

# CT9 CRYSTAL TOUCH

Smart Wireless & Ethernet PoE Cloud HTTP support  
RFID/HID® Cards Access Control Terminal



Mobile Credential  
( NFC & BLE )



RFID / HID® Card



QR Code

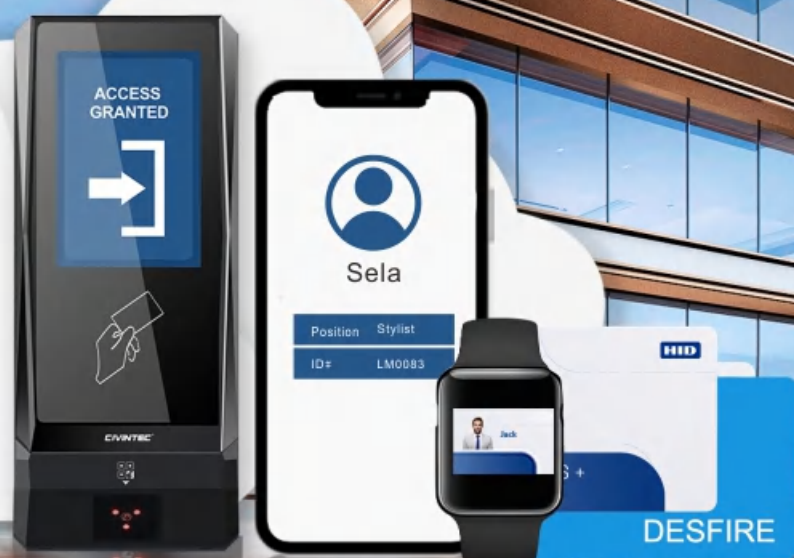


Touch Pincode



Smart Watch

## WiFi, 4G and TCP/IP Cloud Mobile Credential Access Control Terminal



CT9 family is Linux based HTTP/HTTPS server centralized terminal with wireless 4G, WiFi and TCP/IP Ethernet suitable for both LAN and Internet cloud server software communication. It supports both of online server real-time monitor HOST mode and standalone access control Local mode, perfect for multiple IoT & access control solutions. With IP65 ratings, CT9 family is weather resistant to rain, dust, strong sunlight, ideal for various rugged environments installations.

CT9 family incorporates with 5-in-1 multiple access credential technologies, touch keypad, RFID dual 125KHz & 13.56MHz smart Cards, BLE & NFC mobile access, QR CODE/Barcode by using mobile phone for visitor access control management.

HID® iCLASS and Seos card, HID® mobile virtual access credential, ensuring trusted identity for secure access, mobility, and advanced applications, this combination makes the product flexible for all kinds of security applications and future technology requirements applicable for the security industry.

CT9 family comes with SDK for the third party software system integration perfect to build general IoT & security solutions. It also provides developer an easy access to display customized and intuitive UI, background image and real-time TEXT on 3.5" touch screen.

## Features make your solution different and competitive

- 3.5" touch screen with customizable background image and real time message intuitive for visitor
- Support mobile credential by using personal mobile phone and smart watch via QR Code, BLE, NFC and HID® mobile virtual card multi-technologies
- With embedded QR Code scanner and dynamic QR Code generator for temporary visitor access control
- Support DESFire EV1/EV2/EV3 encrypted smart cards and HID® Seos, iCLASS smart cards
- Support RJ45 port and Power Over Ethernet(PoE) for less wiring and cost-save installation
- Wireless 4G, WiFi perfect for various usage occasions with less network on site
- Support HTTP & HTTPS encrypted communication protocol
- Support both of local offline and online mode under server remote control in real time
- Wiegand input for APB secure slave access control reader
- With 1 or 2 relay outputs separately controlled by server
- With inputs for external fire alarm system integration
- Support software and firmware remote upgrade
- Protected by IP65 waterproof and UV-resistance for outdoor under strong UV ray
- Cost effective customization service from hardware, software to firmware

# General Applications

CT9 Family wireless HTTP networked IoT & access control terminal is perfect to meet general applications and solutions. It provides server-based centralized remote applications control in real time, to control various kinds of door lock, turnstile, barrier and equipments. It supports multi-technologies for personal identification for staff, student and member management and track. With 3.5" touch screen, it's intuitive for users to view the status of door opening, time tracking, reservation, displayed information or announcements in real time.



