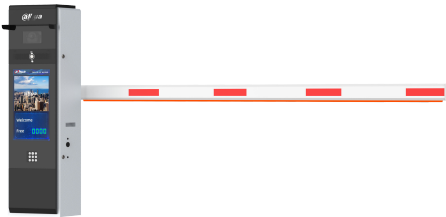


DHI-IPMECD-3142-RV4-LCD

Straight Arm All-in-one Barrier



Series Overview

With its powerful design, the All-in-One Springless Barrier includes an intelligent license plate recognition camera, 21.5-inch LCD display, intercom and illuminator, providing a comprehensive solution. It integrates springless technology with its self-adjusting motor that dynamically adapts its speed as needed. The barrier features intelligent adaptive arm control and can be conveniently configured on its designated app through Bluetooth. Through its built-in camera that employs deep learning algorithms, the barrier enables 24/7 monitoring of motor and non-motor vehicles, while also supporting metadata extraction of vehicle models, brands, and colors. Additionally, it offers EPTZ, intelligent defogging, voice intercom, and voice broadcast, blending innovation with its user-friendly design.

Functions

Smart Illumination

The software can control the illuminator by turning it on and off and adjusting its brightness level based on the environment, reducing light pollution and power consumption.

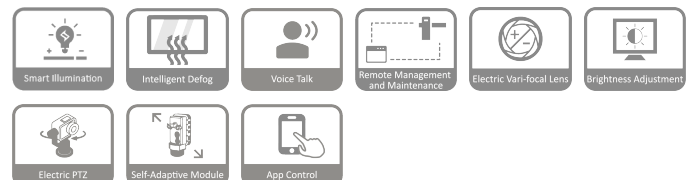
Intelligent Defog

Adopts intelligent heating technology, effectively preventing fogging on glass, and ensuring reliable operation in all weather conditions.

Voice Talk

Voice talk can be quickly accessed by pressing the alarm input button, enabling fast and effective communication.

- With its intelligent deep learning algorithms, it offers 24/7 detection and captures snapshots of motor vehicles, two-wheelers, and three-wheelers. Additionally, it extracts metadata features such as the vehicle model, logo, and body color, achieving a vehicle capture rate of $\geq 99\%$.
- Includes a 21.5-inch LCD screen that clearly displays QR codes, videos, and images, and features adaptive brightness adjustment.
- Includes 9 built-in LED lights with warm and IR light options, whose angles can be adjusted horizontally and vertically. It also supports illuminator technology, allowing you to control both the lighting and timing.
- Equipped with an electric zoom lens for fast and convenient remote debugging, it also features three-axis electric adjustment, enabling easy adaptation to various scenes.
- The intelligent defogging technology can prevent glass from freezing and fogging, which meets all-weather use.
- Featuring a powerful core and a one-piece die casting aluminum speed reducer housing, this device utilizes gears made from triple-layer alloy steel and aerospace-grade materials. Developed through advanced plasma welding, gear grinding, and heat treatment processes, transmission is stable and efficient, even in challenging environments over extended periods.
- Adopts precise adaptive control algorithms, allowing the device to automatically adjust its parameters based on the length and type of pole installed, eliminating the need for manual intervention.
- Comes with a Bluetooth module that seamlessly connects to the app of the device, which supports barrier control, status monitoring, settings configuration, log queries, and firmware updates for operation and maintenance.
- Driven by anti-cloning technology, the remote control uses rolling code encryption with a unique private key for high security and confidentiality. It has a maximum remote control distance of 50 meters in open spaces that lack interference.



Scene

Suitable for shopping malls, hospitals, schools, communities, office buildings and stations.

