energy to ensure that there is no risk of injury even if users come into direct contact with the barrier elements. This means that mWing, mTripod and mSwing ensure smooth passage even in crowded conditions and when there is a high volume of people.

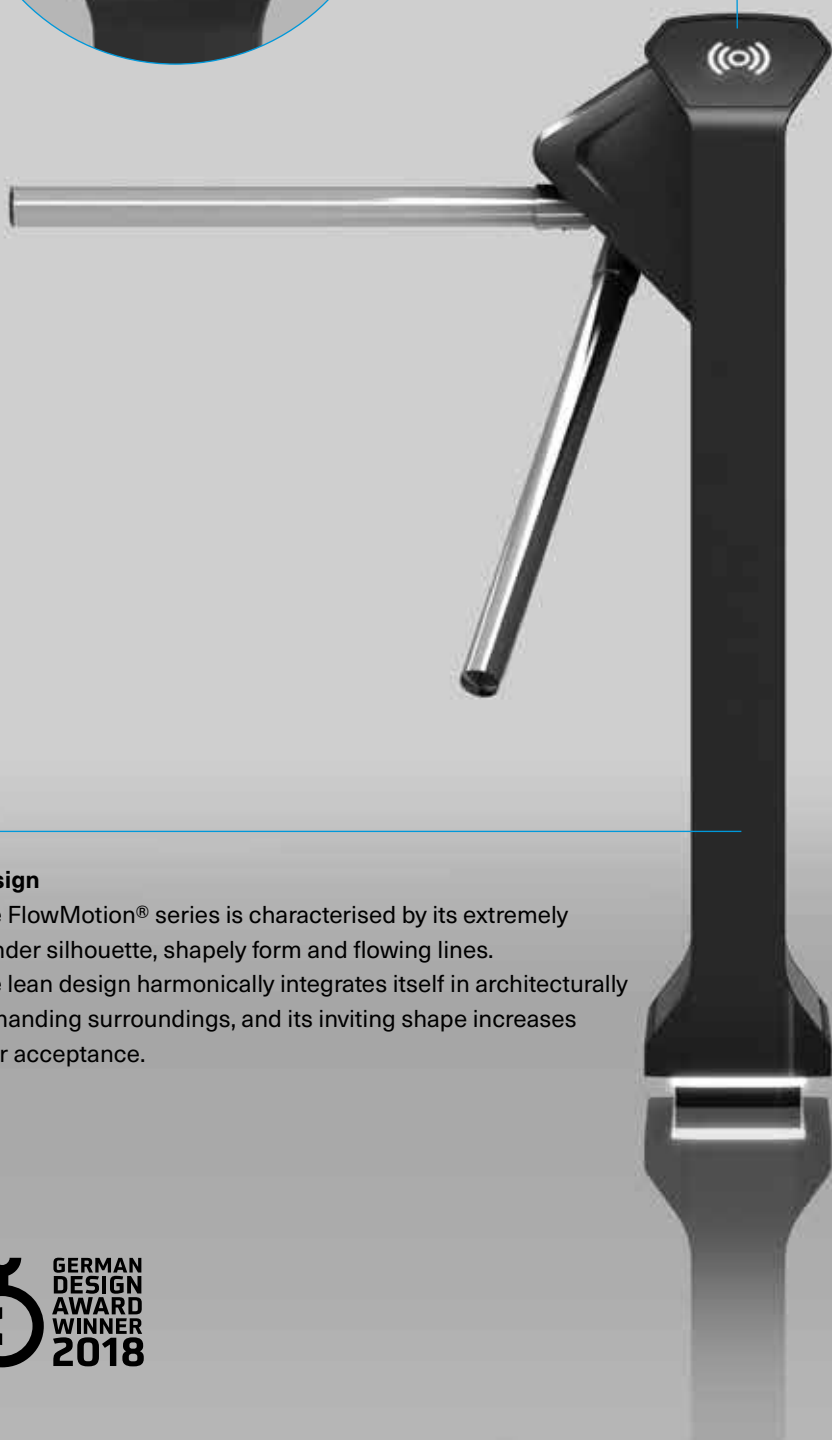
FlowMotion®

Fascinating aesthetics ...



Access control

The pedestrian gates of the FlowMotion® series can be controlled with all common reading devices. The front faces allow installation of numerous card-reading models, ensuring maximum flexibility.



Design

The FlowMotion® series is characterised by its extremely slender silhouette, shapely form and flowing lines. The lean design harmonically integrates itself in architecturally demanding surroundings, and its inviting shape increases user acceptance.



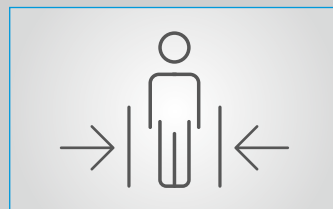
Comfortable passage

The smoothly operating motor drive makes the access process particularly comfortable, and its sensitive impact detection ensures maximum user safety.



Unobstructed escape routes

FlowMotion® gates provide free passage if there is a power outage or alarm signal. They automatically resume operation when the alarm is over or power has been restored.



Secure access control

Light sensors (optional) raise the alarm if someone climbs over or crawls under the pedestrian gates. Interlocking in the closed state (optional) prevents any forced entry.



Comprehensive functions

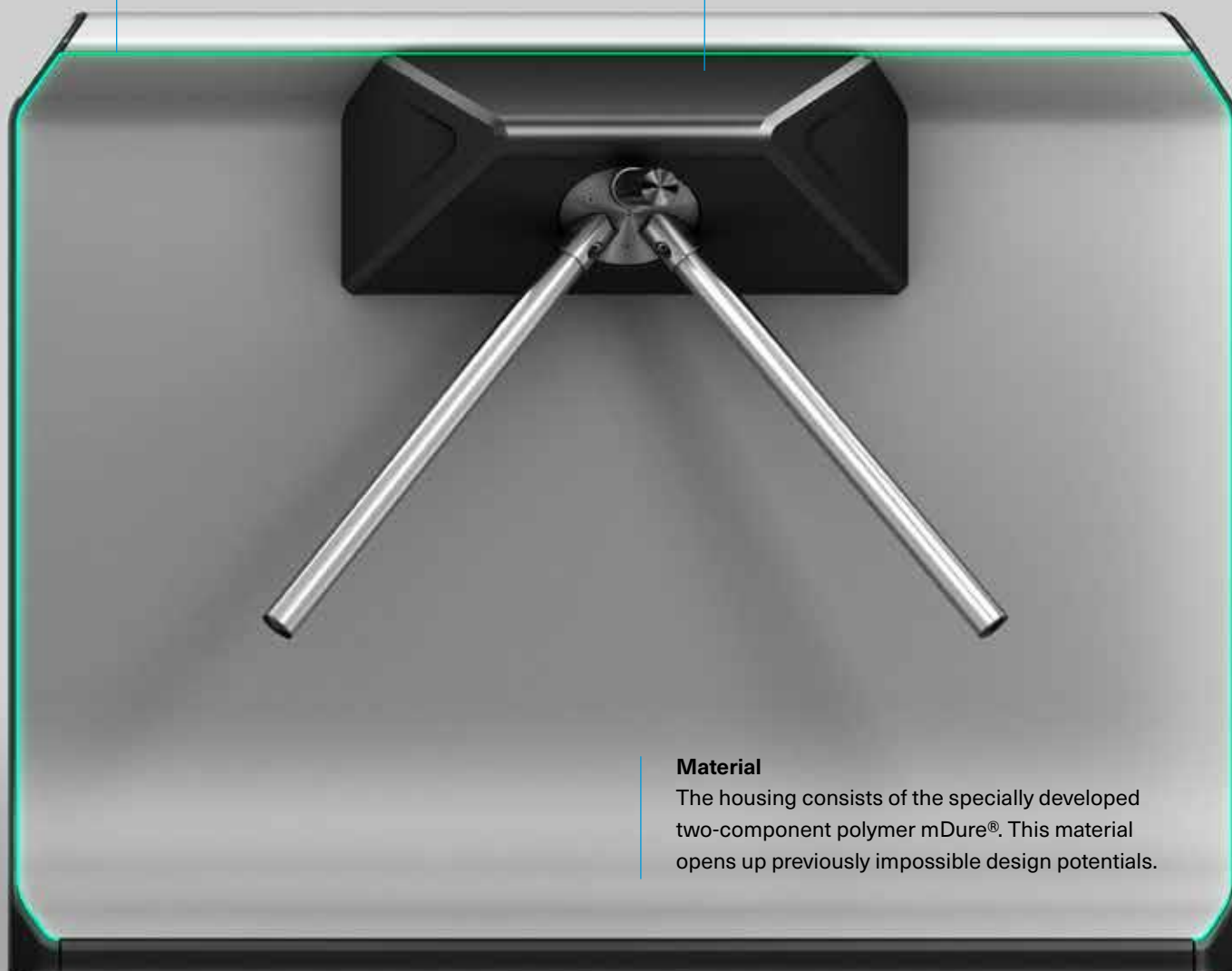
An emergency release routine, pulse counter, and random generator for screening users are standard in the FlowMotion® series, directly integrated in the control system.

