timeTec parking
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HARDWARE CATALOGUE

CONTENT

01

TOUCH 'N GO PARKING

timeTec parking

HARDWARE CATALOGUE

UNATTENDED PAYMENT KIOSK
TPK 2

The slim and weatherproof TimeTec Parking Kiosk, TPK 2 is designed to stand extreme indoor and outdoor environments for long-lasting use, and it is a sophisticated parking machine for operators/building owners to ensure safe round-the-clock collection of parking fees. TPK 2 supports Touch 'n Go card, Touch'n Go RFID, credit/debit cards, and e-Wallet cashless payment.

TPK 2 has been seamlessly integrated with the cutting edge cloud technology of TimeTec Parking system, making it suitable for both casual and seasoned parking, and across multiple parking sites. It provides a better parking experience for users, which increases parking revenue for building owners.

Technical specification

DESCRIPTION	PARAMETER
Enclosure	Slim, Epoxy powder coated
Screen	Non Touch Color Screen 7" LED Display
Reader	- TnG Mifare Card Tap Reader-TnG - Proximity Reader (Season)-RFID
Microprocessor	Raspberry Pi 3 Model B+ 1.4GHz 64-bit quad-core ARM Cortex-A53 CPU
Dimension (L X W X H), mm	250 x 200 x 1320
Communication	- Method: 4G Module - Ethernet: RJ45 Port
Intercom	- Microphone: IP Microphone - Speaker: Yes
Operating Environment	- Waterproof rating: IP65 - Temperature: -20°C to 60°C - Humidity:10% ~ 90% - Power input:DC12V 3A
Software	- Cloud system: TimeTec Parking System - Mobile App: TimeTec Parking App for Android & iO
Software Language	English, Malay, Chinese (Traditional), Chinese (Simplified), Spanish, Thai, Indonesian, Arabic, Vietnamese, Portuguese, Hindi, Japanese, Turkish

Jellies V1, is a credit card/debit card reader added on to the TPK. It is a contactless reader (NFC) designed with powerful processor and extensive connectivity feature to be fitted in any environment from indoor to outdoor, and attended to unattended. The reader is equipped by ARM9 Linux processor, WIFI, 3G/4G, ETH, and other optional features such as QR Camera and USB Host.

Dual-MCU solution to provide flexibility and combination of computing power to process complex calculation and algorithm, going beyond high performance and low power consumption. Equipped with high-capacity memory to support heavy buffering process for example file caching and image processing.

The Jellies V1 has been certified EMV Contactless Level 1, Visa payWave, MasterCard PayPass, MYDEBIT, and AMEX. Also, APIs are provided to access Mifare, ISO14443 Type A, Type B and NFC interfaces which increase the flexibility third party kernel integration.

Technical specification

DESCRIPTION	PARAMETER
Contactless	Mifare, Desfire, ISO14443-A, ISO14443-B, Type-C Felica. CIPURSE, NFC Peer-to-peer mode initiator
SAM	8 x SAM Slots, ISO7816 T=0,1 Protocol
EMV	EMVCo Level 1 version 2.2, Visa Paywave, MasterCard PayPass
Memory	256MB Flash storage, 64MB RAM
TFT Mirco-SD	YES
Data Cable	RS232 Serial up to 115200bps, USB2.0 Fullspeed
ETH LAN	YES
WIFI	OPT
3G	YES
QR	YES
GPS	OPT
LCD	3.5" 320x240px, 16-bits Color"
Sound	16-bits Audio
LED	4x LED indicators, front and rear
LED Ring	256-steps RGB color LED Ring
Dimension	92mm x 155mm x 23mm, 285g
Compliances	EMVCO Level 1, Visa PayWave, Visa AP, Mastercard PayPass, MyDebit, AMEX, CE IEC60950

Validator
(TNG Card/Credit & Debit Card)
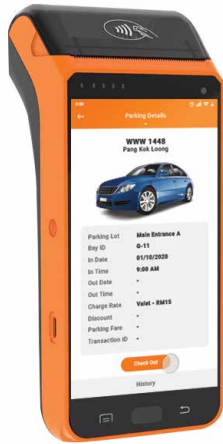
The Timetec TVP-2 Smart handheld device, equipped with the TimeTec Ocer App, can significantly enhance your parking operations.

The TimeTec Ocer App, packed with six-in-one parking functions, empowering your parking attendants to perform various tasks, including: • Validating parking discounts • Valet parking • Event Parking • Haphazard Parking Enforcement • Casual parking collection backup • Cashless transaction at the parking booth.

Furthermore, the App seamlessly integrates with TimeTec Parking Management System (PMS), a cloud-based backend web-portal that enables remote real-time monitoring, multiple parking rules, settings, and reporting.

With TimeTec TVP-2, we accelerate the digital transformation for your parking site.

Technical specification

DESCRIPTION	PARAMETER
Processor	400MHz
SYSTEM	Processor: ARM Cortex A7 Core CPU
	Operating: System Android 8.1
MEMORY	RAM: 1GB, optional 2GB, Flash: 8GB, optional 16GB
DISPLAY	Display Screen: 5.5 inch touchscreen, Resolution: 1280 x 720 resolution
COMMUNICATION	Communication : 4G, Support WIFI & Bluetooth
GPS	Support for 4G version
KEYBOARD	PinPad: Virtual Pin pad
PRINTER	Printer: High-speed thermal printer Paper roll width/diameter: 58/40mm
CARD READERS	Magnetic Card Reader : × 1, track 1 / 2 / 3, bi-directional,
	Contact Card Reader : × 1, ISO7816 / PBOC 3.0 / EMV standards
	Contactless Card Reader: × 1, 13.56MHz, ISO14443 A&B / Mifare® standards
CARD SLOTS	1 TF Slot , support 128GB TF card (max), PSAM Card Slot : 1 SIM Card & 1 Slot
AUDIO	Full stereo standard, Mic: Microphone that supports recording
PERIPHERAL PORTS	1 USB Type C
POWER	Power adapter, input requirement: 100~ 240VAC, Support quick-charging
	Embedded lithium battery, 2700mAh, 7.4V, 19.98Wh
CAMERA	Front: 2 mega-pixel, Rear: 5 mega-pixel, flash lamp supported
OPTIONAL	Wristband: Optional
CERTIFICATION	PCI PTS 5.0, EMV L1 / L2, MasterCard PayPass, Visa PayWave, American Express,
	Discovery, UnionPay, JCB, TQM, CE, ROHS
PHYSICAL	Dimension: 189.91mm × 84.36mm × 67.10mm,0.48kg

02

LPR, LICENSE PLATE RECOGNITION

timeTec parking

HARDWARE CATALOGUE

Technical specification

DESCRIPTION	PARAMETER
INFORMATION	Type: 2MP overall unit smart camera, dualcore 900MHz processor+CNN hardware acceleration engine (0.5 Tops)
IMAGING	Image Sensor: 1/2.8" starlight-level CMOS, Max Resolution: 1980 x 1080, Lowest illumination 0.01Lux (Color), ISP: Supports VZ intelligent ISP, scene-adaptive, Data Output: H265\H264\MJPEG\intelligent detection structured data output
LENS	Standard Conguration/Optional Conguration: Standard 6mm prime lens; optional 2.8~12mm, 6~22mm, 5~50mm motorized zoom lenses
AUDIO	Voice Intercom: Supports cloud local two-way voice intercom, audio coding G.711/AAC
INTELLIGENT	Comprehensive capturing recognition rate: Comprehens Recognition Regionsive capturing rate 99.99%; comprehensive recognition rate90%
ALGORITHM	License Plate Recognition: Malaysia 99.8%, Poland, Germany, France, Brazil, Kenya, Ukraine, Indonesia, Vietnam, Denmark, Israel, Romania, Regions Moldova, Azerbaijan, Switzerland, Slovakia, Netherlands, Serbia, Uzbekistan, Turkey, Kyrgyzstan, Urkaine, Greatbritain, Italy, Croatia 90% Monaco, Estonia, Czechrepublic, Portugal, Bulgaria, Luxembourg, Finland, Montenegro, Thailand, Slovenia, Hungary, Latvia, Russia, Kazakhstan, Lithuania, Norway, Belgium, Cyprus, Sweden, Georgia, Belarus, Spain 98%
VIR 5.0	License Plate Function: Recognition White list of license plates, intelligent calibration
INTERFACE	Network Interface: 1 channel 10/100Mbps adaptive Rj45, Other Interfaces IO output: 2 channel, IO input: 4 channel, RS485: 1 channel, AUDIO 1 input (LINE & MIC) + 1channel output (Passive), USB 1 USB Type A interface (optional 4G module), TF Card Slot 1 TF card slot, supporting 512G at maximum
MANAGEMENT	Service: Basic services, supporting various types of secondary development