## Access Control

- Physical access control
- Function room reservation
- Car parking entry control
- Turnstile & barrier control
- Lift control



## Time Attendance

- Labor time attendance
- Mobile working track
- Cloud real-time attendance



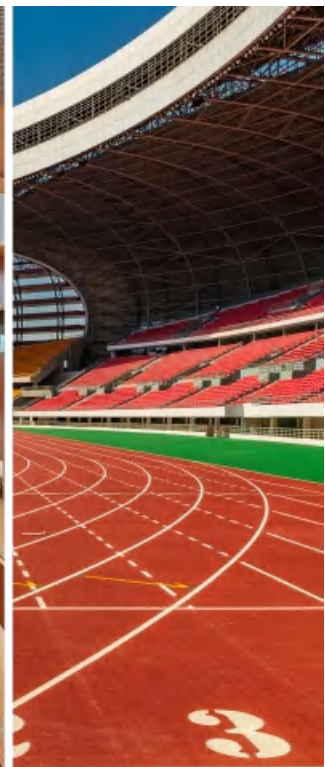
## Loyalty & Payment

- Membership
- Personal Identification
- E-Wallet
- Booking & Reservation



## IoT Facility Control

- Personal identification & equipment control
- Vehicle control
- Light control



## CT9 Family Application Cases

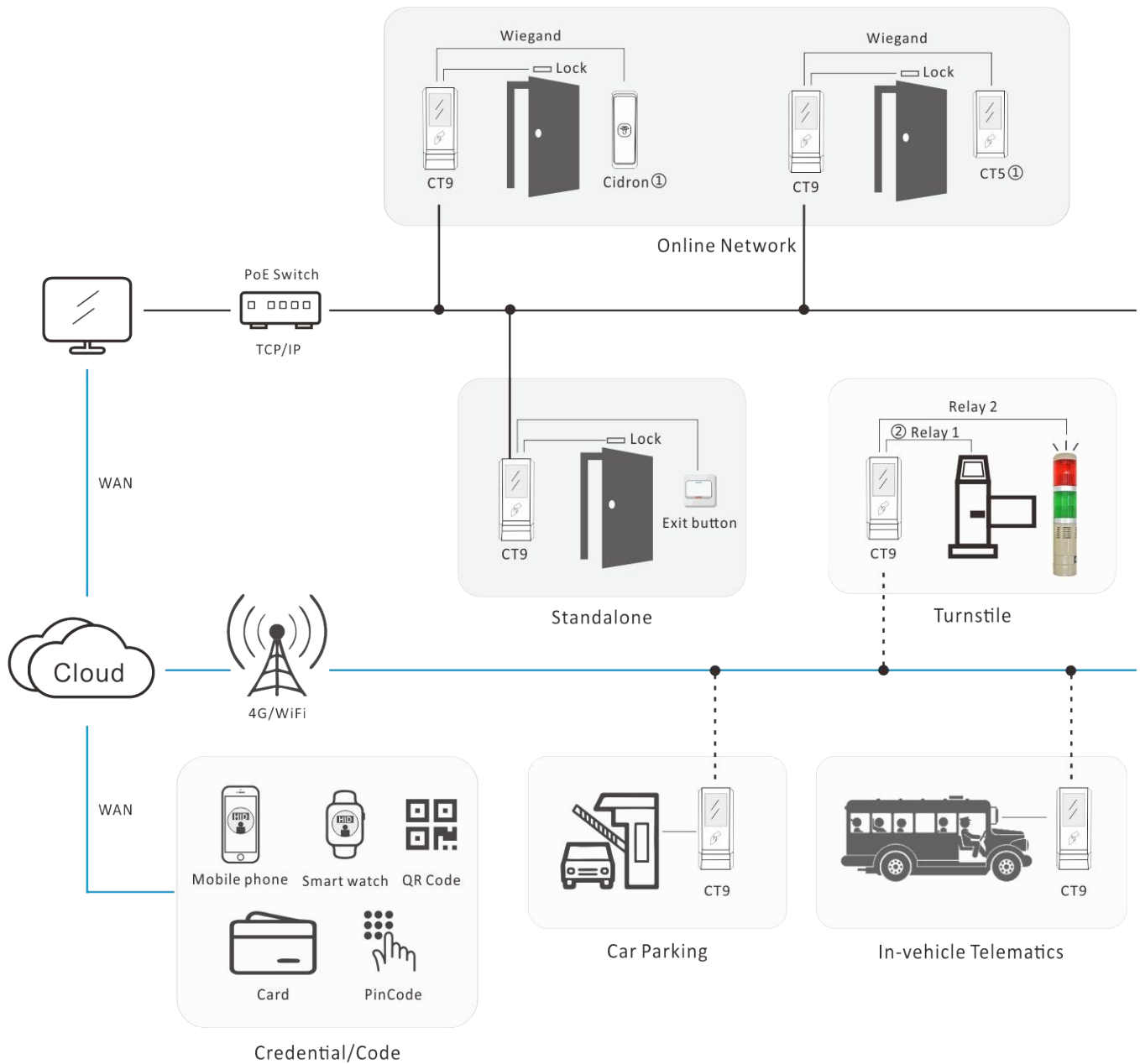
- Office access control & time attendance
- Cleaning staff attendance management
- Condominiums door control
- School student access control and campus wallet
- School bus student getting on and off tracking
- Campus car parking
- Park & museum ticket checking and access control
- Gym & course management
- Golf courses & Tennis court
- Factory equipment control

