



WINDOW TECHNOLOGY  
DOOR TECHNOLOGY  
AUTOMATIC ENTRANCE SYSTEMS  
BUILDING MANAGEMENT SYSTEMS

AUTOMATIC ENTRANCE SYSTEMS

**Product line: sliding doors, swing door drives,  
revolving doors, glass sliding doors**



Securing technology for you



# Automatic entrance systems

Product line for modern architecture

**GU**



## State-of-the-art technology – user-friendly, high-performance and safe.

### Gretsch-Unitas Group

With its future-oriented innovations, the Gretsch-Unitas Group has long been shaping the market and setting groundbreaking standards. Convenience and security are given the highest priority when opening and closing doors.

### Quality for more than 100 years

For more than a century, the Group has offered complete solutions that focus not just on the individual product but, above all, on the overall system. For the automatic entrance systems, the mature mechanical components supplement the intelligent electronics components ideally.

### More than just products: planning, implementation, service

We support you in all phases in achieving your individual entrance solutions. Short decision paths and fast, reliable service allow solutions that are optimised technically and economically and perfectly adapted to your individual, building-specific requirements.

### System solutions as a whole

The wide-ranging assortment of the most up-to-date mechanical products with the highest quality meet the requirements of the market. Our focus, however, is not just on individual products, but on the design of complete solutions that meet the most up-to-date requirements.



#### **Sliding doors**

Automatic sliding doors are used most frequently in automation of building entrances. People entering the building appreciate the fast opening and enabling of the entrance area and consider it convenient when they enter the building.

#### **Swing door drives**

Our swing door drives automate exterior, interior, smoke, and fire doors. Barrier-free access can thus be provided anywhere.

#### **Revolving doors / Single-person access**

Presentable, draught-free entrance areas are made with revolving doors, depending on the system. Security revolving doors and security curved sliding doors are used in areas where a high degree of security is required.

#### **Glass sliding doors**

With manual or automatically driven all-glass systems, you achieve both transparency and separation.

# econoMaster EM / EM-F in-line sliding door

Reliable and economical – for almost all applications

**GU**



## Reliable and easy to install

The tried and tested technology of the econoMaster drive system with 2 wheels and one counter wheel per carriage guarantees high cycle numbers and little wear.

With permissible door leaf weights of up to 100 kg, large passage widths can be achieved with our slim G30 profile system or with thermally separated profile systems with an outstanding price-performance ratio. Whether your door assembly consists of drive

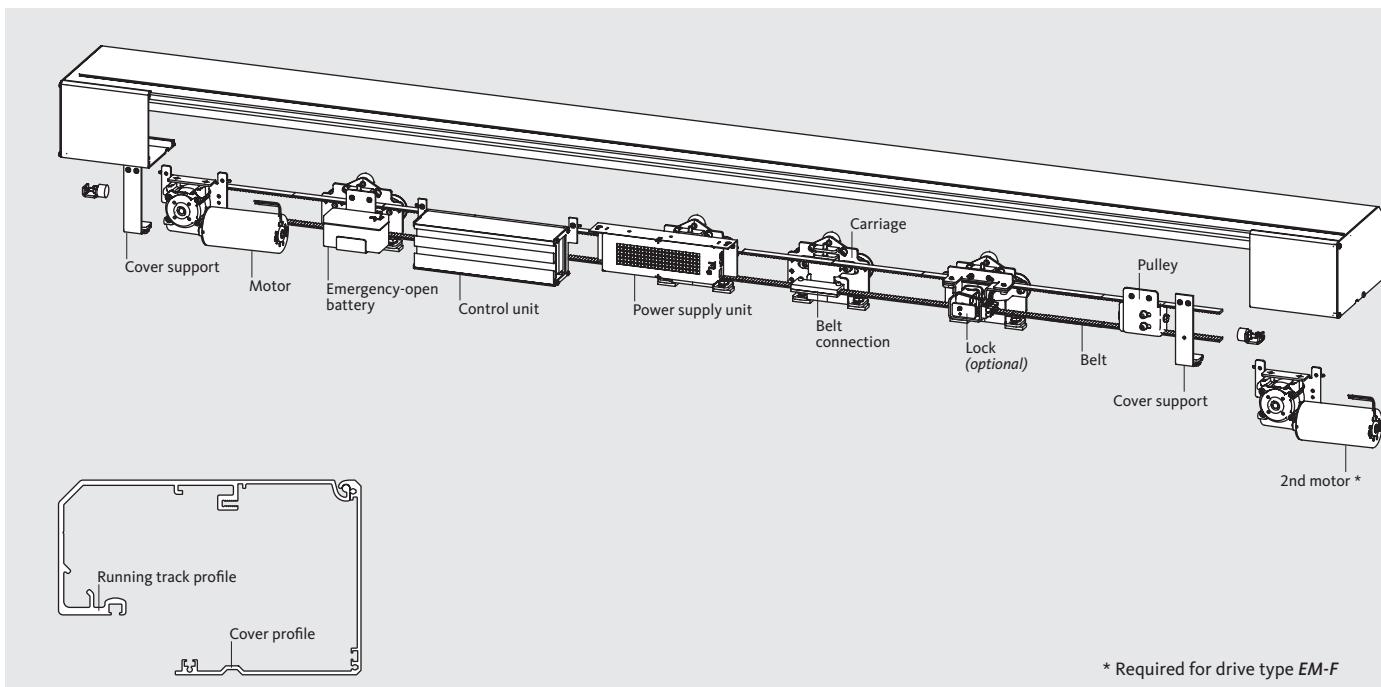
and sliding panels only or also includes sidelights or fanlights, GU Automatic offers you full service, consisting of installation, commissioning, and maintenance.

The drives are certified to DIN 18650 and type-tested by TÜV and comply with the current guidelines and standards. The EM-F drive system is tested and suitable for use in emergency and escape routes (German regulation AutSchR).



## Convincing in detail:

- Redundant drive with 2 motors for use in escape and rescue routes (*type EM-F*)
- Matured and proven mechanics
- Fast opening speed of up to max. 0.9 m/s
- Clear and simple operation
- Door locking element in the carriage (option)
- Easy mounting of running track and drive components
- Self-learning control system with many connection and adjustment options



Designation	<i>econoMaster EM</i>		<i>econoMaster EM-F</i>	
Application	1-leaf	2-leaf	1-leaf	2-leaf
Version for escape routes				<input checked="" type="checkbox"/>
Clearance width <sup>[1]</sup>	800 – 2000 mm	800 – 3000 mm	800 – 2000 mm <sup>[2]</sup>	800 – 3000 mm <sup>[2]</sup>
Clearance height <sup>[1]</sup>		max. 3000 mm		
Height of drive		130 mm		
Door leaf weight		max. 100 kg / leaf		
Supply voltage		230 V AC, 50 Hz		
Power consumption	max. 160 VA (50 VA during operation)			
Hold-open time	0 – 60 s		0 – 99 s	
Hold-open time with key impulse			0 – 99 s	
Opening speed	max. 0.7 m/s		max. 0.9 m/s	
Closing speed	max. 0.5 m/s			
Winter opening width <sup>[2]</sup>	50% – 100% of the clear passage width			
Protection class / ambient temperature	IP 20 (for dry rooms only) / -15 °C up to +50 °C			

<sup>[1]</sup> Standard dimensions, taking into account the overall measurement, the ratio of height and width and the local installation conditions; special solutions on request.

<sup>[2]</sup> The mandatory escape route width must be observed.

# **heavyMaster HM / HM-F in-line sliding door**

The problem-solver for special requirements

**GU**



## **Robust and powerful**

The heavy*Master* sliding door drive is the problem solver for your special requirements. Sliding panels with large dimensions or heavy weights of up to 200 kg are driven reliably and silently.

Even in very high-traffic entrance areas, the heavy*Master* ensures optimal running characteristics with the least wear, thanks to the stable carriage and wheels with rubber-coated running surface.

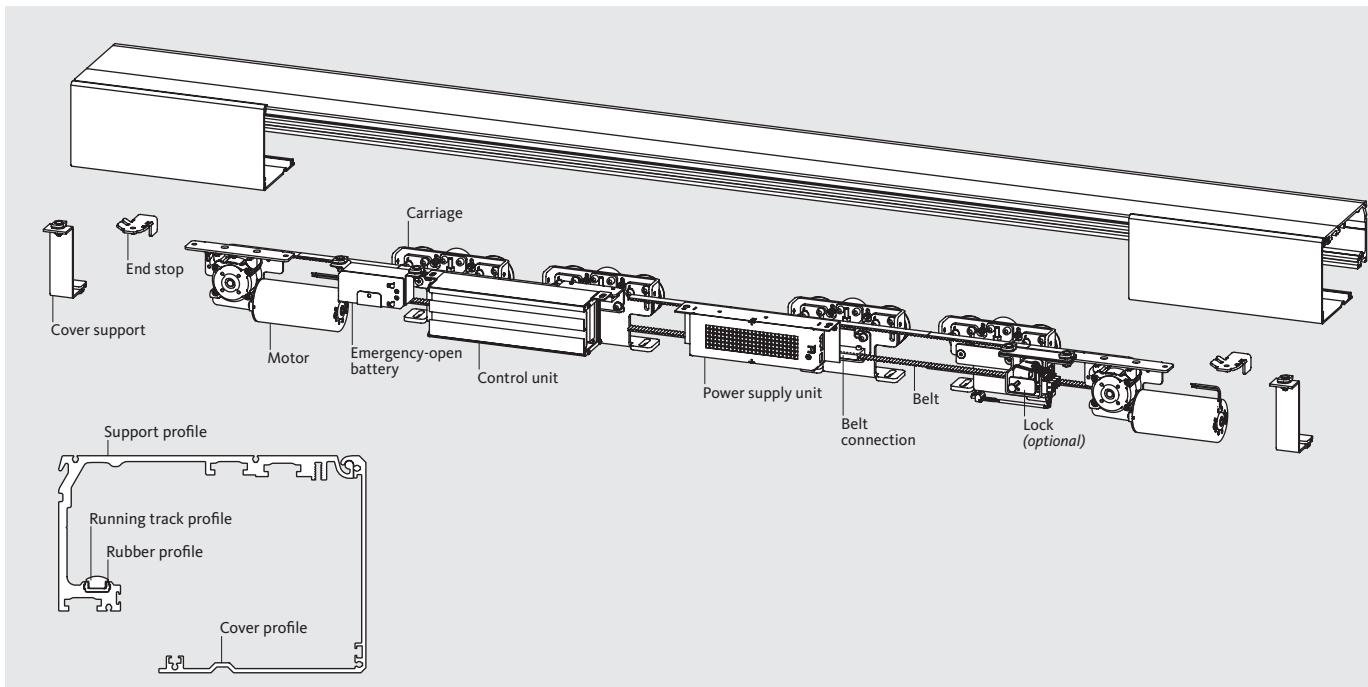
Sliding panels made of steel or framed with thermally separated system profiles can be optimally combined with the heavy*Master*.

The drives are certified to DIN 18650 and type-tested by TÜV and comply with the current guidelines and standards. The *HM-F* drive system is tested and suitable for use in emergency and escape routes (German regulation AutSchR).



