



KTC-2

with integrated
automatic
sliding door



Safety and comfort combined in a sophisticated entrance system

The entrance area is the showcase of a building. No other component makes such a lasting first impression on visitors or complements the facade so effectively. High requirements therefore have to be placed on the visual quality of a door system, on its design and functionality. The DORMA KTC-2 two-wing revolving door system offers plenty of scope for architectural

creativity. Thanks to the variability of its design and a broad selection of surface finishes, it will enhance the entrance of any building, giving it both uniqueness and style. Easy to operate and suited to the requirements of wheelchair users, the DORMA KTC-2 also raises accessibility and convenience to a new level. The wide range of functions ensures high traffic capacities even during

peak traffic periods plus unbeatable safety. And there are major additional benefits to be had from the suitability of these doors as advertising space. It is furthermore important for the economic operation of a building to provide effective protection of its interior against cold, heat, draughts, noise and dust. The two-wing revolving door DORMA KTC-2 comprehensively meets all

these requirements and is available in four standard sizes with an integrated automatic sliding door. Thanks to its integrated night-shield and glazed drum walls or drum walls with metal panelling, it is suitable for a variety of applications.



Thanks to its integrated automatic sliding door twice as convenient

This intelligent revolving door system with its integrated automatic sliding door will convince both the facility operator and the users of its various benefits.

Revolving door system for average traffic capacities

As long as the number of guests is on an average level, simply adjust the "revolving door" mode. The system's "Slim Design" will provide your entrance area with an inviting look while special brush seals create a sensible

climate barrier between the interior and the exterior of the building. This feature helps to reduce heating or air conditioning costs, while the low energy consumption of the drive motor is a further benefit that should not be omitted.

Sliding door for heavy user traffic

Whenever a large number of guests use the door or bulky items have to be carried through the door system, the facility operator may adjust the "automatic sliding door" mode with the aid of the program switch.

Versions, Functions, Configurations, Options

Specifications and functional characteristics	DORMA KTC-2
Internal diameter (D) in mm	3600, 4200, 4800, 5400
External diameter (B) in mm	3820, 4420, 5020, 5620
Passage width (LW) in mm	1618, 1918, 2218, 2518
Escape route width in mm	= LW
Clear passage height (LH) in mm	2100 – 3700*
Canopy height in mm	300 – 1250
System height (H) in mm	Clear passage height + canopy height
Glazed drum walls	○
Drum walls with metal panelling	○
Version meets different national escape route requirements	○
Floor ring	○
Floor mat	○
Downlights, 4 pcs.	●
Prepared for rain-proof ceiling	○
TÜV type-approved according to DIN 18650	○
Manufactured to DIN 18650	○

● standard ○ option

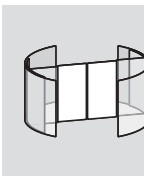
*higher clear passage heights on request

Benefits

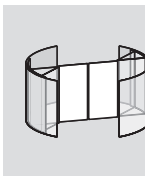
- Spacious entrance
- Easy passage of bulky items
- Suitable for disabled users
- Large sections
- Integrated night shield
- Optional showcases for advertising purposes
- Without showcase only available with a diameter of 3600 + 4200 mm
- Highest safety standard
- Redundant design for compliance with various national escape route requirements
- Complete system manufactured with industrial precision and in assured quality

Versions

KTC-2/0

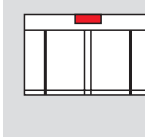
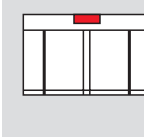


KTC-2/2



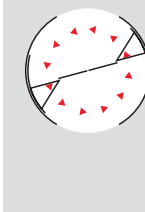
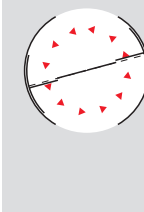
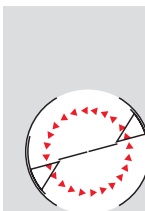
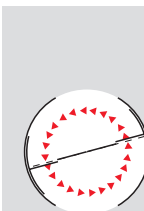
Operator types

Canopy-integrated drive unit



Automatic

I: The door starts and stops automatically
II: The door revolves permanently at low speed, which is increased as soon as a user approaches the door system



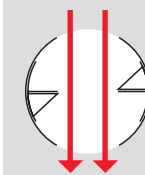
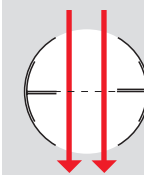
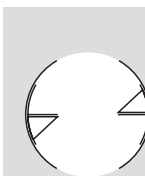
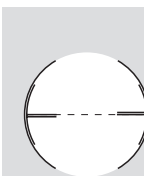
Speed limiter

This feature limits the speed to approx. 1 rpm to suit the requirements of senior citizens and/or disabled people

Configurations

Summer configuration

This configuration is also perfectly suitable whenever bulky items, luggage or consignment deliveries

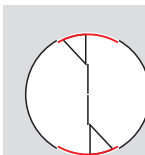
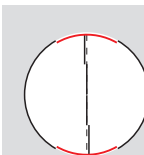


Emergency escape configuration

(depending on national regulations)

