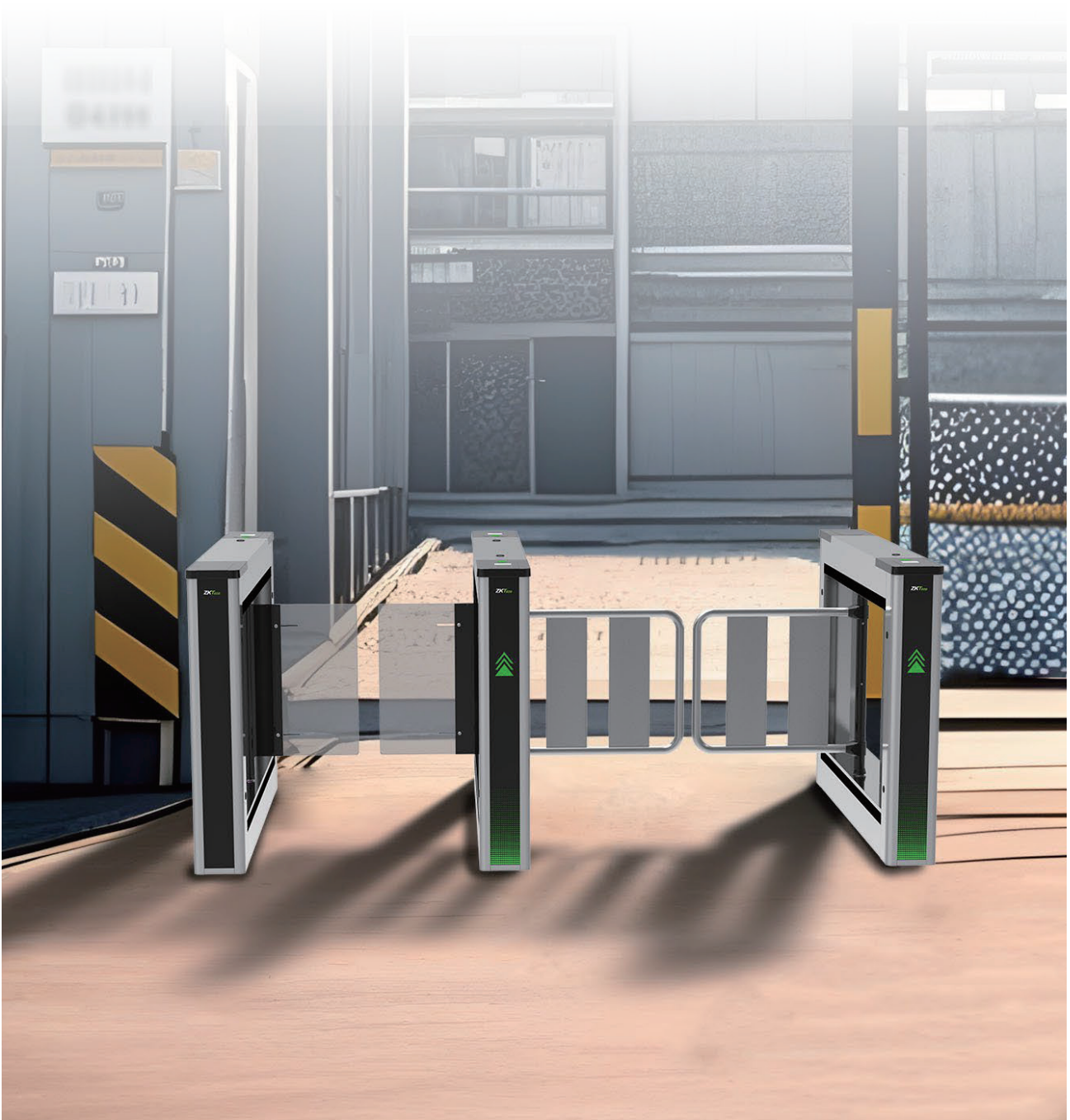ZKTeco

Saturn-S2000 Series

Secure and Spacious
Ultra Wide Lane Design for Motorcycle Access

ZKBio CVAccess

ZKBio CVSecurity

Introduction

Unveiling the ZKTeco Saturn-S2000 , an innovative swing barrier turnstile designed for an unparalleled passage experience. The Saturn-S2000 offers two models (S2000 and S2200). Its chassis is mainly made from stainless steel material(SUS304), providing an IP54 protection rating that ensures it can withstand water and dust. Also, Saturn-S2000 is equipped with a clutch to enhance security.