LPR
M Series

Technical specification

DESCRIPTION	PARAMETER
INFORMATION	Type: 2MP overall unit smart camera, dualcore 900MHz processor+CNN hardware acceleration engine (0.5 Tops)
IMAGING	Image Sensor: 1/2.8" starlight-level CMOS, Max Resolution: 1980 x 1080, Lowest illumination 0.01Lux (Color), ISP: Supports VZ intelligent ISP, scene-adaptive, Data Output: H265\H264\MJPEG\intelligent detection structured data output
LENS	Standard Conguration/Optional Conguration: Standard 6mm prime lens; optional 2.8~12mm, 6~22mm, 5~50mm motorized zoom lenses
AUDIO	Voice Intercom: Supports cloud local two-way voice intercom, audio coding G.711/AAC
INTELLIGENT	Comprehensive capturing recognition rate: Comprehens Recognition Regionsive capturing rate 99.99%; comprehensive recognition rate90%
ALGORITHM	License Plate Recognition: Malaysia 99.8%, Poland, Germany, France, Brazil, Kenya, Ukraine, Indonesia, Vietnam, Denmark, Israel, Romania, Regions Moldova, Azerbaijan, Switzerland, Slovakia, Netherlands, Serbia, Uzbekistan, Turkey, Kyrgyzstan, Urkaine, Greatbritain, Italy, Croatia 90% Monaco, Estonia, Czechrepublic, Portugal, Bulgaria, Luxembourg, Finland, Montenegro, Thailand, Slovenia, Hungary, Latvia, Russia, Kazakhstan, Lithuania, Norway, Belgium, Cyprus, Sweden, Georgia, Belarus, Spain 98%
VIR 5.0	License Plate Function: Recognition White list of license plates, intelligent calibration
INTERFACE	Network Interface: 1 channel 10/100Mbps adaptive Rj45, Other Interfaces IO output: 2 channel, IO input: 4 channel, RS485: 1 channel, AUDIO 1 input (LINE & MIC) + 1channel output (Passive), USB 1 USB Type A interface (optional 4G module), TF Card Slot 1 TF card slot, supporting 512G at maximum
MANAGEMENT	Service: Basic services, supporting various types of secondary development

LICENSE PLATE RECOGNITION
L Series

- 1/2.8" Progressive Scan CMOS
- Up to 1920 × 1200 resolution with real-time video
- 2x pics high-performance IR LEDs (Valid for IR camera models)
- 3.1 to 9mm motorized vari-focal lens
- Support relay output to control vehicle barrier
- Support loop triggering or video triggering
- Support multi-frame LPR
- Support dirty license plate recognition
- Support quick pass of multiple vehicles
- Support vehicle type, vehicle color and vehicle brand recognition
- Integrated shield, lights, TF Card (up to 128 G)
- Up to 30,000 whitelists
- Offline control
- PoE (802.3af)
- One-touch focus
- Manual capture and ANPR

Technical specification

DESCRIPTION	PARAMETER
CAMERA	
Image Sensor	1/2.8" Progressive Scan CMOS
Min. IlluminationColor	0.002Lux@(F1.2, AGC ON) B/W: 0.002Lux@(F1.2, AGC ON)
Shutter Speed	1/30 s to 1/100,000 s
Lens	3.1 mm to 9 mm
IR Cut Filter	Support
COMPRESSION STANDARD	
Video Compression	H.265, H.264
Video Bit Rate	32 Kbps to 16 Mbps
IMAGE	
Max. Resolution	1920 × 1200
Image SettingsSaturation	0 to 100 Brightness: 0 to 100 Contrast: 0 to 100 Gain: 0 to 100 3D DNR: Off, Normal and Expert modes are selectable. White balance: White Balance 1 and White Balance 2 are selectable.
Image Format	JPEG
Frame Rate	25 fps(1920 × 1200)
NETWORK	
Network Storage	TF
Protocols	TCP/IP, HTTP, DHCP, DNS, RTP, RTSP, NTP, FTP Upload Pictures
Security	User Authentication, Heartbeat, NTP
APII	SAPI, SDK

DESCRIPTION	PARAMETER
INTERFACES	
Serial Port	1 RS-485 Port, 1 RS-232 Port
Built-In LED	2 built-in LEDs
Audio Output	1-ch audio output
Triggered Input	3-ch triggered input, including 1-ch I/O triggered input & 2-ch alarm input
Relay Output	2-ch relay output, support open/close of barrier gates
Memory Card Slot	1 TF card slot, up to 128GB
Communication Interface	1 RJ45 10M/100M/1000M Ethernet port
GENERAL	
Working Temperature	-30℃ to 70℃ (-22°F to 158°F)
Working Humidity	90% or less (non-condensing)
Power Supply	12 VDC, PoE (802.3af)
Power Consumption	12 VDC, 1.0 A, 20 W
Protection Level	IP67, IK10
SNAPSHOT	
Analytic	Support LPR
LED Control	Support automatic light control/time control of LEDs
Picture Format	JPEG with configurable quality
VEHICLE RECOGNITION	
Vehicle Color	Red, yellow(including orange), green, blue, purple, brown, white, grey(including silvery), black
Vehicle Brand	Hyundai, Toyota, Kia, Honda, Volkswagen, Benz, Nissan, Ford, ISUZU, BMW, Chevrolet, Mitsubishi, Renault, Opel, Suzuki, Skoda, Daewoo, Audi, Mazda, Hino, Peugeot, Ssang Yong, Citroen, Fiat, Scania, MAN, Volvo, Lexus, Seat, Land Rover, Daihatsu, UD Trucks, Subaru, IVECO, MINI, Jeep, Porsche, Chery, odge, Chrysler, Acura, Alfa Romeo, Great Wall, Infiniti, Smart, SAIC Maxus, JAC, Jaguar, GMC, Lincoln, JMC, SAAB, FAW, Yutong, Mercury, Joylong, Geely, Cadillac, Jinbei, Ankai, Haima, Foton, King Long, Dongfeng, Emgrand
Country/Region Supported By LPR	European and Russian-Speaking Regions: Turkey, Croatia, Slovakia, Czech Republic, Bulgaria, Macedonia, Hungary, Greece, Poland, France, Netherlands, Switzerland, Spain, United Kingdom, Ireland, Germany, Italy, Austria, Israel, Ukraine, Kyrgyzstan, and Russian Federation
LPR Recognition Accuracy *(Under Recommended Installation & Lighting Conditions)*	Capture rate > 98% Vehicle moving direction recognition accuracy > 96% Mistaken capture rate < 2% (entrance/exit), < 5% (checkpoint) European and Russian-Speaking Regions: LPR accuracy > 98% Country/Region recognition accuracy > 98%
Vehicle Type	Car (including SUV, MPV, Pickup)/truck/bus/van

4-Lines 2-Color 8-Characters Outdoor Entrance & Exit LED Screen

- Placed in the entrance & exit of a parking lot, displays the information including available parking space, license plates, welcome greetings, time, audio reminders, etc.

- Displaying standard English characters, numeric characters, and even other foreign special characters

- Standard communication method is RJ45/RS485 - both online and offline modes are supported

- Control computer can dictate the content which is displayed

Technical specification

DESCRIPTION	PARAMETER
Working Voltage	AC220V±10%, 50Hz
LED Brightness	1200cd
LED Angel	110°
Frame Material	Iron Frame Spraying Plastic(Dark armored glass for display part)
Installation Method	Hoop on the back
Speaker Specification	4Ω10W
Protection Grade	IP65
Dot Pitch	P4.75
Fundamental Color	1 Red 1 Green
Downward Communication Methods	RJ45/RS485
Display Method	Instant, Left Shift, Up Forward, etc.
Character Display	GB2312 Character Set, 16 * 16 Lattice Chinese
Characters 485 Communication Rate	RS485: 57600 bps
Communication Distance	RS485:1200m,RJ45:120m
Power Consumption	Max 50W, Average 30W
Display Size	304mm(Width) 304mm(Height)
Dimension	364mm(Width)* 484mm(Height)* 60mm(Depth)

LICENSE PLATE RECOGNITION
LPR Control Terminal

With the Win10 operating system, is a fan-fee, low-consumption, but high-performance embedded control terminal in entrance and exit. Support ANPR Camera, Control barrier gate, entrance and exit charging function 2x I/O interfaces, 4x relays outputs, 1x VGA output, 1x Audio I/O, 1x HDMI output (2T) 2TB HDD included

- Fan-free design, but possesses a good cooling effect with the fine aluminum alloy inner structure
- Supports dual 1000 Mbps network card
- Supports standard RS-232 interface
- Built-in 3.5" surveillance-level hard disk, supporting large-capacity image and video storage
- Equipped with 3.5 mm standard audio interface, and HDMI/VGA interfaces

Technical specification

DESCRIPTION	PARAMETER
GENERAL	
Working Temperature	-20 °C to 70 °C (-4 °F to 158 °F)
Working Humidity	10 % to 95% (No Condensation)
Dimension	245 mm x 65 mm x 170 mm (9.65" x 2.56" x 6.69")
Power Supply	12 VDC/5 A
Power Consumption	Max.: 50 W Average: 25 W
Material	Black Aluminum Material
PROCESSOR	
Processor	Apollo Lake Platform Processor
Basic Frequency/ Memory	1.5 GHz, 4 GB
Hard Disk	1 x 3.5" Surveillance-Level Hard Disk *(Optional Capacity: 1T/2T/4T)*
Indicator	4 Indicators (1 x System Indicator, 1 x Hard Disk Status Indicator, 1 x Power Indicator, 1 x Alarm Indicator)
AUDIO AND VIDEO	
Audio Input/ Output	1-ch Audio Input (MIC IN), 1-ch Audio Output (AUDIO OUT)
Video Output	1 x HDMI, 1 x VGA
ALARM	
Alarm Input	4-ch Alarm Input (ALARM IN), Voltage Range: 0 V to 60 V
Alarm Output	4-ch Alarm Output (ALARM OUT), Voltage Range: 0 V to 60 V
INTERFACE	
Network Interface	5 x 100 Mpbs/1000 Mpbs Self-Adaptive Interface, supporting connecting with switch 1 x Independent 100 Mpbs/1000 Mpbs Self-Adaptive Interface, supporting network isolation
Interface	2 x RS-232, 2 x RS-485, 4 x USB 3.0 Interface

03

OTHER PARKING METHODS

TPK 3
TimeTec Parking Kiosk

Sometimes, technology shall take two steps forward and one step back to cushion the impact to users while making its advancement. TimeTec TPK-3, the unmanned parking kiosk that combines ticket and ticketless, is designed to install at the entry and exit lanes to extend comfort to accommodate the vast number of parking users.