[\\* Learn more CT9 Family solutions](#)



# Configuration

- CT9 Family is HTTP networked IoT & access control terminal, with RJ45 port and Power Over Ethernet(PoE) for less wiring and cost-save installation.
- With optional wireless 4G and WiFi features, CT9 Family is no limitation for various usage occasions with less network on site.
- With IP65 ratings, CT9 Family is weather resistant to rain, dust, strong sunlight for rugged environment installations.



## ① CT9 Family APB Access Control Reader

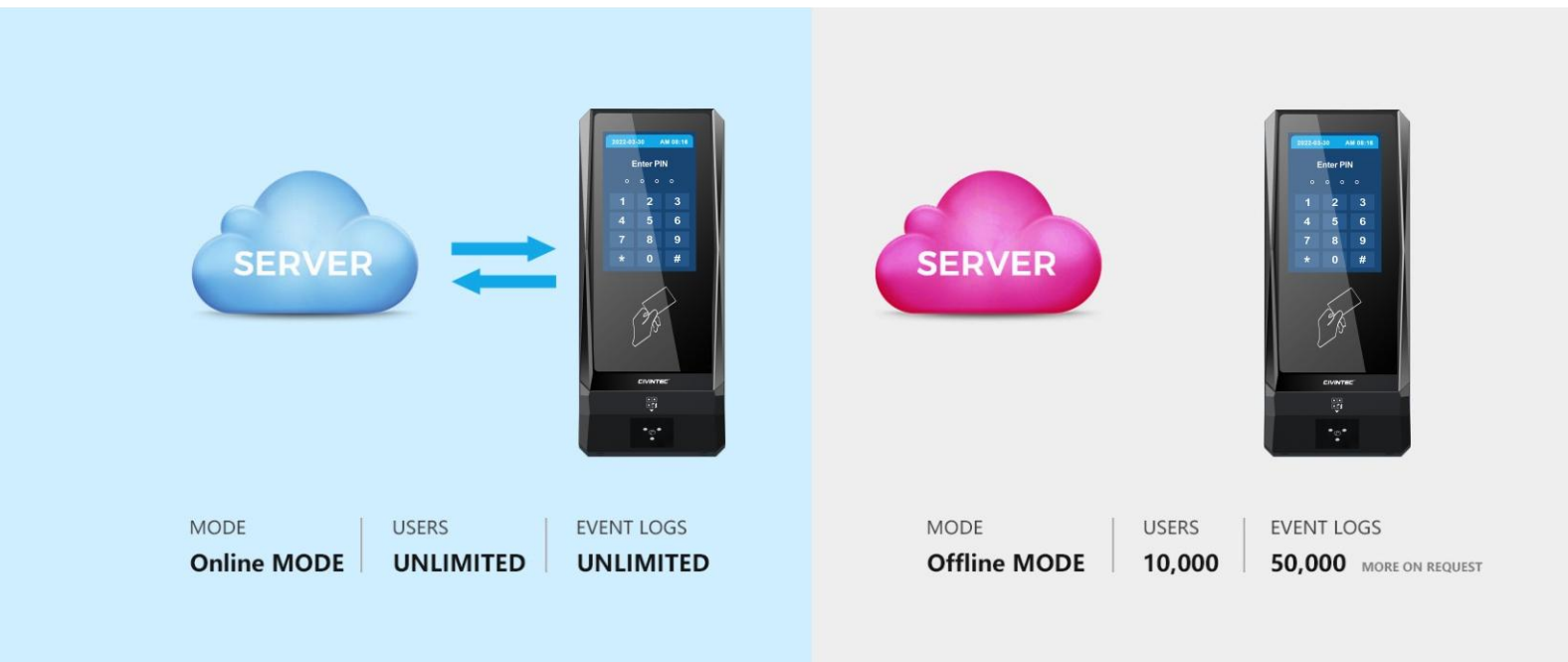