Night shield

Turnstile may be locked electrically and mechanically



KTC-2/0 without showcases

- The two-wing revolving door system KTC-2/0 is available in two standard sizes (3600 + 4200)
- With manual or automatic sliding door
- The integrated night shield is equipped with 8.7 mm laminated safety glass
- The drum walls may either be glazed or provided with metal panelling

KTC-2/2 with showcases

- The KTC-2/2 version is additionally provided with two triangular showcases on the outside
- Max. load for showcases = 30 kg
- Available in all four sizes

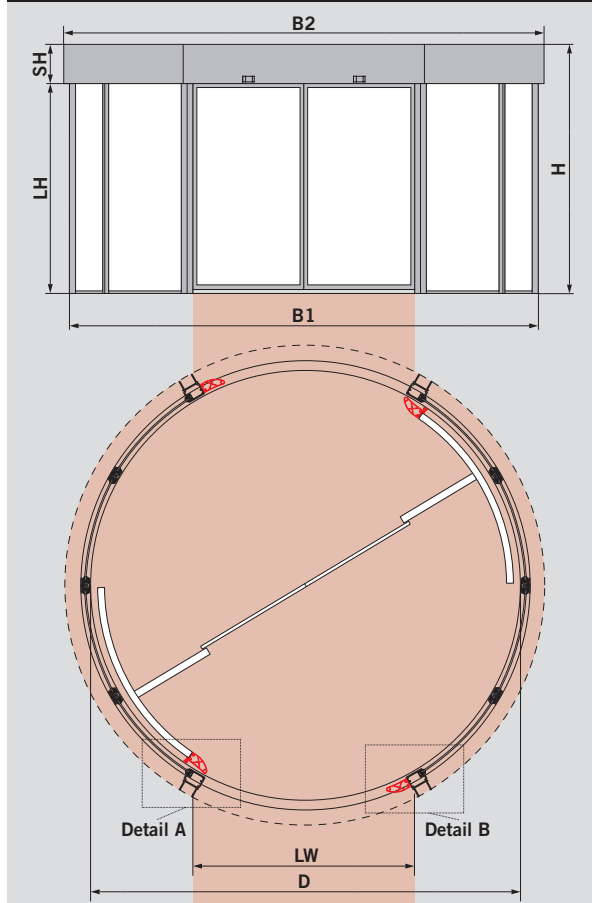
Dimensions

Internal diameter (D)	3600	4200	4800	5400
External diameter (B1)	3664	4264	4864	5464
External diameter (B2)	3820	4420	5020	5620
Passage width (LW)	1618	1918	2218	2518
Clear passage height (LH)	2100 – 3700*			
Canopy height (SH)	300 – 1250			
System height (H)	Clear passage height + canopy height			