## Convincing in detail:

- Redundant drive with 2 motors for use in escape and rescue routes (*type HM-F*)
- Stable carriage with large wheels
- Running smoothness thanks to carriage wheels with exchangeable rubber coating
- Clear and simple operation
- Door locking element in the carriage (option)
- Delicate-appearing G30 profile system for sliding panels with up to 120 kg door leaf weight
- Self-learning control system with many connection and adjustment options



Designation	<b>heavyMaster HM</b>		<b>heavyMaster HM-F</b>			
Application	1-leaf	2-leaf	1-leaf	2-leaf		
Version for escape routes				■		
Clearance width <sup>[1]</sup>	800 – 2000 mm	1000 – 3000 mm	800 – 2000 mm <sup>[2]</sup>	1000 – 3000 mm <sup>[2]</sup>		
Clearance height <sup>[1]</sup>		max. 3000 mm				
Height of drive		130 mm				
Door leaf weight	max. 200 kg / leaf		max. 160 kg / leaf			
Supply voltage	230 V AC, 50 Hz					
Power consumption	max. 160 VA (50 VA during operation)					
Hold-open time	0 – 60 s		0 – 99 s			
Hold-open time with key impulse			0 – 99 s			
Opening speed	max. 0.7 m/s		max. 0.9 m/s			
Closing speed			max. 0.5 m/s			
Winter opening width <sup>[2]</sup>	50% – 100% of the clear passage width					
Protection class / ambient temperature	IP 20 (for dry rooms only) / -15 °C up to +50 °C					

<sup>[1]</sup> Standard dimensions, taking into account the overall measurement, the ratio of height and width and the local installation conditions; special solutions on request.

<sup>[2]</sup> The mandatory escape route width must be observed.

# econoMaster EMT / EMT-F telescopic sliding door

For maximum passage widths in minimum space

**GU**



## Fast opening, large entrances

Telescoping sliding doors are ideally suited to achieving a broad passageway and optimal people flow in narrow spaces.

The continuous floor guide helps to stabilise the sliding panels.

The drives are certified to DIN 18650 and type-tested by TÜV and comply with the current guidelines and standards. The *EMT-F* drive system is tested and suitable for use in emergency and escape routes (German regulation AutSchR).

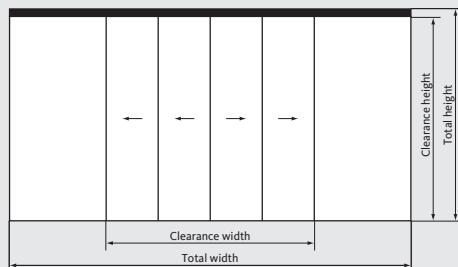


## Convincing in detail:

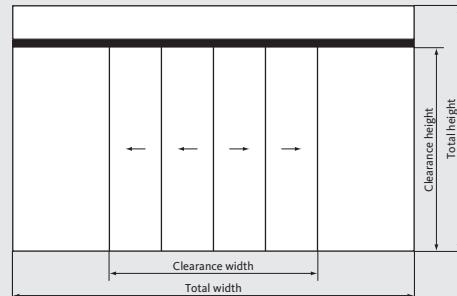
- Redundant drive with 2 motors for use in escape and rescue routes (*type EMT-F*)
- Running smoothness thanks to large carriage wheels
- Running track warp resistance

- Fast opening speed of up to max. 0.9 m/s
- Clear and simple operation
- Integrated door locking element in the carriage
- Self-learning control system with many connection and adjustment options

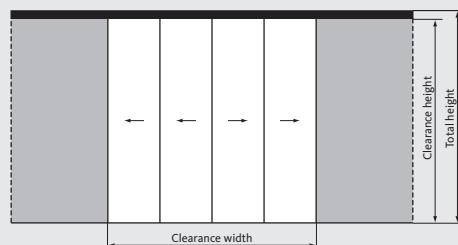
**Design types** (representation available in 4-leaf version and in 2-leaf version)



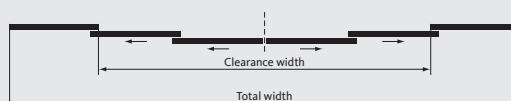
4-leaf, with sidelights



4-leaf, with sidelights and fanlights



4-leaf, only door leaves



Telescoping sliding doors offer large passage widths

Designation	<i>econoMaster EMT</i>		<i>econoMaster EMT-F</i>			
Application	2-leaf	4-leaf	2-leaf	4-leaf		
Version for escape routes				■		
Clearance width <sup>[1]</sup>	900 – 2500 mm	1400 – 3800 mm	900 – 2500 mm <sup>[2]</sup>	1400 – 3800 mm		
Clearance height <sup>[1]</sup>		max. 3000 mm				
Fanlight height		max. 800 mm				
Height of drive		145 mm				
Door leaf weight	max. 100 kg / leaf	max. 80 kg / leaf	max. 100 kg / leaf	max. 80 kg / leaf		
Supply voltage	230 V/AC, 50 Hz					
Power consumption	max. 160 VA (50 VA during operation)					
Hold-open time	0 – 60 s		0 – 99 s			
Hold-open time with key impulse	0 – 99 s					
Opening speed	max. 0.7 m/s		max. 0.9 m/s			
Closing speed	max. 0.5 m/s					
Winter opening width <sup>[2]</sup>	50% - 100% of the clear passage width					
Protection class / ambient temperature	IP 20 (for dry rooms only) / -15 °C up to +50 °C					

<sup>[1]</sup> Standard dimensions, taking into account the overall measurement, the ratio of height and width and the local installation conditions; special solutions on request.

<sup>[2]</sup> The mandatory escape route width must be observed.

# **compactMaster CMR / CMR-F curved sliding door**

Rounded out – sliding door with a revolving appearance

**GU**



## **Absolutely sophisticated as an arch or complete circle**

A curved sliding door combines the generous appearance of a cylindrical door system with the advantages of an easily accessible sliding door. Whether adapted to the facade in the form of a flat curved sliding door, a semicircle, or a full circle up to a diameter of 4000 mm, the *compactMaster CMR / CMR-F* curved sliding door always optimally fits the architecture of a building.

For escape and rescue routes, the *CMR-F* sliding door version offers opening widths up to 2500 mm.

The drives are certified to DIN 18650 and type-tested by TÜV and comply with the current guidelines and standards. The *CMR-F* drive system is tested and suitable for use in emergency and escape routes (German regulation AutSchR).



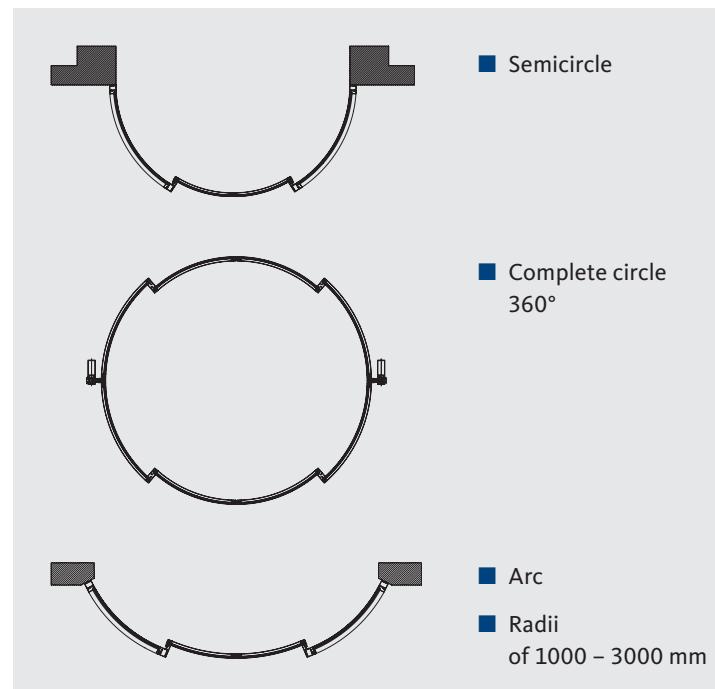
## Convincing in detail:

- Redundant drive with 2 motors for use in escape and rescue routes (*type CMR-F*)
- Running smoothness thanks to large carriage wheels and self-aligning bearing-supported carriage wheels

- Fast opening speed of up to max. 0.9 m/s
- Clear and simple operation
- Integrated door locking element at the sliding panel
- Self-learning control system with many connection and adjustment options

## Options:

- Inclusion in building management systems and access controls
- LED spotlights for installation in the bottom of the aluminium ceiling
- Glass ceiling
- Air curtain system
- Loose-fixed flange connection
- Entrance matting



Designation	compactMaster CMR		compactMaster CMR-F			
Application	1-leaf	2-leaf	1-leaf	2-leaf		
Version for escape routes				■		
Clearance width <sup>[1]</sup>	800 – 1250 mm	1000 – 2500 mm	800 – 1250 mm <sup>[2]</sup>	1000 – 2500 mm		
Clearance height <sup>[1]</sup>	max. 2700 mm					
Height of drive	115 mm					
Door leaf weight	max. 100 kg / leaf					
Supply voltage	230 V/AC, 50 Hz					
Power consumption	max. 160 VA (50 VA during operation)					
Hold-open time	0 – 60 s		0 – 255 s			
Hold-open time with key impulse			0 – 255 s			
Opening speed	max. 0.7 m/s		max. 0.9 m/s			
Closing speed	max. 0.5 m/s					
Winter opening width <sup>[2]</sup>	50% - 100% of the clear passage width					
Protection class / ambient temperature	IP 20 (for dry rooms only) / -15 °C up to +50 °C					

<sup>[1]</sup> Standard dimensions, taking into account the overall measurement, the ratio of height and width and the local installation conditions; special solutions on request.

<sup>[2]</sup> The mandatory escape route width must be observed.

