



Physical access control (PAC) solutions by record

Architects and security specialists are called for to propose solutions for the effective handling of access control in non-residential buildings. These are the most important factors to be taken into consideration when making decisions regarding access control:



Access control – at the highest level

Access control in buildings is concerned with safeguarding access points to sensitive areas in corporate or public buildings, critical infrastructures and industrial buildings. If it is not possible to man the building with security staff 24/7, access points can be protected against unauthorised access, burglary and breaching by means of access control systems and security doors. Building security allows for a spatial separation between unsafe (public) and safe areas – without compromise. At the same time, the productspecific security level determines the level of the actual physical access protection while the detection level determines the detection of breach attempts and misconduct. From our wide portfolio, together we will find the suitable product solution to meet your individual security requirements.



Thom - Comfortable and fast access to your destination

In our fast-moving society, there is a demand for automatic door concepts, which control the flow of people according to local requirements. In most cases, the people flow rate decreases with increasing security requirements – and vice versa. Our wide portfolio offers both: access solutions for the highest security requirements and solutions for highly frequented access points and any level in between. The modular concept creates the basis for modern, protected access areas so that even peak numbers of visitors can be handled without waiting times. Wide lanes and contactless activation are used to provide barrier-free access. The main focus here is on convenient, hassle-free passage.



Connectivity – intelligence interconnected with the building

Our door solutions can be linked in an intelligent manner with a wide variety of building management systems and transmit the messages in real time, including alarm messages, status information, manipulations and violations, technical malfunctions or the operating mode. Depending on the product, we offer wired and wireless connections to monitor the door systems and to be able to react guickly from a distance if necessary.



Installation & maintenance – always available and ready to use

Whether new building project, refurbishment, modernisation or retrofitting, most of our door systems can be integrated into the building concept both during the early phase and as a retrofit solution. Our proven and tested product concepts enable shorter installation times and easy commissioning. Our wellproven maintenance concept guarantees the highest system availability at all times and virtually prevents any failures.

What architects say...



"record physical access solutions meet the highest demands on design and looks. They inconspicuously blend into the building shell and are perceived as elegant and an unobtrusive access solution. Entrance areas are visually enhanced by them, exude elegance and create a feeling of safety when people cross them. Apart from the growing demands on aesthetics and building security, today's modern building concepts also offer a greater degree of convenience for building users – the concept is a holistic one."

What access control specialists say...

"The required security or the expected risk potential define the security level to be selected for the building. This level is decided on within the scope of conceptional design and consulting on the selection of products and should be in balance with the expected number of people to be handled."



Effective access control for offices and many other commercial premises is not as easy as it sounds.

Access control managers have to consider the required security level and weigh it up against the expected flow rates. The aesthetic aspect needs to be taken into account as well. Entrance areas should harmoniously blend with the overall impression of a reception area and not distract from it.

The overview table on the following page will assist you in determining the correct product type for your case.



Which security requirements need to be considered?

Portfe	olio overview										
Category	Range → Criteria	PAC – R3 3-wing security revolving door	PAC - R4 4-wing security revolving door	PAC – P Security portal	PAC – S Speedgate Swing Slim	PAC – S Speedgate Swing Advanced	PAC – S Speedgate Slide	PAC – S Speedgate Flap	PAC – T Tripod	PAC – T PROTECT full turn	PAC – E FlipFlow Exit lane breach control
>	Security level										
Security	Detection level									I	
S	Burglary protection	RC 2/RC 3	RC 2/RC 3	No	No	No	No	No	No	No	No
	People flow rate									.	
>	Direction of movement	C	C							One direction or two directions	\rightarrow
Flow	Passage comfort		=		****					=	
	Accessibility			F	Ė	Ŀ	F	Ė			F
Connectivity	Wireless technology	i-record	i-record								i-record
Conn	Connection Building Management System (BMS)	Inputs / Outputs	Inputs / Outputs	Inputs / Outputs	Inputs / Outputs + MODBUS	Inputs / Outputs + MODBUS	Inputs / Outputs + MODBUS	Inputs / Outputs + MODBUS	Inputs / Outputs + MODBUS		Inputs / Outputs + MODBUS
Installation	Outdoor/indoor application	indoor + outdoor	indoor + outdoor	indoor + outdoor	indoor + outdoor	indoor	indoor	indoor	indoor + outdoor	indoor + outdoor	indoor
	Installation space	M	M	M	S	S	S	S	S	M	L
sul	Retrofittable	Yes, but not contact mat	Yes, but not contact mat	Yes, but not contact mat	Yes	Yes	Yes	Yes	Yes	Yes	Yes

PAC-R3 / R4 Security revolving doors

The three- and four-wing record security revolving doors allow controlled access to security areas. The modular product concept permits the integration of almost any common access control and identification system and reports events to the building management system if necessary. Intelligent sensor technologies monitor all entry and exit points in the revolving door.

