BLS-F28W Facial Recognition Time Attendance and Access Control Terminal



Product Overview

The BLS-F28W series is a high-performance, highly reliable facial recognition terminal. Equipped with an AI neural network acceleration chip, it uses deep learning algorithms and the Linux 3.10 operating system to deliver fast recognition and high accuracy. It supports facial and fingerprint recognition, 1:1 and 1:N modes, and a built-in dual-frequency (ID/IC) card reader. Multiple verification methods and combinations can be configured flexibly for different applications. It is suitable for pedestrian entrance and exit management and integrated access control and time attendance applications.

Product Features

1. An attractive design with an aluminum alloy housing and an IP65 waterproof rating, suitable for outdoor environments in most regions.

2. An 8-inch IPS touchscreen with wide viewing angles, high-definition portrait display and a user-friendly interface.

3. A 2-megapixel infrared camera and a 2-megapixel high-definition Sony color camera form a WDR dual-camera system, with infrared night illumination and LED supplemental lighting. The ultra-wide dynamic range provides clear images in strong light, backlighting and low light, with recognition accuracy of up to 99.7%. It accommodates complex strong-light and backlit environments.

4. Liveness detection with dynamic dual-camera anti-spoofing prevents fraud using photographs, videos and similar media.

5. Offline facial recognition with one-touch switching between multi-person and single-person recognition. Recognizes up to five people simultaneously for fast passage, captures photos in real time, and supports saving on-site portrait photos upon successful facial recognition.

6. Face enrollment through the local touchscreen, photo import from a USB flash drive, or photo import through the management software. Intelligent voice prompts announce verification results using the person's name after successful recognition.

7. Two report output methods: passage data reports exported to a USB flash drive and statistical reports generated by the management software.

8. QR code recognition, with optional customized support for reading second-generation Chinese resident ID cards for face-to-ID verification. Visitor functions are available in conjunction with the cloud platform.

9. Desktop software and cloud platform support for data statistics and management.

Applications

The BLS-F28W series is widely used as a facial recognition management and control terminal at entrances and exits of government agencies, smart buildings, office buildings, high-end residential communities, colleges and universities, public institutions and enterprises, and industrial and mining enterprises. Used with pedestrian turnstiles, it enables effective management of people entering and leaving.