With wiegand input, CT9 Family works with Civintec Cidron and CT5 family access control slave reader for the best working performance and achieve an encrypted secure level of smart card, and QR code, NFC & BLE mobile credential technologies.

## ② CT9 Family Dual Relay Outputs

With 2 relay outputs, CT9 Family smart HTTP IoT access control terminal is ideal to remotely manage and control the electric lock, light or facility by central server in real time.

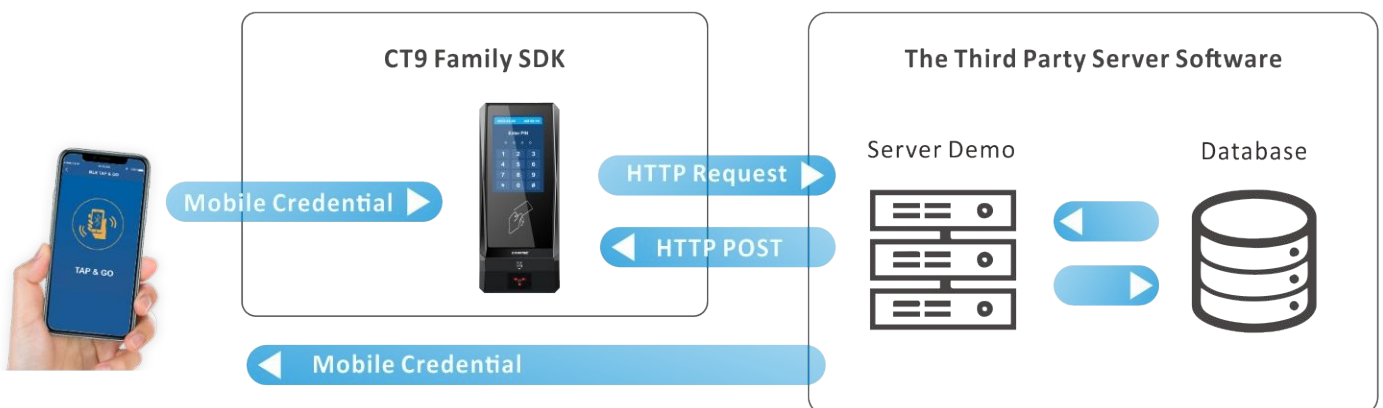
### ③ Flexible & easy management dual working modes