Haptics

Unlike stainless steel, mDure® is not cold and hard but instead feels comfortably warm and nice to touch. A friendly reception for visitors is thus provided on entering the building.

Illumination

Frame-edge illumination (optional) not only underlines the slender design, but also shows that this system is ready for passage. Floor illumination (optional) further contributes towards reliable user guidance.

**Material**

The housing consists of the specially developed two-component polymer mDure®. This material opens up previously impossible design potentials.

FlowMotion®

...excellent inner values...

Control system

The MGC control system is at the heart of all FlowMotion® gates. It enables direct access to all functions, parameters and information – not even a notebook is required, thanks to the integrated display and control buttons. By the way, the same control system and drive technology are also used in Magnetic's vehicle barriers. This considerably reduces system diversity and training requirements for sales partners, commissioning engineers and plant operators.



Construction

The systems basically consist of a frame made of mDure® in which all components are integrated. The side panels are attached to the frame without any visible connecting elements, and thus create the impression of seamless construction.

Drive

The MHTM™ drive technology, proven hundreds of thousands of times over, ensures particularly comfortable passage. It is maintenance-free, energy-efficient and quiet – and forms the basis for a long service life because it is designed for more than 10,000,000 opening and closing cycles.



Rapid installation

Our pedestrian gates are supplied ready for installation. All the selected options have already been installed, and the corresponding parameters pre-set, before delivery to the point of use. This, and the drilling templates, considerably shorten commissioning times.



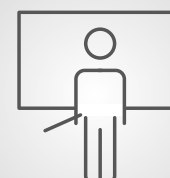
Simple parameterisation

All the MGC control system functions and settings can be located and edited very quickly via the display, the four buttons, and the well-thought-out user navigation. No workaround involving a notebook and connection cable is required.



Complete documentation

Construction specifications, floor plans, dimensional drawings and technical data – our customers receive all relevant documentation. They are thus always on the safe side during project planning, commissioning, and certification of conformity.



Comprehensive training

We are training sales partners, commissioning engineers, and service technicians at our Academy. This ensures high installation quality and excellent service.

FlowMotion®

...and unique options.

Sensor control

Sensors in the frame detect users entering the passage area. This increases the speed of passage and prevents unauthorised access attempts.

Frame-edge illumination

The elegant integrated light elements offer flexible use to show operational readiness, the direction of passage, or the validity of access authorisation.

Floor illumination

The white floor illumination gives the gates the appearance of floating in a cloud of light and simplifies orientation in the entrance area for visitors.

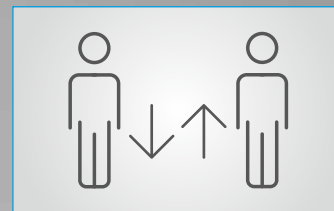
Ethernet interface

Today's connections for the buildings of tomorrow: FlowMotion® gates can be integrated into building control systems via the Ethernet interface.



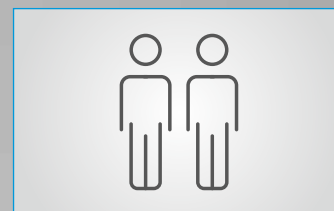
Passage direction indicator

The light elements in the front face show visitors at a glance if passage is open to them and whether they have valid access authorisation.



Full flexibility

Visitor flows into the building in the morning, out of the building in the evening, and coming and going between the two – FlowMotion® gates offer flexible use thanks to their bi-directional operation.



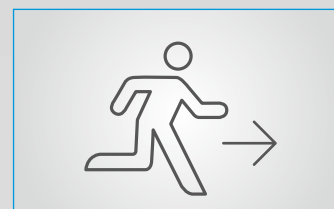
Large visitor numbers

It makes sense to use several parallel lines if large numbers of visitor authorisations need confirmation within a very short time. All FlowMotion® pedestrian gates are suitable for the straight-forward setting up of multiple applications thanks to their uniform stylistic language and control technology.



Wheelchair-friendly access

Variants of the FlowMotion® gates are available with large passage widths for wheelchair users, the transport of material, and many other requirements. mSwing swing doors offer another alternative for providing wheelchair-friendly access.