The Saturn-S2000 has been upgraded with a notable feature: a standard 12 pairs of infrared sensors (expandable to 18 pairs) with integrated dual-zone pinch protection. It ensures enhanced safety and improved obstacle detection. Also, the authentication area is enhanced with 2.5D tempered glass for scratch resistance.

Saturn-S2000 maintains its multi-authentication flexibility as before, with facial, QR code and RFID card verification. Additionally, Saturn-S2000 features an expanded 900-1200mm channel width with stainless steel swing barrier, specifically engineered to accommodate both pedestrians and two-wheeled motorcycles. The robust design maintains security while allowing smooth transit for authorized vehicles.

Modular Design and Lid Options / Authentication Methods

• RFID Authentication
• Facial Authentication(Surface Mount)
• QR Code

2.5D Tempered Glass

The top part of the gate is made of polycarbonate and the identification area is embedded with 2.5D tempered glass, which is scratch and wear resistant, secure anti-tamper design and clear visual.

Dual-zone Multi-Color LED Status Indicators

The top lid has three colors of LED lights: red, green, and blue. The front column has red and green lights for the passageway.

Pedestal Removable Design

Both side pedestals can be removed, providing maximum convenience during installation.

Floating Base System

For flexible installation and it is compatible with various floor surfaces. With floating beam architecture.

Durability

The lid is made using an integrated molding process, achieves an IP54 protection rating, offering robust defense against water and dust. The product is designed to thrive in extreme conditions, maintaining functionality after an 8-hour period in sub-zero temperatures as low as -30℃.

Material Innovation

The outer surface is treated with stainless steel brushing, steel surfaces with unique, uniform, and delicate filament - like textures, adding a sense of sophistication and a high - end look. The resulting soft luster is more comfortable to the eye compared to the intense reflection of mirror - finished stainless steel. In terms of durability, it significantly improves scratch and wear resistance, and also enhances corrosion resistance to some extent by optimizing the surface microstructure. The identification area is elegantly embedded with 2.5D tempered glass, which is resistant to scratches and wear, enhancing the clarity of the identification process.

DC Brushless Motor

The Saturn-S2000 uses DC brushless motors, which are stable and reliable, and the movement life reaches 5 million MCBF.
The barrier material is made of acrylic and the default lane width is 600mm, and an optional lane width 900mm is available.
*When the lane width extends beyond 900mm to 1200mm, the barrier must be upgraded to stainless steel (replacing the acrylic material).

*Stainless steel barrier material required for lane widths exceeding 900mm.