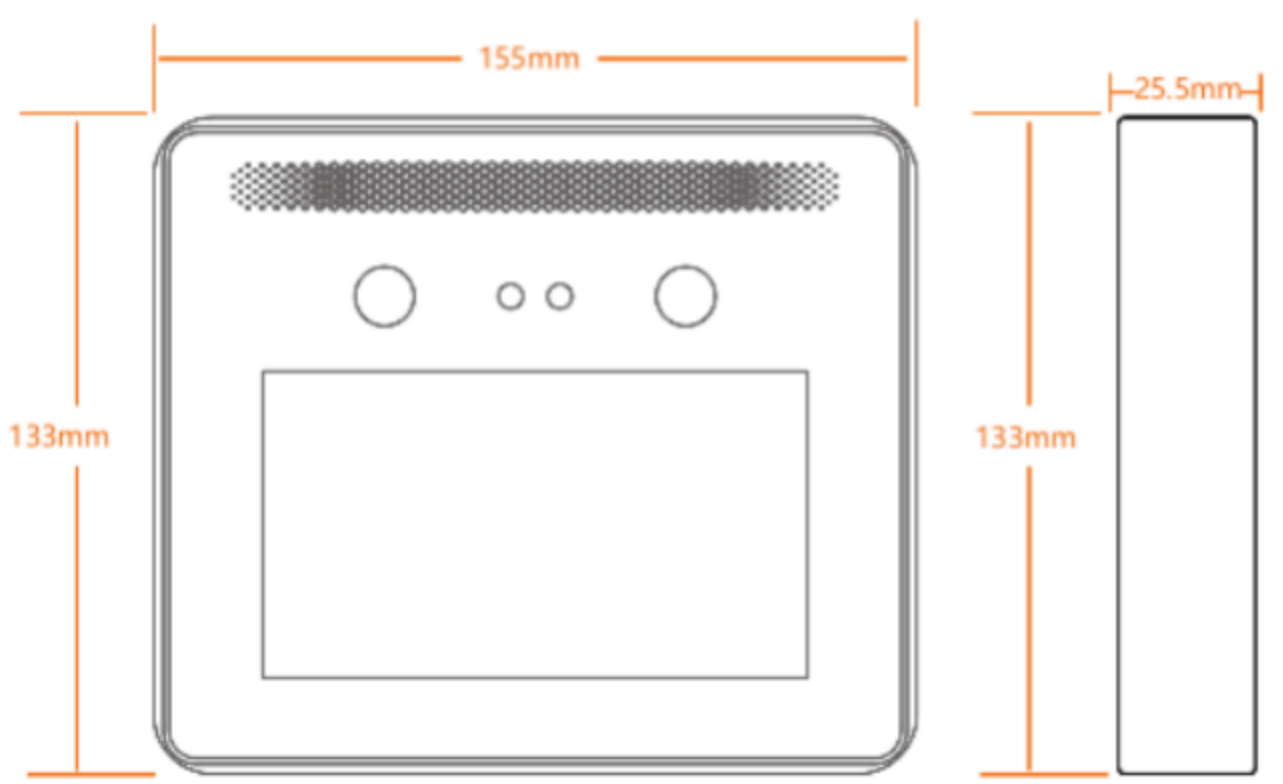
Detailed Specifications

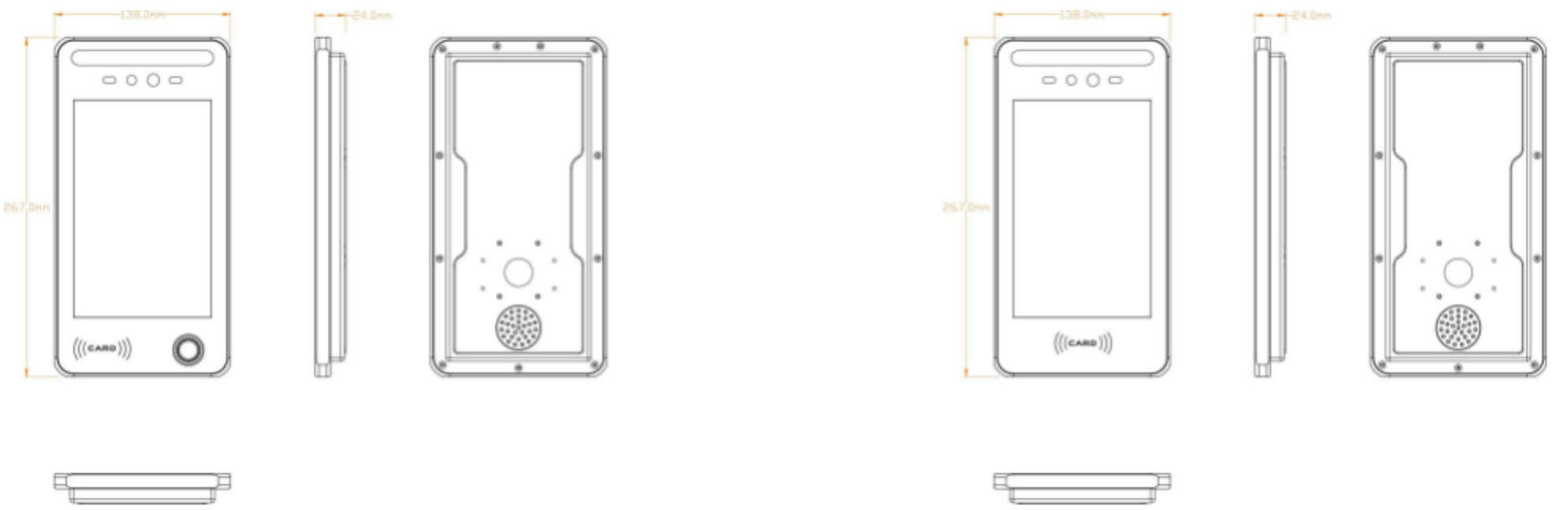
Product Model			BLS-F28W
Appearance	Housing Material		Aluminum alloy
	Waterproof Rating		IP65
Hardware Specifications	CPU		1.2G Dual-Core ARM Cortex-A7
	NPU		1200G (1.2T) computing power
	RAM		512M DDR3L
	ROM		8G EMMC
	Camera		1/2.8-inch sensor
			75° FOV, 2-megapixel HD color camera, WDR (wide dynamic range)
			1/5-inch sensor, 75° FOV, 2-megapixel infrared camera
	Display		8-inch IPS touchscreen with wide viewing angles; 800 × 1280 resolution
	Controls		On-screen touch keyboard
	Communication		TCP/IP, USB (USB flash drive functions), wireless Wi-Fi (optional)
	False Rejection Rate		<= 0.1%
	False Acceptance Rate		<= 0.001%
	Power Supply		DC 12V, 2A
	Operating Temperature		−15°C to 60°C
Firmware Specifications	Operating System		Linux 3.10
	Languages / Voice		20 languages and voice prompts, including Chinese, English and Russian; T9 input method
	User Capacity		150,000
	Face Capacity		50,000
	Palm Vein Capacity		100,000
	Fingerprint Capacity		100,000
	Card Capacity		150,000
	Password Capacity		150,000
	User Record Capacity	500,000	
	Enrollment Method	On-device Operation	Enrollment of faces, palm veins, fingerprints, card numbers, passwords, etc.; photo import via USB flash drive
		Software Operation	Online enrollment by photo import or camera capture
	Verification Methods	Face, palm vein, fingerprint, IC card, NFC, CPU card, ID card serial number and password	
	Recognition Modes	1:1, 1:N	