Unobstructed escape routes

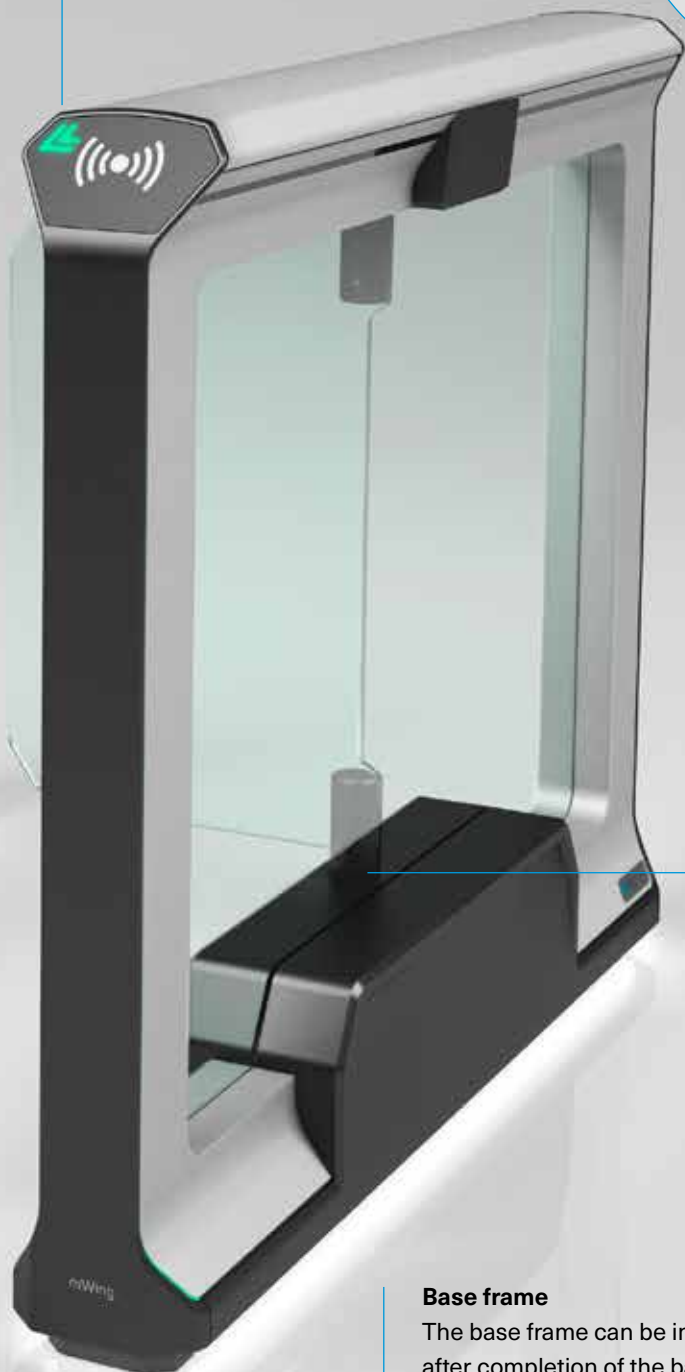
All the gates in the FlowMotion® series automatically allow free passage in the case of a power outage or an alarm signal. mSwing swing doors allow the setting up of particularly wide, officially approved escape routes.

Interlocking

The gate elements can be locked in the closed state. This effectively prevents attempts to wilfully or forcefully gain access.

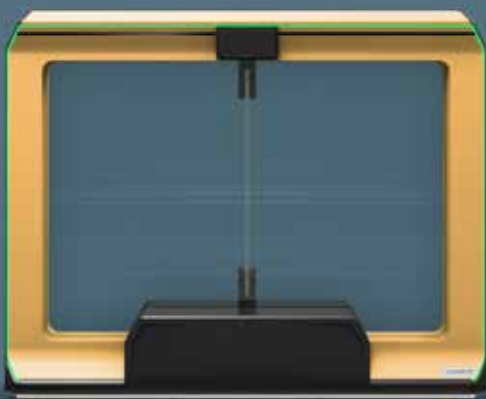
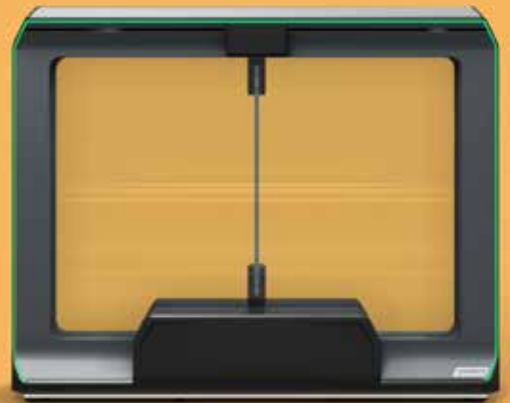
Base frame

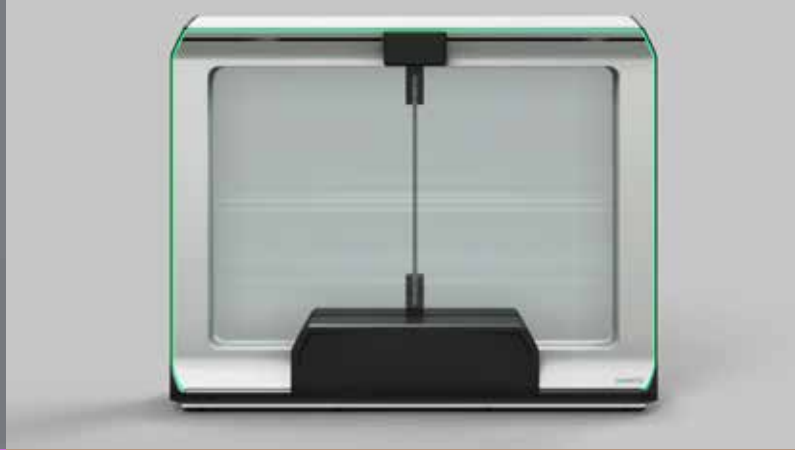
The base frame can be installed straight after completion of the bare floor. It not only reserves the space for subsequent installation of the FlowMotion® pedestrian gate, but also considerably simplifies the laying down of electricity and data cables.





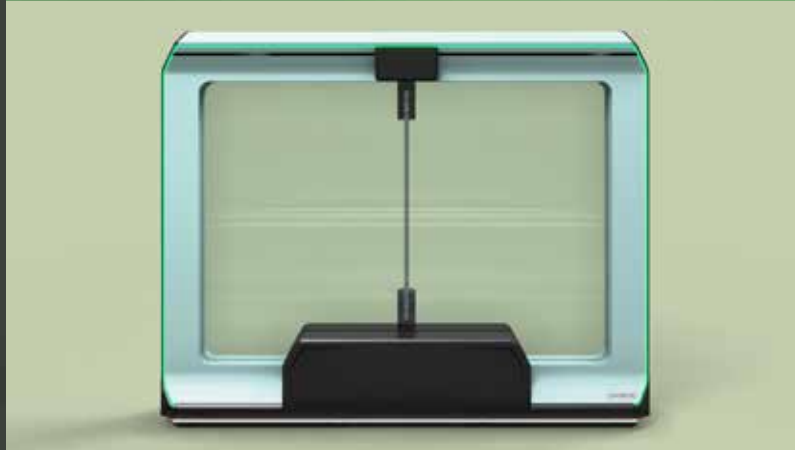
*They don't match
everything.*
Just your precise requirements.





Seamless integration in demanding architectures – we developed the design of FlowMotion® with this goal in mind. This, however, not only includes the housing shape, but also its colour. This is why we offer all the products in our FlowMotion® family with a wide range of colour tones and effect finishes.

WHICH COLOUR IS YOURS?



Safe in every way

The FlowMotion® series meets all legal standards



Our pedestrian gates conform with all major legal rules, certifications and other requirements

The following directives and regulations apply in Europe when power-operated (motorised) pedestrian gates are used: The Machinery Directive (2006/42/EC) with the Low Voltage Directive (2014/35/EU), the EMC Directive (2014/30/EU) and the RoHS Directive (2011/65/EU). Magnetic's pedestrian gates comply with the DIN EN 17352 standard for power-operated access control devices.

An important aspect here is compliance with the low-energy mode. This ensures that a maximum of 1.69 J can be applied to persons, effectively preventing injuries.

These directives and regulations define the minimum protection level for placing building products and machines on the market. This also includes the installation of one or more pedestrian gates in the FlowMotion® series. With Magnetic, you are also on the safe side in legal terms. We take on the responsibility for you!

The CE symbol is the visible sign of conformity with these Directives and is shown on the gates' identification plates.

No need for additional protection!