Safety and Security

The safety features include opening the gate when power is cut, multiple anti-pinch functions, and the product has an emergency door - opening function. Whether there is a power outage or a fire incident, the device can be activated to the normally open mode. Regarding the anti - pinch feature, it not only has multiple pairs of infrared sensors to prevent pinching people, but also an internal clutch that can respond immediately to stop the device from further operation. It provides a standard of 12 pairs of infrared sensors, expandable to 18 pairs for enhanced coverage. This comprehensive detection system precisely identifies unauthorized access attempts including tailgating, reverse passage, and crawling incidents.
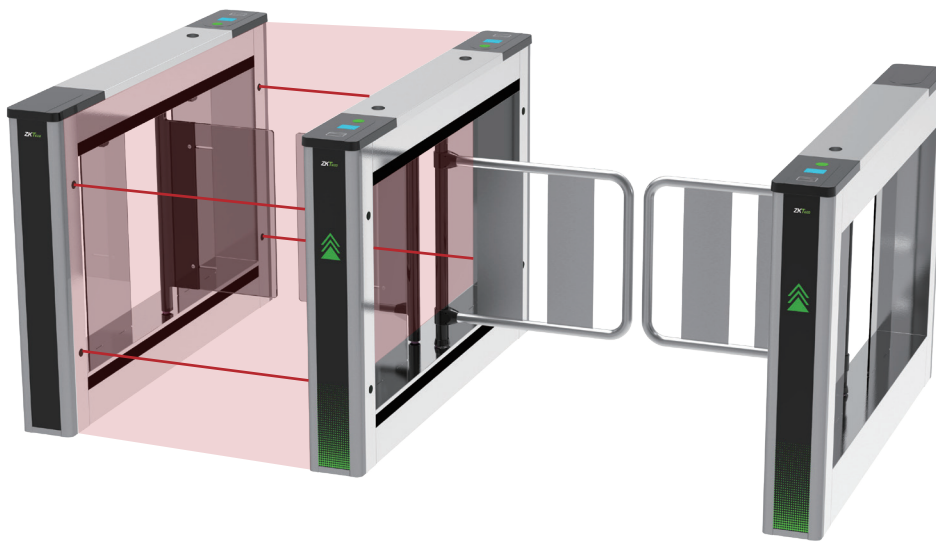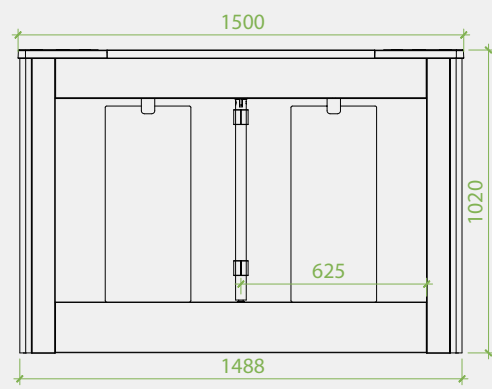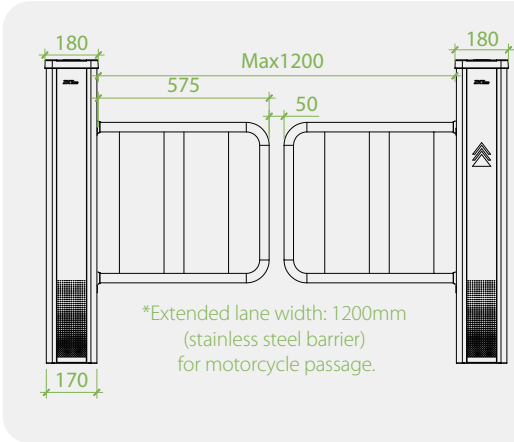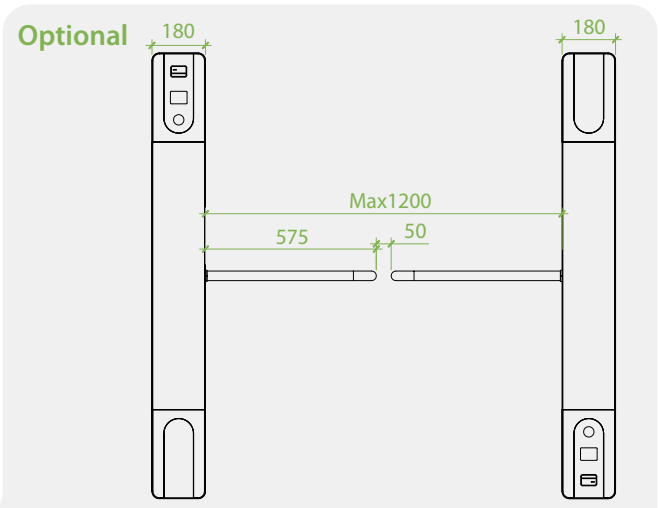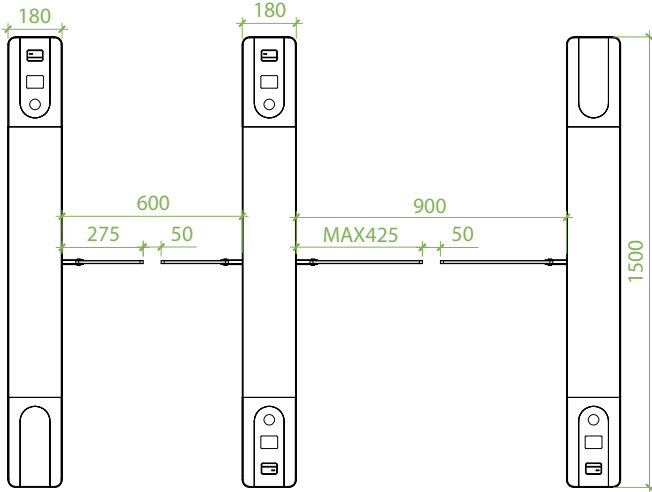
Specifications

Model	Saturn-S2000	Saturn-S2200
Audio Indicator	Internal speaker	
Visual Indicator	Top LED indicator: Blue=Door closed/stand by Green=Door opening Red=Door closing/alarm	Side LED indicator Green=Lane available Red=Lane unavailable
Display	NA	
Lane Type	Single lane	Dual Swing (for additional lane)
Lane Width	600~900mm (Optional) (Acrylic) Maximum 1200mm (Optional) (Stainless steel) (For two-wheeled motorcycle access)	
Barrier Movement Type	Swing	
Motor	DC brushless motor	
Movement Speed	Average 1s per movement (Adjustable open/close timing)	
Movement Accuracy	Middle	
Clutch	Equipped	
Lid Material	Stainless steel & Polycarbonate	

