



OPEN AUTOMATIONS SOLUTIONS

Official
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HERMETIC DOORS

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Introduction to Hermetic sliding doors

These hermetic sealed doors utilise a tightly closing linear sliding door system specifically designed for clean-room areas. The door design sits flush with adjacent sides to prevent accumulation of dirt and foreign particles from passing through. For medical settings where areas are both sensitive to bacteria and sound, the doors can be fitted with soundproofing to minimize the risk of acoustic disturbance.

GEZE Sliding doors for medical areas



GEZE sliding door systems for medical areas

Hygiene and control

GEZE sliding doors are particularly suitable for workplaces that must be free from bacterial contaminations. They are space-saving and modern and can easily be installed in prefabricated systems and conventional walls. The sliding doors can be opened automatically or manually with stainless steel handles.

The door design, flush with the adjacent sides, prevents dirt accumulations and simplifies hygienic cleaning. As a result of the opening widths optimised for hospital use (nurse opening, cleaning opening, bed opening), the entry of foreign particles can be reduced and air exchange minimised. The “Push & Go” function allows the door drive to be controlled by briefly pressing the door leaf. The sliding door systems for medical use are fitted with sound proofing up to 32 dB in order to prevent acoustic disturbance. The sliding doors are available as tight-closing and hermetically sealing version.

DIN 18650

The industrial standard DIN 18650 was created to guarantee operators and users of automatic doors optimum safety. GEZE sliding door systems have been type-tested in accordance with DIN 18650 and certified.

EN 16005

The European standard EN 16005 sets out the design requirements and testing methods used to ensure the safe use of automatic doors. The standard represents a Europe-wide safety standard for automatic doors. All automatic door systems and safety sensors from GEZE also meet the EN 16005 standard.

Benefits		
Controlled air exchange	No entry of foreign particles	Energy-saving
Areas of application		
Hospitals and clinics:		
Operating theatres	Intensive-care wards	Dialysis wards
Laboratories:		
Clean rooms	Sterilisation rooms	

Powerdrive airtight and Powerdrive hermetic

Technical data

Key

- = Yes
- = Not available
- * Only automatic doors are specified here. GEZE sliding door systems for medical areas are also available as manually operated doors without automation.

Product features	Powerdrive airtight	Powerdrive hermetic
General information		
For 1-leaf door systems	●	●
For 2-leaf door systems	●	●
Leaf height	2000 - 2500 mm	
Leaf weight (max.) per leaf	135 kg	
Opening width 1-leaf	800 - 2000 mm	
Opening width 2-leaf	1400 - 2200 mm	-
Leaf weight (max.) 1-leaf	135 kg	
Leaf weight (max.) 2-leaf	135 kg	
Opening speed (max.)*	0.8 m/s	
Closing speed (max.)*	0.8 m/s	
Hold-open time*	0 to 60 S	
Adjustable opening and closing force (max.)*	150 N	
IP rating	IP 20	
Coating	HPL, Stainless steel, Glass, SMS	

Specification	Powerdrive airtight	Powerdrive hermetic
Sound proofing	32 dB	
Air permeability with overpressure (EN 1026 / EN 12207)	-	Class 3
Air permeability with underpressure (EN 1026 / EN 12207)	-	Class 4
Radiation protection	1 mm or 2 mm	

Powerdrive airtight and Powerdrive hermetic

Technical data

Key

- = Yes
- = Not available
- * Only automatic doors are specified here. GEZE sliding door systems for medical areas are also available as manually operated doors without automation.

Functions*	Powerdrive airtight	Powerdrive hermetic
Adjustable opening widths		Nurse opening cleaning opening bed opening
Automatic opening and closing in case of power failure		Adjustable
Function in the event of a power failure		Adjustable for 30 min. / 30 cycles
Automatic opening in the event of a fault		-
Push&Go	●	●
Automatic reversal when an obstacle is detected	●	●

Approvals	Powerdrive airtight	Powerdrive hermetic
DIN 18650		
EN 16005		For 200, 000 cycles at 135 kg
EN 60-335-1 / EN 60335-2-103		
EN ISO 13849: Performance Level D		

Optional accessories	Powerdrive airtight	Powerdrive hermetic
Inspection window with blind	●	●
Safety handle	●	●

GEZE sliding door systems for medical areas

Powerdrive airtight

Powerdrive airtight sliding door systems for single and double leaf doors have been developed specifically for use in clean room areas. The seal on the vertical sides is created with door leaf seals, which insert into the vertical profiles of the door frame. This achieves a reduced air permeability compared to standard sliding doors.