CT9 Family works in online mode and offline mode. Online Mode, When CT9 Family detects the card/ QR code/Mobile ID/Pin code, it sends the data to the server through an HTTP post message for door lock control. In case of a failure of connection, CT9 Family has local memory to store 10,000 IDs and 50,000 logs (More on request) for identification, when CT9 Family get server connection again, CT9 Family upload the event logs to server and switch to online mode.

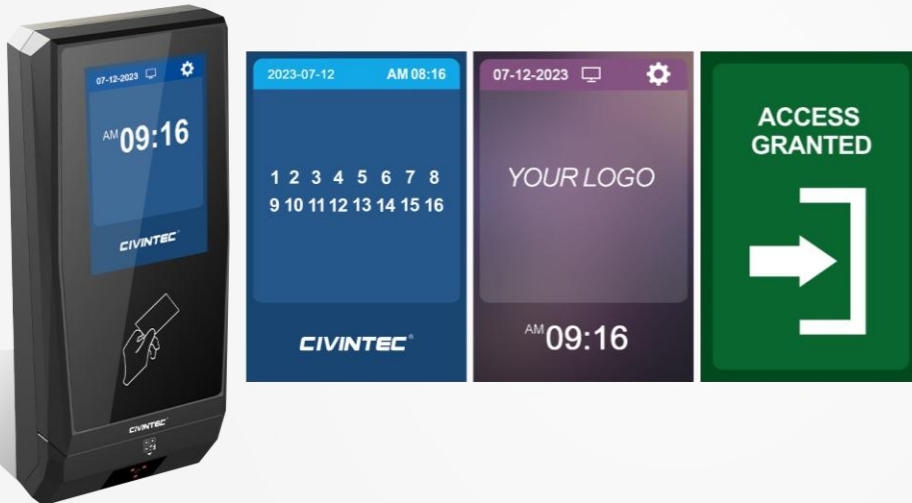


## For Developer

As wireless smart HTTP IoT and access control terminal, CT9 Family supply SDK for various third party software solution systems integration for general applications build. CT9 Family SDK includes developer guidance, HTTP commands, PC ConfigCard software, smart phone demo App and example codes to greatly ease software development. HTTP commands is available for developer to get communication between CT9 Family and server software, workable for both LAN and internet server software integration.



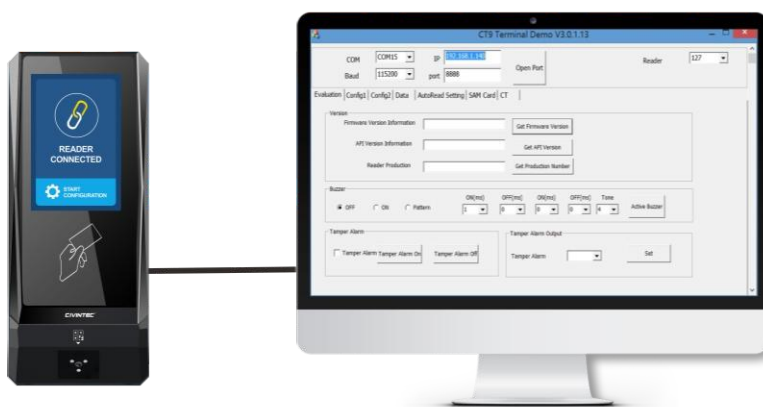
Developer is able to customize and display specific background image with TEXT information on 3.5" touch screen controlled by server via HTTP command for user to view the real time information, announcement.