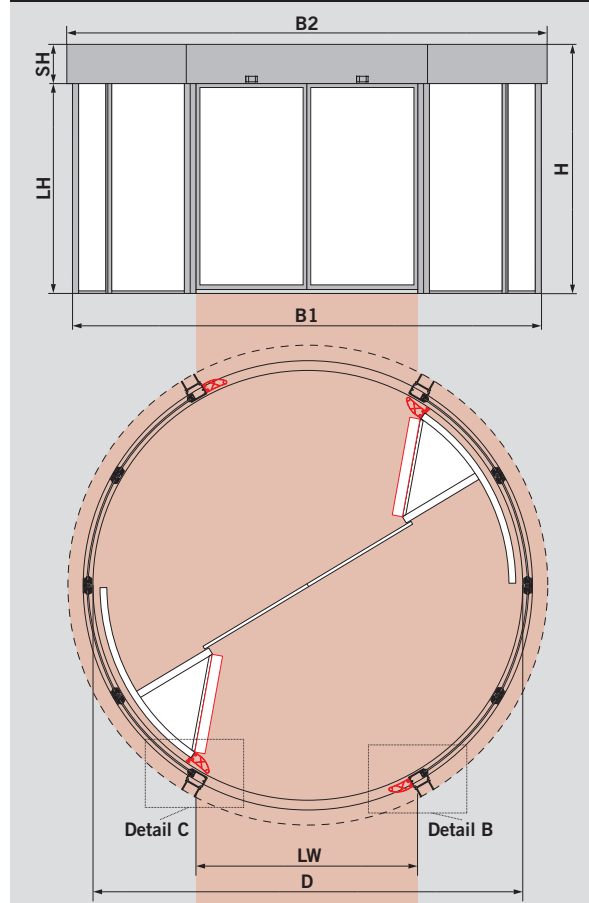
All dimensions in mm

* higher clear passage heights on request

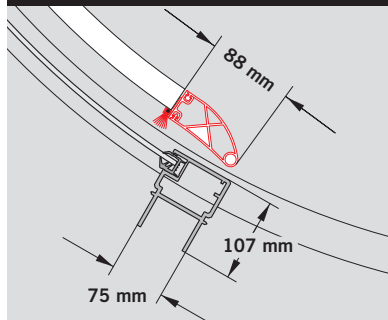
KTC-2/0 without showcases



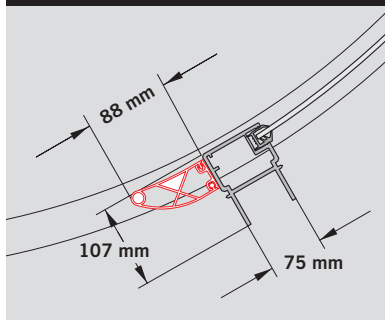
KTC-2/2 with showcases



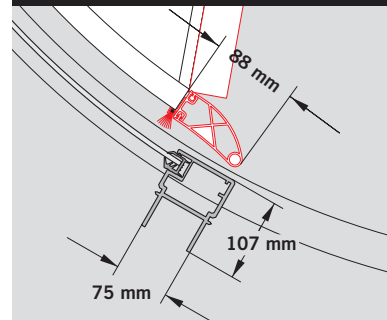
Detail A



Detail B



Detail C



Theoretical passage capacity for KTC-2

All passage capacities in this brochure are theoretical values.

The values have been calculated for access from both directions (one direction = 1/2 value).

The actual values depend, among others, from the form of the showcase, the safety sensors and the environment of the door system.

In practice, the actual values may be lower than the theoretical values.

Access without shopping trolley

Speed at the end of the wing:	0.6	m/sec
Required space per user:	0.7	m ²
Utilization degree per section:	80	%

Diameter (m):	3.6	4.2	4.8	5.4
Users per section:	3.0	5.0	6.0	7.0
Speed (rpm):	3.2	2.7	2.4	2.1
Users per hour:	1145.9	1637.0	1718.9	1764.0

Theoretical passage capacity per hour
= Number of wings x users per section x revolutions per minute x 60 min.

Access with shopping trolley

Speed at the end of the wing:	0.6	m/sec
Required space per user:	2.0	m ²
Utilization degree per section:	60	%

Diameter (m):	3.6	4.2	4.8	5.4
Users per section:	1.0	1.0	1.0	1.0
Speed (rpm):	3.2	2.7	2.4	2.1
Users per hour:	382.0	327.4	286.5	252.0

Theoretical passage capacity per hour
= Number of wings x (users + trolleys per section) x revolutions per minute x 60 min.

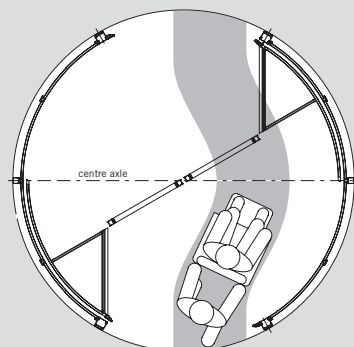
Access with wheelchairs

Speed at the end of the wing:	0.3	m/sec
Required space per user:	2.0	m ²
Utilization degree per section:	60	%

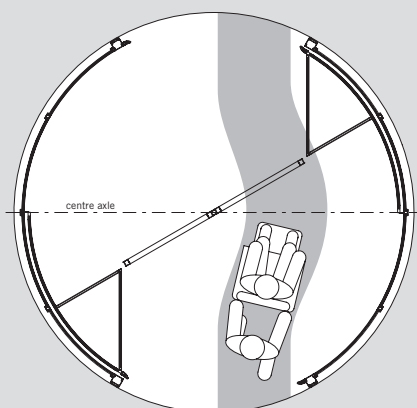
Diameter (m):	3.6	4.2	4.8	5.4
Users per section:	1.0	1.0	1.0	1.0
Speed (rpm):	1.6	1.4	1.2	1.0
Users per hour:	191.0	163.7	143.2	120.0

Theoretical passage capacity per hour
= Number of wings x (users + wheelchairs per section) x revolutions per minute x 60 min.