The sliding door system, comprising drive, door and special door frame, can be planned and ordered using the configuration with just a few details. Because of the modular design principle, installation in all buildings

with standard walls/wall constructions, is easy and quick. Retrofitting is also possible. Depending on the wall on site, a single or a fully comprehensive frame can be supplied.

The door leaf of the airtight sliding doors can be designed in the surfaces optimal for these areas (HPL, stainless steel, glass, SMS). The aluminium parts are designed in EV1 as standard, any RAL colour can also be supplied upon request. Fitting with radiation protection or inspection window (also with adjustable blind) is also possible as an option.

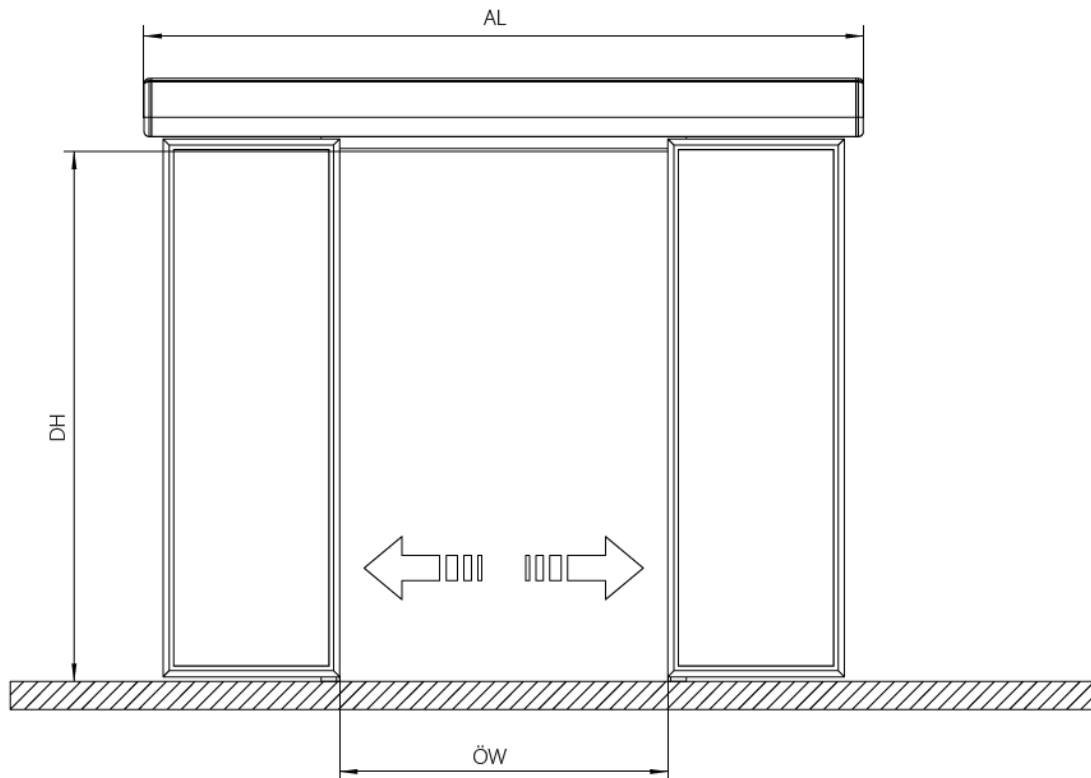


GEZE sliding door systems for medical areas

Installation drawing

Key

AL = Drive length
DH = Passage height
ÖW = Opening width



Calculating the drive length	Powerdrive airtight	
	Opening width (ÖW)	Drive Length (AL)
2-leaf	800 mm - 2000 mm	2 X ÖW + 300 mm
1-leaf	1400 mm - 2200 mm	2 X ÖW + 250 mm

Note:

The minimum opening widths depend on the requirements of building law.

GEZE sliding door systems for medical areas

Powerdrive hermetic

Powerdrive hermetic sliding door systems for 1-leaf doors have been created for the automation of entrances to rooms with higher standards regarding airtightness (e. g. clean rooms, laboratories and operating theatres in hospitals).