Supplementary photoelectric switches, scanners, etc. are not necessary for personal protection – they only serve detection purposes. Low-energy mode is sufficient personal protection.



Declaration of conformity for the complete system in accordance with the Machinery Directive

- ✓ Safe control (EN13849)
- ✓ Compliance with all relevant EN standards
- ✓ Personal and property protection
- ✓ EMC tested (electromagnetic compatibility)

AN INNOVATIVE MATERIAL FOR INNOVATIVE PRODUCTS

An extremely slender silhouette, soft flowing lines, and a warm gentle feel – this has all been made possible because we have moved away from the stainless steel panels used up to now and turned to a new material: **mDure®**.

mDure® is a polyurethane and thus consists of two components. During its production, polyols and isocyanates react to make long-chain molecules that form spatial links with one another. The end-product can be precisely adapted to meet particular

requirements because thousands of combinations of different polyols and isocyanates are possible. In many respects, **mDure®** far surpasses the performance of the previous standard material.

By the way: although we are taking new paths we are not experimenting. Comparable high-performance polyurethanes are used for housings in medical and laboratory technology, for vehicle dashboards, and for cladding on high-speed trains. Could **mDure®** have better references?

- > **mDure®** is created by a chemical reaction that takes place directly in the forming tool. This provides extraordinary design freedom.
- > **mDure®** is highly resistant to impacts, scratches and abrasion. It can cushion mechanical effects without suffering any lasting deformation.
- > **mDure®** is a thermal and electrical insulator. This simplifies electrical installation, as well as operation under difficult climatic conditions.
- > **mDure®** is extremely durable and chemically resistant – against disinfectants and detergents, as well as against aggressive chemicals, UV radiation and corrosion.
- > **mDure®** contains no solvents or softening agents so it does not give off any harmful emissions to its surroundings. It also offers low flammability, and is therefore ideal for indoor use.
- > **mDure®** is free of pollutants and can be recycled, disposed of as household waste, or burnt without polluting the environment.



mWing

Pedestrian passageway with wing gates

- > High visitor throughput thanks to rapid opening times and preset travel function
- > Open-gate mode for extra throughput acceleration
- > For maximum security requirements in monitored and unmonitored areas
- > Low impact forces for maximum personal safety thanks to low-energy drive
- > Freely turning on power outages
- > Designed for 10 million opening and closing cycles
- > Escape and rescue route approval





Technical data	mWing
Application	Indoor and outdoor
Passage width	Standard: 600 mm Wide Lane: 900 mm (more on request)
Height of barrier elements	Standard: 888 mm High: 1800 mm (more on request)
Opening/closing time	0,6–1 s, depending on barrier element dimensions
Flow rating (number of persons per min.) ¹	Approx. 40
Drive technology	MHTM™
Control system	MGC Plus
Voltage	100–240 V AC, 50/60 Hz
Power consumption ²	Minimum 20 W, maximum 107 W
Duty cycle	100 %
Housing material	mDure®
Housing dimensions (L x W x B)	1300 x 180 x 1050 mm
Enclosure rating	IP54
Weight	About 120 kg per module
Temperature range	–30 to +55 °C

¹ Depending on reader, lock setting, person behaviour

² The energy consumption refers only to Magnetic components, range is from standby modus to fully illuminated operating mode.

Features

Direction of passage	Uni- or bi-directional
Emergency release	On power outage or closing of alarm contacts
Random generator	Integrated in control system
Throughput data acquisition and event log	Integrated in control system
Control system inputs and outputs	8 digital inputs, 4 digital outputs, and 6 relay outputs
Escape and rescue route approval	
Environmental Product Declaration (EPD)	

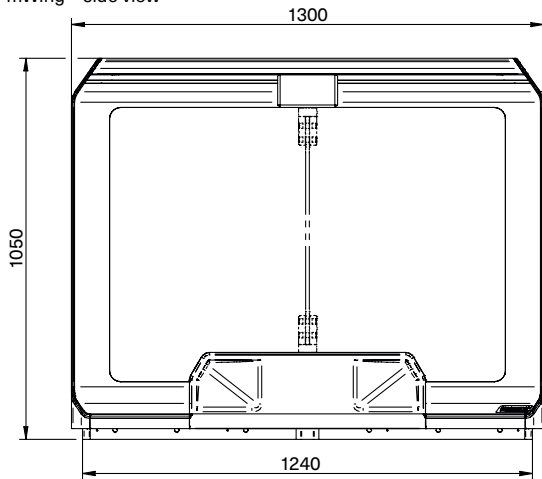
Standard colours

	
White aluminium (similar to RAL 9006)	Jet black (similar to RAL 9005)

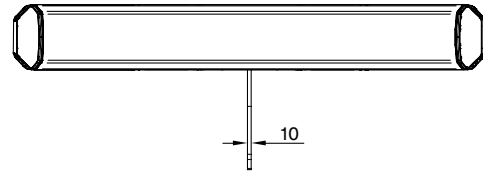
Potential applications



mWing – side view

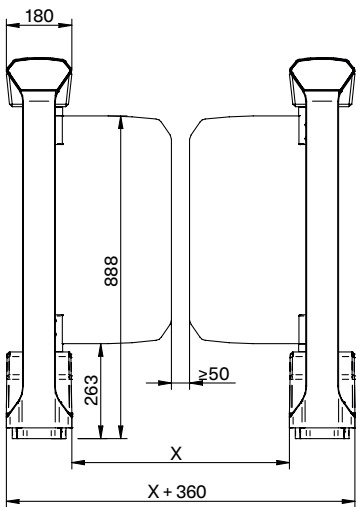


mWing – top view (1 module)

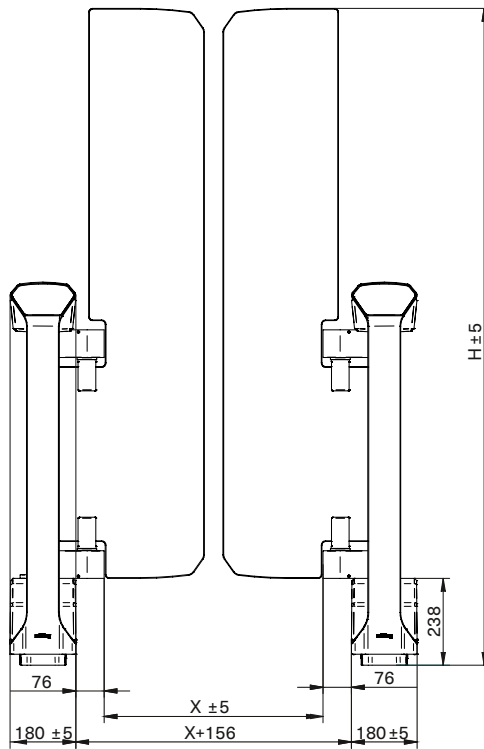


Passage width				
Name	X [mm]	H1 [mm]	H2 [mm]	H3 [mm]
Narrow	520	1200	1500	1800
Standard	600	1200	1500	1800
Wide	900	1200	1500	1800
Extra wide	960	1200	1500	1800