Product profile

Category	Criteria	Security revolving door
Security	Security level	5 star
	Detection level	high
	Burglary protection	RC2/RC3
Flow	People flow rate	average
	Direction of movement	in and out
	Passage comfort	average
	Accessibility	
Connectivity	Wireless technology	i-record, Bluetooth
	Connection options	floating contacts
Installation	Outdoor/indoor application	indoor + outdoor
	Installation space	Μ
	Retrofittable	

Dimensions

	3-wing	4-wing
Outside diameter Q	1600 – 2700	1800 – 2700
Passage width A	700 – 1150	1130 - 1630
Passage height G	2200 - 2500	2200 - 2500
Canopy height below passage height	300 – 1 000	300 – 1 000

Security level: Average and high

Depending on the required safety level, we offer three different levels of access monitoring for your building protection:

Security level	Access monitoring	Tailgating	Piggybacking
Middle	Access control system + presence detection by means of (infrared sensors or contact mat)	Yes	No
High	Access control system + TOF 3D camera	Yes	Yes

Access control and biometrics

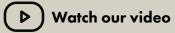
Whether RFID reader, fingerprint scanner, vein scanner, iris scanner or face recognition - virtually all solutions and combinations for the identification and authentication of persons can be connected to the door control.











Security revolving door

- Tailgating attempt
- Piggybacking attempt
- Burglary attempt
- Access control systems and biometrics
- High people flow rate
- i-record



PAC-P Security portal

The record security portal guarantees a safe access control for secure, vulnerable and protected areas. Two round sliding doors are constructively connected with each other in such a way that they form an interlock system to separate people, ensuring that only one door is open at a time. Authorisation via the access control system sets off the procedure. The second door will only open, giving access to the building, following a successful scrutiny inside the interlock system. The security level determines which violations are being detected and prevented.

Product profile

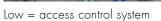
Category	Criteria	Security portal
Security	Security level	5 star
	Detection level	high
	Burglary protection	
Flow	People flow rate	low, 4-6 p/min
	Direction of movement	in and out
	Passage comfort	average-high
	Accessibility	
Connectivity	Wireless technology	i-record, Bluetooth
	Connection options	floating contacts
Installation	Outdoor/indoor application	indoor + outdoor
	Installation space	M
	Retrofittable	

Dimensions

	600 mm	900 mm	1 100 mm	
Outside diameter Q	1 035 mm	1 455 mm	1 <i>7</i> 35 mm	
Passage width A	600 mm 900 mm		1 100 mm	
Passage height G	2 100 - 3 000 mm			
Overall height	min. 2 320 mm			

Security level







Middle = anti-tailgating detection



High = anti-piggybacking detection

Low security level

Without sensor system to automatically monitor the number of persons. To be used as an airlock for separating people.

Middle security level

Monitoring of anti-tailgating. Prevents a second person from following an authorised person through the airlock unnoticed.

High security level

Monitoring of anti-tailgating and anti-piggybacking. Prevents a person from carrying another person without access rights through the airlock using TOD 3D sensor technology.





PAC-S Speedgates

record Speedgates create a contactless passage, which can be conveniently used with bags or luggage. The short opening and closing times permit a high passage frequency at maximum people safety. The integrated sensor system detects any movements in the passage area of the gate and permits a particularly high passage convenience at a high security level. Unauthorised access attempts are reliably detected and prevented.

Product profile

Category	Criteria	
Security	Security level	3-star
	Detection level	high
	Burglary protection	_
Flow	People flow rate	high, 20 persons/min
	Direction of movement	in and out
	Passage comfort	high
	Accessibility	yes
Connectivity	Wireless technology	
	Connection options	floating contacts
Installation	Indoor/outdoor application	Indoor application only
	Installation space	S
	Retrofittable	yes

Dimensions

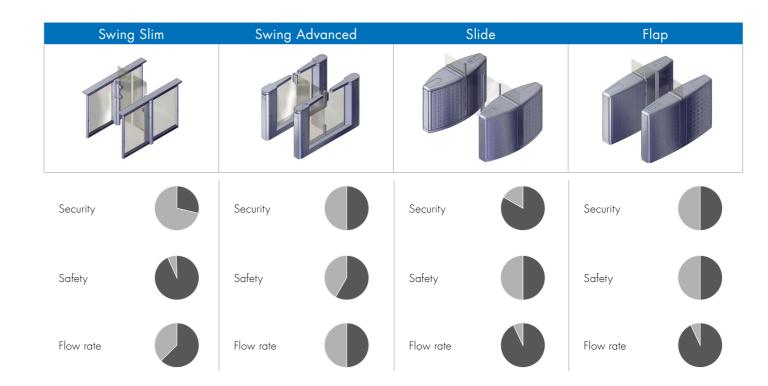
	Swing Slim	Swing Advanced	Slide	Flap
Passage width A	600 / 900	600 / 900	550 / 900	550 / 900
Door leaf height	800 / 1 200 / 1 500 / 1 800	1000/1200/1800	950	1 200 / 1 800
Housing length	1200/1400/1870	1500/1925	1448/1932	1448/1932
Housing width	120 + 65 (left / right) 120 + 130 (centre)	170	300 (A=550) 480 (A=900)	300 or 480