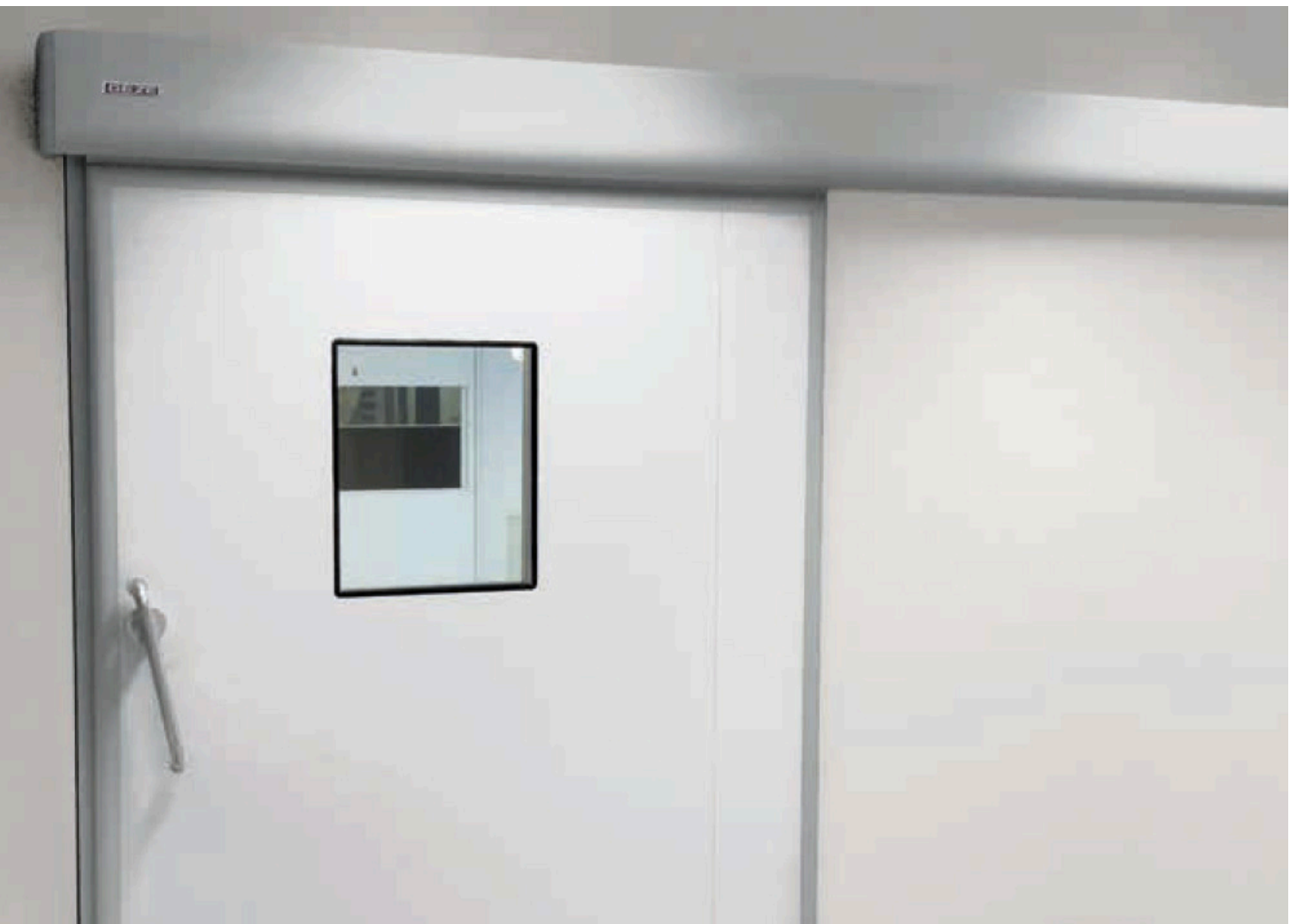
With its refined mechanics, the Powerdrive hermetic achieves high levels of air permeability (class 3-4) through the lowering and pressing of the door leaf against the framework construction.