TimeTec TPK-3, for Mifare card entry station 3a and exit station 3b normally come together with TimeTec APM-1, or TimeTec Automated Payment Machine, to provide convenience to users that still prefer to pay parking in cash or cashless at the same APM; but for users that desire to skip the payment in between entry and exit entirely, they can go for cashless that require them to tap their TnG/credit card/debit card on the kiosks at the entrance and exit lanes.

TPK-3 has been seamlessly integrated with the cutting-edge cloud technology of the TimeTec Parking system, making it suitable for both casual and seasonal parking, and across multiple parking sites. It provides a better parking experience for users, which increases parking revenue for building owners.

Technical specification

DESCRIPTION	PARAMETER
SURFACE FINISHING	1.25mm mild steel, powder-coated
READER	3 in 1 Reader (TnG, Credit Card/ Debit Card & MiFare Card)
DIMENSION (L x W x H)	460 mm (L) x 360 mm (W) x 1300 mm (H)
WEIGHT	40kg
POWER SUPPLY	230V±10% AC 50/60Hz
POWER CONSUMPTION	200 WATT
COMMUNICATION	Support 4G, WIFI, LAN, 10/100Mbps Ethernet TCP, SSL, TFTP and most internet protocols, Supports 2 x USB (OTG and HOST), 2 x RS232 Serial up to 115200Kbps
INTERCOM	Optional*
OPERATING TEMPERATURE	-10°C to + 70°C
GENERAL	• LED Screen • Card Dispenser • Power Supply Board • System Controller • Touch n Go Module c/w Antenna • W4G Android Mother Board • Touch n Go 4G Mother Board • IP Intercom
PAYMENT METHOD	Visa/Master Debit or Credit Card, Touch n' Go Card
OPTIONS	Interface for external system such as Mifare Hotel cards
NETWORK	• Data transfer to the central station by the local • LAN network • TCP/IP network • W4G
SOFTWARE	Cloud system: TimeTec Parking System
SOFTWARE LANGUAGE	Mobile App: TimeTec Parking App for Android & iOS English, Malay, Chinese (Traditional), Chinese (Simplied), Spanish, Thai, Indonesian, Arabic, Vietnamese, Portuguese,

RFID
UHF READER (TID) UHF 200F

TimeTec UHF 200F (TID) is a long range Wiegand reader that can read RFID signal from cards/stickers of up to 15-meter distance, giving the smooth access to the barrier gate and providing the users with better automation and perfect hand-free in access control of the parking sites. TID means "tag ID" and it refers to a unique serial number written to a RIFD microchip when the chip is manufactured. It cannot be altered. The TID or Tag Identifier is 20 bytes or 160 bits, it is a perfect reader to read Touch 'n Go RFID tag for parking system.

Technical specification

DESCRIPTION	PARAMETER
Reading Distance (Hand held test)	2 to 15 meters (Actual scenario test is around 8m)
Antenna Gain	12dBi
Dimensions (mm)	445 * 445 * 67.5
Weight	3kg
Power	1.2 - 4.5W
Output data partition	EPC, TID
Frequency	F: 902MHz - 906MHz (adjustable)
Communication Interface	Wiegand; RS485; USB configuration parameters (Wiegand, RS485 requires one of two options)
Interface Protocol	EPC global UHF Class 1 Gen 2 / ISO 18000-6C
Working Mode	Read Always (Default) and Read by Trigger
Output Power	19dBm - 30dBm
Protection Level	IP66
Firmware Version	MI610_2021508_V4.00
Working Voltage	DC 9-15V
Working Temperature & Humidity	-20°C - 65°C; <85%
Storage Temperature & Humidity	-20°C - 80°C; <85%
RS485 Communication	Optional baud rate (9600, 19200, 38400, 57600, 115200); the default is 115200

TimeTec UHF2-10F is a long range Wiegand reader that can read RFID signal from UHF cards/stickers of up to 12-meter distance, giving the smooth access to the barrier gate and providing the users with better automation in access control of the parking sites. A combination of TimeTec UHF2-10F fixed at the access points and anti-torn UHF sticker pasted on the car's windscreen, together they make a perfect hands-free smart barrier system for car park users. TimeTec UHF2-10F uses the industry's most cost-effective UHF card reader chipset that is sensitive to RFID signal, making sure that all cars with UHF stickers/cards will be read without fail. The TimeTec UHF2-10F has a long lifespan, it comes with waterproof casing, suitable for outdoor installations and it works amazingly even in bad weather.

Technical specification

DESCRIPTION	PARAMETER
DIMENSION (L X W X H), MM	445 x 70 x 445
WEIGHING (KG)	2.76
READING DISTANCE	Up to 12 meters (adjustable)
COMMUNICATION INTERFACE	Wiegand 26 (Default), Wiegand 34, USB
FREQUENCY	902Mhz – 926Mhz, 865MHz – 868MHz
SHELL MATERIAL	Antenna Panel: ABS Engineering Plastics Back Cover: Aluminum Shell
WORKING VOLTAGE	9~12V DC
WORKING CURRENT	150mA (Always Read)
WORKING TEMPERATURE	-20 °C - 60 °C
INTERFACE PROTOCOL	EPC global UHF Class 1Gen 2/ISO 18000-6c
MULTIPLE TAGS IDENTIFICATION	< 100
WORKING MODE	Always read (Default) / Trigger read
I/O INTERFACE	Supports external trigger
MAXIMUM POWER CONSUMPTION	< 3W (RF output 26dBm, multiple tags) < 2W (RF output 26dBm, Sigle tags)

RFID
C2-260 Controller

C2-260 is an IP-based two doors mini control panel. It supports TCP/IP communication through LAN or WAN network, and RS485 communication which allows extension to RS485 devices like DM10, AUX485, WR485. The series is a perfect match for the web-based software ZKBioAccess to provide RFID/Biometric Security solution. C2-260 can control two doors by default. It can extend to 8 DM10s at most that it can support up to 10 doors.

Technical specification

DESCRIPTION	PARAMETER
Number of Doors Supported by Default	2
Number of Auxiliary Inputs	2
Number of Auxiliary Outputs	2
RS485 Extension Port	1
RS485 Reader Port	1
Number of Readers Supported	4
Types of Readers Supported	RS485 card reader, Wiegand reader *(WR485)*
DM10 (Single-Door Extension Board) *(Optional)*	Max. 8
AUX485 (RS485-4 Aux. IN Converter) *(Optional)*	2
WR485 (RS485-Weigand Converter) *(Optional)*	4
Card Capacity	30,000
Log Capacity	200,000
Communication	TCP/IP, RS485
CPU	32-bit 1.0GHz
RAM	64MB
Power	9.6V - 14.4V DC
Dimensions (L*W*H)	116.47*96.49*31.40 mm
Operating Temperature	-10°C to 50°C / 14°F to 122°F
Operating Humidity	20% to 80%

RFID • **RFID Credential**
RFID sticker

More often than not, users would face these problems when their vehicles enter or leave a parking site using access card. The gate never opens even though users have waved the access card repeatedly from the inside of your car because the distance between the card and the reader is too far to be readable. Users place the card in a holder that is attached to a windscreen but more than often the card drops making it difficult for you to retrieve it. Worse, the top-notched quality tinted-glass of your car blocks the RFID signal from reading the card, requiring users to wind down the window to gain access or exit to the parking site. It's time to end all of those frustrations with the transparent anti-torn UHF long range RFID sticker. Simply stick it on the inside or outside of the car's windscreen for the reader to automatically reads it. The sticker is designed weatherproof and its transparency nature made it inconspicuous to the public. The sticker is also embedded with anti-torn safety feature, making it damaged and unusable if someone tries to peel it off. Get the UHF RFID sticker for a perfect hands-free auto-access and secure system for the parking sites without any hassle.

Technical specification

DESCRIPTION	PARAMETER
Material	Fragile paper
RF Protocol	ISO14443A/B,ISO15693
Chips available	HF:(13.56MHz): MIFARE Classic® 1K, M-FARE Classic® 4K, MIFARE® DESFire® EV1 (2K/4K/8K), MIFAREPlus® (2K/4K), MIFARE Ultralight®, MIFARE Ultralight® EV1, MIFARE Ultralight® C, Ntag213/ Ntag215/Ntag216 , FM11RF08 , ICODE SLI/-L/-X/-S etc.
Reading Range	1M-10M *(related to the reader and reading environment.)*
Read/write operation	100,000 times.
Working Life	10 years.
ENVIRONMENTAL PARAMETERS	
Work temperature	-25°C~70°C
Work humidity (%)	20~90
Storage temperature	-30°C~85°C
Weather Proof	YES
Surface Crafts	Laser code, barcode, QR code printing
Printing	screen printing, offset printing etc
Size (mm)	94 x 20 or Customizable.

UHF Card adopts ultra high frequency encrypted chip, especially designed for TimeTec UHF long range reader. The UHF card is ultra thin, easy to carry, the size of standard credit card, with an identifiable reading distance up to 10 meters.

Notes:

1. In order to have the best reading performance, please keep the tag's position the same as antenna's polarization direction. Hold the card horizontally when accessing barrier gate.