Infrared body temperature detection / hygiene mask detection

- Camera with combined infrared sensor / image analysis
- Recognises whether a user is wearing a hygiene mask
- Contactless body temperature detection with a measuring range of 30 – 45° C and an accuracy of \pm 0.3° C. Integrated into the range of turnstile functions, this offers the possibility of refusing passage if no mask is identified.







The product modularity offers a variety of visual and functional product configurations. At the same time, several access control systems such as code card readers or biometric systems can be integrated in the housing in an invisible manner. Unique and mature algorithms help detect unauthorised access attempts. These different configurations translate into different features and possibilities. Which subsequently has an effect on security, flow rate, safety and installation space.





PAC-T Tripod turnstiles

record Tripod turnstiles offer a compact and low-cost entry into the realm of physical access control. The product solution permits smooth and quiet access to secure areas and is characterised by a high people flow rate and a sturdy access protection of areas with low security requirements. The locking turnstile enables people to pass through in both directions and is characterised by a low space requirement. Optionally, one arm can be folded to open the passage for escape purposes.

Product profile

Category	Criteria	Security gateway
Security	Security level	2
	Detection level	2
	Burglary protection	no
Flow	People flow rate	high, up to 20-40/min
	Direction of movement	in and out
	Passage comfort	average
	Accessibility	no
Connectivity	Wireless technology	no
	Connection option	floating contacts and MODBUS RS485
Installation	Indoor/outdoor application	Indoor and outdoor application (under one roof)
	Installation space	S
	Retrofittable	yes

Dimensions

	Dimensions
Passage width A	480 mm
Height of housing	950 mm
Width of housing	270 mm
Height of locking turnstile	797 mm
Overall width	820 mm
Length of housing	1,004 mm

Security

Apart from the basic version, the locking turnstile is available in the ATT-ITC version, which is provided with additional security features and detects additional misuses:

- Simulation of passages
- Crawling underneath
- -Jumping over
- Climbing over





Product features

- Arrow / cross display
- Locking unit
- Input fire alarm
- Free passage during power failure
- Configurable as fail-safe or fail-secure
- Foldable arm for evacuation purposes
- Holding fixture for card reader

Apart from the standard version, further product types are available: for example in double lane design.

PAC-T PROTECT full height turnstiles

record PROTECT full turn manual turnstiles create protected access to safeguarded indoor and outdoor areas. This access solution is a particularly sturdy design and can be used as a one-way or two-way solution. Single or multiple lane product types are available to choose from.

Product profile

Category	Criteria	Security gateway
Security	Security level	4
	Detection level	2
	Burglary protection	no
Flow	People flow rate	high, up to 12-17/min
	Direction of movement	One-way traffic or two- way traffic
	Passage comfort	low
	Accessibility	no
Connectivity	Wireless technology	no
	Connection option	floating contacts MODBUS RS485
Installation	Indoor/outdoor application	Indoor and outdoor application (under one roof)
	Installation space	M
	Retrofittable	yes

Dimensions

	Turnstile 90° single	Turnstile 120° single	Turnstile 90° double	Turnstile 120° double
Passage width A	692	692	2x 692	2x 692
Passage height G	2100	2 100	2100	2100
Overall height H	2393	2393	2393	2393
Overall length	1 603	1 603	2442	2442
Overall width	1317 / 1654	1157 / 1492	1 654	1 576