The sliding door system, comprising drive, door and special door frame, can be planned and ordered using the configuration with just a few details. Because of the modular design principle, installation in all buildings

with standard walls/wall constructions, is easy and quick. Retrofitting is also possible. Depending in the wall on site, a single or a fully comprehensive frame can be supplied.

The door leaf of the hermetic sliding doors can be designed in the surfaces optimal for these areas (HPL, stainless steel, glass, SMS). The aluminium parts are designed in EV1 as standard, any RAL colour can also be supplied upon request.

Fitting with radiation protection or inspection window (also with adjustable blind) are also possible as an option.

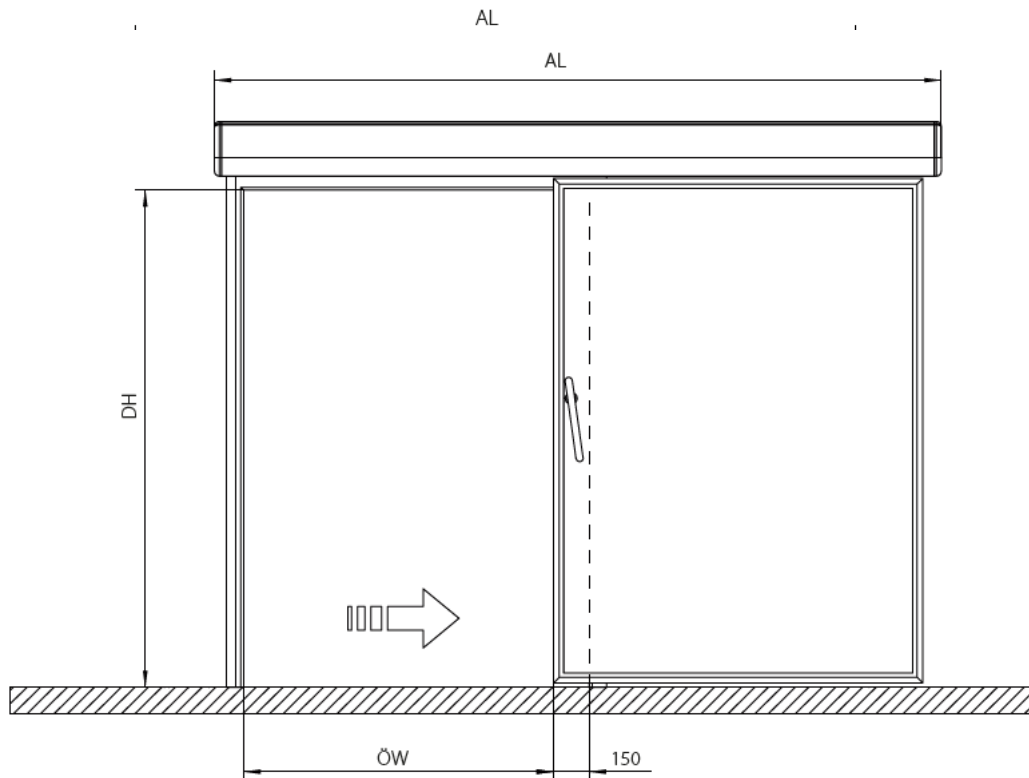


GEZE sliding door systems for medical areas

Installation drawing

Key

AL = Drive length
DH = Passage height
ÖW = Opening width



Calculating the drive length	Powerdrive airtight	
	Opening width (ÖW)	Drive Length (AL)
1-leaf	800 mm - 2000 mm	2 X ÖW + 450 mm

Note:
The minimum opening widths depend on the requirements of building law.

GEZE sliding door systems for medical areas

Technical description

Housing

The housing profile, made from extruded aluminium, serves to protect and cover the sliding mechanism. It is made from a wide arch shape without sharp corners and edges, and therefore can be cleaned easily. The housing profile has a groove, which holds the seal of the cover, as a result of which the lower side closes completely with the upper profile of the door leaf. The ends of the housing profile are fitted with end caps, the radius of which corresponds to the profile and which are used for the closing. The housing profile can be maintained easily by one person.



Leaf

The door leaf comprises extruded aluminium profiles in a wide arch shape. The upper profile of the door leaf has a special cross-section so that the holder can be attached directly without requiring an adapter profile. There is a special groove on the vertical profiles and the upper profile of the door leaf, in which a sealing gasket is inserted, which is made from special extruded, non-toxic silicon. In a groove on the lower profile of the door leaf there is a special, deep sealing gasket made from two components, the opening lip of which faces sideways.