2. Do not bend the tag, which may cause the damage of the internal chip.

Technical specification

DESCRIPTION	PARAMETER
Working Frequency	860~928MHz
Reading Distance	Up to 10 meters for UHF1-10E and UHF1-10F (Determined by the environment and reader)
Protocol	ISO18000-6C
Memory Capacity	800 bits
Chip UID	64 bytes
Storage Structure	EPC: 96 bits; TID: 96 bits; User: 512 bits; Password: 64 bits
Data Storage	5 years (Only for chip)
Working Temperature	-30°C ~ 55°C
Storage Temperature	-10°C ~ 40°C
Storage Humidity	40%-50% RH
Dimension	85mm*54mm*0.8mm (error±0.06mm)
Packaging Process	Process Hot Laminating

The UHF Heavy Duty Tag is a ultra high frequency encrypted tag for TimeTec UHF long range reader. The UHF tag is suitable for barrier gate access management, with card reading distance up to 10 meters. This tag offers cost effective long range vehicle identification installations requiring tamperproof mounting.

The UHF Heavy Duty Tag is an effective solution for installations where the tag needs to be mounted onto the exterior of the vehicle to achieve an automation and a hand-free access.

Notes:

1. *In order to have the best reading performance, please keep the tag's position the same as antenna's polarization direction.*
2. *Do not bend the tag, which may cause the damage of the internal chip.*

Technical specification

DESCRIPTION	PARAMETER
Working Frequency	840~960MHz
Reading Distance	Up to 10 meters for UHF1-10E and UHF1-10F (Determined by the environment and reader)
Protocol	ISO / IEC18000-6C, EPC global Class 1 Gen 2
Chip	G2XM
Memory Capacity	272 bits
Storage Structure	EPC: 96bits, UID / TID: 64bits, User: 512bits, Access Password: 32bits, Kill Password: 32bit
Erase Endurance	10,000 times (Only for chips)
Data Storage	20 years (Only for chips)
Environmental Requirements	RoHS Certificate
Storage Temperature	0~40℃
Storage Humidity	40%-70% RH
Working Temperature	-30~60℃
Dimension	249 * 13.8 * 18 (mm) ± 0.5 (mm)
Installation	Fixed on the upper and lower edges of the license plate (Parking Applications)

QR CODE
Controller BLE-2

TimeTec BLE-2 Control Board functions as an intermediary device between a user's Mobile App and the barrier gate controller, where a user can use his/her TimeTec Parking mobile app to scan the QR code that sticks near to the parking barrier. User's mobile App will send a command to TimeTec BLE-2 via Bluetooth connection that translates the command into a digital pulse and instructs the opening of the barrier gate. TimeTec BLE-2 is designed to seamlessly integrate with TimeTec solutions for various deployments, including TimeTec Parking.

Technical specification

DESCRIPTION	PARAMETER
CHANNELS	2 FORM C Relay output, NO/NC selected via jumper Wiegand 26-bit input
GATES	Max 2
DIMENSION (MM)	85 (L) x 96 (W) x 33 (H)
POWER INPUT	9 ~ 24 VDC
WORKING TEMPERATURE	0-45°C
HUMIDITY (%)	20-80
CARD STORAGE	30,000
COMMUNICATION	Bluetooth Low Energy (BLE) 4.2, Wiegand 26-bit input
BLUETOOTH ENCRYPTION	64-bit TimeTec Proprietary
EFFECTIVE DISTANCE)	Max 10 m (Adjustable)
LED INDICATOR	Yes
TRANSACTION RECORDS	Unlimited, stored in cloud server
EVENT CAPACITY	Unlimited, stored in cloud server
MOBILE OS	Android 4.0.2 and above, iOS 8.0 and above
APP & CLOUD	TimeTec Parking, i-TimeTec, TimeTec Access, TimeTec VMS, i-Neighbour
LANGUAGE (APP & CLOUD)	English, Arabic, Malay, Indonesian, Spanish, Chinese Simplified, Chinese Traditional, Thai, Turkish, Vietnamese

04

AUTO PAYMENT MACHINE

timeTec parking

HARDWARE CATALOGUE

Auto Payment Machine
APM-1

Technical specification

DESCRIPTION	PARAMETER
PANEL SIZE	22" LCD
DIMENSION (L x W x H),mm	600(L) x 390(W) x 1500(H)
WEIGHT	80kg
RESOLUTION	1920 X 1080
SPEAKER	Built In
TOUCH SCREEN	Capacity Multipoint Touch
CONTROLLER	NP2000 Controller
POWER SUPPLY	Power Supply Board
MOTHER BOARD	Android 4G Mother Board
CARD READER	Built In
OPERATING TEMPERATURE	-10°C to + 80°C
OFFLINE CASHLESS MODULE	Credit/Debit Card reader, eWallet QR reader
FUNCTION	Multilingual user interface, Service menu for each handlin, Unlimited number of tari structures, Statistics and reports
PAYMENT METHOD	Cash, Visa / Master Pay Wave, My Debit, eWallet
OPTIONS	Customized reports, Mifare readers (RFID) for store value cards, Integration of CCTV and intercom systems, Plinths in dierent heights, Customized colors, Reload value cards, Lost ticket payment, Season card payment, Clamping fee payment

Be it cash, cashless, TimeTec Automated Payment Machine (APM) provides users with convenient ways to pay parking fees, all consolidated in one compact machine to save parking investment.

Users just need to insert the parking ticket/tap Mifare card ticket if ticketing system or type their car plate number if License Plate Recognition System at the APM, it automatically displays the exact parking fee which users have to pay before exiting.

TimeTec APM-1 is the most cost-eective parking solution for considerate parking owners to combine modern and conventional parking and payment methods all in one hybrid system. With the integration of the TimeTec Parking Management System at its backend, the multiple payment channels will be captured in one report, easing the management of a single site or multiple sites for a parking owner.

Auto Payment Machine
APM-2

Technical specification

DESCRIPTION		PARAMETER
MONITOR	• Size	19"
	• Display scale	16:9
	• Type	Capacitive touch LED
	• Touch response time	5ms
	• Touch Object	Finger, Pen, any conductive object
COMPUTER	• CPU	Intel Corei3 i5 i7/ RockChip3288
	• System	Windows/Android
	• RAM	2G/4G/8G
	• ROM	32G/64G/128GB SSD
	• Interface	USB*4,RS232*2,RJ45*1
	• Frequency(H/V)	30~80KHz / 60~75Hz
DISPLAY	• Resolution	1920 x 1080
	• Brightness	250 cd/m2
	• Contrast ratio	1000:1
	• Display area	337.9*270.3mm
	• Light transmit ratio	85%
	• View angle	170°/ 160°
MORE INFO	• Package dimension	1580mm×520mm×475mm
	• Power Type	external power adapter
	• Input voltage	100-240 V AC, 50-60 Hz
	• Working environment	Operating temperature: -10~50°C Storage temperature: -20~60°C Working humidity: 10%~90% Storage humidity: 10%~90% LED Backlight Life(Min): 30,000 hours
PAYMENT METHOD		Visa / Master Pay Wave, My Debit, eWallet

TimeTec Cashless Automated Payment Machine or APM-2 provides an alternative way to pay their parking fees for parking sites that installed with License Plate Recognition (LPR) system, or conven- tional ticketing system.

Users just need to insert the parking ticket/tap Mifare card ticket if ticketing system or type their car plate number on the screen at the APM-2, it automatically displays the exact parking fee which users have to pay before exiting.

05

PARKING BARRIER

timeTec parking

HARDWARE CATALOGUE

The BG1000 Series of barrier gates adopts ZKTeco's interactive LED chassis design, programmable control panel, high-efficiency Brushless DC motor, and SCM421 material gear transmission structure. It has the advantages of fast speed, stable quality, rich function expansion, and so on. It is a much comprehensive barrier gate.

Technical specification

| DESCRIPTION	PARAMETER
Dimensions	350 * 300 * 1020 (mm)
Motor Type	DC 24V brushless motor
Motor MCBF	3 million times
Output Power	120W
Rated Current	6A
Power Supply	AC 220V, 50Hz / AC 110V, 60Hz
Remote Control Distance	≤ 30m
Operating Temperature	-35°C to 70°C
Operating Humidity	< 90%
Weight	45kg

BARRIER GATE
JnP Mark 5

Barrier Gate Mark 5 can adjust as below: 3 – 3.5meter 1.5 sec, 3.6 – 4.5meter 3 sec, 4.6 – 6meter 6 sec. Opening is designed to allow higher traffic through rate and reduce congestion during peak hours. Motor technology reduce maintenance cost, DC brushless motor, 1.5 – 6 sec up/down speed, 5 mil motor up/down, 3meter arm. New NLS positioning and also can switch arm left or right.