# Sliding doors

## Accessories – order information

GU



Fig.: stainless steel frame

### Programme selection switch (FWS)

- For setting the programme types: off/locked, exit, automatic, permanently open
- Key removable in every programme type
- White frame (standard)

#### Versions / order numbers

Installation variants	Order numbers
Flush-mounted	A-8002210
Surface-mounted	A-8002310



Fig.: stainless steel frame

### Summer/winter/APO

- Summer / winter switch (reduced opening width)
- "Pharmacy" function
- White frame (standard)

#### Versions / order numbers

Installation variants	Order numbers
Flush-mounted	A-8002230
Surface-mounted	A-8002330



Fig.: stainless steel frame

### Combi-switch Summer/winter/APO / FWS

- Summer / winter switch (reduced opening width)
- "Pharmacy" function
- For setting the programme types: off/locked, exit, automatic, permanently open
- White frame (standard)

#### Versions / order numbers

Installation variants	Order numbers
Flush-mounted	A-8002380
Surface-mounted	A-8002420



### Programme selection switch PO6

- For setting the programme types: off/locked, exit, automatic, permanently open, exit winter, automatic winter
- Key removable in every programme type
- For customer-provided PHZ 27 mm

#### Versions / order numbers

Installation variants	Order numbers
Flush-mounted	A-7124740
Surface-mounted	A-7124730



### Display programme switch (DPS)

- For setting and display of the programme types: off/locked, exit, automatic, permanently open
- Error display, service
- In combination with a key pushbutton, suitable for use in escape-route sliding doors (authorised personnel)
- White frame (standard)

#### Versions / order numbers

Installation variants	Order numbers
Flush-mounted	A-8000420
Surface-mounted	A-8000410



### Radar motion detector with safe-guard curtain (DIN 18650)

#### Active 8 ONE ON

- Direction detection
- Testable presence curtain, 2-rows

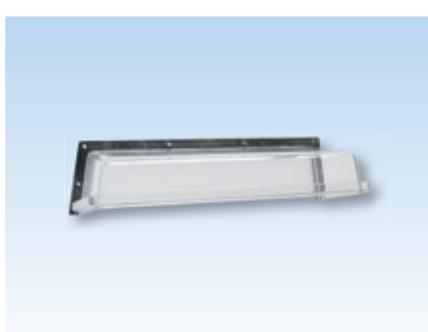
#### Active 8 THREE ON

- Direction detection and self-monitoring
- Testable presence curtain, 2-rows

#### Versions / order numbers

Designation	Order numbers
Impulse transmitter Active 8 ONE ON	A-7125440
Impulse transmitter Active 8 THREE ON	A-7125450

- For use in sliding doors, escape and rescue routes (inside, in the escape direction)



### Rain hood Active 8

- To minimise control errors when it rains

#### Versions / order numbers

Designation	Order numbers
Rain hood Active 8	A-7133410



### Safety-button light barrier

- To secure the open passageway in the heights of 200 and 1000 mm
- Note: According to DIN 18650-2, not suitable for people needing special protection

#### Versions / order numbers

Designation	Order numbers
Safety-button light barrier	A-7130810
Evaluation unit	A-7130820

# Sliding doors

## Accessories – order information

GU



### Radar motion detector

#### Eagle ONE

- Direction detection

#### Eagle THREE N

- Direction detection and self-monitoring
- For use in sliding doors, escape and rescue routes (inside, in the escape direction)

### Versions / order numbers

Designation	Order numbers
Radar Eagle ONE	A-7023370
Radar Eagle THREE N	A-7117420



### Rain hood Eagle

- To minimise control errors when it rains

### Versions / order numbers

Designation	Order numbers
Rain hood Eagle	A-7023630



### Magic Switch impulse transmitter

- For touch-free control of automatic doors
- Activation through hand movement, direction-sensitive
- Distance: 20 – 50 cm

### Versions / order numbers

Designation	Order numbers
Impulse transmitter Magic Switch	A-7032820



### Elbow switch

- Large-surface pushbutton in surface-mounted design
- Including decal "Press here"

### Versions / order numbers

Designation	Order numbers
Elbow switch	A-8001940
Elbow switch in stainless steel design	A-8003560
Decal "Press here"	A-7025010



### Key switch

- For customer-provided PHZ 27 mm
- Grey frame (standard)

#### Versions / order numbers

Installation variants	Order numbers
Flush-mounted	A-7025570
Surface-mounted	A-7025550



### EMERGENCY STOP

- Stops the system when actuated
- Deactivate by turning
- White frame (standard)

#### Versions / order numbers

Installation variants	Order numbers
Flush-mounted	A-8002140
Surface-mounted	A-8002360

Fig.: stainless steel frame



### Code keyboard

- For control of doors by means of a numerical code
- Dimensions: 80 x 80 x 12 mm

#### Versions / order numbers

Designation	Order numbers
Code keyboard	A-7109120
Evaluation unit	A-7109130

### Evaluation unit

- For use inside
- Dimensions: 110 x 180 x 40 mm



### Mechanical floor lock

- For mounting on sliding door panels
- It can also be locked on both sides with appropriate processing of the G30 slim profile system (customer-provided profile cylinder)

#### Versions / order numbers

Designation	Order numbers
Mechanical floor lock	A-8004110

# turnMaster swing door drive

Barrier freedom and comfort even for noise-sensitive areas

GU



## A variety of functions for maximum convenience

Even large and heavy doors can be opened in a controlled way and without effort by the user. The turnMaster electromechanical swing door drive is also especially quiet, which makes it suitable for use in areas which are particularly sensitive to noise.

The turnMaster is available for one-leaf doors in both push-open or pull-open versions. The operation modes – fully automatic, servo drive und low-energy operation – are integrated into one device and can be selected when mounting.



## Convincing in detail:

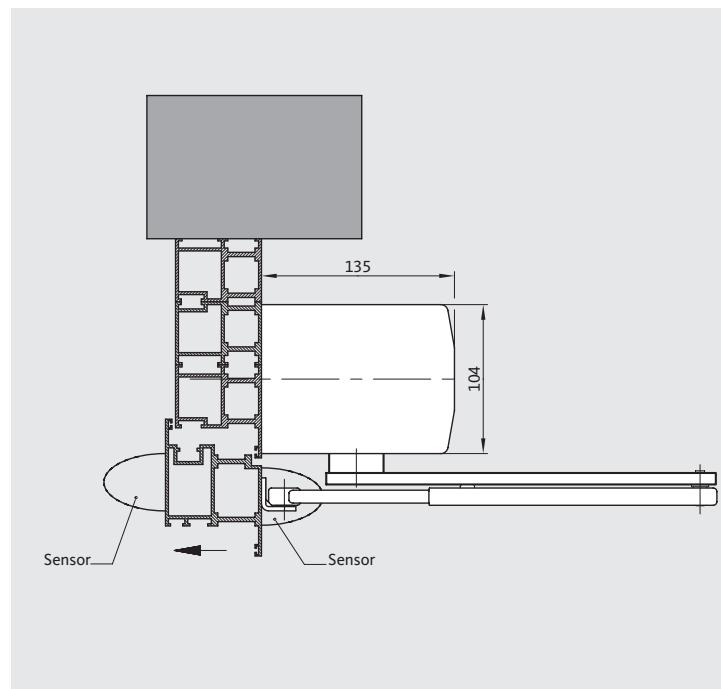
- Outstandingly quiet, electromechanical swing door drive
- Built-in function selector switch with LED indication
- Type-tested by TÜV and certified to DIN 18650
- Adjustable wind pressure function
- Slot for radio receiver card
- Motor lock, SECURY A-opener, electric door opener and safety sensors can be connected directly
- Easy, time-saving installation, commissioning and maintenance
- Self-learning control system with many connection and adjustment options

## Operation modes:

- Automatic operation
- Servo operation
- Low-energy operation

## Accessories:

- Push-open linkage up to max. 250 mm soffit depth
- Pull-open slide arm from -10 to +33 mm soffit depth
- Sensor strips
- Axle extension 12 or 48 mm
- Door stop



Designation	<i>turnMaster</i>	
Version	Push-open	Pull-open
Opening	electromechanical	
Key bitting	spring force	
Closing force (according to EN 1154)	size 3 – 6	size 3 – 5
In case of power failure	door closer function	
Opening angle	130°	98°
Opening speed	adjustable	
Hold-open time	adjustable	
Supply voltage	230 V AC, 50 Hz	
Power consumption	200 VA	
Door leaf weight	max. 250 kg	
Door leaf widths	700 – 1400 mm	700 – 1250 mm
Protection class / ambient temperature	IP 20 (for dry rooms only) / -15 °C up to +50 °C	
Dimensions (W x H x D)	700 x 104 x 135 mm	
Power supply for external accessories	24 V DC, 1.2 A	

# swingMaster swing door drive

High-performance on standard and fire protection doors

GU



## Safely barrier free

The electro-hydraulic swingMaster DTH swing door drive is suitable for use on outside doors in façades and on inside doors made of wood, aluminium or steel – also for later automation. Two-leaf doors with stops can be safely opened and closed again in the correct sequence through the integrated door leaf coordinator.

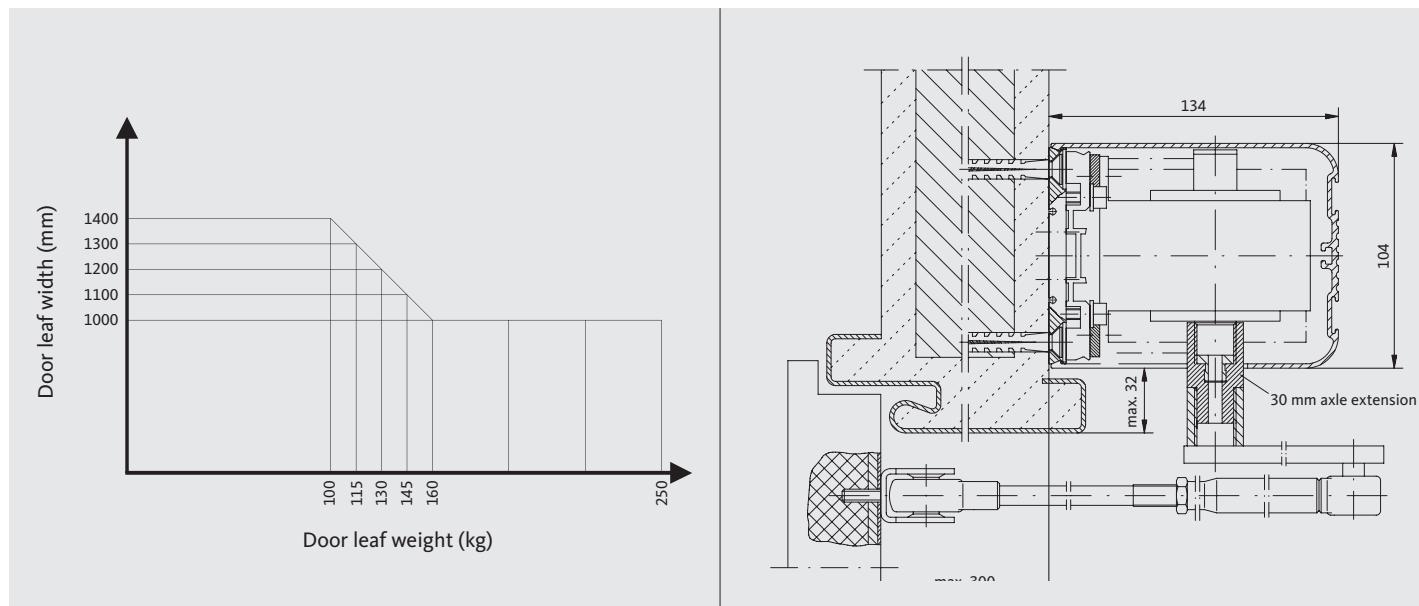
In the swingMaster DTB version, the swing door drive has a permit for use on fire protection doors. Fire protection doors with a leaf width of up to 1400 mm are opened automatically and in case of fire safely closed again by means of the integrated spring. Passage widths of 2800 mm can thus be achieved with two-leaf stop doors.