Technical Specification	
Basic	
Display Screen Type	LCD (21.5")
Display Screen Dimensions	476.6 mm × 268.1 mm × 10.0 mm (18.76" × 10.56" × 0.39") (W × H × D)
Display Contents	QR code; video; image
Display Color	The text is displayed in red, green, yellow, black and white.
Screen Resolution	1920 (H) × 1080 (V)
Display Screen Lifespan	40,000 h
Display Screen Brightness	1200 cd/m²
The video resolutions supported by the display.	128 (H) × 128 (V) to 1920 (H) × 1080 (V)
The video formats supported by the display.	MP4
The image resolutions supported by the display.	128 (H) × 128 (V) to 1920 (H) × 1080 (V)
The image formats supported by the display.	JPG; JPEG
Illuminator Number	9 (Dual Illuminators, IR/warm light)
Illuminator Color Temperature	3000 K
Illuminator Brightness Adjustment	Brightness adjustable
Image Sensor	1/1.8" CMOS
Pixel	4 MP
Image Resolution	2688 (H) × 1520 (V) (OSD black strip excluded)
Video Resolution	Main stream: 4M (2688 × 1520)/1080p (1920 × 1080)/720p (1280 × 720) Sub stream: 720p (1280 × 720)/960H (960 × 576)/D1 (704 × 576)/CIF (352 × 288)
Video Frame Rate	PAL: Main stream (2688 × 1520@25 fps, 1920 × 1080@25 fps, 1280 × 720@25 fps), sub stream: (1280 × 720@25 fps, 960 × 576@25 fps, 352 × 288@25 fps, 352 × 288@25 fps)
Video Bit Rate	H.264B: 2179kbps–13074kbps; H.264M: 2179kbps–13074kbps; H.264H: 2179kbps–13074kbps; H.265: 2179kbps–13074kbps; MJPEG: 6537kbps–39223kbps
Video Compression	H.265;H.264B;H.264M;H.264H;MJPEG
Image Encoding Format	JPEG
Noise Reduction	3D NR
White Balance	Auto;Manual;Outdoor;Natural;Street Lamp;Partial white balance
Electronic Shutter Speed	Auto/Manual 1/25 s–1/10,000 s
WDR	120 dB
Bad Pixel Correction	Yes
Edge Enhancement	Yes

Exposure Mode	Auto; Manual				
Iris Control	Auto (W:1.4—T:2.15)				
DORI Distance	Lens	Detect	Observe	Recogniz e	Identify
	2.7 mm— 12 mm	82.8 m (271.65 ft)	33.1 m (108.60 ft)	16.6 m (54.46 ft)	8.3 m (27.23 ft)
Arm Type	Straight Arm Barrier				
Arm Length	≤ 6 m (19.69 ft)				
Arm Model	IPMECD-026x				
Opening Time	1.4 sec–6 sec (speed is measured by the arm length and weight)				
Motor Type	DC brushless				
Rotational Speed	1500 RPM				
Pan/Tilt Range	Pan: –15° to +15° Tilt: –15° to +10°, auto flip 30°				
Bluetooth Standard	GFSK, π/4-DQPSK				
Bluetooth Frequency Range	2.402 GHz–2.480 GHz ISM band				
Bluetooth Power Transmission	–15.7 dBm to +6.4 dBm				
Sub 1G Modulation Type	ASK				
Sub 1G Frequency Range	433.92 MHz				
Sub 1G Power Transmission	433.82 MHz@10dBm				
Port					
Lens Mount	φ16				
Network Port	1 × 100/1000 Mbps Ethernet port (RJ-45)				
USB	1 USB 2.0 Port				
RS-485	There are two RS-485 ports. They have half-duplex capabilities, support transparent data transmission and serial port push, and comply with the DHRS protocol.				
I/O	3, optocoupler input (on-off input)				
Alarm Input	3 (optocoupler input, ground loop, radar, IR)				
Alarm Output	2 for relay, used to link the barrier.				
Status Output	2 channels. One channel is fully open and the other channel is fully closed.				
Function					
Shutter Mode	Single shutter				
Storage	TF card; USB				
Image Tampering Prevention	Yes. Video/image can be checked with watermark and verification function				
Two-way Audio	Supports two-way talk (button trigger)				
Voice Broadcast	Voice broadcast and customizable sound				
Field of View	H: 114.6°–48.3°; V: 59.0°–27.1°; D: 141.6°–55.5°				
Illumination Distance	7 m (22.97 ft)				
Capture Distance	2.5 m–6 m (8.20 ft–19.69 ft)				

Alarm Event	Alarm for events of no storage card, storage card no space, storage card error, network disconnection, IP conflict, and illegal access
Security Mode	Authorized user name and password, MAC address binding, HTTPS, IEEE 802.1x, and network access control
OSD Overlay	Time, address, plate information (number, color and type), vehicle information (color, logo, type), anti-counterfeiting code, direction, capture direction, trigger source, accuracy, front and back of the vehicle, and custom
Automatic Network Replenishment (ANR)	Platform; FTP
Auto Registration	Yes
Number of Blocklists and Allowlists	Allowlist: 110,000 Blocklist: 110,000
Defog (Glass Heating)	Automatic defog
Anti-drop	Supports peripheral connection for loop, IR, and radar anti-smashing.
Auto Opening in Power Failure	Yes
Auto Lifting against Obstruction	Yes
Count Mode	Yes
Limit Description	Adjustable
RS-485 Log	Access operation log information through the RS-485 port, the information includes the number of opening barrier, the type of opening barrier, error code and more
Remote Control	Supports remote control at a maximum distance of 50 m (164 ft) in open space.
Built-in MIC	Yes, built-in Mic
Built-in Speaker	Yes, built-in speaker
Network Protocol	HTTP;HTTPS;IPv4;RTSP;UDP;NTP;DHCP;IPv6;802.1x;FTP; ICMP;IGMP;ARP;RTP;TCP;SFTP;Multicast
Number of Pairable Remote Controllers	Includes 2 remote controls, and supports up to 40
Left and Right Interchangeable	No (the barrier core can be set to the left or right, while the chassis tilt angle is fixed and cannot be adjusted.)
Interoperability	CGI;ONVIF (Profile M & Profile S & Profile T)