Technical specification

| DESCRIPTION	PARAMETER
TECHNICAL DATA	
Working temperature	-35° to + 85°C
Power supply	DC24V
Speed	1.5s to 6s
Rated power	140W
Remote distance	100m
Max arm length	6m
SAFETY GUARANTEE	
Anti-collison	Arm will automatically reverse to vertical position if hit obstacle
Arm swing out	Arm will swing out when hit by car, avoid further damages on vehicle and arm
Loop detector	photocell connection port
SPECIAL FUNCTION	
Speed adjustable	1.5sec – 6sec
Arm direction change	Left to Right
Backup battery	solar panel optional
Optional	220V/110V/24V DC optional
Communication interface	Inbuilt RS484

BARRIER GATE
Amano AK1110
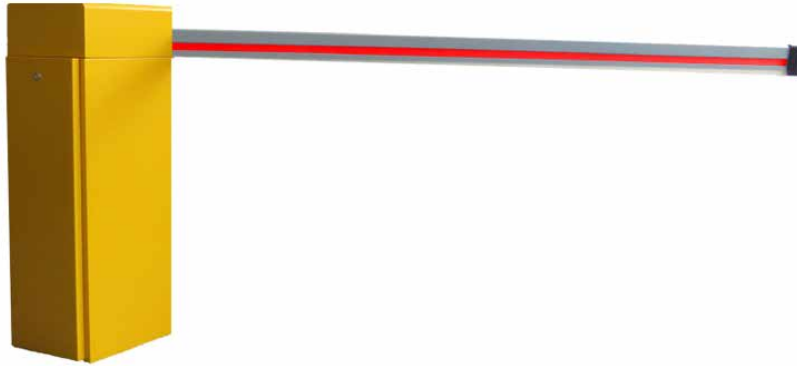
- Models include right hand(standard) or left hand gate arm position.
- Adjustable arm opening/closing speed.
- Gate arm with LED, two color switching control(Option).
- DC direct drive motor minimizes gate arm drop

Technical specification

| DESCRIPTION	PARAMETER
Input	AC 100~220V 60Hz/50Hz
Power	Standby 1W, Operation 100W, LED Gate arm is max.750mA
Operation time	Gate arm opening / closing speed : 1.5~3 sec.
Size	310(W) x 270(D) x 1020(H)
Weight	45 kg (excluding 3 kg gate arm)
Temperature	-20°C to + 50°C
Humidity	+ 10% to + 80% (non condensing)
Motor	Output 100W / DC24V
Deceleration ratio	100:1
Drive system	BLDC motor direct drive and BLDC control
Case Material	EGI steel plate (cabinet 1.6T / base 2.0T)
Gate Arm	Aluminum Bar 3m (Straight / Folding)

BARRIER GATE
Transspeed M Series
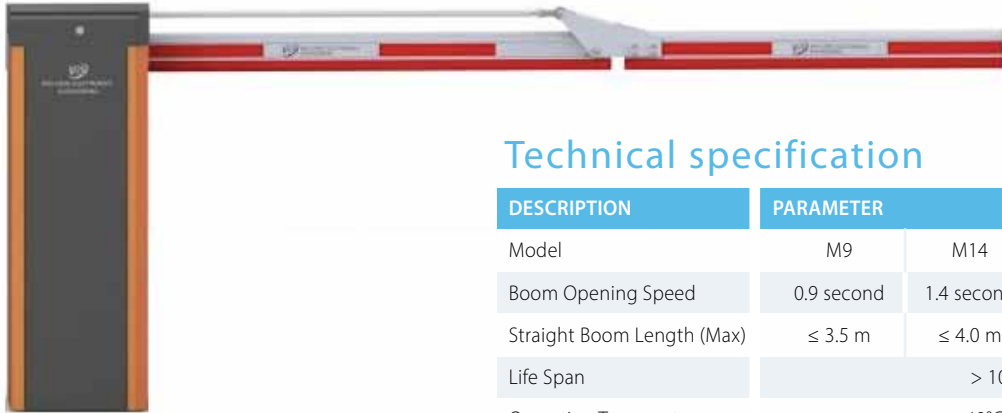
- Integrated Design That Enhances Durability and Stability.

- Easy, Fast and Low Maintenace In The Long Run.

- 3.5mm Thick Aluminium Alloy Housing With Modular Panels. Easy to Exchange.

- Supports Both Left And Right Hand Boom Orientations; Inter-Changeble.

Technical specification

DESCRIPTION	PARAMETER			
Model	M9	M14	M20	M30
Boom Opening Speed	0.9 second	1.4 second	2.0 second	3.0 second
Straight Boom Length (Max)	≤ 3.5 m	≤ 4.0 m	≤ 5.0 m	≤ 6.0 m
Life Span	> 10 million			
Operating Temperature	-40°C to +70°C			
Operating Humidity	≤ 95%			
Power	40 W			
MTTR	≤ 0.5 Hr			
MTBF	5 million			
Voltage	AC220 ± 15%, 50Hz - 60Hz			
Power	40 W			
Boom Orientation	Support both right and left hand orientation, inter-changeable			
Power Outage	Automatic or manual boom lift, configurable			
Boom Selection	KB5 Straight Boom, KB13 Anti-Crash Boom, ZKB13 Folding Boom, KB14 Fence Boom			
LED Boom	Available			
Multiple Controls Methods	Switch, Remote Control, Software Command			
Multiple Anti-Collision Options	Loop Detector, Infra-Red Detector or Radar Detector			
Housing Dimension	357mm x 321mm x 1057mm (w x l x h)			

BARRIER GATE
Magnetic
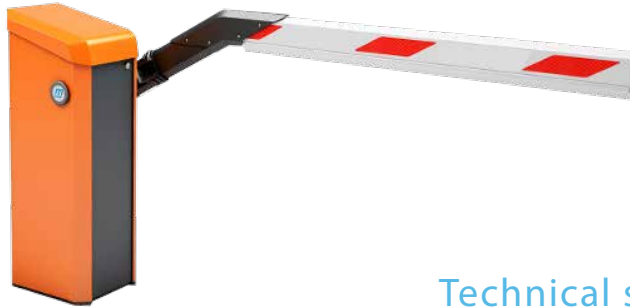
With its barrier width of up to 3.5 m and its comprehensive range of functions, the Access Pro is the perfect solution for controlling access to car parks, company grounds, residential buildings and similar areas. Unlike the basis version, the control system of the Access Pro offers a wide range of functions and supplementary expansion potentials through the use of plug-in modules. There are five slots for, e.g. an Ethernet interface, a radio module or a counting module for determining the number of parking spaces still available. All inputs and outputs can be individually configured by the user. Users can also choose from numerous input and output functions. The opening and closing times can each be selected from three levels independently of one another.

Technical specification

DESCRIPTION	PARAMETER
Lane width	max. 3.5 m
Opening / closing time	1.8 s
Power consumption	max. 35 W
Duty cycle	100%
Supply voltage	Wide voltage range 85 - 264 V AC
	(also available as 24V DC version)
Frequency	50 - 60 Hz
Drive system	MHTM™ MicroDrive
Housing dimensions (mm)	315W x 360D x 915H
Weight (without boom)	40 kg
Housing design	Powder-coated aluminium
Base frame	Powder-coated stainless steel
Protection class	IP 54
Compliant with	2004/108/EC, 2006/42/EC, 305/2011, CE, UL 325
Temperature range	-30 to + 55 °C

LOOP DETECTOR
BRD01 Single Channel

MAG BRD01 is a single channel loop detector. The principle is based on a change in the inductance with the loop which is caused by the metallic component of passing vehicles which are picked up & evaluated by a microprocessor.

Technical specification

DESCRIPTION	PARAMETER
Supply voltage	AC 220V
Sensitivity	Adjustable in 3 increments
Operating temperature	-20˚C to +65˚C
Reaction time	100ms
Frequency range	20 kHz to 170 kHz
Loop inductance	Ideal is 80µH to 300µH
Loop connection	< 5 m optimal
Loop connection wiring	Maximum length 200 meters, twisted at least 20 times per meter
Dimension	35 x 74 x 85 mm (W x H x L)
Net Weight	300g

06

VIDEO PARKING GUIDANCE

GUIDANCE CAMERA
Parking Dome Camera

The DS-TCP440-(D)B series parking camera is applied in the parking guidance and find my car system to detect whether the parking space is occupied or not and recognize the license plate. It is integrated with the parking space status indicator which can indicates red, green, yellow, blue, cyan, and magenta colors.

Red indicates the parking space is occupied, green indicates the parking space is available, and blue indicates the parking space is reserved.
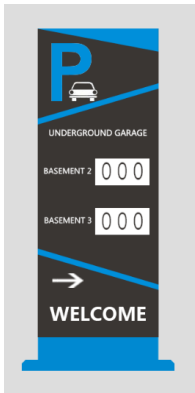
The camera can be widely applied in the environment with dark light, such as road, warehouse, underground garage, bar, garden, etc. to provide HD display

Technical specification

DESCRIPTION	PARAMETER
Image Sensor	1/2.7" Progressive Scan CMOS
Effective Pixels Horizontal	2560
Effective Pixels Verticals	1440
Minimum Shutter Speed	1/100'000s
Maximum Shutter Speed	1s
Lens (mm)	2.8mm
Day Night	Yes
Day Night Type	IR Cut Filter / ICR
Video Frame Rate	4MP@25ips
Video Resolution	4MP
Video Bitrate	CBR Constant Bitrate, VBR Variable Bitrate
Video Compression	H.264, H.265
Lens Type	Fix, Fixed iris
Camera angle (°)	From 100.6 to 100.6
DSP	HIK SMART
Min. Lux color	0.002
Min.Lux B/W	0.0002
Focus	Fix

Entrance Information Guidance Screen DS-TVB200 to place at the parking entrance, indicating number of available parking lots information for users. The standard communication methods are RS-232, RS-485, RJ45, can be used independently or via network. The availability information will be retrieved either by management system or supersonic detector.

Technical specification

| DESCRIPTION	PARAMETER
Model	DS-TVB200 (1-8)
Power supply	220VAC/110VAC(Remark when order)
Downward communication methods	RS-485, RS-232, RJ45
Communication rate	57600 Baud rate/Network communication
Maximum communication distance	(Serial port 1200m)/(network cable 120m, can be extended by auxiliary device)
Dimensions (mm)	Width: 700 Height: 2000-3000 Thickness: 150
Pixel composition of module	1R1G Dual-color
Module size	320×160 (mm)

Indoor Parking Guidance LED DS-TVL121-X-5D is the kitting of parking guidance and passage-way system, mainly installed at the passages and control areas of parking lot. It can display the re-al-time remaining available parking lots number and provides the speedy and accuracy service for drivers to find the right parking space. The product equipped with standard RS485/RJ45 communication mode, which can display num-bers and dynamic arrow.