- CUSTOMIZE YOUR BACKGROUND IMAGE
- DISPLAY REAL TIME TEXT INFORMATION
- DISPLAY YOUR LOGO IMAGE
- CHANGE AUDIO FILE

#### • Hardware Testing Package and software development

HTP CT9 Family supply HTP - plug & play hardware testing package for developer. It includes all the must-have accessories and Configcard software tool to establish full testing environment for terminal test, full functions setting, software development and firmware/system upgrading.



# Specification

CRYSTAL TOUCH PRO	CT9 PRO	CT9 PRO-W	CT9 PRO-D
IDENTIFICATION TECHNOLOGIES			
RFID Contactless Cards	<ul style="list-style-type: none"><li>• 125KHz PROx, 125KHz EM</li><li>• 13.56MHz Mifare® Classic, Ultralight®, Mifare® Plus, DESFire® EV1/EV2/EV3, NFC tags</li></ul>	<ul style="list-style-type: none"><li>• 125KHz PROx, 125KHz EM</li><li>• 13.56MHz Mifare® Classic, Ultralight®, Mifare® Plus, DESFire® EV1/EV2/EV3, NFC tags</li></ul>	<ul style="list-style-type: none"><li>• 13.56MHz Mifare® Classic, Ultralight®, Mifare® Plus, NFC tags, DESFire® EV1/EV2/EV3; HID®</li><li>• iCLASS; HID® Seos</li><li>• 125KHz HID® Prox, Indala, EM4100/4102 and HITAG</li></ul>
Secure Access Module	ISO7816 (T=0,T=1) 1 SAM module, SAM AV2/AV3	--	--
Mobile Credential	BLE (2.4Ghz), NFC	BLE (2.4Ghz), NFC	BLE (2.4Ghz), NFC and HID mobile virtual card
Barcode / QR scanner	<ul style="list-style-type: none"><li>• Decode range: 20mm-150mm(QR 20MIL)</li><li>• Roll/Pitch/Yaw: 360°, +55°, +55°</li><li>• Multiple formats supported (1D &amp; 2D Codes): QR Code, Micro QR code, PDF417, Code 128, Code 39 and most mainstream 1D and 2D barcodes.</li></ul>		
Keypad	Touch screen keypad 12 keypad in 4 rows of 3 keys		
INTERFACE			
Communication Interfaces	<ul style="list-style-type: none"><li>• TCP/IP(RJ45)</li><li>• 4G</li><li>• RS485, wiegand input</li></ul>	<ul style="list-style-type: none"><li>• TCP/IP(RJ45)</li><li>• 4G</li><li>• WiFi 2.4GHz IEEE802.11b/g/n</li><li>• RS485, wiegand input</li><li>• BLE 5.3 and has the ability (on request) to support thread and zigbee</li></ul>	<ul style="list-style-type: none"><li>• TCP/IP(RJ45)</li><li>• 4G</li><li>• WiFi 2.4GHz IEEE802.11b/g/n</li><li>• RS485, wiegand input</li></ul>
I/O port	3* Inputs - Door contact, Door exit, Buzzer control 4* Outputs - Tamper alarm switch, Output Buzzer control, Access Granted, Access Denied		
Relay	1 or 2 relay outputs		
Fire alarm	On request		
GENERAL			
Operating System	LINUX		
Display	3.5" touch screen		
Access control mode	Mobile ID, QR Code, RFID / HID® Card, Pincode		
Online Card Users /Event logs	Unlimited		
Offline Card Users / Event logs	10,000 users / 50,000 logs (More on request)		
Working Mode	Host mode or Local mode		
APB access control	Yes, external wiegand reader		
Indicators	<ul style="list-style-type: none"><li>• TP display</li><li>• Controllable buzzer and speaker</li></ul>		
Housing Dimensions	Basic Model: 24mm(D) * 165mm(H) * 84mm(W) QR/4G/ PoE Model: 45mm(D) * 200mm(H) * 84mm(W)		
Power supply	<ul style="list-style-type: none"><li>• 12~ 24V DC</li><li>• PoE IEEE 802 . 3af</li></ul>	12-24V DC	
Installation	Wall mount with terminal block connector		
Protection Class	IP65 electric epoxy potted (request waterproof spacer) Resistant to UV ray (suitable for UV-resistance model)		
Operation Temperature	-20°C ~ 60°C		
Operation Humidity	0-90% relative humidity non-condensing		
Upgrade	Software and firmware upgrade supported		

\* The specifications are subject to change without notice.