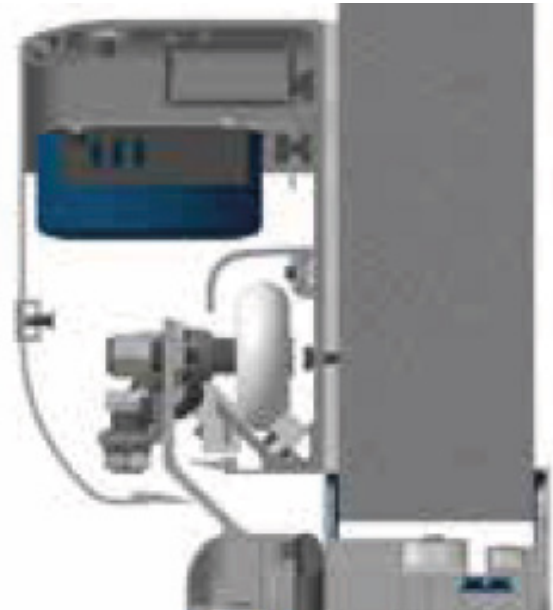
GEZE sliding door systems for medical areas

Technical description

Sliding mechanism

The horizontal and vertical sliding movements are achieved using a beam profile made of thick-walled, extruded aluminium with anodised coating, which can be fixed either to masonry walls or to prefabricated, self-supported systems. The beam profile is designed to carry two holders per leaf, each of which having single nylon wheel running on ball bearings.

The two wheels in the holders are noiseless and distribute the weight of the door leaf over the entire length of the beam. Using the holders, the door leaf can be adjusted both horizontally in the direction of the frame profile and vertically in order to offset differences in floor height. The inside of the beam profile is designed such as to receive an anti-derailing profile made of extruded aluminium. The end limiters for the sliding movement are made from a special, extruded aluminium profile and have a rubber buffer. The floor rail is made from Teflon-coated steel.



Automation

Automation of sliding doors, fitted with:

- Operating system with antistatic drive belts, which are reinforced with Kevlar balls;
- 230 V AC – 50 Hz power supply with short-circuit protection;
- Low-wear high-performance DC motor;
- LEDs for status messages and error messages;
- Push & Go function with adjustable hold-open time;
- Independent, adjustable opening and closing speeds;
- Pinch protection with reversal of the closing movement and fixing in the open position;
- Battery powered emergency opening and closing



GEZE sliding door systems for medical areas

Coating materials

GEZE sliding door leaf panels are available in different coating materials:

- SMS® (Solid Mineral Surface)
- Stainless steel
- Painted stainless steel
- HPL
- Gls (safety float glass 3 + 3 mm)