## Convincing in detail:

- Robust electro-hydraulic swing-door drive
- Push & go function can be activated
- Easy, time-saving installation and commissioning

- Steplessly adjustable closing force
- Many connection and adjustment options, e.g. with smoke and heat exhaust supply air
- Combinable with GU-SECURY Automatic multi-point locking with A-opener

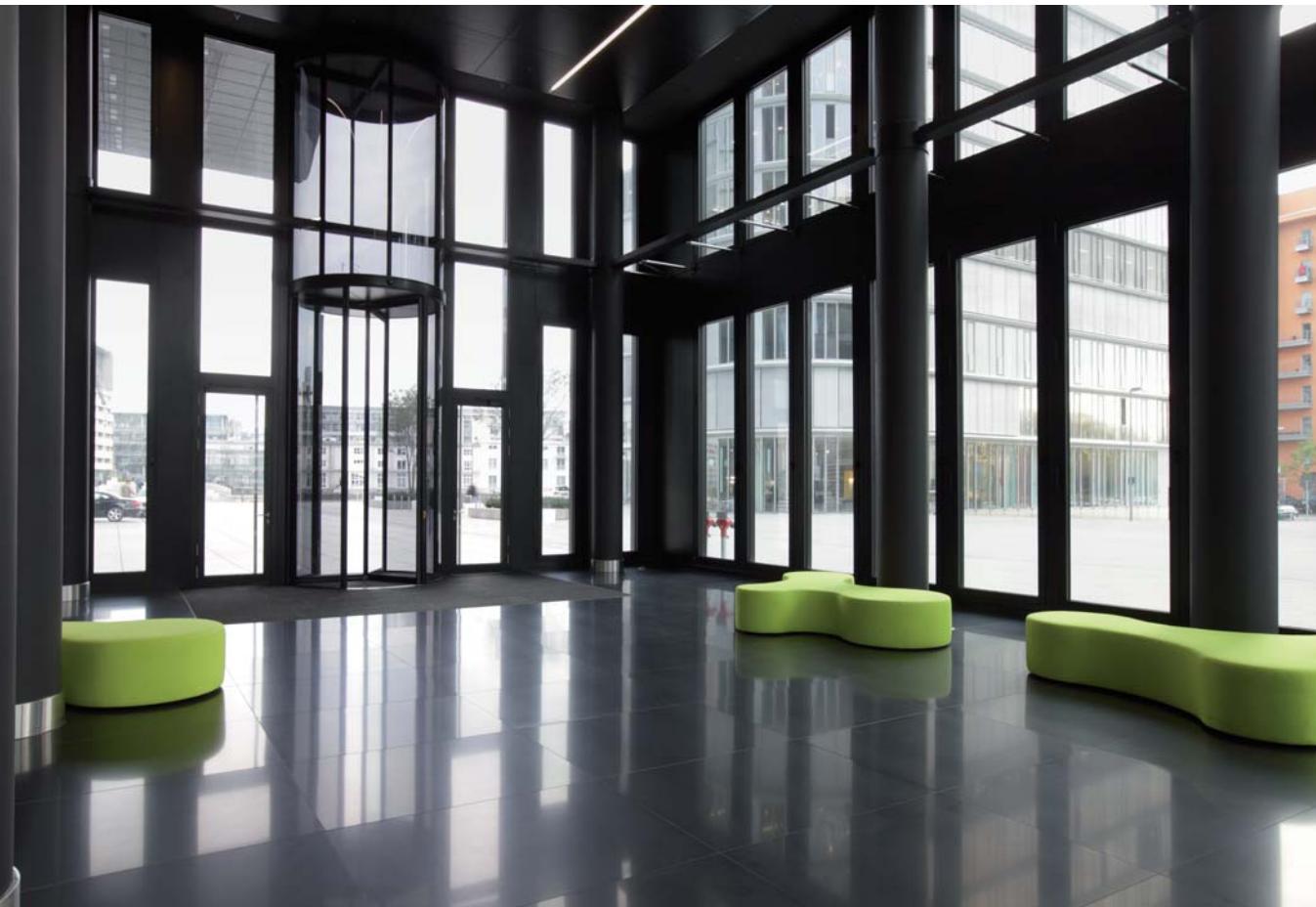


Designation	<i>swingMaster DTH</i>		<i>swingMaster DTB</i>	
Application	1-leaf	2-leaf	1-leaf	2-leaf
For use on fire and smoke protection doors				■
Push-open version	■			■
Pull-open version	■			
Opening	electro-hydraulic			
Key bitting	spring force			
Closing force (according to EN 1154)	size 3 – 6			
Opening angle	115°			
Opening speed	adjustable			
Hold-open time	adjustable			
Supply voltage	230 V AC, 50 Hz			
Power consumption	300 VA			
Door leaf weight	max. 250 kg			
Door leaf widths	690 – 1400 mm			
Protection class / ambient temperature	IP 20 (for dry rooms only) / -15 °C up to +50 °C			
Dimensions (W x H x D)	690 x 104 x 134 mm			
Power supply for external accessories	24 V DC, 1.2 A			

# Revolving doors – a well-rounded concept

Quality from a single source

**GU**



## State-of-the-art technology – assembly friendly, high-performance and safe.

### Gretsch-Unitas Group

With its forward-thinking innovations, the Gretsch-Unitas Group has long been shaping the market and setting pioneering standards. Convenience and security are given the highest priority when it comes to opening and closing doors.

### Quality for more than 100 years

For over a century, the Group produces total solutions which focus not just on individual products but on the project as a whole. The elements of perfected mechanics and intelligent electronics complement each other perfectly in automatic entrance systems.

### More than just products: planning, implementation, service

We assist you in all phases of implementing your individual entrance solutions. Short distances and fast, reliable service make technical and cost-optimised solutions possible, perfectly in tune with your project-specific requirements.

### System solutions as a whole

The latest market requirements are met with our extensive pallet of new mechanical products, all of them coming in best quality. Our focus, however, is not just on the individual products but on creation of complete solutions that meet the latest requirements.

# Making a bold statement

GU





### A friendly entrance

Revolving doors are used wherever impressive entrances are needed. They are primarily used to provide public buildings, hotels, banks, insurance offices or airports with a striking entrance. One of the key advantages is that the three or four-leaf doors do not create any draughts in the foyer or lobby. A night lock protects revolving doors from being misused outside of operating hours.

We offer an extensive product range so you are bound to be able to find the right entrance solution for your application. GU Automatic provides a wide range of revolving doors with diameters from 1800 to 6200 mm. Furthermore, the TÜV-tested systems provide the necessary level of security that is required for entrance doors.

**Security revolving doors** are used for any entrance that requires extra security. In particular, they provide banks, insurance offices, government ministry buildings, authorities, data centres, industrial plants or office buildings with extra security and convenience.

Access of individual persons is monitored by an electronic control system. They ensure a smooth control of passage in both directions. Despite the tight security measures, the entrance is still spacious and conveys a sense of openness and transparency thanks to the large amount of glass. The use of filigree profile systems leaves lots of scope for creating translucent space whilst nevertheless achieving a high level of ruggedness and safety.

# Special requirements call for special solutions

**GU**





HAFENCITY OFFICE TOWER | DÜSSELDORF | Architect: J • S • K  
GRA in a special version | fully automatic | 3-leaf | diameter of 2280 mm | overall height 7860 mm

Appropriate to the building architecture, the 3-leaf, GRA type revolving door fits perfectly into the facade. For structural reasons, the construction includes a steel frame and a horizontal beam, which juts into the upper cylinder.

In the narrow, 175 mm crown panel, subtle lighting of the upper cylinder and the revolving door is integrated next to the drive unit. Fastening of the glass was realised with no visible fastening points, in line with the requirements.

# Translucency with glass

GU





Schott AG | MAINZ | Architect: J + S + K |  
GGG type | fully automatic | 4-leaf | stainless steel panelling | night lock feature | in-floor drive

OMV | VIENNA | Architect: Henke und Schreieck |  
GGG type as a special version | ø 3600 mm



KIA EUROPEAN HEADQUARTERS | FRANKFURT/M. |  
GGG type | 2 fully automatic doors | stainless steel panelling | ø 3080 mm

NRW.BANK | MÜNSTER | Architect: Eisfeld Engel |  
GGG type | Ceiling provided by customer

# Stainless steel examples

GU





MÜNSTER-OSNABRÜCK AIRPORT | GREVEN | GGR large-capacity revolving door |  
fully automatic | 3-leaf | stainless steel panelling | Leaf can be swung out for escape and rescue routes | ø 4800 mm



WELSER PROFILE GMBH | BÖNEN | GRA type | fully automatic | 4-leaf | sash can be swung out as summer ventilation | stainless steel panelling | ø 2780 mm

# Advantages of GU revolving doors

GU



## Revolving doors provide:

- Impressive entrance areas
- Draughts are prevented, even when entering the building. Revolving doors also provide protection against cold and heat.
- High degree of creative freedom regarding architecture with various surfaces combined with different glass versions
- Flexible selection of drives. Smaller revolving doors can be operated manually.
- The drive type for smaller revolving doors can be selected individually (manual, manual with positioning drive, automatic with Push&Go or radar control)
- Burglar protection thanks to a night lock feature and centre lock on the turnstile
- Suitability for escape and rescue routes grants planning flexibility
- Large capacity revolving doors offer passage convenience where there is a large amount of foot traffic

## Advantages for you with revolving doors from GU Automatic:

- A complete range of revolving doors with diameters from 1800 – 6200 mm and many options
- Competency in consultation, planning, manufacture and installation so that individual solutions can be reliably implemented
- Use in escape and rescue routes as of a diameter of 3600 mm, which means functional reliability for practical escape route widths
- Simple revolving door operation with a key programme selection switch
- Many years of experience and high vertical range of manufacture
- Short installation times at the construction site thanks to a high degree of prefabrication ex factory
- Safety thanks to type-tested revolving doors that are in compliance with standards and directives
- Extensive service network with in-house service employees
- Made in Germany

# Stainless steel examples

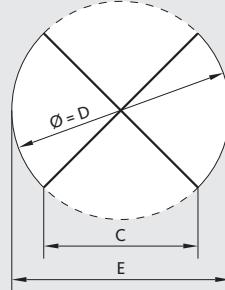
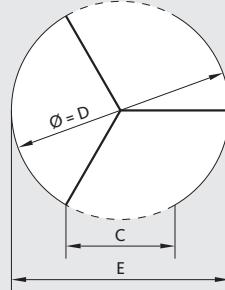
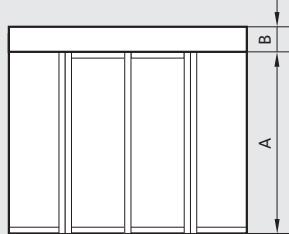
GU



# Products at a glance

## Options and variants

**GU**

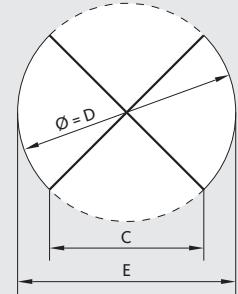
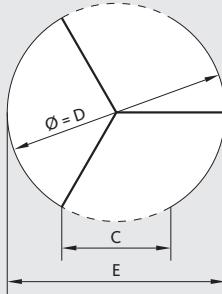
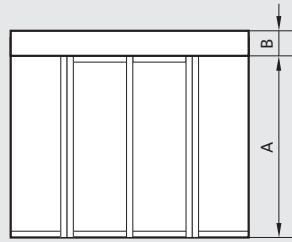