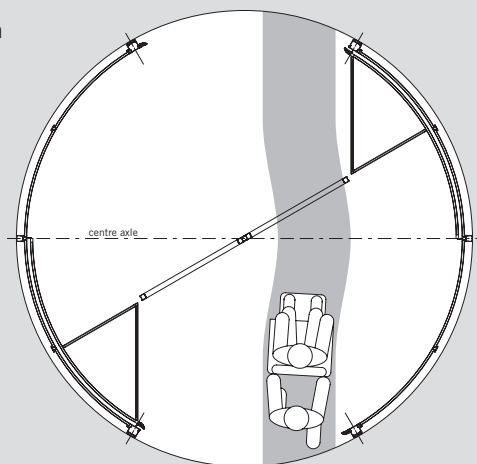
Diameter 3.6 m



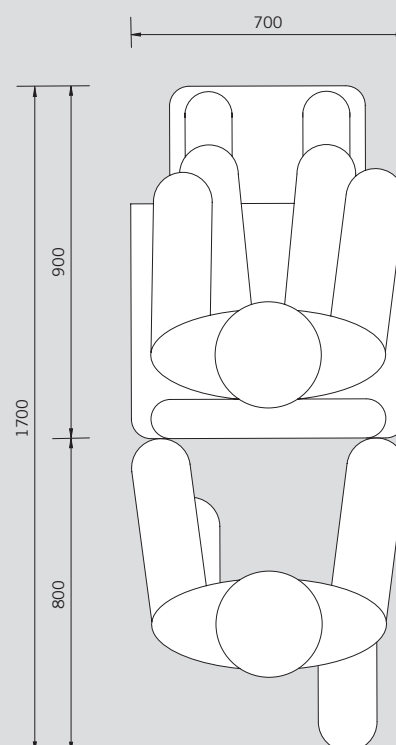
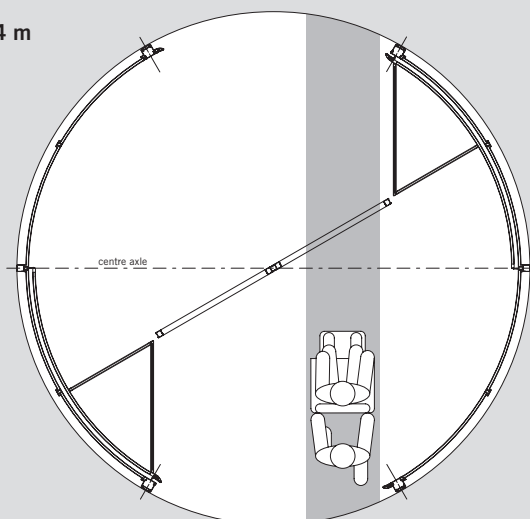
Diameter 4.2 m



Diameter 4.8 m



Diameter 5.4 m

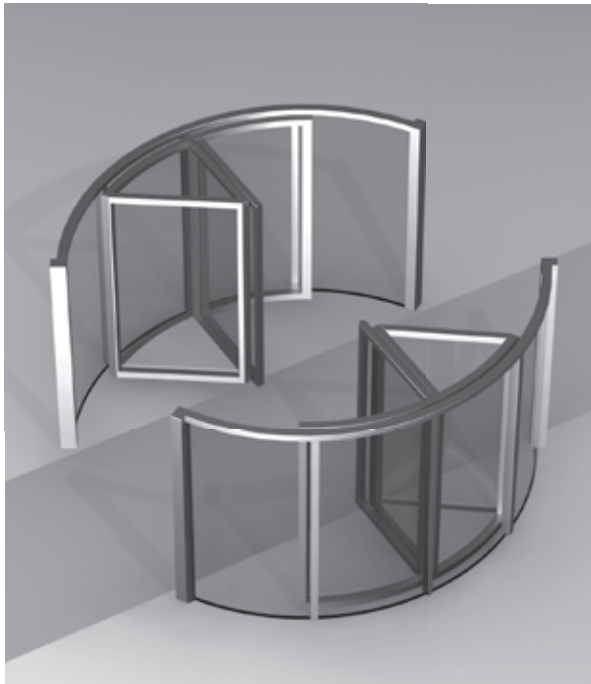


In order to ensure comfortable wheelchair access, various factors have to be considered. The most important criterion is the size of the section. The drawings indicate the required space for a wheelchair user and assistant. Please note that the manufacturer of the door system (DORMA KT-Systems) has only estimated the required dimensions for the wheelchair user plus assistant. However, DORMA KT-Systems would recommend door systems with a diameter of at least 4200 mm to ensure proper wheelchair access. A further important aspect is the door speed. We must assume that the „disabled access pushbutton“ has been activated (before the users have entered the section) and that the speed has thus been reduced to approx. 1 rpm. When planning your door system, you have to consider that the door system has to be equipped with the corresponding optional safety equipment. Please contact the facility operator in order to get information which safety equipment is required for your individual revolving door system.

Smoke extraction function

Whenever the emergency pushbutton is activated, the turnstile will travel to starting position (parallel to the facade axle). As soon as the turnstile

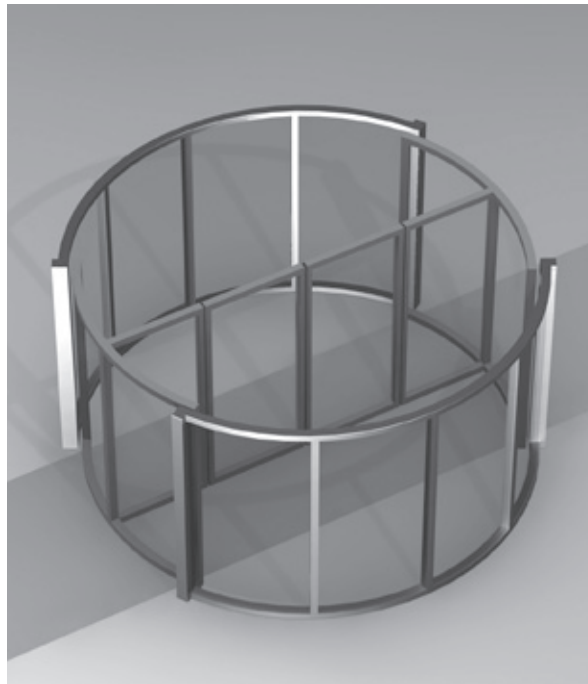
has reached this position, the centre of the door opens automatically in order to create an emergency exit and a smoke outlet.



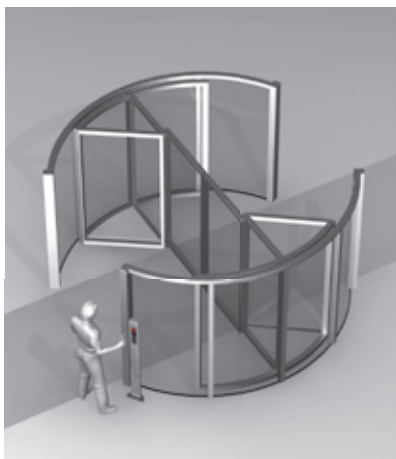
Integrated night shield

As soon as the respective program switch is activated via the program switch, the turnstile moves in order to create the night shield.