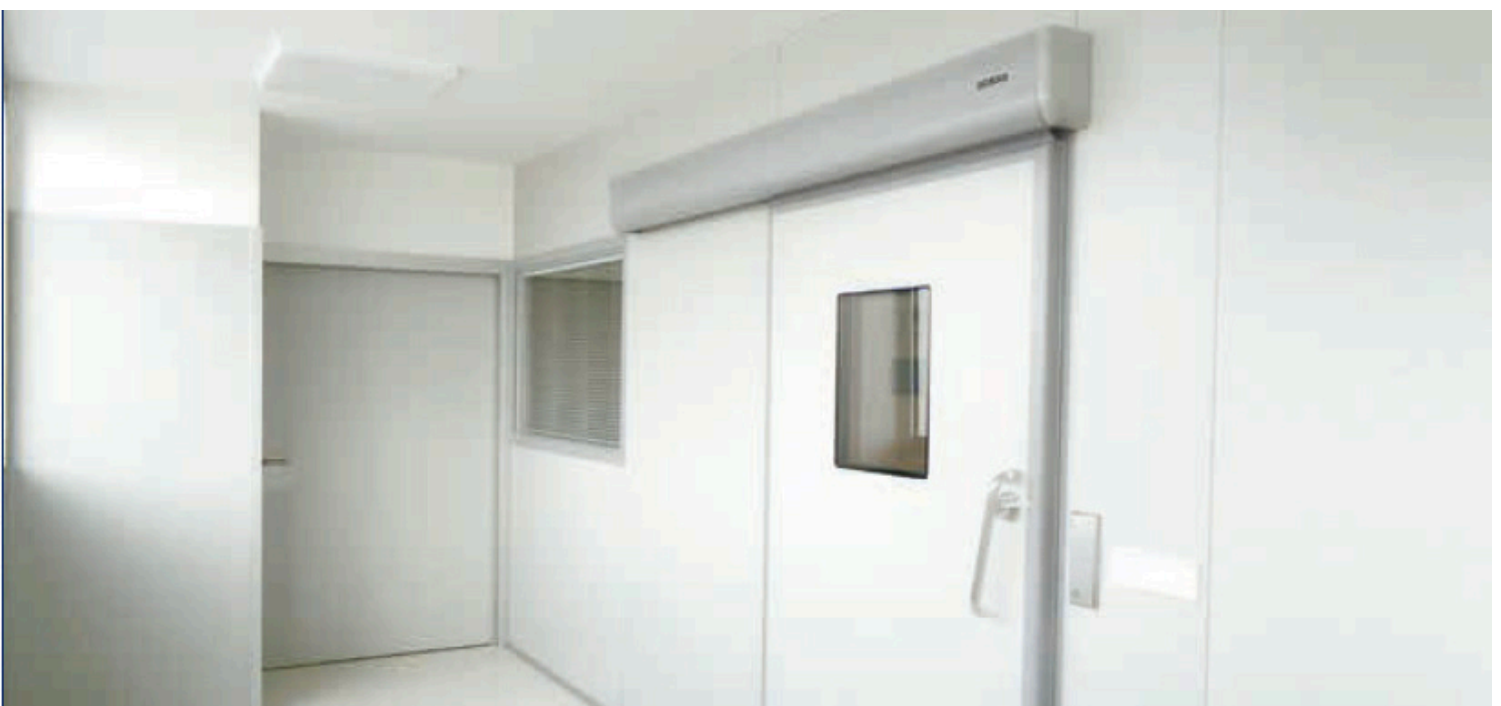
Control and safety equipment

The doors come as standard with a battery for emergency opening in case of power failure and with a display programme switch.

The complete GEZE sensor technology portfolio can be used for activation and standard-compliant safeguarding.



The sliding doors for hospitals correspond to the following Directives of the European Council:

- Machinery directive: 2006/42/EC and following amendments and addenda
- Directive on Compatibility Tolerance: 92/31/EC and following amendments and addenda
- Low voltage directive: 2006/95/EC and following amendments and addenda



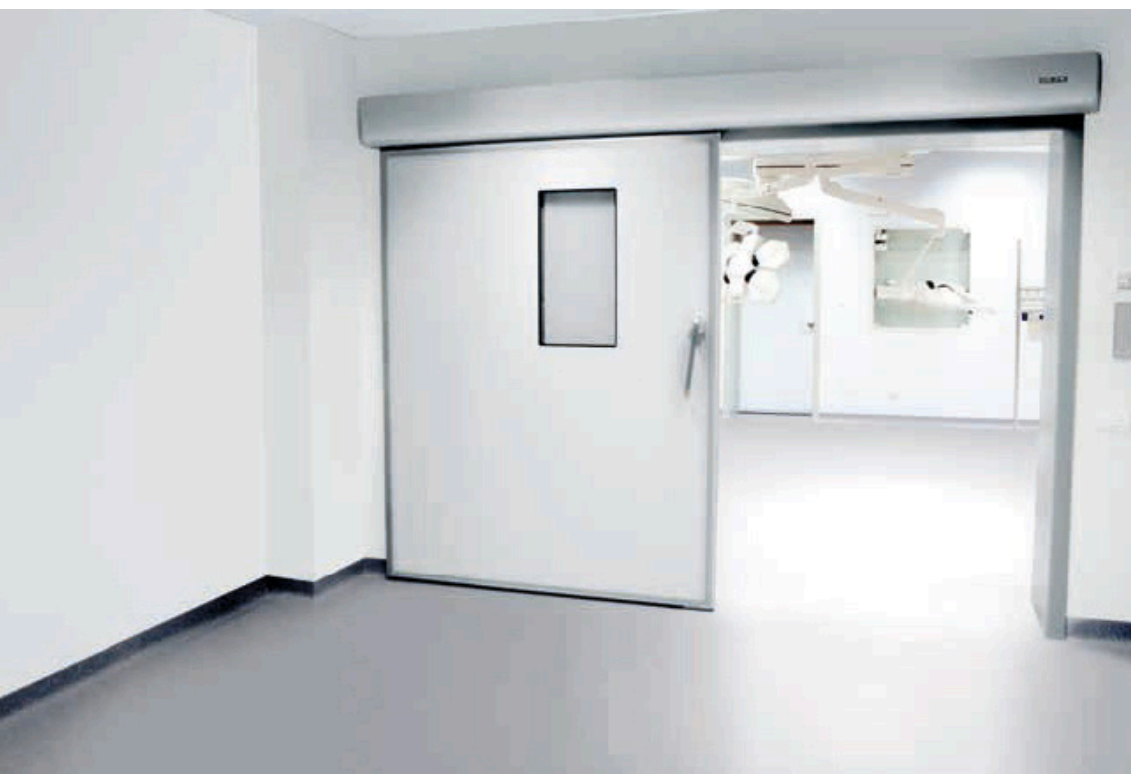
GEZE sliding door systems for medical areas