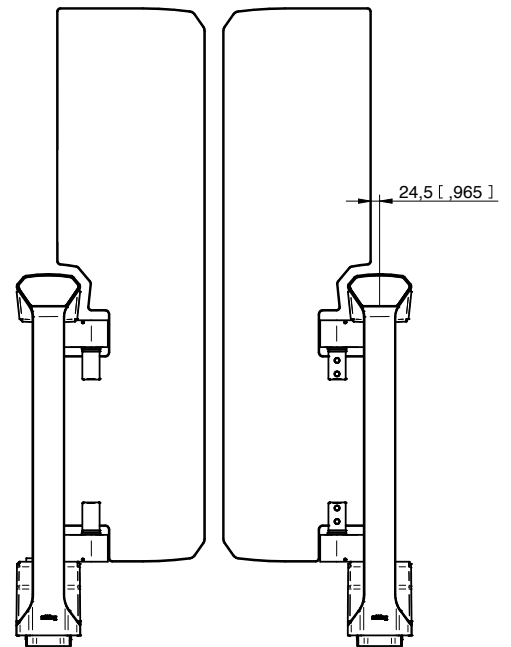
mWing – front view



mWing – front view with high glass panel

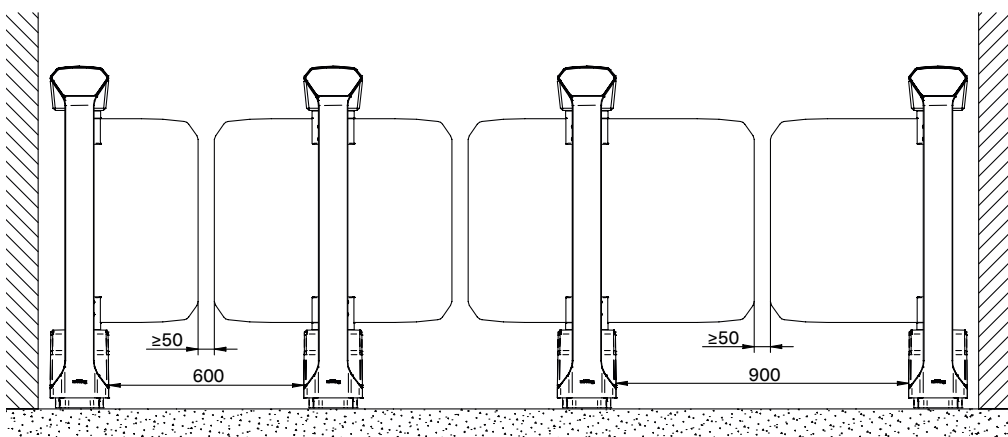


mWing – front view with high glass panel and climb-over protection

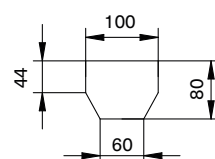


Dimension X applies to normal and high doors, H1 to H3 only apply to high doors.

Line configuration of mWing with standard width passage and wide passage



Mounting space for reader devices (without optional passage indicator, mounting depth 40 mm)

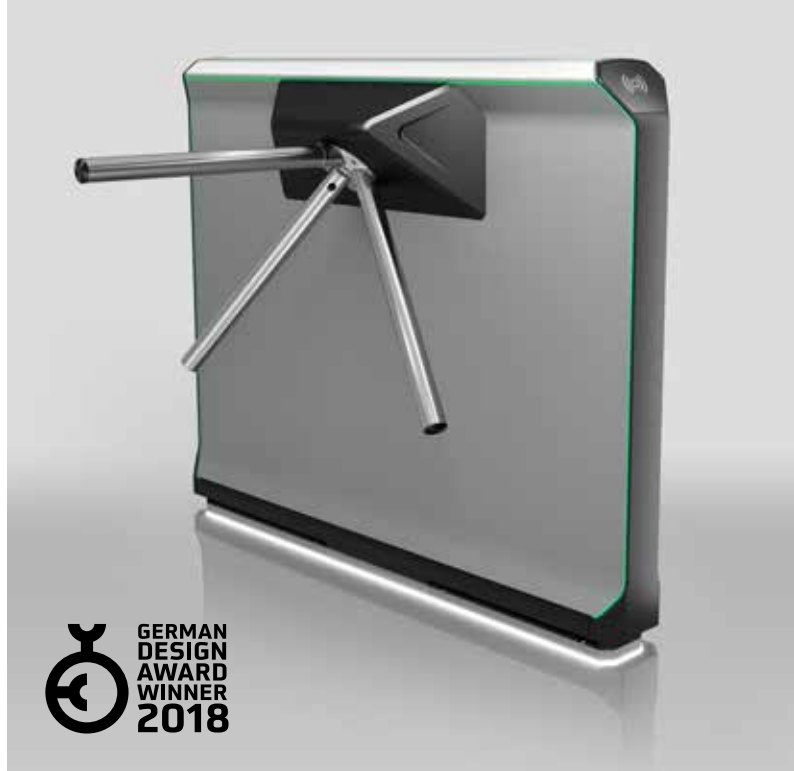


Subject to technical modifications.

mTripod

Three-arm turnstile



- > Revolutionary design, won German Design Award 2018
- > Extensive functions and intuitive operation
- > Drop-arm mechanism (optional) permits passage during power outages or alarms
- > Ethernet plug-in module for IP connection (optional)
- > Designed for more than 10 million opening and closing cycles





Technical data	mTripod	mTripod short
Housing variants	Long	Short
Application	Indoor and outdoor	Indoor and outdoor
Passage width	515 mm (+50 mm)	515 mm (+50 mm)
Flow rating (number of persons per min.) ¹	Approx. 20	Approx. 20
Drive technology	MHTM™	MHTM™
Control system	MGC	MGC
Voltage	100–240 V AC, 50–60 Hz	100–240 V AC, 50–60 Hz
Power consumption	Typical 30 W	Typical 30 W
Duty cycle	100 %	100 %
Housing material	mDure®	mDure®
Housing dimensions (L x W x B)	1300 x 290 x 1050 mm	730 x 290 x 1050 mm
Enclosure rating	IP54	IP54
Weight	About 70 kg	About 57 kg
Temperature range	-30 to +55 °C	-30 to +55 °C

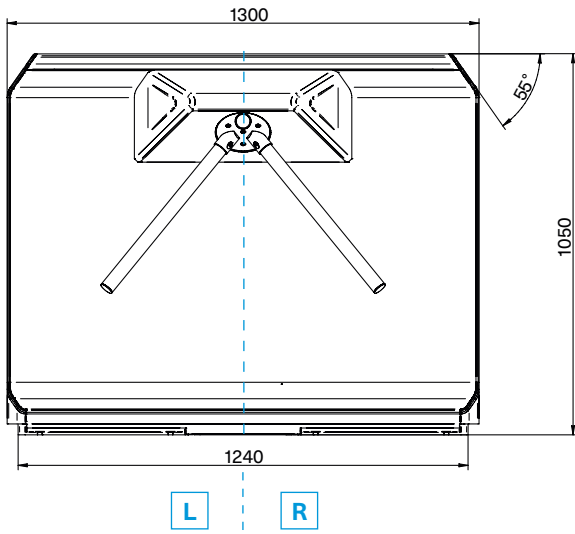
¹ Depending on reader, lock setting, person behaviour

Features	
Direction of passage	Uni- or bi-directional
Emergency release	On power outage or closing of alarm contacts
Random generator	Integrated in control system
Throughput data acquisition and event log	Integrated in control system
Control system inputs and outputs	8 digital inputs, 4 digital outputs, and 6 relay outputs

