

Sprint

Cleanroom Door



Certified doors for cleanroom applications

- Cleanroom suitability certified by Fraunhofer Institute
- Fulfils international standards and guidelines for cleanroom applications in accordance with en iso 14644-1 and gmp
- Iso Class 5, gmp Class C
- Low particle emission
- Low air exchange thanks to fast opening and closing speed



INTERIOR

EXTERIOR

PROCESS

SERVICE

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DOOR DESIGN

The entire door (side frame, bottom profile, motor and barrel cover) is made from stainless steel. The smooth surface facilitates easy cleaning and avoids the accumulation of particle deposits.



CABLE GUIDE SEALING

To prevent pressure losses, the cable guide is integrated and access openings inside the door are sealed.



NARROW SIDE COLUMNS / MINIMAL GAP

The dimensions of the door's side columns are kept to a minimum and allow the door to be installed in confined areas. The extremely small gap of the door curtain guide ensures minimal pressure loss.



DOOR CURTAIN

The door curtain consists of PVC with white fabric reinforcement strips.

Fabric reinforcement strips in a wide variety of RAL colours are available as an option.



BOTTOM PROFILE

There is only a small gap between the bottom profile and the side columns, this minimises pressure loss when the door is closed.



SAFETY FEATURES

The door is equipped with an electrical-safety contact edge. A contactless, pre-running safety photocell is available as an option (the well known **sara** safety beam).

In addition, the door is equipped with a door-line photocell which prevents the door from closing when objects are in the way.



INTEGRATED CABLE GUIDE

The cables located in the side columns provide a smooth surface and avoid surface irregularities that increase particle turbulence.

The supply cables of the pre-running safety photocell and the contact strip are guided reliably by an internal, cable-carrier channel.





BARREL COVER / MOTOR COVER

The door is equipped with barrel cover and motor cover as standard.



MOTOR POSITION

The motor can be fitted either on the right or the left hand side.



FREQUENCY CONVERTER CONTROL SYSTEM

The MCC ^{Vector Control} frequency converter control system and the optional battery are located in a compact, sealed compartment under the barrel cover.



CONTROL UNIT AND MAIN SWITCH

The display unit, with its user-friendly foil keypad and graphic display, and the main switch are integrated in the side column.



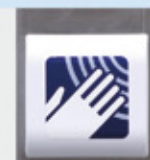
BATTERY BACKUP

Self-opening is available as an option. The battery supplies power to the door control system in case of a power failure. Error and diagnostic messages are indicated by LEDs.



CONTACTLESS OPERATION

A contactless operator is available for fast, hygienic opening.



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Production in a controlled environment, such as a cleanroom environment, is common practice in many industries. Some examples are medical applications, pharmaceutical production, research, electronics production, semiconductor production, and space flight. All components used in cleanrooms are subject to stringent requirements. Particularly in these areas, it is important to keep the production stations clean. In this connection, doors as components of cleanroom areas must prevent undesired air exchange and the uncontrolled entry of airborne particles.

For this area, **sara** has now expanded its product range with a new cleanroom door: the **sara Cleanroom Door**. This is the first door that has been tested by the Fraunhofer Institute for cleanroom suitability.

Advantages of the sara Cleanroom Door

- Well suited to cleanroom isolation in accordance with EN ISO 14644-1 Class 5
- Provides high air-tightness and keeps the pressure drop through the closed door small
- Fast opening and closing ensures very low air loss and minimises air exchange, which results in a low filter burden and increased cleanroom cost-effectiveness
- Smooth surface allows easy cleaning
- Design in accordance with GMP Class C
- Integrated cable guide for a smooth overall surface
- Contactless operation (optional) enables fast, hygienic opening with a simple hand motion

Design

Side frame, bottom profile, motor and barrel cover are made from stainless steel. The cable guide is integrated. Gaskets and sealings to minimize air leakage.

Door curtain

The door curtain is made from clear PVC with vertical white fabric reinforcement strips. Other versions with fabric reinforcement strips in a wide variety of RAL colours are available as an option.

Drive unit

The drive unit is a geared brake motor. It can be fitted on the right or left.

Control system

The door is equipped with the frequency converter control system MCC^{VectorControl}, which supports a wide range of speeds, supply voltages and options for connecting control and safety devices. The MCC^{VectorControl} system is integrated in the overall structure under the barrel cover. The display unit and main switch are located in the side column.

Battery backup

The control system MCC^{VectorControl} can be equipped with a battery for continued operation after a power failure.

Safety features

The door is designed according to the harmonized CE Guidelines including the EN 13241-1.

Indication of risks

The security of the door is designed for normal use corresponding to the harmonized CE-Guidelines. In addition to this, difficult environmental conditions may affect the proper use of cleanroom doors. In this connection, we recommend that you consult our local sales engineers for expert advice on specific situations.