Accessories

		
<p>Elbow switch stainless steel LS990</p>	<p>GEZE display programme switch DPS</p>	<p>GEZE LED sensor switch</p>
		
<p>GEZE combined detector GC 363 R</p>	<p>Control and safety sensor</p>	<p>Non-contact activation sensor GC 30</p>
		
<p>GEZE RFID-reader GCER 100</p>	<p>GEZE wide-range reader GCLR-I 2000</p>	<p>Impact-safe rail</p>

GEZE sliding door systems for medical areas

References



Innovative system solutions

Potential applications of GEZE products

Door technology

01. Overhead door closers
ID 091593, ID 091594
02. Hold-open systems
ID 091593, ID 091594
03. Integrated door closers
ID 091609
04. Floor springs and all-glass fittings
ID 091607
05. Sliding door fitting systems
and linear guides
ID 123605, ID 000586

Automatic door systems

06. Swing doors
ID 144785
07. Sliding, telescopic
and folding doors
ID 143639
08. Curved sliding doors
ID 135772
09. Revolving doors
ID 132050
10. Actuation devices and sensors
ID 142655

Smoke and heat extraction and window technology

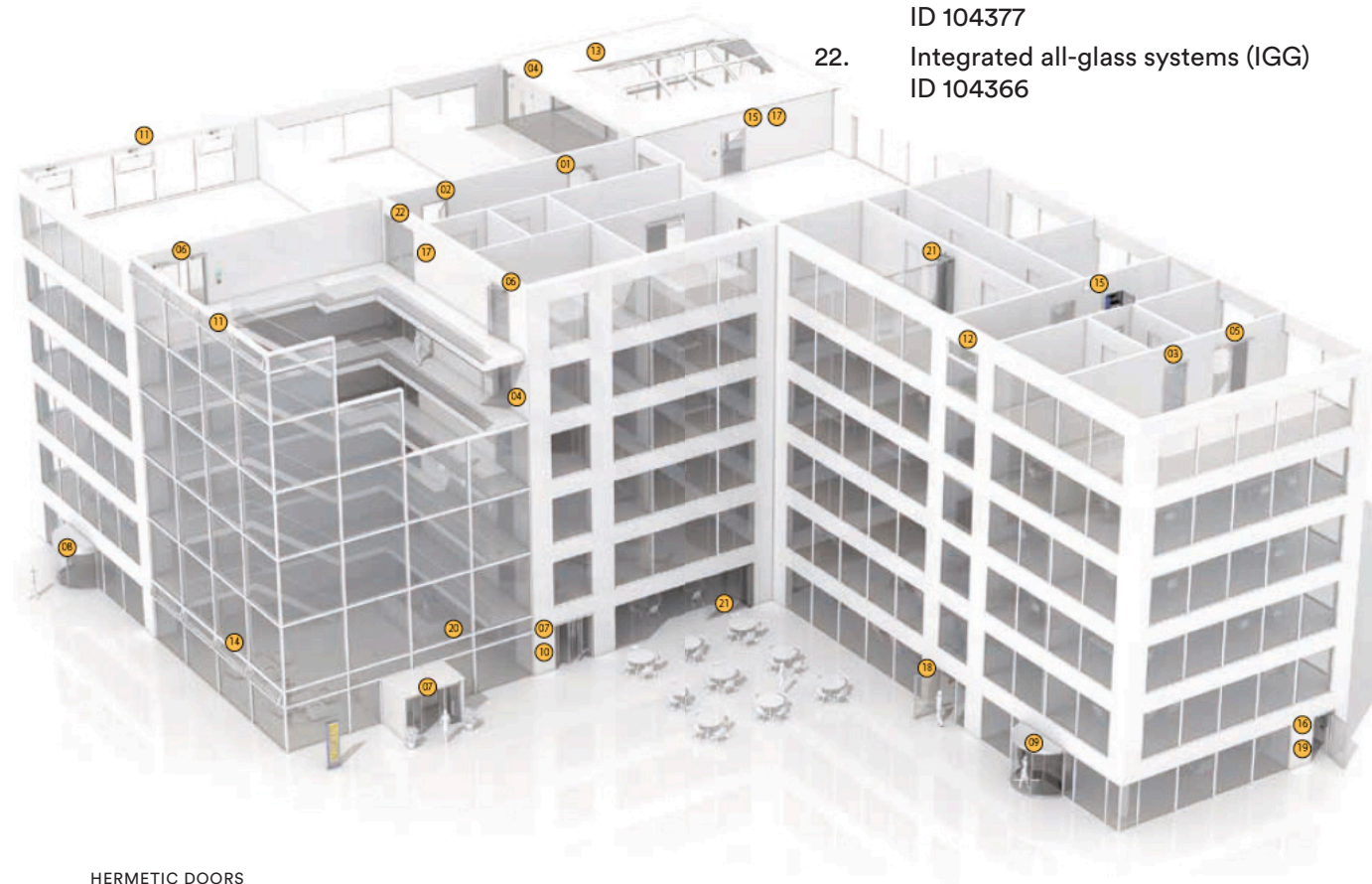
11. Fanlight opening systems
ID 127787
12. Electric opening and locking systems
ID 127785, ID 127789
13. Electrical spindle and linear drives
ID 127785, ID 127789
14. Electric chain drives
ID 127785, ID 127789
15. Smoke and heat extraction systems
ID 127785, ID 139075

Safety technology

16. Emergency exit systems
ID 132408
17. Access control systems
ID 132158
18. Panic locks
ID 132848
19. Electric strikes
ID 148666
20. Building management system
ID 132408

Glass systems

21. Manual sliding wall systems (MSW)
ID 104377
22. Integrated all-glass systems (IGG)
ID 104366



Innovative system solutions

Potential applications of GEZE products

Door technology

The functionality, superior performance and reliability of GEZE door closers are impressive. A common design across the range, the ability to use them on all common door leaf widths and weights, and the fact that they can be individually adjusted makes their selection simple. They are continually being improved and enhanced with up-to-date features. For example, the requirements of fire protection and accessibility are fulfilled with a door closer system.

Automatic door systems

GEZE automatic door systems open up a huge variety of options in door design. The latest, innovative high performance drive technology, safety, ease of accessibility and first class universal drive design set them apart. GEZE offers complete solutions for individual requirements.

Smoke and heat extraction and window technology

GEZE smoke and heat extraction systems and ventilation technology provide complete systems solutions combining the many requirements of different types of windows. We supply a full range from energy efficient drive systems to natural ventilation and complete solutions for supplying and extracting air, also as certified SHEVs.

Safety technology

GEZE safety technology sets the standards where preventative fire protection, access control and anti-theft security in emergency exits are concerned. For each of these objectives GEZE offers tailored solutions, which combine the individual safety requirements in one intelligent system and close doors and windows in case of danger in a coordinated manner.

Building systems

In GEZE's Building Management System GEZE door, window and safety products can be integrated in to the security and control systems of the building. A central control and visualisation system monitors various automation components in the building and offers security through many different networking capabilities.

Glass systems

GEZE glass systems stand for open and transparent interior design. They can either blend discreetly into the architecture of the building or stand out as an accentuated feature. GEZE offers a wide variety of technologies for functional, reliable and aesthetic sliding wall or sliding door systems providing security with lots of design scope.



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