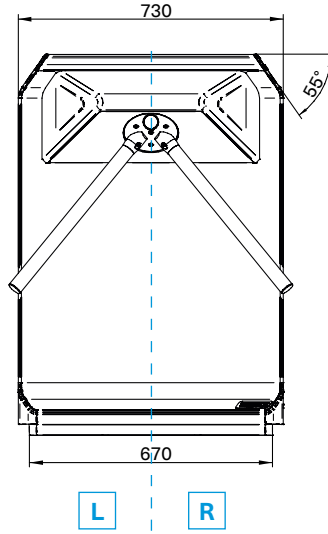
Standard colours	
	
White aluminium (similar to RAL 9006)	Jet black (similar to RAL 9005)

Potential applications	
	

mTripod – side view

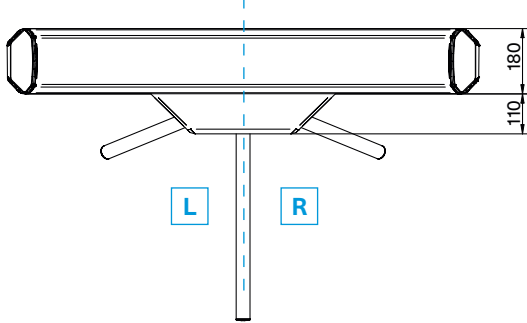


mTripod short – side view

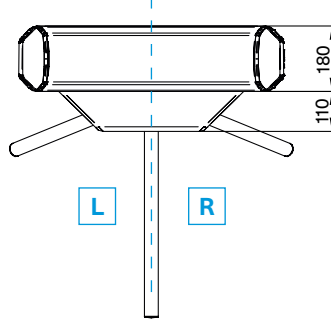


You can obtain options as left **L** or right **R** versions. If you look at the mTripod from the tip of the turnstile bar the option is on the left with the left version and on the right with the right version.

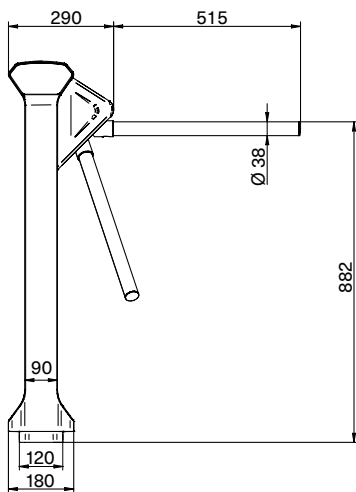
mTripod – top view



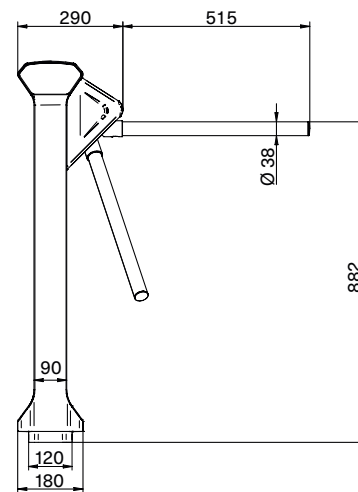
mTripod short – top view



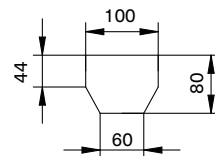
mTripod – front view



mTripod short – front view



Mounting space for reading devices for mTripod and mTripod short (without passage indicator, mounting depth 40 mm)




mSwing



Swing doors






- > As single or double doors for visitor entrances, passage with baggage, transport routes and wheelchair-friendly access
- > Ideally complements the mTripod access control system
- > Compact accommodation of drive and control systems in the centre column.
- > Low impact forces for maximum personal safety
- > Freely turning on power outages
- > Designed for 10 million opening and closing cycles
- > Escape and rescue route approval



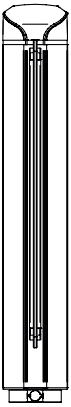
Technical data	mSwing
Application	Indoor and outdoor
Passage width	Standard: 1000 mm Maximum: 1200 mm
Barrier element height	Standard: 994 mm (more on request)
Opening/closing time	2,0–5,5 s, depending on barrier element dimensions
Opening angle	Adjustable from 0 – ±105°
Drive technology	MHTM™
Control system	MGC
Voltage	100–240 V AC, 50–60 Hz
Power consumption	Maximum 45 W
Duty cycle	100 %
Housing material	Aluminium tube with mDure® cover
Housing height	1092 mm
Housing diameter	Maximum 183 mm
Enclosure rating	IP54
Weight	About 40 kg (without blocking element)
Temperature range	–30 to +55 °C

Features	
Direction of passage	Uni- or bi-directional
Emergency release	Can be parameterised: fixed position or freely turning
Control system inputs and outputs	8 digital inputs, 4 digital outputs, and 6 relay outputs
Configuration	Via USB interface from external
Escape and rescue route approval	

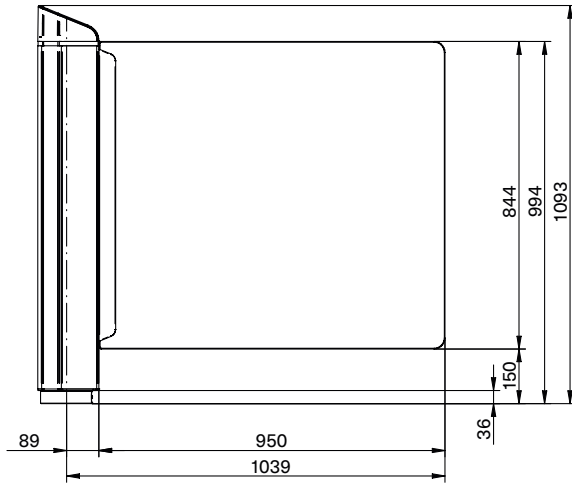
Standard colours	
	
White aluminium (similar to RAL 9006)	Jet black (similar to RAL 9005)