Description	GRA revolving door	GGG revolving door	GGR revolving door	GSI revolving security door
<b>Version</b>	<b>Standard</b>	<b>All-glass</b>	<b>Large-capacity</b>	
Inside diameter D (mm)	1800 – 3800	1800 – 3000*	3600 – 6200	1800 – 2200
Clearance A (mm)	2100 – 3000	2100 – 3000	2100 – 2500	2100 – 3000
Crown height B (mm)	≥ 175	≥ 16 glass roof 2 parts	≥ 410	≥ 350
Clearance C (mm) / 3-leaf	approx. 830 – 1650	approx. 850 – 1370	approx. 1630 – 2930	approx. 859 – 1050
Clearance C (mm) / 4-leaf	approx. 1220 – 2450	approx. 1220 – 2000	approx. 2400 – 4045	approx. 1239 – 1514
E (mm)	> D + 60	> D + 60	> D + 120	> D + 60
Drum walls, curved LSG 10 mm	■	■	■	■
Drum walls, sheet metal panelling, thermal insulation	■	–	■	■
Toughened safety glass door leaf 10 mm	■	■	■	■
<b>Operation modes</b>				
Manual	■	■	–	–
Manual with automatic positioning	■	■	–	–
Manual with speed limiter	■	■	–	–
Semi-automatic (Push&Go)	■	■	–	–
Fully automatic (radar motion detector)	■	■	■	–
<b>Characteristics, options</b>				
In-floor drive	○	○	–	○
Movable leaf (summer position)	○	○	■	–
For use in escape and rescue routes	–	–	■	–
Button for the disabled on both sides	○	○	○	–
Cleaning switch	○	○	○	■
Horizontal or vertical door handles	○	○	–	–
LED lamps in the ceiling	○	–	○	○
<b>Bottom ring, floor covering</b>				
V2A bottom ring (recommended)	○	○	○	○
Release-secure flange	○	○	○	○
Floor pan	○	○	○	○
Entrance mat	○	○	○	–

All dimensions are a point of reference. Special dimensions and versions are available upon request.

■ = standard | ○ = option | – = not available for this version

\* Diameter greater than 3000 mm as special version



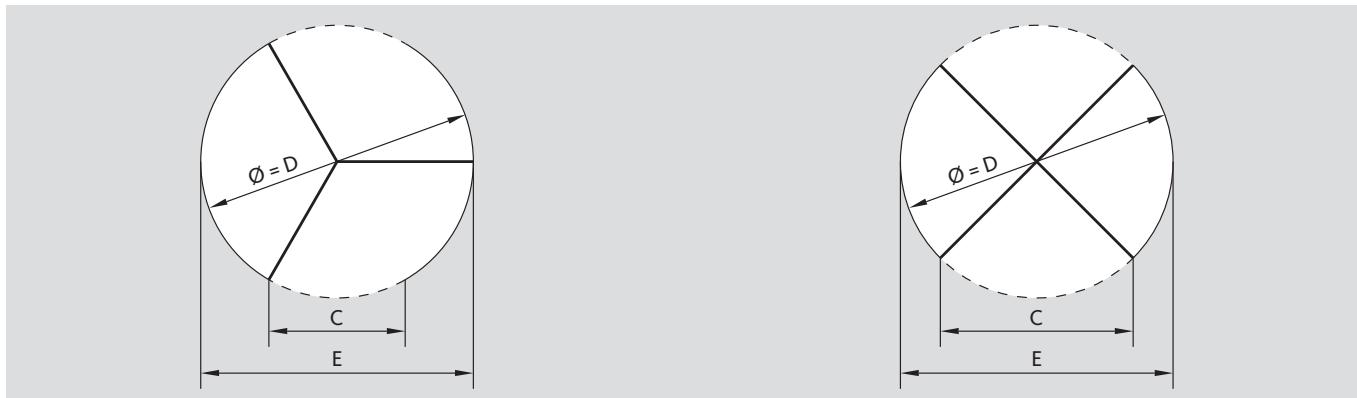
Description	GRA revolving door	GGG revolving door	GGR revolving door	GSI revolving security door
<b>Night locking sliding door</b>				
outside-running, manual	○	○	○	○
outside-running, automatic	○	○ (in-floor)	○	○
inside-running, manual	○	-	○	-
Glass	○	○	○	○
Sheet metal panelling	○	-	○	○
<b>Locking</b>				
Shoot bolt lock on the leaf, manual	○	○	○	-
Electrical lock on the turnstile (fully automatic)	○	○	-	■
Rod locking system in the night locking sliding door	○	○	○	○
Locking through the motor-driven brake system	-	-	-	■
<b>Roof construction</b>				
Dust roof	○	-	○	○
Dust roof with visual shield	○	-	○	○
Ceiling in system colour	■	-	■	■
Exterior roof waterproof with 2 spouts	○	-	○	○
Glass roof	-	■	-	-
<b>Air curtain system</b>				
Installation variant, hot water or electrical	○	-	○	○
Design variant, hot water or electrical	○	-	○	○
Vertical air curtain	○	○	○	○
<b>Finishes</b>				
Choice of RAL colour	○	○	○	○
Anodised	○	○	○	○
Anodised stainless steel effect	○	○	○	○
Polished V2A stainless steel	○	○	○	○
Industry polished V2A stainless steel	○	○	○	○
<b>Tests</b>				
Type-tested according to DIN 18650	■	■	■	■

All dimensions are a point of reference. Special dimensions and versions are available upon request.

■ = standard | ○ = option | - = not available in this version

# 3- or 4-leaf revolving door versions

GU

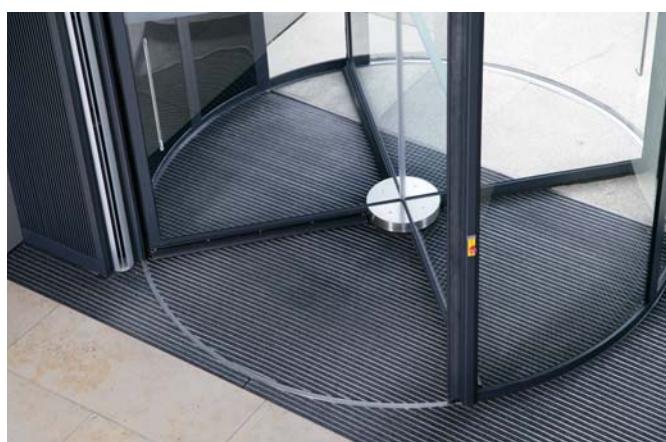
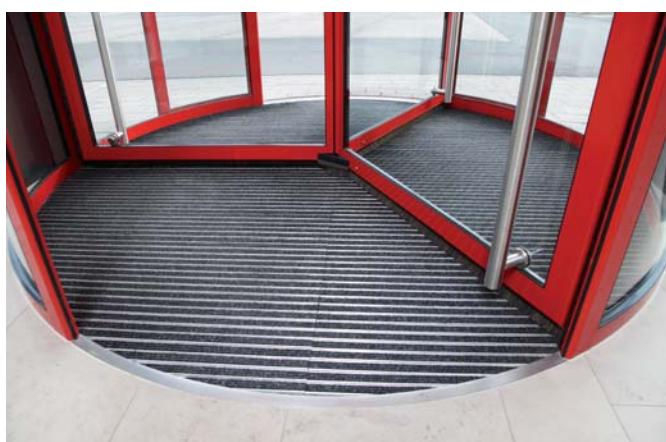


## Arguments in favour of a 3-leaf revolving door:

- With the same diameter, there is more space between the leaves
- The larger chambers also provide enough space for shopping trolleys and pushchairs, even with smaller diameters
- A smaller clear opening (C) prevents the segment becoming overfull and activation of safety sensors
- Within the larger chamber, persons can move faster or slower than the revolving door. This is considered convenient
- The smaller opening (C) reduces the wind load on door leaf
- Due to minimal total leaf weight and brush friction, a manual door is easier to operate

## Arguments in favour of a 4-leaf revolving door:

- A large clear opening (C) exists at the same diameter. This is an advantage for foot traffic in opposite directions
- There are more chambers available per rotation. If it is assumed that only one person will enter each segment, the result is increased passage capacity
- Less time is spent in the chamber as a result of smaller fixed panels, or smaller drum walls
- Two leaves seal the area in the initial position
- Visually symmetrical appearance





The current DIN 18650 (5.8.1.1) standard dictates a maximum radial velocity ( $V_{\text{radial}}$ ) for automatic revolving doors as follows:

- Diameter up to 3000 mm : max. 1.0 m/s
- Diameter larger than 3000 mm : max. 0.75 m/s

$$n[\text{rotations/min}] = \frac{V_{\text{radial}} [\text{m/s}] \times 60}{\text{Diameter} [\text{m}] \times \pi [3.14...]}$$

#### Assumptions/requirements:

- There is a constant flow of people
- There is no delay due to activation of pre-sensors or contact strips
- One person per segment
- Number of persons in one direction



#### Calculation example:

A 4-leaf revolving door with a diameter of 2800 mm rotates with a **realistic** radial velocity of 0.75 m per second:

$$\text{Rotations/hour} = \frac{0.75 [\text{m/s}] \times 60}{2.8 [\text{m}] \times 3.14} \times 60 = 307$$

$$307 \text{ rot./hr.} \times 4 \text{ chambers} = 1228 \text{ chambers per hour}$$

If each of the individual chambers is entered by several persons, passage capacity is as follows:

$$1228 \text{ chambers/hour} \times 2 \text{ persons} = 2456 \text{ persons/hour}$$

Maximum passage capacity can be estimated based on the following:

Shopping trolleys and bags should be taken into account when calculating the real achievable number of persons per chamber, as well as delays due to sensor activation or a greater rush of people at certain peak times.

	3-leaf	4-leaf
Interior diameter	Chamber/hour	Chamber/hour
1800 mm	1433	1910
2800 mm	921	1228
3600 mm	716	955
4800 mm	537	716
6000 mm	429	573

The values are based on a radial velocity of 0.75 m/s and passage in one direction

# Revolving doors in escape and rescue routes

Practical escape route function

GU



GU GGR large capacity revolving doors feature foldable leaves, which make them suitable for use in escape and rescue routes. These are tested and certified as a part of a TÜV type test. In normal operation, the leaves are fixed in place with electromagnets, preventing unintentional folding due to pushing or wind load.

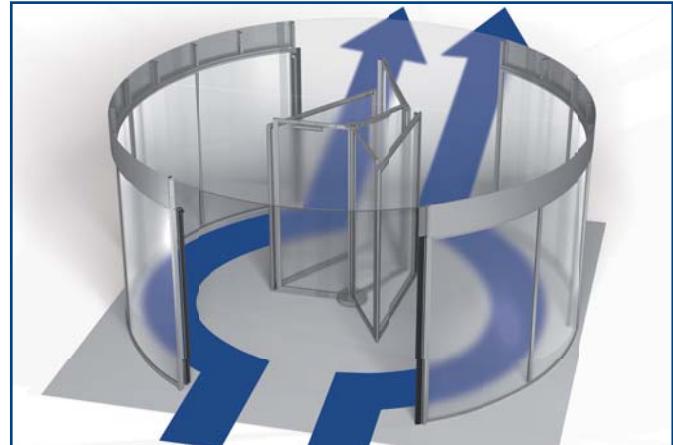
They can only be released by activating an EMERGENCY-STOP switch, in the case of power failure or through building management technology. Afterwards, the leaves can easily be folded back so that an escape route such as the one shown above is opened.