Technical specification

DESCRIPTION	PARAMETER		
Type (Indoor Guidance)	one-way	two-way	three-way
Model	DS-TVL121-3-5D	DS-TVL121-6-5D	DS-TVL121-9-5D
Application	Indoor Parking Area		
Power Supply	110 VAC – 220 VAC		
Power Consumption	Max. 14W	Max.28W	Max.50W
Restart	Support Instruction to Restart		
Display Mode	Shift left, Shift up, Upward expanding, Downward expanding		
Luminance	3000 CDM		
Scanning Mode	1/16 A Model Scanning		
Size (Border included)	584×224×66	1133×224×66	1682×224×66
Display Screen Border	Black Aluminum Alloy Border		
Display Color	Red/Green/Yellow/Blue/Cyan/Magenta/White		
Display ICON	Pregnant Women/Disabled/Women/Charging		
Communication Mode	RS485/RJ45		
Number Display	Support 3 numbers 1 arrows display	Support 6 numbers 2 arrows displa	Support 9 numbers 3 arrows display

GUIDANCE SYSTEM
Guidance Terminal
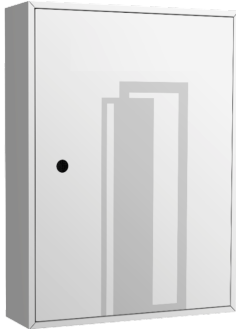
Guidance Terminal DS-TPM400 is the new embedded intelligent parking lot management device. Integrated with network switch, it is convenient to access to parking space detection cameras. Its wall-mounted cabinet is easy to install in the underground parking lot. Six 3.5-inch HDD can be installed to meet the demand of large capacity distributed video storage. It can control the LED parking space guidance display to guide vehicle parking.

The guidance terminal is widely used in large parking site operation, be it shopping mall or business center. It shortens the searching time for parking and optimizes the utilization of the parking spaces. Live view and video record can effectively eradicate the blind spot in the parking lot.

Technical specification

DESCRIPTION	PARAMETER
SYSTEM	
CPU	High Performance ARM A17 Digital Media Processor
Operating System	Embedded Linux Operating System
Operation Interface	WEB
INPUT/OUTPUT	
Network Video Input	Access of 16 dual cameras 32 parking cameras
Audio Input	1-ch Audio Input
Audio Output	1-ch Audio Output
Alarm Input	3-ch Alarm Input
Alarm Output	3-ch Alarm Output
INTERFACE	
RS485 Interface	2 RS485 Interfaces
USB Interface	1 USB2.0 Interfaces, 1 USB3.0 Interface
HDMI Interface	1 HDMI Interface
Network Interface	16 100M Internal Ethernet Interfaces, including 8 HIKVISION POE Ethernet Interfaces; 4 1000M External Ethernet Interfaces
Optical Interface	1 Optical Interface
FUNCTION	
Data Storage	Parking camera capture picture and video storage, support up to 6 HDD
Data Upload	Support data upload and video stream transfer
GENERAL	
Power Supply	AC220V, Standard
Power	<500w
Mechanical Characteristics	Dimension: 410mm (Width) ×130mm (Depth) ×540mm (Height)
Working Environment	Working Temperature -10°C-50°C , Working Humidity 10%-90%

FIND MY CAR
Car Finder Kiosk

As part of Parking Video Guidance System, Car Finder Kiosk US-TPT322-L2 is a useful component. It is an all-in-one terminal designed for multimedia query with LCD and touch screen. It embedded with printer, card reader, QR code scanning gun, all according to your requirements to meet the demand of extended functions. The terminal can be widely applied in many public places such as underground garage, bank, mall, school, hotel, hospital, etc.

Technical specification

DESCRIPTION	PARAMETER
TOUCH SCREEN PARAMETER (UPPER PANEL)	
Resolution / size	1920*1080,22inch
Display area	484mm*276mm
Brightness	250cd/m2
Contrast	1000:1
Visual angle	85°/85°/80°/80°(L/R/U/D)
Response time	10ms
Colour	16.7M
Touch mode	Capacitance
ADVERTISING SCREEN (DOWN)	
Resolution / size	1366*768,32inch
Display area	697mm*392mm
Brightness	300cd/m2
Contrast	3000:1
Visual angle	89°/89°/89°/89°(L/R/U/D)
Response time	10ms
Colour	16.7M
POWER SUPPLY	
Consumption	100W
Input	100-240VAC, 50/60HZ
PRODUCT SPECIFICATION	
Net size	1493mm*633mm*100mm (with base 450mm)
Material	Toughened glass

Technical specification

DESCRIPTION	PARAMETER
OTHER PERIPHERALS	
Speaker	2*5W
Printer	Epson-532
Card reader	D8E
QR code scanning gun	Honeywell N1600G
SYSTEM CONFIGURATION	
Interface	RJ45×1; USB×2; Power×1; HDMI×1; Audio out×1
CPU	Dual core 2.4G
Onboard memory	2G
Storage	64G SSD
Operating system	Windows 7
SYSTEM CONFIGURATION (ADVERTISING SCREEN)	
Interface	RJ45×1; USB×2; power×1; audio out×1; HDMIx1
CPU A20	Dual core 1GHZ
Onboard memory	1GB DDR3
Capicity	8G
Version	Android 4.2

07

ULTRASONIC PARKING GUIDANCE

timeTec parking

HARDWARE CATALOGUE

ULTRASONIC PARKING GUIDANCE SYSTEM
Ultrasonic Parking Space Detector & Indicator

Adopt ultrasonic technology for detecting, suitable for indoor hoisting. It has wide voltage range design to overcome voltage drop caused by engineering wiring. Two wires for three kinds of color indicating controlling, in order to save engineering wiring. Its detecting range can be set to adapt to the different installation heights.

Technical specification

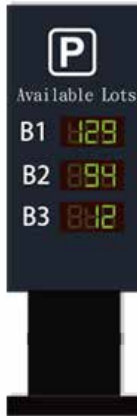| DESCRIPTION	PARAMETER
Operating Voltage	DC10V~30V, Recommend: 24V
Operating Method	Ultrasonic Measuring
Communication Mode	RS485
Mounting	Hoisting
Uplink	Uplink to region controller
Power Consumption	0.5W
Detecting Range	500mm~3500mm
Dimension	φ100X50mm
Application	Indoor
Work Demand	Matching with indicator
LED Quantity	6 Red; 6 Green
Operating Temperature	-25°C to +65°C
Visual Range	> 50m
Outer Shell Material	ABS
Visual Angle	180°

- **Master Controller** is installed at central control room, it's the first layer of three-layer network in Ultrasonic Parking Guidance System. It accomplishes the controlling of the whole system including equipment, data, handling and issuing. It can run independently and in off-line mode.

- **Section Controller** is used to collect data from Region Controller and forward the data to Master Controller. It's the second layer of the three-layer network in Ultrasonic Parking Guidance System.

- **Region Controller** is the third controller of the three-layer network in Ultrasonic Parking Guidance System, which plays an important role in ensuring the system's security, reliability and efficiency. It downlinks to parking space detector, display screen, guidance arrow, etc. Cycle detects the status of detectors and transmit related information to section controller.

Technical specification

DESCRIPTION	PARAMETER		
Communication	Uplink: Ethernet Port Downlink: RS485	Uplink: RS485 Downlink: RS485	Uplink: RS485 Downlink: RS485
Operating Voltage	DC12-24V	DC12-24V	DC12-24V
Power Consumption	<1W	<1W	<1W
Baud Rate	10M/19200bps	19200/9600bps	19200/9600bps
Case Dimension (mm)	330*275*110	330*275*110	330*275*110
Capacity	16 unit of section controller	8 unit of section controller	24 unit of terminal device
Operating Temperature	-20℃ to +65℃	-20℃ to +65℃	-20℃ to +65℃
Outer Shell Material	SPCC	SPCC	SPCC

The Entry Parking Guidance Display Screen placed at the main entrance of parking site, to show the drivers the available lots of each floor, and it will update the figures timely to avoid traffic congestion at parking entrance and increase turnover rate of parking space. It adopts outdoor strong-lighting technology, can be seen clearly even in the hot sun. It's waterproof and anti-rust.

Technical specification

DESCRIPTION	PARAMETER
Operating Voltage	AC220V
Operating Temperature	-25℃ to +65℃
Single Row Display Dimension	320*160mm
Communication Mode	RS485
LED Dot Matrix	16*32
Case Dimension	1700*500*150mm

Hoisting Guidance Display Screen is to place at indoor main channel's intersection to provide noticeable guidance prompt to drivers, which can help to rapidly distribute vehicle flows, preventing them to roam at the occupied parking area that causing congestion, and to improve parking efficiency.

Technical specification

DESCRIPTION	PARAMETER
Operating Voltage	AC220V
Power Consumption	10W
Communication Mode	RS485
Working Humidity	10-90%
Operating Temperature	-25℃ to +65℃
Display Dimension	320*160mm
LED Dot Matrix	16*32 green dot matrix
Case Dimension	560*210*80mm

08

ON STREET PARKING

timeTec parking

ON STREET PARKING
Zebra ZQ500 Series

The ZQ500 Series comes standard with the latest in Bluetooth connectivity: Bluetooth 4.0. The printers also offer 802.11a/b/g/n WLAN connectivity that supports both 2.4GHz and 5GHz bands and roaming within and across bands. And, with the multiport radio, your employees can simultaneously operate 802.11a/b/g/n and Bluetooth 3.0—meaning they can be constantly updated and connected. If users lose their Bluetooth connectivity while on the road, Print Touch™ via NFC technology serves as an alternate option, ensuring users are always connected. The ZQ500 Series is "Made for iPod/iPhone/iPad" (MFi certified) and Wi-Fi Alliance-certified, offering connectivity to a range of Apple, Android and Windows Mobile devices.