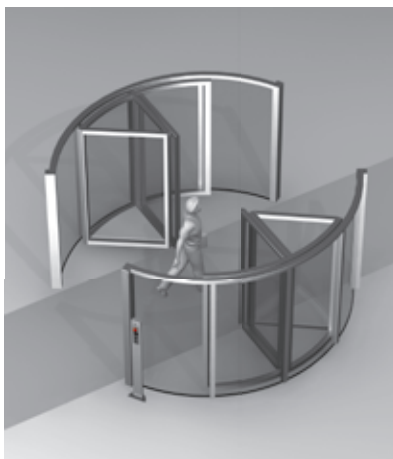
The integrated night shield is designed to close both entrances of the revolving door.



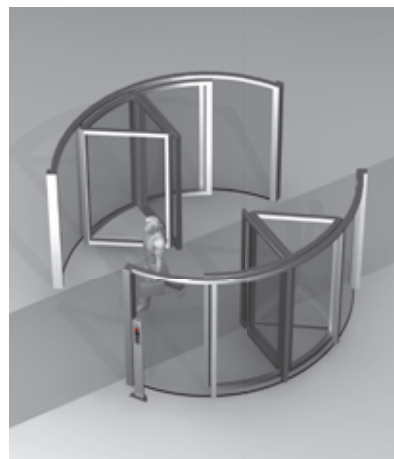
Night-/Bank Function



- The door is in central position.
- Authorised users may enter the door system with the aid of their ID cards.

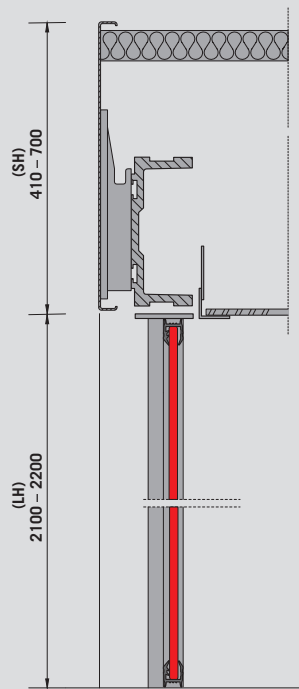


- The sliding door opens automatically.



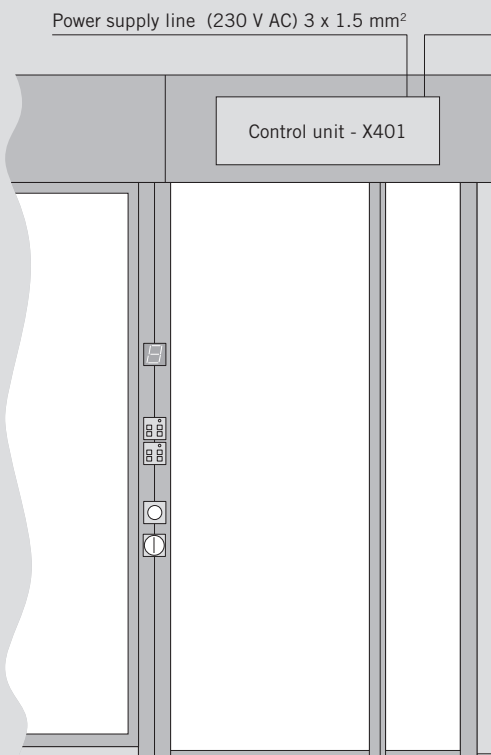
- As soon as a user wants to leave the bank, the sliding door opens automatically via radar motion detectors on the inside of the building.