# CT9 PRO Models Selection Guidance



Housing Dimensions:  
24mm(D) \* 165mm(H) \* 84mm(W)  
Type: 3.5" Touch Screen  
Model Name: CT9-X-X  
Case model: S



Housing Dimensions:  
45mm(D)\*200mm(H)\*84mm(W)  
Type: 3.5" Touch Screen  
Model Name: CT9-X-X  
Case model: L

CT9 PRO Models	Case model	RFID	NFC/BLE	QR CODE	POE	TCP/IP	4G	RS485	Relay
CT9-M-T	S	√ (no 125KHz)	√			√		√	1
CT9-M-T-UV *									
CT9-M-T-2R	S	√ (no 125KHz)	√			√		√	2
CT9-M-T-2R-UV *									
CT9-ME-T	S	√	√			√		√	1
CT9-ME-T-UV *									
CT9-ME-T-2R	S	√	√			√		√	2
CT9-ME-T-2R-UV *									
CT9-T-Q	L	√	√	√		√		√	1
CT9-T-Q-UV *									
CT9-T-Q-2R	L	√	√	√		√		√	2
CT9-T-Q-2R-UV *									
CT9-T-P	L	√	√		√	√		√	1
CT9-T-P-UV *									
CT9-T-P-2R	L	√	√		√	√		√	2
CT9-T-P-2R-UV *									
CT9-T-QP	L	√	√	√	√	√		√	1
CT9-T-QP-UV *									
CT9-T-QP-2R	L	√	√	√	√	√		√	2
CT9-T-QP-2R-UV *									
CT9-H	L	√	√			√	√	√	1
CT9-H-UV *									
CT9-H-Q	L	√	√	√		√	√	√	1
CT9-H-Q-UV *									
CT9-H-P	L	√	√		√	√	√	√	1
CT9-H-P-UV *									
CT9-H-QP	L	√	√	√	√	√	√	√	1
CT9-H-QP-UV *									
CT9 PRO Models	Case model	RFID	NFC/BLE	QR CODE	POE	TCP/IP	4G	RS485	Relay

\* The models with '-UV' are UV-resistance, ideal for outside door under strong UV ray.



# CT9 PRO-W Models Selection Guidance



Housing Dimensions:  
24mm(D) \* 165mm(H) \* 84mm(W)  
Type: 3.5" Touch Screen  
Model Name: CT9-XX-W-(UV)  
Case model: S



Housing Dimensions:  
45mm(D)\*200mm(H)\*84mm(W)  
Type: 3.5" Touch Screen  
Model Name: CT9- (X) W-X-X-(UV)  
Case model: L

CT9 PRO-W Models	Case model	RFID	NFC/BLE	QR CODE	POE	TCP/IP	4G	WiFi	RS485	Relay
CT9-M-W	S	√ (no 125KHz)	√			√		√	√	1
CT9-M-W-UV *										
CT9-M-W-2R	S	√ (no 125KHz)	√			√		√	√	2
CT9-M-W-2R-UV *										
CT9-ME-W	S	√	√			√		√	√	1
CT9-ME-W-UV *										
CT9-ME-W-2R	S	√	√			√		√	√	2
CT9-ME-W-2R-UV *										
CT9-W-Q	L	√	√	√		√		√	√	1
CT9-W-Q-UV *										
CT9-W-Q-2R	L	√	√	√		√		√	√	2
CT9-W-Q-2R-UV *										
CT9-W-P	L	√	√		√	√		√	√	1
CT9-W-P-UV *										
CT9-W-P-2R	L	√	√		√	√		√	√	2
CT9-W-P-2R-UV *										
CT9-W-QP	L	√	√	√	√	√		√	√	1
CT9-W-QP-UV *										
CT9-W-QP-2R	L	√	√	√	√	√		√	√	2
CT9-W-QP-2R-UV *										
CT9-HW	L	√	√			√	√	√	√	1
CT9-HW-UV *										
CT9-HW-2R	L	√	√			√	√	√	√	2
CT9-HW-2R-UV *										
CT9-HW-Q	L	√	√	√		√	√	√	√	1
CT9-HW-Q-UV *										
CT9-HW-P	L	√	√		√	√	√	√	√	1
CT9-HW-P-UV *										
CT9 PRO-W Models	Case model	RFID	NFC/BLE	QR CODE	POE	TCP/IP	4G	WiFi	RS485	Relay