Technical specification

| DESCRIPTION	PARAMETER
Resolution	203 dpi (8 dots per mm)
Maximum Print Width	ZQ510: 2.83"/72mm, ZQ520: 4.09"/104mm
Print Length	Max: 39"
Print Speed	Up to 5"/127mm per second
Connectivity	Apple iOS, Android, Windows Mobile and BlackBerry®
Direct thermal printing	text and graphics
programming languages	CPCL and ZPL®
Support	XML
Resident	fixed and scalable fonts
Applications	400 MHz 32-bit ARM® processor with 256 MB RAM (8 MB available for user)
storage	512 MB Flash supports downloadable programs, receipt formats, fonts and graphics (64 MB available for user)
On-The-Go	USB ports (with optional strain relief cable)
Battery	2600 mAh removable Li-Ion smart with optional extended
Battery charger	Built-in
Supports printing	Vertical and horizontal
Bluetooth	4.0 Smart Ready Low Energy radio
Tolerance of multiple	6.6' (2 m) to concrete
QR code	links to web-based help pages; not displayed on LCD
Semi-sleep/instant on mode	which allows the printer to "wake" on touch (Wake on BT only supported in BT 4.0 radio), or on Bluetooth print job transmission

09

ENFORCEMENT & VALET PARKING

timeTec parking

HARDWARE CATALOGUE

HANDHELD POS TERMINAL
TimeTec Valet POS
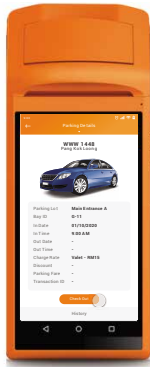
TimeTec Valet, a cloud-based valet parking system to help valet parking business owner to eliminate the cash handling risk, increase the daily operation efficiency and provide better payment convenience to the valet customers.

Technical specification

DESCRIPTION	PARAMETER
CPU	Qualcomm Octa-Core ARM Cortex- A53 1.8GHz
OPERATING SYSTEM	Safedroid (Android 10)
MEMORY	2G RAM + 16G ROM
SCREEN	6.0 inch TFT IPS LCD Multi-touch capacitive screen Resolution: 1440 x 720
REAR CAMERA	5MP AF Camera with LED flash
PRINTER	High-Speed Thermal Printer 58mm printing paper 40mm paper roll
NFC READER	NFC Reader Supports 14443A/ 14443B
COMMUNICATIONS	4G WIFI Bluetooth
FINGERPRINT READER	Semiconductor capacitance 256 x 360 pixel array
ENVIRONMENT	Operating Temperature: -10°C to 50°C Storage Temperature: -20°C to 70°C Humidity: 5% to 95% Relative Humidity, Non-Condensing
SOFTWARE	Preloaded with TimeTec Valet App

BLUETOOTH RECEIPT PRINTER
K219 Mobile Printer

Support TimeTec Parking Officer App on Android smart phone for parking enforcer/officer to print out receipt for valet parking or fine.

Technical specification

DESCRIPTION	PARAMETER
PRINTER SPECIFICATIONS	
Printer Mode	Direct Thermal
Maximum Print	Width: 2"/48mm, Speed: 70mm per second
Resolution	203dpi (8 dots/mm)
Print Life	150km (25% Print density or the following) / Each point: 1.5million pulses
Power	11.1 Wh (1500mAh) / 7.4V Rechargeable lithium polymer battery
Character Sets	curve
Programming Languages	ESC/POS CPCL(Compatibility)
Support System	Windows CE/Mobile, Android, IOS
MEDIA SPECIFICATIONS	
Media Width	20mm-58mm
Maximum Media Roll Size	43mm
Media Thickness	1.97~7.09mil
Media Type	Labels, Thermal paper
COMMUNICATION	
Wired	Type-C
Bluetooth	Bluetooth 2.1+4.2 (BLE)
PHYSICAL CHARACTERISTICS	
Size (L*W*H)	105mm*90mm*54mm
Weight	180g(with battery)
OTHERS	
Charging Time	~2.5h
Stand-by Time	100-120h
Display	OLED screen
ENVIRONMENT	
Operating Temperature	41°F(5°C)~104°F(40°C), Humidity (Relative) 20%~85%
Storage Temperature	-4°F(-20°C)~158°F(70°C), (Relative)5%~95%

10

PARKING SURVEILLANCE

timeTec parking

HARDWARE CATALOGUE

Hikvision ColorVu technology provides 24/7 vivid colorful images with F1.0 advanced lenses, high performance sensors and friendly lighting. F1.0 super-aperture collects more light to produce brighter images. Advanced sensor technology can vastly improve the utilization of available light. In zero-light scenarios, built-in, warm supplemental lighting works to guarantee colorful images.

Technical specification

DESCRIPTION	PARAMETER
CAMERA	
Image Sensor	1/2.8" progressive scan CMOS
Min. Illumination	Color: 0.0035 Lux @ (F1.0, AGC ON) , 0 Lux with white light
Shutter Speed	1/3s to 1/100,000s
Slow Shutter	Yes
Wide Dynamic Range	120dB
Angle Adjustment	Pan: 0 to 360°, tilt: 0 to 90°, rotation: 0 to 360°
LENS	
Lens Type	2.8/4/6 mm, fixed lens
Lens Type & FOV	2.8 mm, horizontal FOV: 112°, vertical FOV: 57°, diagonal FOV: 138°
	4 mm, horizontal FOV: 89°, vertical FOV: 47°, diagonal FOV: 106°
	6 mm, horizontal FOV: 54°, vertical FOV: 30°, diagonal FOV: 63°
Aperture	F1.0
Lens Mount	M16
ILLUMINATOR	
White Light Range	30 m

DESCRIPTION	PARAMETER
VIDEO	
Max. Resolution	1920 × 1080
Main Stream	50Hz: 25fps (1920 × 1080, 1280 × 960, 1280 × 720) 60Hz: 30fps (1920 × 1080, 1280 × 960, 1280 × 720)
Sub Stream	50Hz: 25fps (640 × 480, 640 × 360, 320 × 240) 60Hz: 30fps (640 × 480, 640 × 360, 320 × 240)
Video Compression	Main: H.265+/H.264+/H.265/H.264, Sub: H.265/H.264/MJPEG
Video Bit Rate	32 Kbps to 8 Mbps
H.264 Type	Baseline Profile, Main Profile, High Profile
H.265 Type	Main Profile
Stream Type	Main stream/Sub-stream/third stream
Simultaneous Live View	Up to 6 channels
Scalable Video Coding (SVC)	Yes
Region of Interest (ROI)	1 fixed region for main stream
NETWORK	
API	ONVIF (PROFILE S, PROFILE G), ISAPI, SDK
Protocols	TCP/IP, ICMP, HTTP, HTTPS, FTP, DHCP, DNS, DDNS, RTP, RTSP, NTP, UPnP, SMTP, IGMP, 802.1X, QoS, IPv6, UDP, Bonjour, SSL/TLS
User/Host	Up to 32 users. 3 user levels: administrator, operator and user
Security	Password protection, complicated password, HTTPS encryption, watermark, IP address filter, basic and digest authentication for HTTP/HTTPS, WSSE and digest authentication for ONVIF, RTP/RTSP OVER HTTPS, Control Timeout Settings, Security Audit Log, TLS 1.2
Network Storage	MicroSD/SDHC/SDXC card (256 GB), local storage and NAS (NFS,SMB/CIFS), ANR
Client	iVMS-4200, Hik-Connect, Hik-Central
Web Browser	IE8+, Chrome41.0-44, Firefox30.0-51, Safari8.0-11
IMAGE	
Day/Night Switch	Day/Night/Auto/Schedule
Image Enhancement	BLC, HLC, 3D DNR
Image Settings	Saturation, brightness, contrast, sharpness, AGC, and white balance are adjustable by client software or web browser
S/N Ratio	>50dB

DESCRIPTION	PARAMETER
INTERFACE	
RS-232	RS-232 serial port control
On-board Storage	Built-in micro SD/SDHC/SDXC slot, up to 256 GB
Hardware Reset	Yes
Communication Interface	1 RJ45 10M/100M self-adaptive Ethernet port
SMART FEATURE-SET	
Basic Event	Motion detection, video tampering alarm, exception (IP address conflict, illegal login)
Premier Protection	Intrusion detection, line crossing detection
GENERAL	
General Function	One-key reset, anti-flicker, heartbeat, mirror, password protection, privacy masks, IP address conflict, flash log
Software Reset	Yes
Linkage Method	Upload to FTP/NAS/memory card, notify surveillance center, send email, trigger capture
Storage Conditions	-30 °C to 60 °C (-22 °F to 140 °F)
Startup and Operating	-30 °C to 60 °C (-22 °F to 140 °F)
Power Supply	12 VDC ± 20%, PoE: 802.3af
Power Consumption & Current	12VDC, 0.4 A, max. 5 W; PoE:(802.3af, 36V to 57V), 0.2 A to 0.1 A, max. 6.5 W
Power Interface	Φ5.5 mm coaxial power plug
Material	Metal
Camera Dimension	85 × 85 × 218 mm (3.3″× 3.3″× 8.6″)
Package Dimension	315 × 137 × 141 mm (12.4″× 5.4″× 5.6″)
APPROVAL	
Protection	Ingress protection: IP67 (IEC 60529-2013)
EMC	CE-EMC (EN 55032: 2015, EN 61000-3-2: 2014, EN 61000-3-3: 2013, EN 50130-4: 2011 +A1: 2014); RCM (AS/NZS CISPR 32: 2015); IC (ICES-003: Issue 6, 2016); KC (KN 32: 2015, KN 35: 2015)
Safety	UL (UL 60950-1); CB (IEC 60950-1:2005 + Am 1:2009 + Am 2:2013); CE-LVD (EN 60950-1:2005 + Am 1:2009 + Am 2:2013); BIS (IS 13252 (Part 1):2010+A1:2013+A2:2015); LOA (IEC/EN 60950-1)
Environment	CE-RoHS (2011/65/EU); WEEE (2012/19/EU); Reach (Regulation (EC) No 1907/2006)