Cross section



Glazed drum wall or drum wall with metal panelling

Wiring diagram



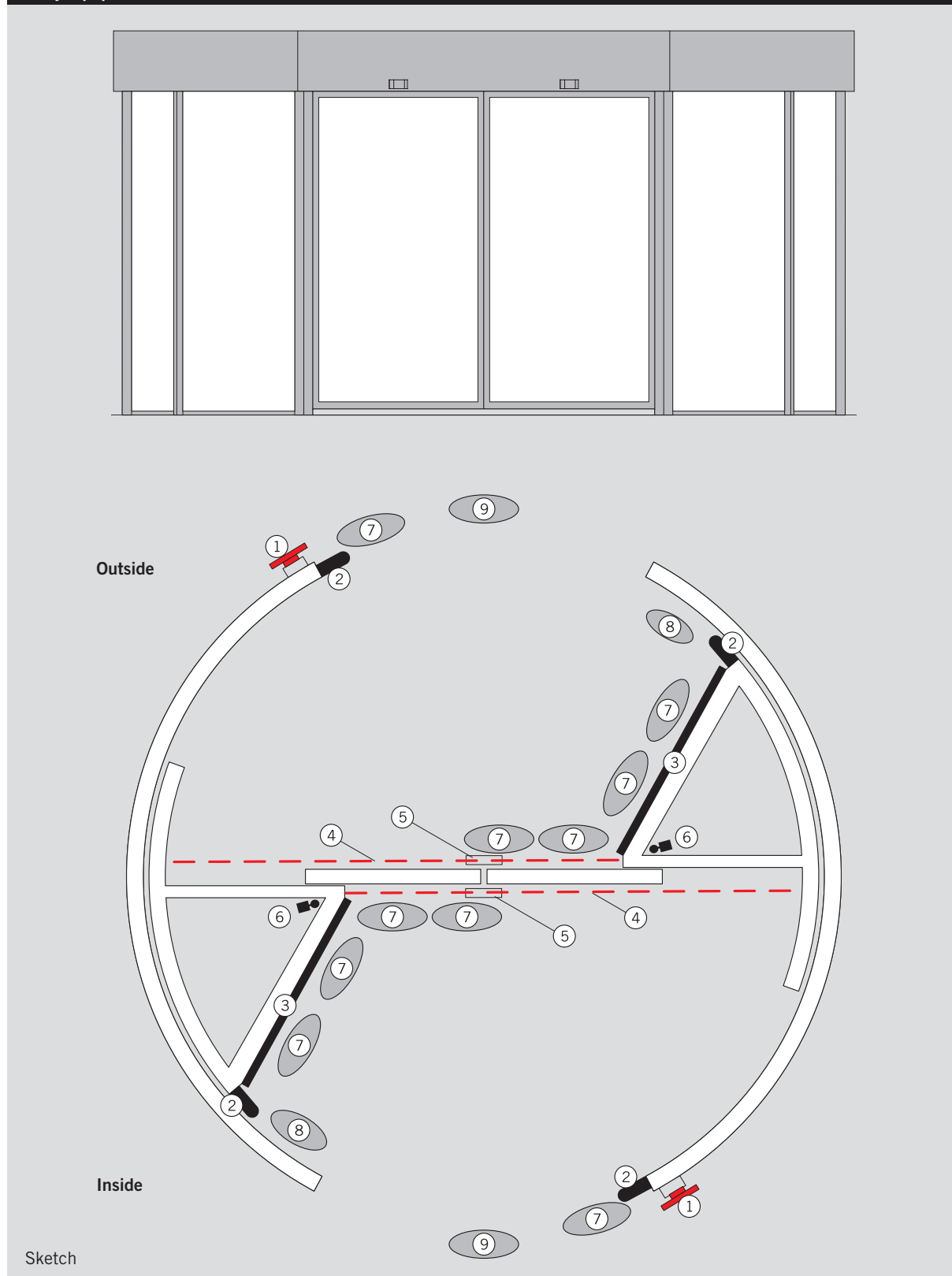
The following in-/outputs are available for external control elements: :

- Input for "external Emergency Stop pushbutton"
- Output "walking speed"
- Output "low speed for disabled users"
- Output "positioning speed"
- Output "activated safety sensor"
- Input "winter configuration"
- Input "fire detection"
- Input "smoke extraction"

The power supply lines for the above-mentioned control elements have to be provided by others (2 x 0.75 mm² respectively).

Equipotential bonding min. 6 mm² (by others)

Safety equipment for KTC-2 (internal control unit MS 9)



- 1 Pushbuttons for Emergency Stop function
- 2 Vertical safety contact strips
- 3 Horizontal safety contact strips
- 4 Light barriers
- 5 Safety sensors for sliding door

- 6 Limit switches of showcases
- 7 Presence sensors
- 8 Pre-detection sensors
- 9 Motion detectors

Safety equipment

DORMA KTC-2 revolving doors offer a comprehensive range of safety equipment to ensure optimum protection of people and objects. The main closing edges are each equipped with infrared presence sensors and safety contact strips. As the showcase arrives at a point of less than 800 mm from the post profile, the infrared presence sensors are activated in addition to the safety contact strips. The horizontal outer edges of the night shield are likewise protected by safety contact strips. The sections are monitored with the aid of an infrared light curtain, which detects

the presence of people or objects. Whenever people are moving too slowly for the revolving assembly, the operating speed will be reduced accordingly.

If a door wing meets an obstruction, the door is stopped until the obstruction has been removed. All safety functions are of redundant design. In addition, pre-detection sensors are integrated in the ceiling and positioned in front of the moving night shield. Their detection range is located right in front of the main closing edge from the ceiling to short above the floor.

Automatic programs/speed limiter

- Two different Automatic functions may be adjusted.
 - “Automatic I”: The door does not move but is activated as soon as a user approaches the door system. After an adjustable period of time, the door will stop in its starting position.
 - “Automatic II”: The door revolves permanently at a speed of approx. 1 rpm. The speed is increased to approx. 3 rpm whenever a user approaches the door and is decreased as soon as the user has left the door system.
- As soon as the speed limiter has been activated by pressing the respective pushbutton, the operating speed is decreased to approx. 1 - 2 rpm.

Please note:

The safety equipment has to comply with the prevailing national guidelines.