Security

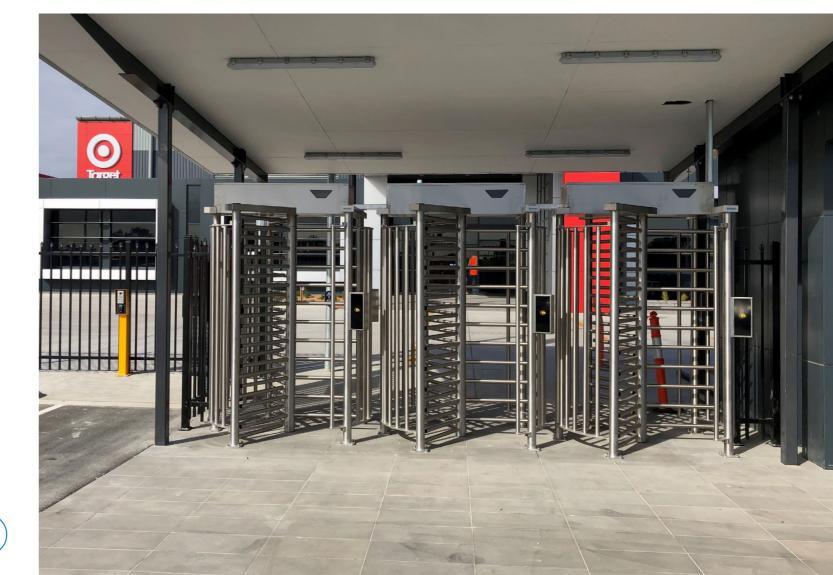
All record PROTECT full turn reliably protect your access points and prevent unauthorised access attempts such

- Crawling underneath
- -Jumping over
- Climbing over
- Any form of tailgating and unauthorised reverse movements

Product features

- Detection of timeout when leaving the corridor
- No reverse turn possible during passage
- Self-centring to basic position
- Active lock which prevents two people from passing at once
- Locking unit
- Input fire alarm
- Free passage during power failure
- Configurable as fail-safe or fail-secure







PAC-E FlipFlow – Exit lane breach control

The record FlipFlow systems guarantee an automatic control of the flow of people in airports and other secure areas in one direction. People are able to pass barrier-free through the door system in a one-way direction. As soon as a person or object starts moving into the door system in the opposite direction, an alarm is sounded and the door system is closed and locked immediately. Any attempt to breach into the secure area is thereby reliably detected and prevented. In daily use, the FlipFlow systems have proven to be user-friendly, easily accessible, reliable and low-maintenance.

Product profile

	Category	Criteria	Security gateway		
	Security	Security level	4-5 stars		
		Detection level	high		
		Burglary protection	_		
	Flow	People flow rate	very high		
		Direction of movement	one direction		
		Passage comfort	high		
		Accessibility	yes		
	Connectivity	Wireless technology			
		Connection options	floating contacts		
	Installation	Indoor/outdoor application	Indoor and outdoor application		
		Installation space	L		
		Retrofittable	yes		

Dimensions

FlipFlow versions	WIDE	SINGLE	TWIN	TRIPLE	Customised lane design	Option: Extended	Option: Advanced	
Security level								
Reverse movement detection	one zone	multiple zones	multiple zones	multiple zones	multiple zones	+ early detection	+ early detec- tion	
Detection of thrown-in objects	No	larger objects					small objects	
Flow of people	3600 – 4500 per hour		3600 – 4500 per hour			no influence		
People flow rate	People flow rate not availab		approx. 500 per hour			no influence		
Passage width	assage width All products are available with a passage width of 650, 900, 1100, 1200, (1400) mm							
Surface	All products are available in aluminium (RAL colours) or stainless steel design							













Return on Investment – worthwhile in the long run

Wherever the security requirements are high, additional costs arise. With physical access control solutions from record, arising costs can be reduced many times over. At the same time, the number of required security staff can be reduced to a minimum (manned access) or saved completely (unmanned access). Additional savings potentials arise in the energy balance of the building shell if the door system can be integrated into the façade.

Long-term focus on hygiene

Covid 19 has taught us how much can be achieved with an efficient implementation of hygiene measures. The topic of hygiene plays an important role in public buildings.

No touching – that is particularly true for doors. Automatic doors help to reduce hand contact in public. We offer solutions that can be implemented with little effort and expenditure. For example, non-contact pushbuttons or sensor products together with a revolving wing door drive will solve the problem in the long-term.

Product portfolio

Automatic sliding and revolving wing doors, thermally separated doors, telescopic sliding doors, fully opening systems, folding door systems, clean room doors, gate systems... Have a look at our websites online to find out which other products and access solutions we offer.

Service

With our globally qualified service network we offer you the fastest possible support for door and gate systems. The i-record app supports the technician during service and maintenance work in an intuitive manner and contributes to rapid troubleshooting with an exact diagnostics of the entire door system. Downloadable updates ensure a reliable and extended operation of the automatic door system.

Maintenance

Periodic maintenance is indispensable to ensure that your automatic door functions perfectly for decades and that the safety regulations are complied with at the same time. Benefit from the variable services of the record maintenance agreements, which allow you to significantly reduce your own operating and maintenance costs.

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Headquartered in Switzerland, the record group sells its products and services across the globe and is directly present with subsidiaries in many countries.

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