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IP INTERCOM & OTHER

timeTec parking

DP91-S SIP Audio Intercom

Main Board, DP8XL

The TimeTec DP91-S is an One-button SIP audio intercom with advanced audio system that can be mounted on TimeTec TPK cashless parking kiosk and furnished with the echo cancellation function. Combined with the TimeTec DP70 indoor touch screen control pad or TimeTec C63G series IP Phone, you can remote communication with caller any time.

The TimeTec DP91-S offers keyless control and convenience for the users opening the door or barrier gate without a key. The door can be opened remotely via DTMF if there is an electronic door lock. TimeTec DP91-S also supports one touch button for emergency calling for parking industry.

Its main board, DP8XL uses a quad core ARM Cortex-A35 CPU designed for intelligent voice interaction, audio input/output processing, and other digital multimedia applications.

Technical specification

ACCESS CONTROL

Dual SIP line, Dual SIP servers

Door Access: DTMF tones

Door Phone features:

• Full-duplex

• Default auto answer

• Action URL/Active URI remote control

• Speed Dial

ADMINISTRATION FEATURES

Auto provisioning:

• FTP/TFTP/HTTP/HTTPS/PnP

• HTTP/HTTPS Web Management

Configuration keypad-based management

SNMP/TR069

NTP/Daylight Saving Time

Firmware Upgrade via Web

Syslog

Configuration backup/restore

PHYSICAL INTERFACE

1 port 100M/10M RJ45 Ethernet, POE

1 ports delay output

1 ports sensor short circuit input

1 ports exit button

1 port 8Ω speaker

1 port MIC

1 port RS232

1 ports DSS key

ENVIRONMENTS

Operating Temperature:-20~65℃

Storage Temperature: -40~70℃

Relative Humidity: 10~90%

AUDIO FEATURES

HD voice

Two-way audio stream

Wideband codec: G.722

Narrowband codec: PCMA, PCMU, G.729,G723_53, G723_63, G726_32

Echo cancellation with G.168

Voice activity detection (VAD)

Comfort noise generator(CNG)

Built-in Micro and speaker

Acoustic echo cancellation audio output

PROTOCOLS & NETWORK

SIP v1 (RFC2543), v2 (RFC3261)

SIP over TLS, SRTP

Onvif

TCP/IPv4/UDP

RTP/RTCP, RFC2198, 1889

HTTP/HTTPS/FTP/TFTP

ARP/RARP/ICMP/NTP

DNS SRV/ A Query/NATPR Query

Primary /Secondary DNS

STUN, Session timer

802.1p/q, DSCP,802.1x

(DH)CP/Static/PPPoE

DTMF Mode: In-Band, RFC2833 and SIP INFO

PHYSICAL SPECIFICATIONS

1 call button

Aluminum surface, Metal bottom shell

Power Supply: DC 12V1A or 802.3af PoE

Power Requirements: 802.3af PoE class 3

1x RJ45 10/100M Ethernet jacks

Wall-mounted installation

Dimensions: 153*120*38 mm

Rich visual Experience

The C63G/C63GP is an entry-level IP phone, and the C63G/C63GP features a 2.4" high-resolution color TFT display with backlight, which takes visual effects to a new level. The freely programmable multi-color function keys provide users with a high degree of usability. Each function key can be configured for various one-touch phone functions such as speed dial, busy lamp field, etc.

Good Compatibility

Based on RFC3261, the C63G/C63GP has been tested to ensure good compatibility with leading IP telephony system and equipments. The C63G/C63GP not only supports Dinstar UC/IPPBX products, also supports many third-party IPPBXs such as 3CX, Asterisk, NEC, Grandstream and so on.

High Quality Audio

The full duplex speaker and microphone system and the Digital Signal Processor (DSP) ensure that the C63G/C63GP delivers high audio quality. Whether you use the hands-free speakerphone or the handset, you will always have good experience and crystal-clear call quality.

- HD Voice
- Up to 6 SIP Accounts
- 2.8" 320 x 240 pixel TFT LCD with Backlight
- Dual-port Gigabit Ethernet
- Power over Ethernet
- Support EHS wireless headset(Plantronics, Jabra, Sennheiser)
- Stand with 2 adjustable angles
- Full Compatible with 3CX,Asterisk, Broadsoft, Freeswitch Platform etc.

Technical specification

DESCRIPTION / PARAMETER	
CALL FEATURES	**IP-PBX FEATURES**
• 6 SIP Accounts	• SMS, Voicemail, MWI
• Call Waiting	• Music On-hold, Intercom, Multicast
• Call Forward	• Call Pickup, Call Pickup in Group
• Blind/attended transfer	• Anonymous Call
• Call hold, Call mute, DND mode	• Anonymous Call Rejection
• Speed Dialing, Hotline	**MANAGEMENT**
• Redial, Call Return	• Auto provisioning: FTP/TFTP/HTTP/HTTPS/PnP
• Auto-redial, Auto-answer	• Configuration via HTTP/HTTPS web
• Dial Plan	• SNMP, TR069
• 5-way conference	• Network capture
• Peer Dialing	• NTP/Daylight saving time
PHONE FEATURES	• Firmware upgrade via web
• Adjustable Voice Volume	• Syslog
• Selectable Ring Tones	• Configuration backup/restore
• XML Browser	• Equipment Management System (NMS)
• Action URL/URI	**AUDIO**
• Keyboard lock	• HD Voice
• Phonebook: 1000 Groups	• Wideband Codec: G.722, OPUS-WB
• Blacklist: 100 Groups	• Narrowband Codec: PCMA, PCMU, G.729, G723, G726, AMR, OPUS, iLBC
• Call Log: 100 Logs	
• Support 5 Remote Phonebook URLs	• Echo Cancellation/Dynamic Jitter
• LDAP	• Voice Activity Detection (VAD)
• Support Multiple Languages	• Comfort Noise Generation (CNG)
• Support EHS wireless headset (Plantronics, Jabra, Sennheiser)	• Full-duplex Speaker

Technical specification

DESCRIPTION / PARAMETER	
PROTOCOLS & STANDARDS	PHYSICAL FEATURES
• SIP v1 (RFC2543), SIP v2 (RFC3261)	• Color 2.8" High resolution screen (320x240)
• SIP over TLS, SRTP	• Dual-angle foot stand: 40° and 55°
• TCP/IP/UDP	• Dimensions(approx.):
• RTP/RTCP, RFC2198, RFC1889	- 201x203x42.5mm(WxLxD)w/o foot stand
• HTTP/HTTPS/FTP/TFTP	• Weight(approx.): device 550g, foot stand 50g
• ARP/RARP/ICMP/NTP/DHCP	• Input voltage: 5Vdc
• DNS SRV/ A Query/NATPR Query	• Power supply: PoE or 5Vdc power adapter
• STUN, Session Timer (RFC4028)	• PoE IEEE802.3af
• DTMF: In-Band, RFC2833, SIP INFO	• Handset: 4P4C, RJ9
• LLDP	• Headset: 4P4C, RJ9
• 802.1X, OpenVPN	• Extended interface: 6P6C, RJ12
	• Environmental conditions:
	- Operation temperature: 0~40°C
	- Humidity: 10% to 95% (non-condensing)
	• 2xRJ45 10/100/1000M Ethernet Ports
	• Wall Mountable

timeTec

POWER SURGE PROTECT
TW-ID4-2C2/320(T)

APPLICATIONS:

- C class Surge Protective Device for AC Power System.
- Sensitive electronic equipment
- Telecom centers
- Automatic control centers
- Intelligent buildings
- Industrial enterprises
- Medical institutes

FEATURES:

- DIN rail mounting for easy installation
- Plug connectors for quick and easy connection or rewiring
- 40kA maximum surge current
- Thermal disconnect device
- Status indicators visually verify protection level

Technical specification

DESCRIPTION	PARAMETER
ELECTRICAL PARAMETER	
Nominal working voltage Un	50/60Hz 240V
Max. continuous operating voltage Uc	320VAC
Nominal discharge current (8/20µs) In	20kA
Max. discharge current (8/20µs) Imax	40kA
Protection level @20kA , 8/20µs Up	1300V
Response time tA	25ns
Protection model	L/N-PE
MECHANICAL CHARACTERISTICS	
Dimension	90 (H)×36 (W)×65(L)mm
Weight per unit	287g
Mounting	35mm DIN rail
Connecting diameter	≥10mm2
IP code	IP20
Working conditions	Temperature: -40 to 80℃
	Relative humidity: ≤95%
Standards Compliance	IEC61643-1, UL94-V0, RoHS

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