Potential applications				
				

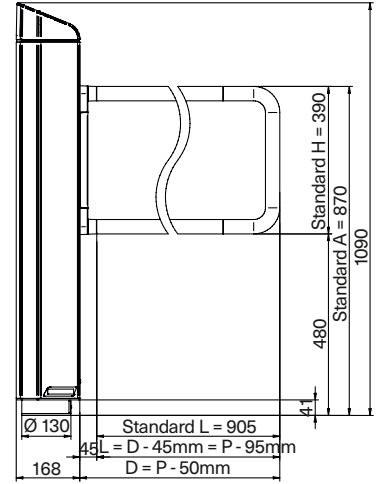
mSwing – side view



mSwing – front view



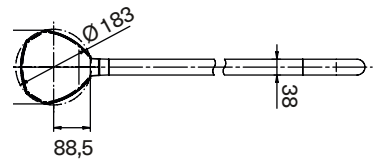
mSwing with U bar – front view



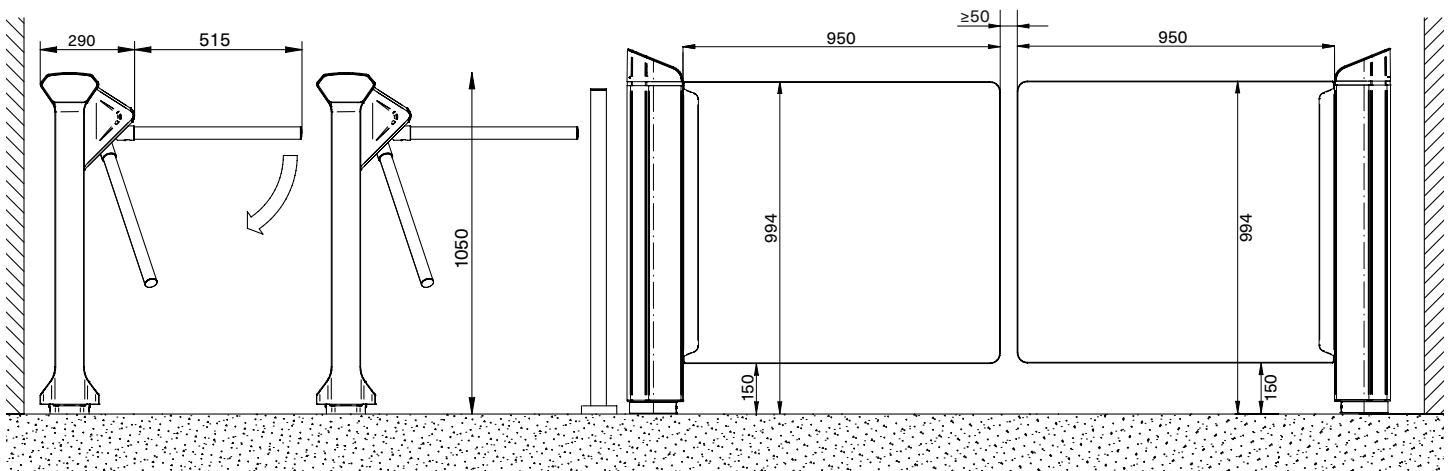
mSwing – top view



mSwing with U bar – top view



Line configuration with mTripod and mSwing as double swing gate



mPost

Card reader column

- > Ideally complements the product range of FlowMotion®
- > Compact accommodation of reader devices possible



Technical data	mPost	mPost small
Application	Indoor Outdoor (depending on installed devices)	Indoor Outdoor (depending on installed devices)
Housing Colours (standard)	White aluminium and Jet black	Brushed surface
Housing material	Aluminium tube with mDure® cover	Stainless steel
Housing dimensions (L x W x B)	178 x 168 x 1090 mm	Ø 42,4/105 x 1030 mm
Enclosure rating	IP54	IP54
Weight	About 16 kg	About 2,6 kg

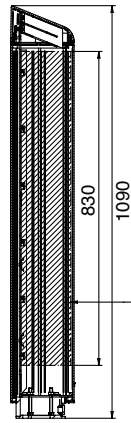
Standard colours

	
White aluminium (similar to RAL 9006)	Jet black (similar to RAL 9005)

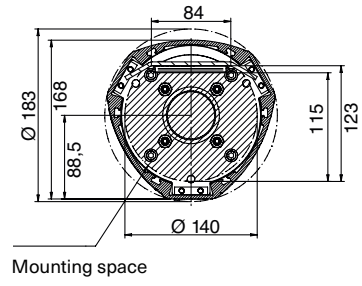
mPost – front view



mPost – side view



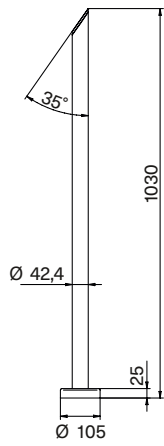
mPost – view from below



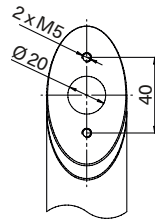
mPost small – front view



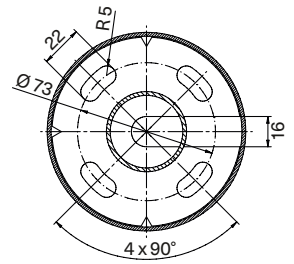
mPost small – side view



mPost small – top view



mPost small – view from below



mGuide

Railing system

- > Separation of areas for controlled and freely accessible zones
- > Ideal supplement as user guidance system for the FlowMotion® pedestrian gates
- > Clear transparent design seamlessly integrates into demanding architectures
- > Individually adaptable to point of use thanks to flexible width
- > Safety glass provides maximum user safety



Technical data	mGuide
Barrier width	Up to 1300 mm
Barrier element thickness	10 mm
Material barrier elements	Glass panels made of single-layer safety glass (ESG) or acrylic glass, customer-specific barrier elements
Housing material	Stainless steel V2A
Housing height	1000 mm
Housing diameter	105 mm at base, 42 mm on columns

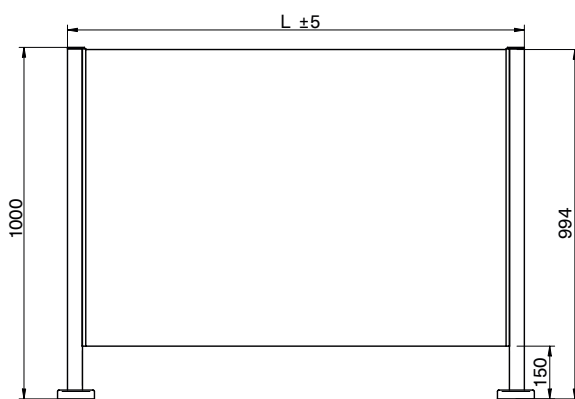
Technical data	Guiding element FlowMotion®
Housing material	mDure®

Housing dimensions (L x W x H)	1300 x 180 x 1050 mm
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Standard colours (only for the Guiding element FlowMotion®)

	
White aluminium (similar to RAL 9006)	Jet black (similar to RAL 9005)

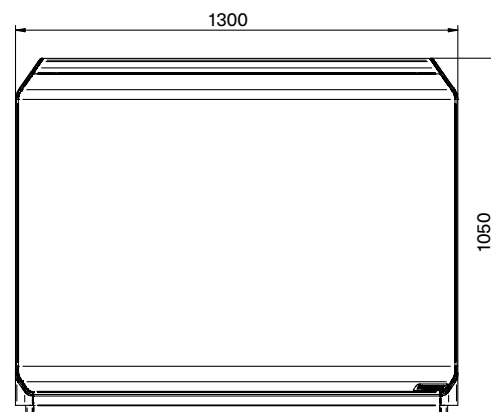
mGuide without hand rail – front view



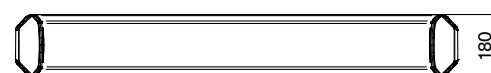
mGuide without hand rail – top view



Guiding element FlowMotion® – front view



Guiding element FlowMotion® – top view



Maximum safety

MSDS® Magnetic Safe Drive Solution

Pedestrian barriers must meet strict safety requirements in order to protect users and prevent injuries. The most important standard in this area is EN 17352. It specifies the requirements that must be met for the safe use of 'power-operated access control devices'. However, how these requirements are implemented technically is left open: safety distances can be set up, additional protective devices can be integrated or forces can be limited.

With the Magnetic Safe Drive Solution MSDS®, Magnetic relies on a low-energy approach: we only supply the drive with enough energy to ensure that there is no risk of injury – even if users come into direct contact with the barrier elements. The energy of

the blocking element is limited to 1.69 joules and the maximum force at the closing edge to 67 newtons. Thanks to MSDS®, FlowMotion® pedestrian gates remain unperturbed and enable fast, smooth passage even in crowded conditions with high visitor traffic.