Escape route widths		
Diameter	GGR/3-leaf	GGR/4-leaf
3600 mm	1630	1980
4800 mm	2230	2700
5400 mm	2530	3060
6000 mm	2830	3420





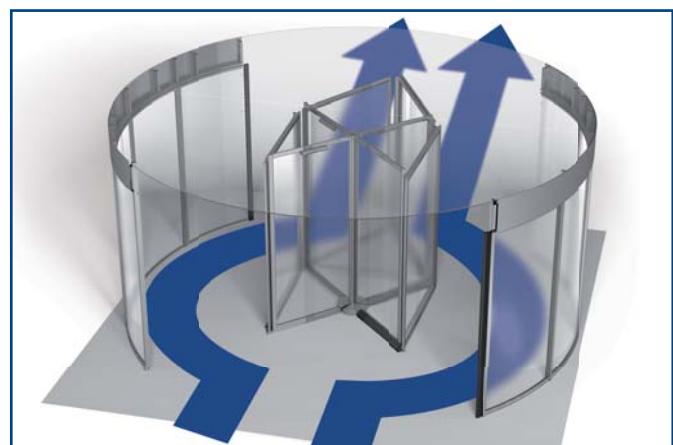
3-leaf revolving door in normal operation



3-leaf revolving door – escape situation



4-leaf revolving door in normal operation



4-leaf revolving door – escape situation



The described functional principle is not available for GRA and GGG door types with a maximum interior diameter of 3600 mm. Only mechanical fixing, which swings with a maximum force of 220 N conforms with regulations in this case. An escape route function for GRA and GGG is not available because, in practice, this feature would cause malfunctions.

For ventilation purposes or as summer ventilation, this function is available with enhanced, practice-oriented fixings, e.g. 400 N. If swinging open is only desired in very rare cases to move long objects through the door, simple mechanical fixing is also possible.

# Secure access control and attractive appearance

GSI security revolving doors

**GU**



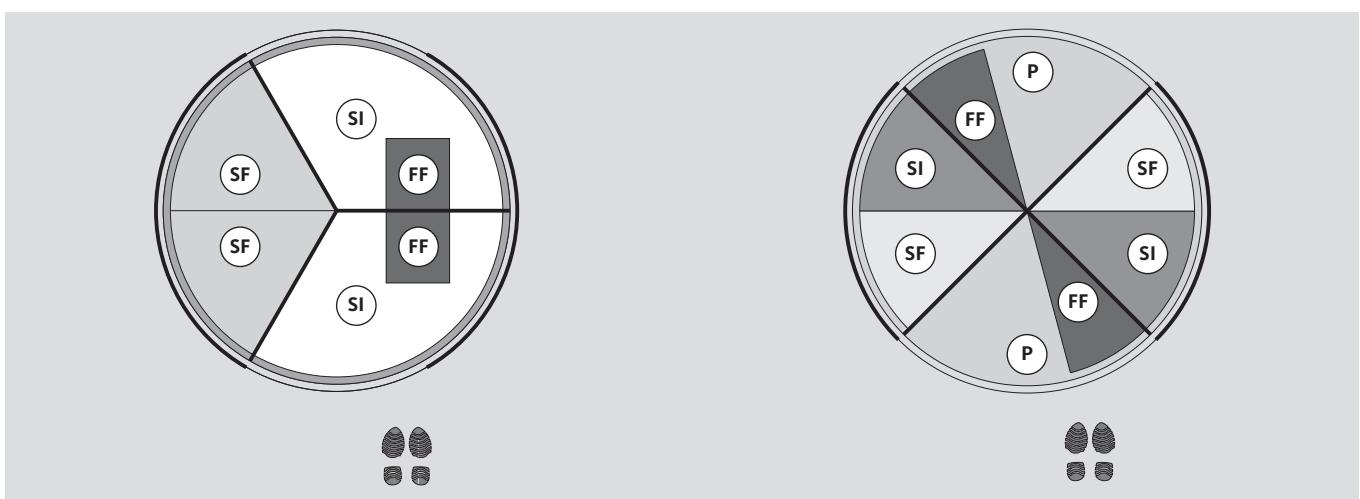
Access to safety-sensitive buildings is ideally controlled by **security revolving doors**. Besides functionality, the building architecture is taken into consideration according to the client's wishes, so a tailor-made solution always results.

The Gretsch-Unitas Group offers a wide selection of access control systems for access authorisation. Of course, access control provided by the customer, which is already installed in the project, can also be integrated.

## Functional principle

In the initial position, the security revolving door is locked by means of a motor-driven brake system. After access authorisation has been granted via transponder, key pad, fingerprint, etc., passage through the door is enabled. The door begins to turn when the contact mats are trodden on accordingly.

The functional principles of 3- or 4-leaf versions are different.



### Functional principle for a 3-leaf security revolving door:

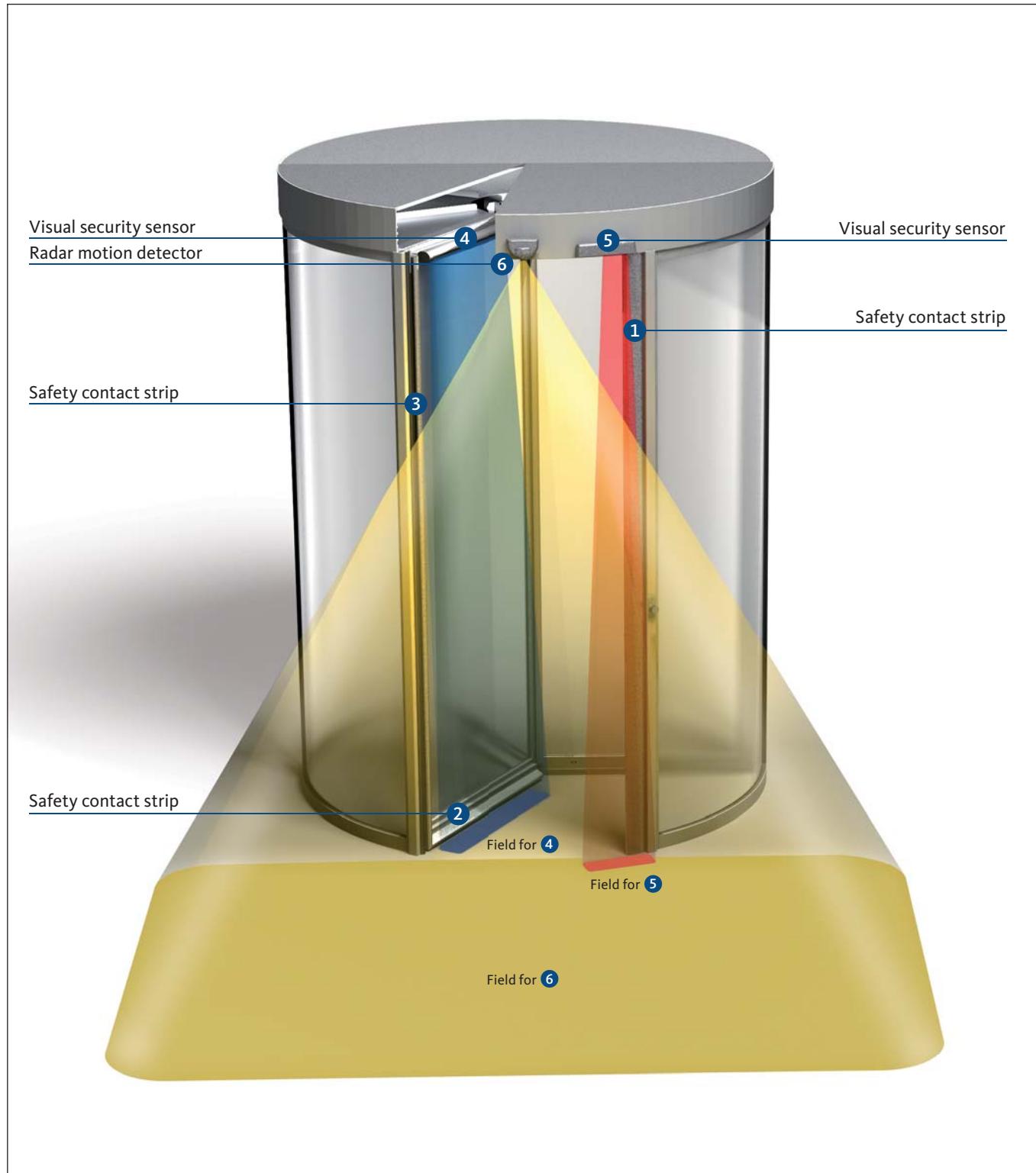
- The 3-leaf door rotates clockwise or anticlockwise, depending on the direction of passage
- The third segment contains the disable panel (SF) and is never used
- First, access authorisation is granted
- The person stands on the foot panel (FF)
- An automatic 120° rotation takes place
- Afterwards, the door locks again
- If the security panel (SI) or the disable panel (SF) is stepped on, the door immediately stops and rotates to the initial position. The unauthorised person can exit the door.
- In the case of power failure, the door can be turned to the Y-position and all segments disengage. The door is mechanically locked in this position.
- Advantageous for passage in one direction

### Functional principle of a 4-leaf security revolving door:

- The 4-leaf door rotates anticlockwise
- First, access authorisation is granted
- The person stands on the foot panel (FF). The passive panel (P) may be active at the same time.
- An automatic 180° rotation takes place
- Afterwards, the door locks again
- If someone steps on the disable panel (SF) or the security panel (SI) on the opposite side, the door immediately stops and rotates to the + position. The unauthorised person can exit the door.
- Once this has taken place, the authorised person can walk through the door
- In the case of power failure, the door can be turned to the + position and all segments disengage. The door is mechanically locked in this position.
- Trained persons can be authorised and can pass through the door simultaneously from both sides. This results in higher capacity.

# Security elements

GU



**Mullion safety:****① | Safety contact strip**

Shear point protection at the entrance mullion is a pliant rubber safety contact strip that is attached to the mullion. Actuation of the safety contact strip results in immediate emergency braking. To achieve optimal safety with minimum malfunctions, the safety contact strip is only activated if an oncoming leaf exceeds limit for the adjustable distance to the mullion.

As soon as the safety contact strip is free again, the revolving door rotates at reduced speed until it reaches the mullion. Afterwards, the revolving door accelerates to normal speed again.

**Heel guard:****② | Safety contact strip**

Protection of the floor is ensured with rubber safety contact strips, attached underneath the leaves. The unit stops immediately if pressure is applied to one of the safety contact strips.

As soon as the safety contact strip is free again, the revolving door rotates for one second at reduced speed and then accelerates to normal speed.

**Front edge of leaf:****③ | Safety contact strip**

For protection in the dangerous area of the leaf drum walls, the entire height of each revolving door leaf is equipped with a safety contact strip. The unit stops immediately if pressure is placed on one of the safety contact strips.

As soon as the safety contact strip is free again, the revolving door rotates for one second at reduced speed and then accelerates to normal speed.

**If a security contact strip is pressed constantly for longer than 10 seconds, normal operation can only begin again after performing a reset.**

**Collision protection:****④ | Optical safety sensor**

The collision protection sensors are used as of a diameter of 3000 mm (DIN 18650 compliant) and are located at the upper edge of the door leaf. If a person or object is recognised by the collision protection sensor, the door slows down. If the field of detection becomes free, the revolving door returns to normal speed after one second.