	Recognition Display	Displays name and employee ID; intelligent voice announcements of verification results	
	Face Recognition Time	≤ 0.2 s	
	Liveness Detection	Dynamic dual-camera anti-spoofing prevents spoofing with black-and-white or color photos and videos presented on various media	
	Recognition Distance	Dynamic Facial Recognition Only	0.5–2.5 m
		Liveness Detection Enabled	0.5–1.5 m
Interface Specifications	Power Port	1 × DC 12V terminal block	
	USB Flash Drive Port	1 × USB 2.0 port; data import/export via USB flash drive	
	Network Communication	TCP/IP Supports C/S LAN communication Supports B/S WAN cloud communication	
	Relay Output	1 channel	
	Alarm Output	1 channel	
	Exit Button	1 channel	
	Wiegand Output	1 × WG26/34 output	
	Wiegand Input	1 × WG26/34 input	
	Door Contact Function	Supported	
	Reset Function	Supported	
Professional Access Control	Access Control Functions	Time-based access permissions, group-combination door opening, user validity dates and external access control readers. Alarms: unauthorized door-opening alarm and door-left-open reminder. Supports switching signal output for seamless integration with turnstiles and various access control controllers.	
Time Attendance Functions	Software-free Attendance	Export attendance statistics in Excel format via USB flash drive	
	Software-based Attendance	Supports shift settings and import of shift schedules via USB flash drive. PC software can connect to the device over the network to collect data.	
Device Dimensions	268 × 138 × 25 (mm)		
Management Software	Desktop Software	Free	Professional desktop software integrating personnel management, time attendance and access control. 1. Supports Access and MS SQL databases. 2. User-friendly interface and simple operation. 3. Personnel photos can be added to the software and uploaded to the device. 4. Comprehensive access control functions, including access time periods and personnel groups. 5. Photos can be captured during personnel recognition and uploaded to the system in real time. 6. Comprehensive attendance functions suitable for small and medium-sized enterprises.

	Public Cloud Platform	Free	A professional public cloud platform integrating personnel management, time attendance, access control and visitor management. 1. Alibaba Cloud servers provide fast processing and high security. 2. Enrollment information and attendance data are synchronized to the cloud server in real time without manual operation. 3. Devices at multiple locations are interconnected for centralized management by headquarters. 4. Employees can view their own attendance in the app; administrators can view employee attendance. 5. Supports door opening via the app. 6. Visitor function: QR codes generated through the app allow visitors to open doors by scanning the code.

Device Dimensions





Turnstile Installation Diagram

1. According to the installation requirements, drill a 30 mm diameter hole in an available position on the turnstile, generally in the middle or toward the front. The circled cross in the diagram indicates the recommended drilling position.