By the way: Magnetic uses a uniform technological basis in all barriers and turnstiles. We develop the power supply, control and drive units ourselves and therefore have full control over the entire system. With this core technology, we can consistently implement the low-energy MSDS® approach.



The power supply

- > Provides exactly the amount of power required to move the barrier element
- > Specially developed for Magnetic pedestrian gates, vehicle barriers and turnstiles



The MGC Plus control unit

- > Speed and force are safely limited (Performance Level d) – this means redundant (2-channel) monitoring of movement
- > Safe control in accordance with EN 13849-1/-2



The MTHM™ drive unit

- > The drive is monitored by the control system (interaction between control system and motor)
- > The drive unit includes a safety controller that reliably monitors compliance with low energy limits and can switch off the motor in the event of a fault
- > Highly dynamic, energy-efficient, maintenance-free and quiet drive

Proven reliability

With MSDS®, we ensure user safety while guaranteeing reliable throughput processes. It is no coincidence that our core technology is used in over 250,000 installations worldwide, proving its reliability every day.

References

FlowMotion® in action

FlowMotion® stands out not only for its unique design, consistently implemented low-energy concept and proven technology from Magnetic. Above all, FlowMotion® stands out for its many installations that offer real added value to customers worldwide. Here are three examples:



Brookfield Place, Perth, Australia

- › Installation: Two passages, each with six mWing units for access control in the high-rise lobby, 2025
- › Customer benefits: Faster access to the desired floor and a clear brand experience in the building
- › Special feature: Authentication at the mWing calls the lift to the destination floor



Cité Immersive Vikings, Rouen, France

- › Installation: Two mTripods and one mSwing for access control, as well as one mTripod and one mSwing for exit control of the Viking exhibition, 2024
- › Customer benefit: Automation of ticket control, matching design for the multimedia exhibition
- › Special feature: A regular and barrier-free passage are connected without any separating elements



Laude Living, Bologna, Italy

- › Installation: Two mWing with standard width passage and one mWing with barrier-free passage, 2023
- › Customer benefits: Automated access control for students, seamless integration of technology into the architectural environment
- › Special feature: Special colour matching the colour scheme of the entrance area



Still not enough?

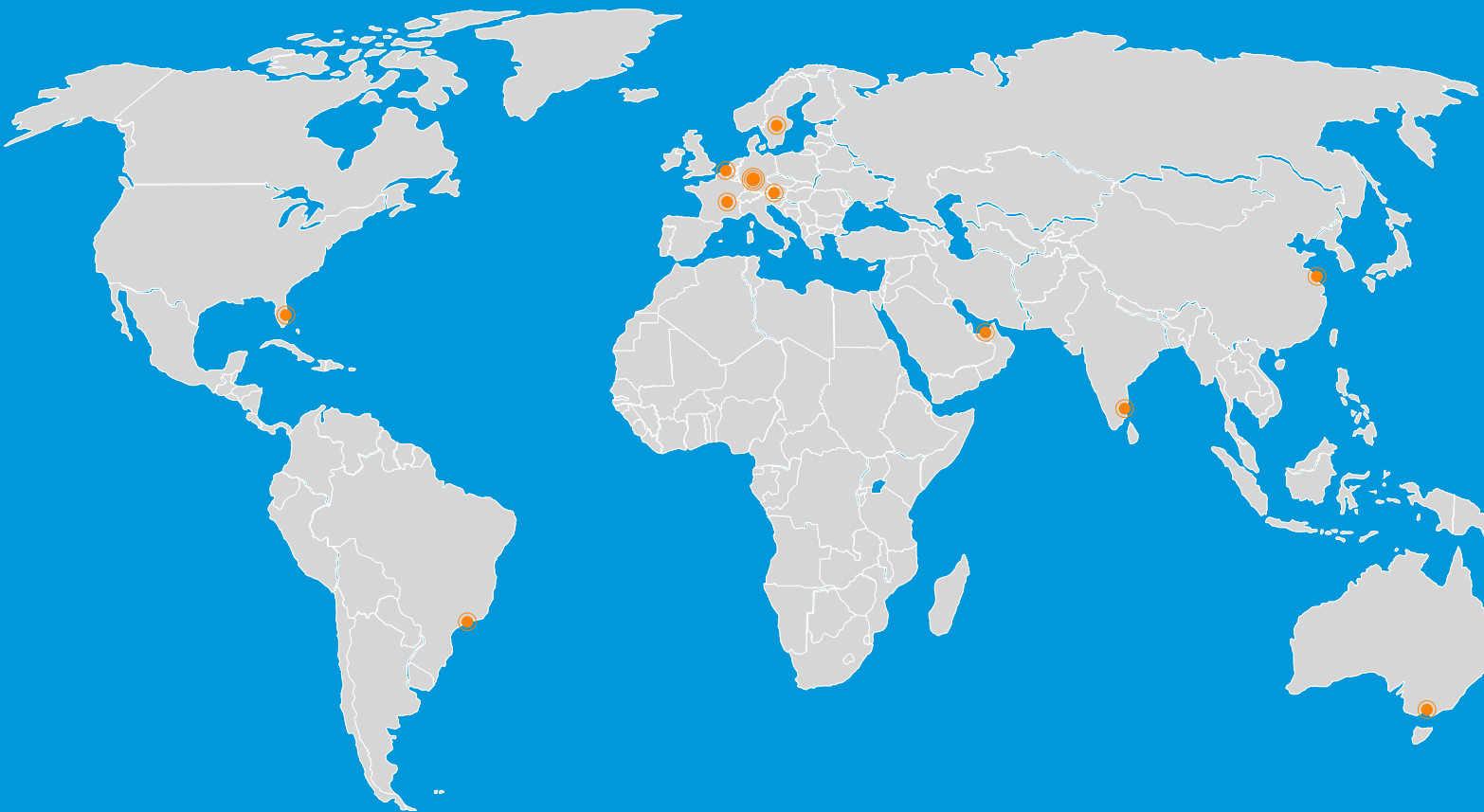
On our website, you will find a variety of case studies that show how FlowMotion® makes access control safer, faster and more reliable in numerous applications. Just follow the QR code!

MAGNETIC – YOUR ACCESS TO PROGRESS

Magnetic stands for pioneering products and solutions – in every way. Our pedestrian gates and vehicle barriers open the path for thousands of people every day – in buildings, stations and airports, just as in car parks and at toll stations. Our technology is also pioneering: excellent functionality and user-friendliness,

extraordinarily long service lives, and a high level of safety take our customers that extra step further. That is why our motto is “Access to Progress”.

Try us out! We are available for you worldwide.



Headquarters

Lörrach, Germany

www.magnetic-access.com

Find the Magnetic
specialist
in your area!

www.magnetic-access.com/worldwide



Competence in access control

Revolutions question existing systems; but revolutions are also always built upon their predecessors. This also applies for FlowMotion®. Our new generation of pedestrian gates is very different from our earlier products – but our decades of experience in the development of drive and control systems still remain at the heart of every FlowMotion® gate. This not only ensures comfortable passage, maximum personal safety and particularly low operating costs, but is also responsible for the unique robustness and long service lives for which the Magnetic brand has stood for decades.

Find out more about FlowMotion® at