**Pre-sensor | Pre-mullion security:****⑤ | Optical safety sensor**

The pre-sensor is only used as of a diameter of 2400 mm (DIN 18650 compliant) and is only active if an oncoming leaf exceeds the acceptable, adjustable distance to the mullion.

If a person or object is recognised by a pre-sensor and, simultaneously, the distance between the door leaf and mullion that is considered safe becomes too small, the door brakes – coming to a stop, if necessary.

If both pre-sensors in the danger zone become inactive again, the revolving door rotates to the mullion and then accelerates to normal speed.

**Activation:****⑥ | Radar motion detector**

An automatic revolving door is activated by internal or external radar motion detectors. When a person or object approaches, the revolving door begins operation.

# Operating elements

GU

## FWS function selection switch



### "EXIT" operating mode

The revolving door is in the initial position. An impulse from the internal radar motion detector or the internal button for the disabled initiates the rotation. After two rotations, the revolving door comes to a stop again in the initial position.



### "AUTOMATIC" operating mode

The revolving door is in the initial position. An impulse from the internal or external radar motion detector or the button for the disabled initiates the rotation. After two rotations, the revolving door comes to a stop again in the initial position.



### "OFF" operating mode

The revolving door is in the initial position. It is locked with an optional electromechanical lock.



### "CONSTANT ROTATION" operating mode

The revolving door is in constant rotation at a reduced speed. An impulse from the internal or external radar motion detector or button for the disabled automatically adjusts the rotational speed for two rotations. The rotation then returns to the slower speed.

## Button for the disabled



The button for the disabled is located on the interior and exterior areas of the revolving door mullion. If the button for the disabled is pressed, the revolving door slows to a speed appropriate for the disabled. After a set number of rotations, the revolving door returns to normal rotational speed for two rotations. The revolving door then reduces the rotational speed (operating mode: constant rotation) or stops in the initial position.

## EMERGENCY-STOP switch



The EMERGENCY-STOP switch is located in the interior and exterior area of the revolving door mullion.

Once it has been pressed, emergency breaking commences immediately.

The leaves of GGR large capacity revolving doors can be swung opened.

Resetting the EMERGENCY-STOP safety function is done by releasing the EMERGENCY-STOP switch, closing the leaves (for GGR) and then pressing the RESET push-button.

### RESET push-button



The RESET push-button is located in the upper area of the interior mullion. This is how to reset after power failure, after activating the EMERGENCY-STOP switch or after other relevant errors.

After a qualified person actuates the RESET push-button, the revolving door resumes operation.

### Cleaning switch



The switch enables cleaning personnel to turn the door to the desired position. In the "OFF" operating mode, the cleaning switch is activated using the operating key.

Adjustments can be made using the CLEANING key switch position. Now the revolving door can be controlled using the interior button for the disabled. As long as the interior button for the disabled is pressed, the revolving door rotates slowly. If the cleaning switch is deactivated, the revolving door rotates again slowly into the X or Y position.

### Display module – GSI security revolving door



The display module signals various system statuses to the user.

- RED = passage not authorised
- RED, flashing = oncoming foot traffic, please wait
- GREEN = authorised passage
- ORANGE = error