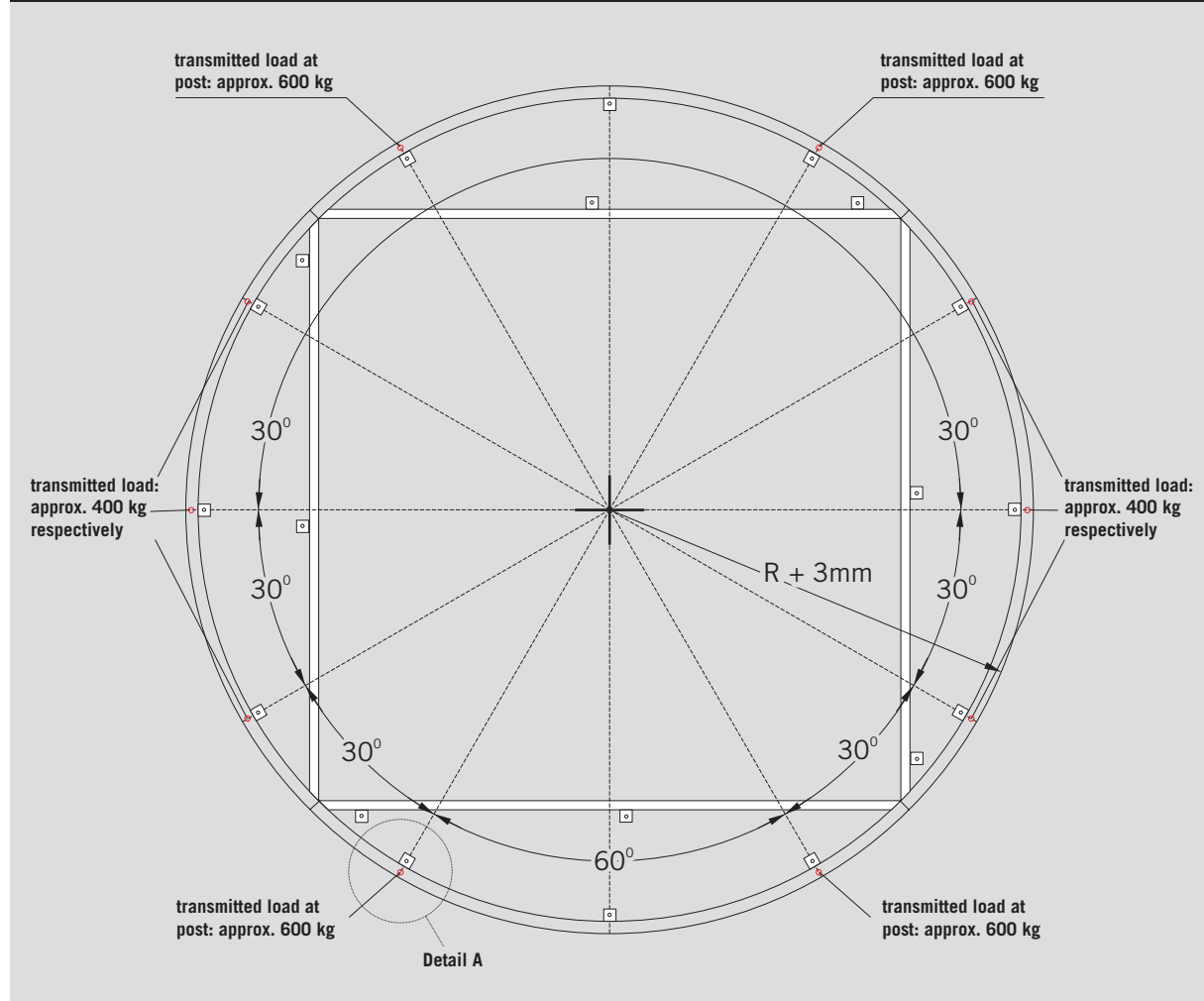
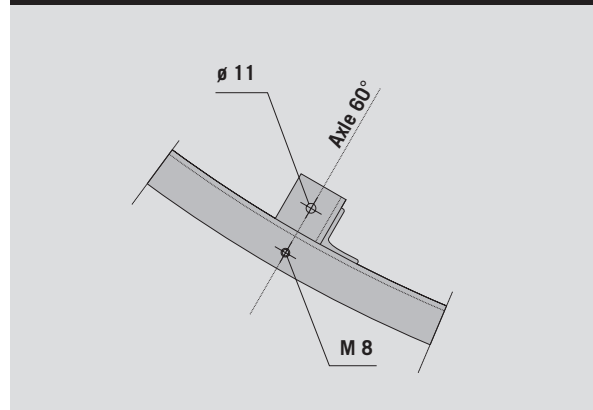
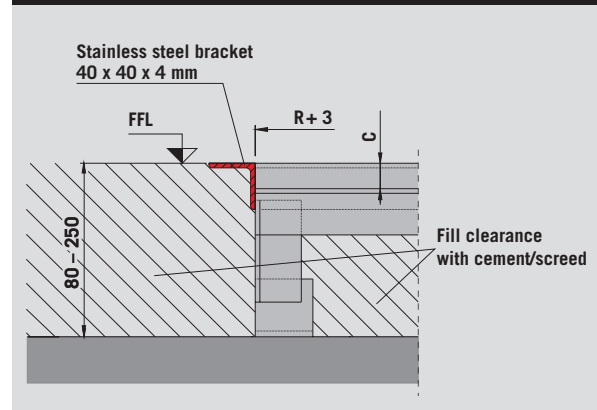
Doors to DIN 18650 require the following safety equipment:

Function




① Canopy-integrated sensor (upper door posts/canopy)	Cycle at low speed/ Stop
② Safety contact strip (door posts)	Stop
③ Safety contact strip (bottom of showcase)	Stop
④ Safety contact strip (front edge of integrated night shield)	Stop
⑤ Emergency pushbutton (internal door post)	Stop
⑥ Emergency pushbutton (external door post)	Stop
⑦ Light barrier (bottom of wing)	Stop
⑧ Top sensor (top of sliding door panel)	Cycle at low speed/ Stop
⑨ Top sensor (top of showcase)	Cycle at low speed/ Stop
⑩ Pre-detection sensor (front edge of integrated night shield/lower ceiling)	Cycle at low speed/ Stop
⑪ Limit switch of showcase (wing of showcase)	Stop
⑫ Disabled access pushbutton (post)	Cycle at low speed

Floor ring

Overall size (internal diameter of door system)	3600	4200	4800	5400
Nominal radius (R)	1800	2100	2400	2700
Floor mat (C)	up to 30			
All dimensions in mm				


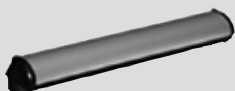
Floor ring KTC-2**Detail A****Cross section**

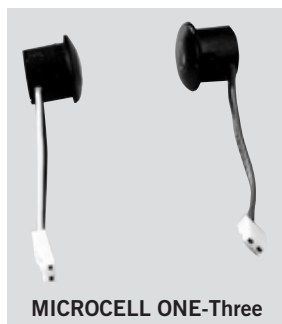
External emergency pushbutton (option)

Emergency pushbuttons	Designation	Specification
 <p>TL-N S55</p>	TL-N S55	Highly-illuminated emergency pushbutton environment with visual locking status indication, optical and acoustic alarm via yellow flashlight and integrated alarm siren, sabotage-proof, behind glass, not including frame NO contact: 1, NC contact: 1, max. load current: 1 A at 24 V DC, flush-mounting, 80 x 80 mm System 55
 <p>NAT 1</p>	NAT 1	Designed to interrupt the automatic movement of the door. Emergency pushbutton for automatic door operators. Manufactured according to ZH 1/494 (German Guidelines for power-operated windows, doors and gates) and BGR 232 (German Employer's Liability Insurance Association Rule) as well as DIN 18650 (German Industrial Standard). Red knob with yellow centre insert. Max. load current: 10 A at 230 V AC NO contact: 1, NC contact: 1, white frame, flush-mounting, 80 x 80 mm System 55
 <p>NAT 4</p>	NAT 4	NO contact: 1, NC contact: 1, surface-mounting, 68 x 68 mm

Active infrared detector

Active infrared system to monitor the passage area and secondary closing edges. Designed to detect the presence of people and objects

Active infrared detector	Designation	Specification
 <p>IRIS ON</p>	IRIS ON C	Black
Infrared safety sensor	Designation	Specification
 <p>4SAFE</p>	4SAFE	Active infrared safety sensor with background evaluation

Infrared light barriers**Designation****MICROCELL ONE-Three****Specification**

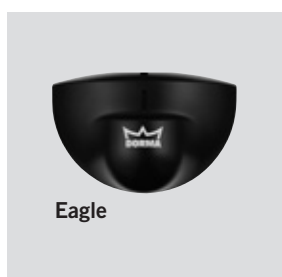
Infrared light barriers consisting of a transmitter and a receiver with round amplifier

Radar motion detectors (option)

The user-friendliness of automatic doors considerably depends on the type and the design of the respective activator.

The DORMA sensor range provides the required flexibility for all kinds of applications combined with maximum reliability and user comfort.

These systems effectively detect moving people or objects in order to activate (open) automatic doors.

Radar motion detectors**Designation****Standard motion detector****Specification****Air Motion**

Standard, black

Radar motion detector with direction recognition

Direction recognition for perfectly controlled opening and closing cycles.

Eagle 1

with direction recognition, black

**Accessories for Eagle detectors**

Rain protection cover, transparent

Program switches

Program switches



Designation

Standard program switch

lockable,
mounted on post



Program switch

lockable via Euro profile
half-cylinder (option)



Box for surface-mounting

for program switch
for Euro profile half-cylinder (option)



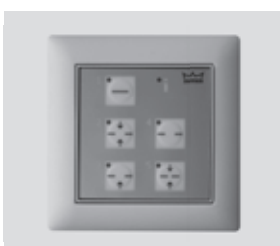
Box for flush-mounting

for program switch
for Euro profile half-cylinder (option)



Membrane keypad

for KTC 2



Membrane keypad

for sliding door of KTC-2

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Philippines
DORMA Door Controls Pte. Ltd.
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(Sales)
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DORMA Emerald Entrance
Systems Pte Ltd
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DORMA Door Controls Pte. Ltd.
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Region France

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Region Gulf

Saudi Arabia
DORMA Arabia Automatic
Doors Ltd.
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Security Time
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Movable Walls