TECHNICAL DATA

Place of installation	Suitable for cleanrooms with pressure differences up to 50 Pa
Cleanroom class	ISO Class 5 – EN 14644-1
GMP	Class C
Leakage (door size 1500 x 2000 mm)	20 m³/h at a pressure difference of 25 Pa
Door dimensions	For details please see general drawing W min./max. 1000 / 3500 mm H min./max. 1000 / 3500 mm W min. and H min. with battery 1500 / 1000 mm
Opening direction	vertical
Drive unit	electrical

Surface	
Side frame	Stainless steel
Bottom profile	Stainless steel
Barrel cover	Stainless steel
Motor cover	Stainless steel

Door curtain	
PVC with white reinforcement strips	✓
PVC with coloured reinforcement strips	•

Control systems / Drive unit	
MCC ^{VectorControl}	✓
MCC ^{VectorControl} with UPS	•
Motor power	0.75 kW
Open / close up to max	2.0 / 1.0 m/s
Fuse protection	10 A max
Control voltage	24 V DC
Protection	IP 55
AC mains connection ¹⁾	3 L / (N)PE 380 / 400 / 415 / 440 / 480 V; 50 / 60 Hz
Additional opening heights	•
Potential-free contacts max. 250 V	•

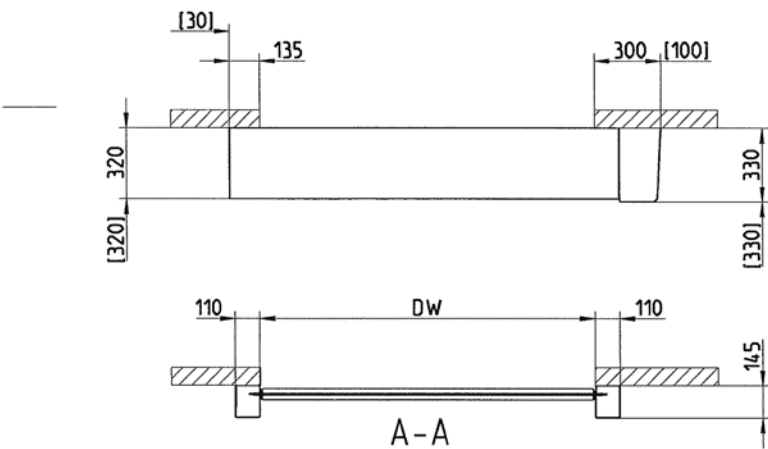
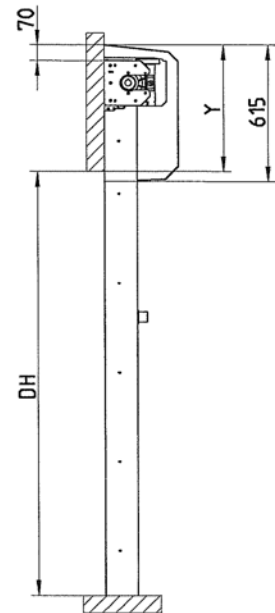
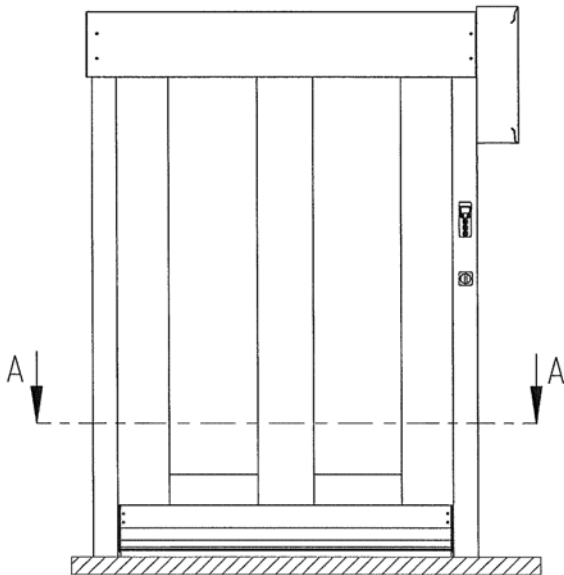
Safety	
Electric safety contact edge	✓
Door line photocell	✓
sara safety beam	•
Fall down protection	✓
Battery backup	•

Traffic light function	
Without direction detection	✓ 24 V DC
With direction detection	✓ 24 V DC
Flashing alarm light	✓ 24 V DC
MCC error message	✓ Text message
Error message	✓ LEDs

- Option
- ✓ Standard
- Not possible

1) External transformer required for 220/230/500 V

Sprint Cleanroom Door: General Drawing



	Y
with safety edge	470
with prerunning photocell	410

[] = Space needed for installation

9300R0002/0
2010-03-04



Preventative Maintenance Contracts

sara LBS offers 1, 3 and 5 year service contracts to help make sure that your equipment is well maintained throughout its life. Whether you bought your loading bay equipment from sara LBS or elsewhere, our CSCS trained engineers are able to ensure that your loading docks, scissor lifts, dock shelters, high speed doors etc. are maintained to the highest standard.

Contracts include regular servicing of equipment, preventative maintenance to stop a problem before it leads to downtime, and regular site inspections. Many of the UK's leading manufacturers and distributors use sara LBS to maintain their facilities, even if the original equipment isn't sara LBS branded.

sara LBS maintains one of the largest UK service networks for loading bay equipment and has engineers on the road 24/7. Service centres can be found across the UK.



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