# Warm air curtain

GU

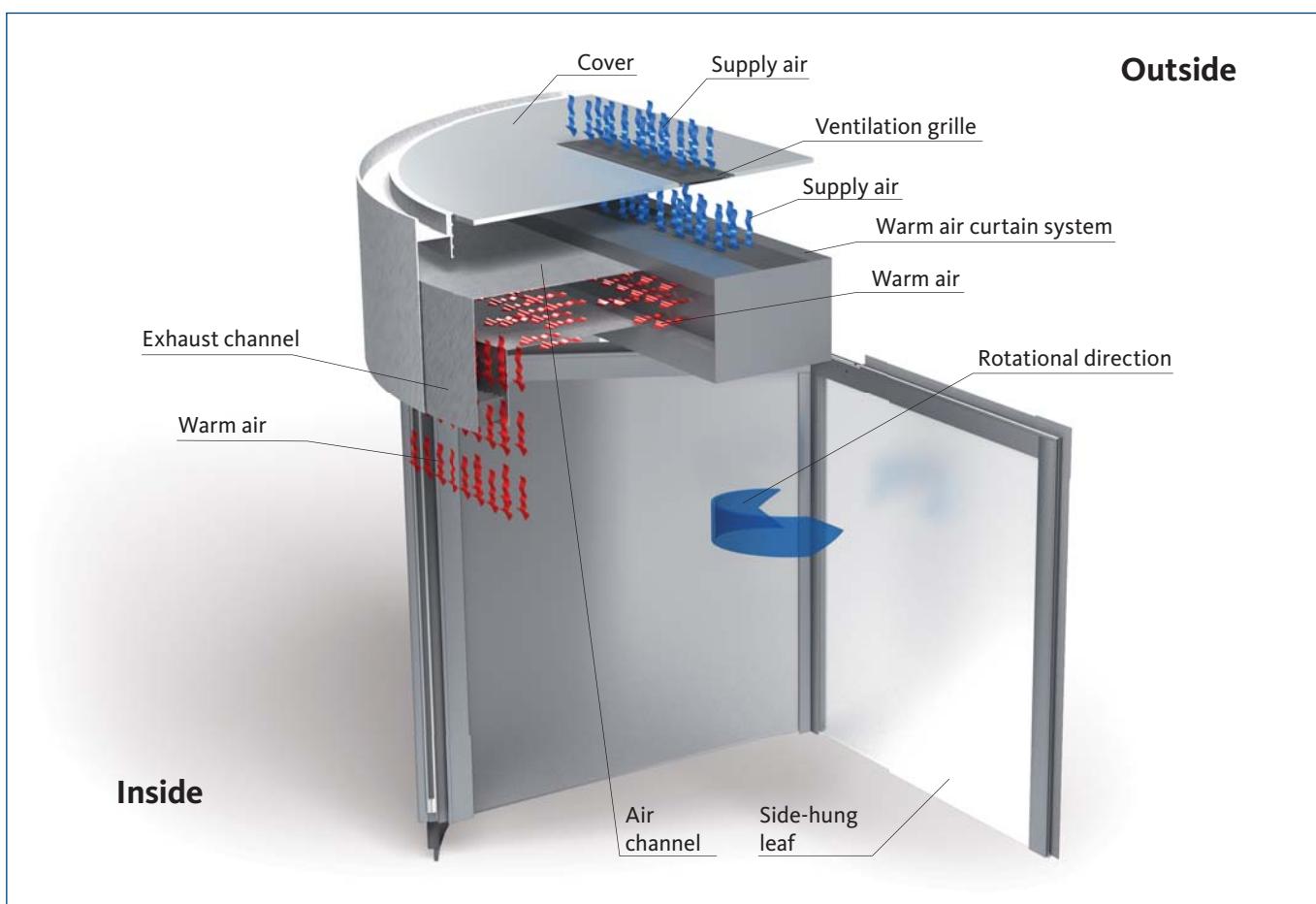


Vertical air curtain



Air curtain – installation variant

## Functional principle



# Night lock

GU

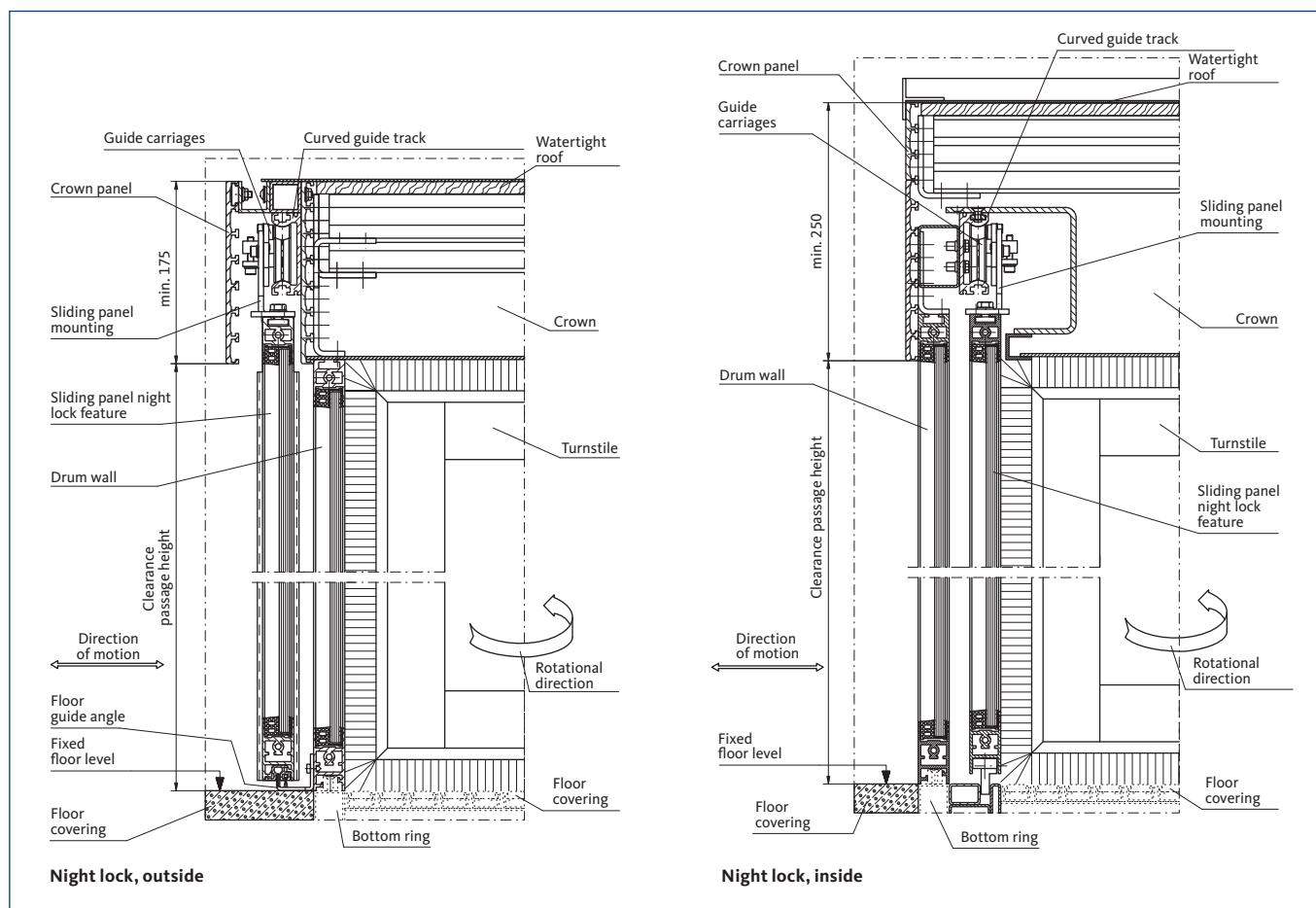


Night lock, outside – open



Night lock, outside – closed

## Detailed view





Night lock, outside – in-floor



Night lock, outside – point-fixed glass leaf

### Vertical view



Night lock, bottom-running



Night lock, top-running – point-fixed glass leaf

# shopMaster GSW-M all-glass system

The modular all glass sliding partition

**GU**



## Flexible and transparent

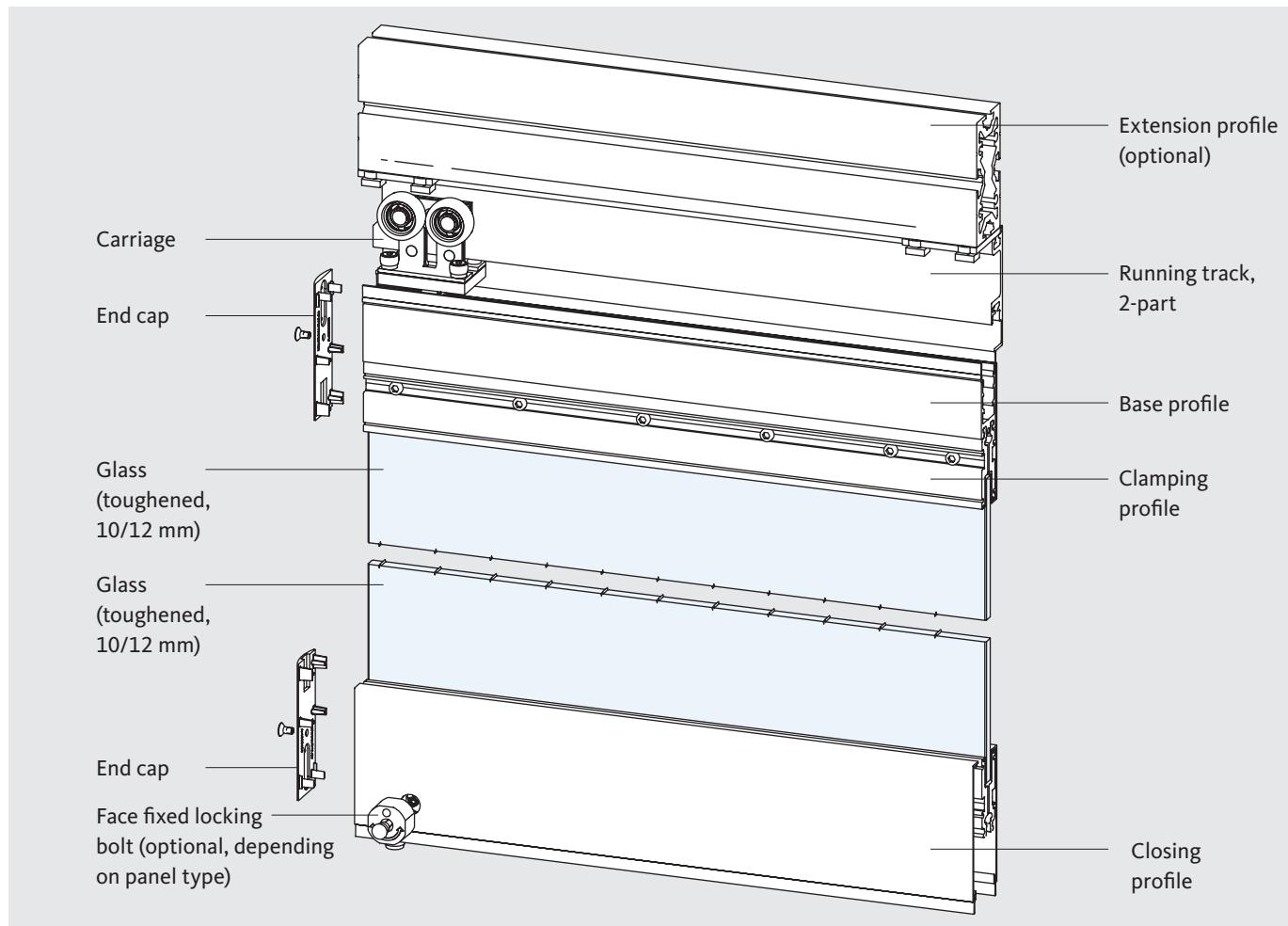
The all-glass sliding partition system shopMaster GSW-M allows creation of partition walls and shop-fronts for shop-in-shop concepts in a multitude of individual designs. There are virtually no limits placed on the planner's creativity, since solutions can be implemented for practically any floor plan. According to requirements, the all-glass sliding partitions are available in linear, curved or segmented designs. The units can be arranged flexibly; a floor guide is not needed. The system's compact design requires

only minimal space for running track and parking niche. The use of Swing&Slide panels equipped with a door closer is just one way of providing variable passages. The running mechanisms are equipped with high-quality ball-bearing-supported carriage wheels and ensure permanently reliable operation and smooth motion of the elements during opening and closing. In case of glass breakage, the clamping profiles are protected from falling by special fittings.



### Convincing in detail:

- Modular design with prefabricated function elements
- Can be combined with BKS electro-clutch locks
- No continuous floor guide required
- Ball bearing supported and plastic-coated high-quality runners
- Two-part running track allows flexible creation of curves
- Locking elements for segmented systems



Designation	shopMaster GSW-M
Max. element height	3500 mm*
Max. element width	1250 mm*
Max. element weight	150 kg
Possible glass thicknesses	10 / 12 mm
Running track version	linear / angled / segmented / curved from a radius of 6000 mm
Finishes	silver colour E6 / EV1 anodized RAL colour as desired (powder coating) stainless steel appearance

\* Special solutions on request

# shopMaster GSW-A all-glass system

Comfort and safety with automatically driven elements

**GU**



## Exclusive and convenient

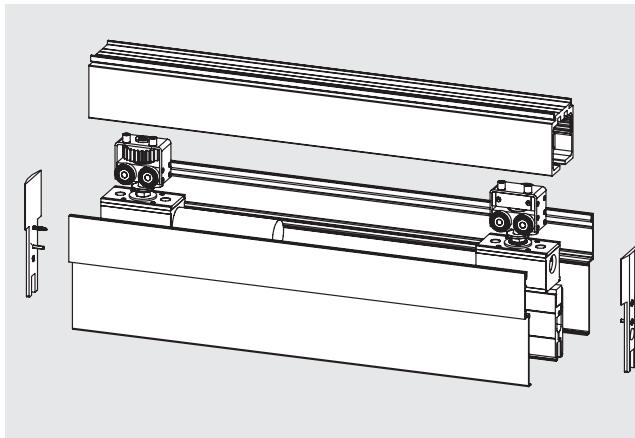
The automatic all-glass sliding partition system *shopMaster GSW-A* offers a wide variety of design options for architects and planners, such as partition walls and façade concepts, as well as maximum convenience for operators or users. The system's compact design requires only minimal space for running track and parking niche. The running modules are equipped with state-of-the-art carriages with plastic-coated, ball-bearing supported rollers.

These guarantee reliable functioning and noiseless movement of the elements throughout their service lives. Thanks to the small running track height of 86.5 mm, installation flush with the ceiling is possible almost everywhere. The required floor guide provides additional stability and utmost convenience to the user. For safety reasons, the automatic all-glass sliding wall can be moved by hand in the event of a power failure.



## Convincing in detail:

- Small installation height
- Distance between moving panels adjustable: 50 – 1500 mm
- Ball bearing supported and plastic-coated high-quality runners
- Continuous floor guide
- Panels movable by hand in the event of a power failure
- Optionally with fully automatic wall cover for parked panels



### Sliding panel

with drive module and current collecting module, each positioned above the base profile; floor guidance is provided by the roller pin running in the floor rail.

### Turn-only end panel

opens and closes automatically as the sliding wall system is released or locked, respectively.

## Functional features:

- Obstacle recognition
- Maximum impact force 150 N
- Automatic locking
- Decelerated speed into the end positions
- Emergency release via profile cylinder

Designation	shopMaster GSW-A
Max. element height	3500 mm*
Max. element width	1250 mm*
Max. element weight	150 kg
Max. number of elements	32
Possible glass thicknesses	10 / 12 mm
Nominal voltage	230 V AC, 50 Hz
Nominal power	230 W
Operating current	24 V DC
Ambient temperature	-15 °C to +50 °C
Protection class	IP 20
Speed	adjustable from 50 – 150 mm/s
Running track version	linear / angled / curved from a radius of 6000 mm*
Finishes	silver colour E6 / EV1 anodized RAL colour as desired (powder coating) stainless steel, matt polished**

\* Special solutions on request   \*\* Module cladding anodized similar to stainless steel

# The GU pledge

Tested safety



## Safety: successfully certified



### DIN 18650: Safety requirements for automatic door systems

DIN 18650 regulates safety for automatic door systems in Germany, Austria and Switzerland.

Besides product and safety requirements, it describes the acceptance inspection at the installation location, maintenance and regular checks.

Through a type test, the TÜV confirms that the requirements from the relevant standards and directives are met.

But it does not take into account the hazards resulting from local conditions or the specific building use.

And so before installation and commissioning of the system, a hazard analysis that takes the local conditions into account must be performed.

Ideally, the safety concept will be coordinated with the customer or operator in the planning phase.

### The Gretsch-Unitas Group offers:

- individual advice
- qualified project handling
- correct installation
- reliable service

This ensures that commissioning takes place without unpleasant surprises. All required safety components are taken into account and need only be tested for proper functioning at commissioning.



Advice right from the planning stage



TÜV type-tested



Safety through quality manufacturing

More than 100 years of experience

Worldwide presence

System solutions in the project

## Safety check and maintenance

Regular, professional maintenance is the best guarantee of maintaining the value and functional safety of automatic doors over the years.

In Germany, GU Service GmbH on behalf of GU Automatic GmbH installs automatic sliding doors, swing door drives, revolving doors, all-glass sliding walls and security doors.

After-sale service directly from the manufacturer with its own personnel, optimal product knowledge and use of original replacement parts ensures the greatest functional availability of automatic door systems. Short travel times are ensured due to a comprehensive network of service installers.

An automatic door system must also be tested at least once per year by an expert. Besides this safety check, maintenance according to the manufacturer's specifications must be performed. Ideally, this takes place at the same appointment.

## The service contract

A service contract for automatic door systems offers many advantages:

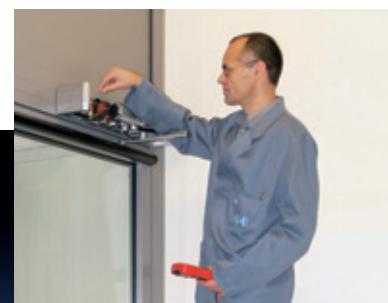
- Early recognition of wear ensures operational and personal safety
- Unplanned service work is markedly reduced
- Regular inspection of safety components minimizes the operator's potential liability risk
- Provision and updating of a system-specific inspection book
- Possible hazards resulting from a change in use are recognized and can be eliminated
- Service customers receive discounts on parts prices and pay fixed travel fees



Correct installation



Logistics – just-in-time wherever you are



Service and maintenance

## Special solutions development

## Modular system technology

## Products in stock around the globe



WINDOW TECHNOLOGY  
DOOR TECHNOLOGY  
AUTOMATIC ENTRANCE SYSTEMS  
BUILDING MANAGEMENT SYSTEMS

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