\* The models with '-UV' are UV-resistance, ideal for outside door under strong UV ray.

CT9 PRO-W Models	Case model	RFID	NFC/BLE	QR CODE	POE	TCP/IP	4G	WiFi	RS485	Relay
CT9-HW-P-2R	L	√	√		√	√	√	√	√	2
CT9-HW-P-2R-UV *										
CT9-HW-QP	L	√	√	√	√	√	√	√	√	1
CT9-HW-QP-UV *										
CT9-W-Q-M	L	√ (no 125KHz)	√	√		√		√	√	1
CT9-W-Q-M-UV *										
CT9-W-Q-M-2R	L	√ (no 125KHz)	√	√		√		√	√	2
CT9-W-Q-M-2R-UV *										
CT9 PRO-W Models	Case model	RFID	NFC/BLE	QR CODE	POE	TCP/IP	4G	WiFi	RS485	Relay

\* The models with '-UV' are UV-resistance, ideal for outside door under strong UV ray.

# CT9 PRO-D Models Selection Guidance



Housing Dimensions:  
24mm(D) \* 165mm(H) \* 84mm(W)  
Type: 3.5" Touch Screen  
Model Name: CT9-X-X-(UV)-D  
Case model: S



Housing Dimensions:  
45mm(D)\*200mm(H)\*84mm(W)  
Type: 3.5" Touch Screen  
Model Name: CT9-X-X-(UV)-D  
Case model: L

CT9 PRO-D Models	Case model	HID cards compatible	NFC/BLE	QR CODE	POE	TCP/IP	4G	WiFi	RS485	Relay
CT9-T-D CT9-T-UV-D *	S	✓	✓			✓			✓	1
CT9-T-2R-D CT9-T-2R-UV-D *	S	✓	✓			✓			✓	2
CT9-W-D CT9-W-UV-D *	S	✓	✓			✓		✓	✓	1
CT9-W-2R-D CT9-W-2R-UV-D *	S	✓	✓			✓		✓	✓	2
CT9-T-Q-D CT9-T-Q-UV-D *	L	✓	✓	✓		✓			✓	1
CT9-T-Q-2R-D CT9-T-Q-2R-UV-D *	L	✓	✓	✓		✓			✓	2
CT9-H-D CT9-H-UV-D *	L	✓	✓			✓	✓		✓	1
CT9-H-Q-D CT9-H-Q-UV-D *	L	✓	✓	✓		✓	✓		✓	1
CT9-W-Q-D CT9-W-Q-UV-D *	L	✓	✓	✓		✓		✓	✓	1
CT9-W-Q-2R-D CT9-W-Q-2R-UV-D *	L	✓	✓	✓		✓		✓	✓	2
CT9-HW-D CT9-HW-UV-D *	L	✓	✓			✓	✓	✓	✓	1
CT9-HW-Q-D CT9-HW-Q-UV-D *	L	✓	✓	✓		✓	✓	✓	✓	1
CT9 PRO-D Models	Case model	HID cards compatible	NFC/BLE	QR CODE	POE	TCP/IP	4G	WiFi	RS485	Relay

\* The models with '-UV' are UV-resistance, Ideal for outside door under strong UV ray.