Intelligence

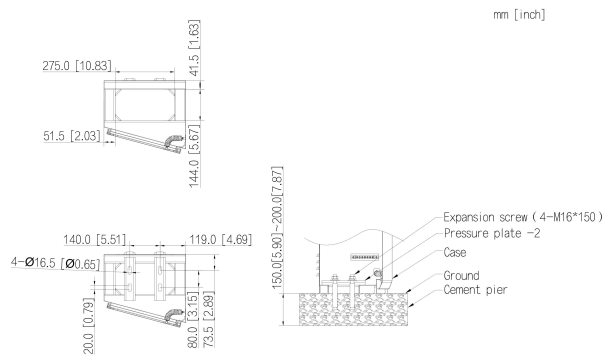
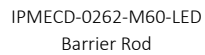
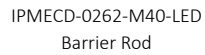
Vehicle Detection	Takes snapshots of both motor and non-motor vehicles. In recommended installation and lighting conditions, the vehicle capture rate ≥ 99%.
Vehicle Recognition	Detects unlicensed vehicles, recognizing the type, brand, color, plate color, and plate number of each vehicle. In recommended installation and lighting conditions, the plate recognition rate ≥ 98%.
Video Metadata	Yes
Smart TrackFrame	Intelligent frame display. Supports displaying plate and vehicle path.

General

Running Noise	≤70 dB
Power Supply	110–240 VAC
Power Consumption	Basic: about 80 W Max: about 500 W
Motor Lifespan	6 million times
Operating Temperature	-25 °C to +65 °C (-13 °F to +149°F)
Storage Temperature	-25 °C to +65 °C (-13 °F to +149°F)
Operating Humidity	10%–90% (RH), non-condensing
Storage Humidity	10%–90% (RH), non-condensing
Protection	IP54
Anti-corrosion Level	Basic Protection *The products are designed for general use and are applicable even in areas with no specific requirements for anti-corrosion protection.
Product Dimensions	1,420 mm × 337 mm × 378 mm (55.91" × 13.27" × 14.88") (L × W × H)
Packaging Dimensions	1,560 mm × 540 mm × 575 mm (61.42" × 21.26" × 22.64") (L × W × H)
Net Weight	71.5 kg (157.63 lb)
Gross Weight	91.5 kg±1 kg (201.72 lb± 2.20 lb)
Installation	Bottom-mounted with expansion bolts
Lens	Included
Focal Length	2.7 mm–12 mm
Lens Type	Motorized vari-focal

Ordering Information

Type	Model	Description
Barrier	DHI-IPMECD-3142-RV4-LCD	Straight Arm All-in-one Barrier
Accessories (Optional)	IPMECD-0262-M30-LED	Barrier Rod
	IPMECD-0262-M2745	Barrier Rod
	IPMECD-0262-M50-LED	Barrier Rod
	IPMECD-0262-M40-LED	Barrier Rod
	IPMECD-0262-M4560	Barrier Rod
	IPMECD-0262-M60-LED	Barrier Rod



mm (Inch)

Weight Limit Calculation Formula: $HH \times 735 \leq 28,94$	
L (Pole Length)	$3000 \leq 18,11 \rightarrow 4000 \leq 236,22$
H (Weight Limit)	$3735 \leq 147,05 \rightarrow 6735 \leq 265,16$

Usable Passage Width Calculation Formula: $WH \leq 284,0 [11,18]$	
L (Pole Length)	$3000 \leq 18,11 \rightarrow 4000 \leq 236,22$
W (Usable Passage Width)	$2716 \leq 106,93 \rightarrow 5716 \leq 225,04$

Diagram labels:

- H (Height Limit)
- 8000 [314,96]
- 2890 [113,78]
- 284,0 [11,18]
- L (Pole Length)
- W (Usable Passage Width)