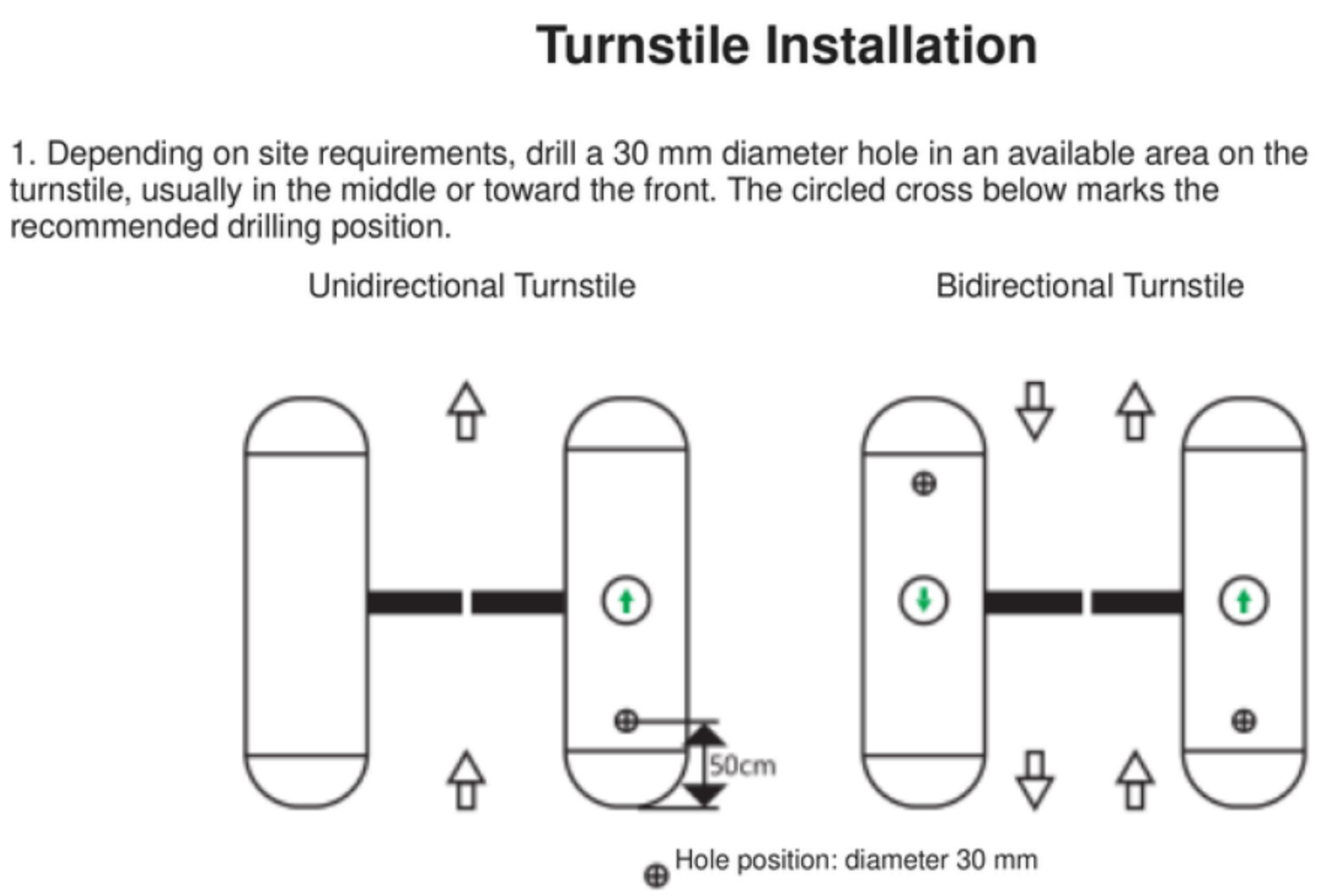


Diagram labels: Unidirectional turnstile; Bidirectional turnstile; Hole position: diameter 30 mm. The distance marked in the diagram is 50 cm.

2. Unscrew the nut at the very bottom of the terminal mounting post and pass the cables through the post as shown. Note: Do not connect the network cable, power cable or other cables at this stage, to avoid making installation difficult.

3. Tighten the screws to secure the terminal. Then, underneath the turnstile, pass the cables and cable connectors through the nut one at a time, align the nut with the thread and tighten it.

4. Installed appearance.