Lid Options Authentication Methods	Streamlined under mount options: QR Code / RFID Surface mount option: Facial Authentication	
Chassis Material	Stainless steel (SUS304) (Chassis Body) / Aluminum Alloy (Gate Column)	
Chassis Colour	Gray(Standard)	
Barrier Material	Light gray transparent acrylic (305*555*10mm) (standard) /Light gray transparent acrylic (380*555*10mm) (optional) When the lane width is 900-1200mm, stainless steel barriers are required.	
IR Sensors	12 pairs (standard) ;18 pairs (Optional)	
Motherboard Function	System configuration, access control	
Motherboard Communication	Fire alarm port (relay)*1, RS485 port*1,	
Controller	Compatible with C3 / InBio Series or 3rd-party controller.	
Credential Options	Under mount RFID reader: (support model: Pro ID Series, KR Series) Under mount fingerprint reader: FR1200/FR1500S	
Flow Rate	Facial Authentication: 15 passengers per minute QR Code: 30 passengers per minute RFID: 35 passengers per minute	
Accessibility	Adult, children (with care), Disability (with care)	
Power Supply	110V / 220V ±10% AC @50Hz/60Hz	
Power Rating	20VA (Standby) 40VA (Operation)	
Fire Signal	Input for voltage free contact	
Noise Level	Less than 60dB	
MTTR	Less than 60 minutes	
MCBF	5 million	
Weight	100Kg (Net weight) 140Kg (Gross weight)	60Kg (Net weight) 100Kg (Gross weight)
Dimension (L*W*H)	1500*180*1020mm	
Dimensions With Packing (L*W*H)	1580 * 340 * 1270 (mm) (2pcs)	1580 * 340 * 1270 (mm)
Operating Temperature	-30 ℃ to 70 ℃	
Operating Humidity	5% to 90% RH (Non-condensing)	
Certifications	CE, FCC	
Ingress Protection Rating	IP54 (water & dust proof)	
Supported Software	ZKBio CVAccess / ZKBio CVSecurity (Depends on equipped access controller)	
Safety Features	Voltage free contact input for fire alarm fail state automatic swing barrier open during power off	
Security Features	Anti-tailgating, anti-pinch	
Product Delivery	Pre-assembled	
Application Environment	Indoor / outdoor (if sheltered)	
Site Preparation	Flat & level finished floor (base plate in options for unfinished floor)	
Security Level	Medium	
Emergency Mode	Support (swing barrier open automatically)	
Packing Material	Wooden	

Dimensions (mm)
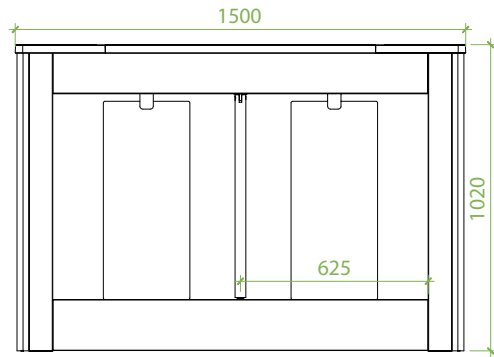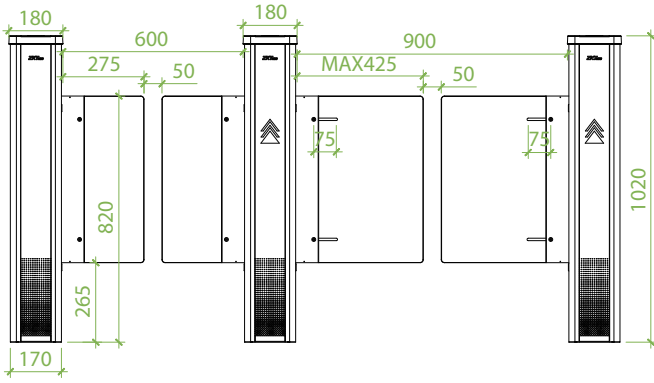
Acrylic material: The standard lane width is 600mm, and it can be extended to 750mm. The maximum wide lane width is 900mm, and it can be reverted back to 750mm if needed.

*Extended lane width: 1200mm (stainless steel barrier) for motorcycle passage.

Application Scenarios

Scenic area

Factory

Hospital

Transport Terminal