



Trusted by Professionals Since 1989

MATRIX V 5.0

integrated security management system



... solution for the digital age

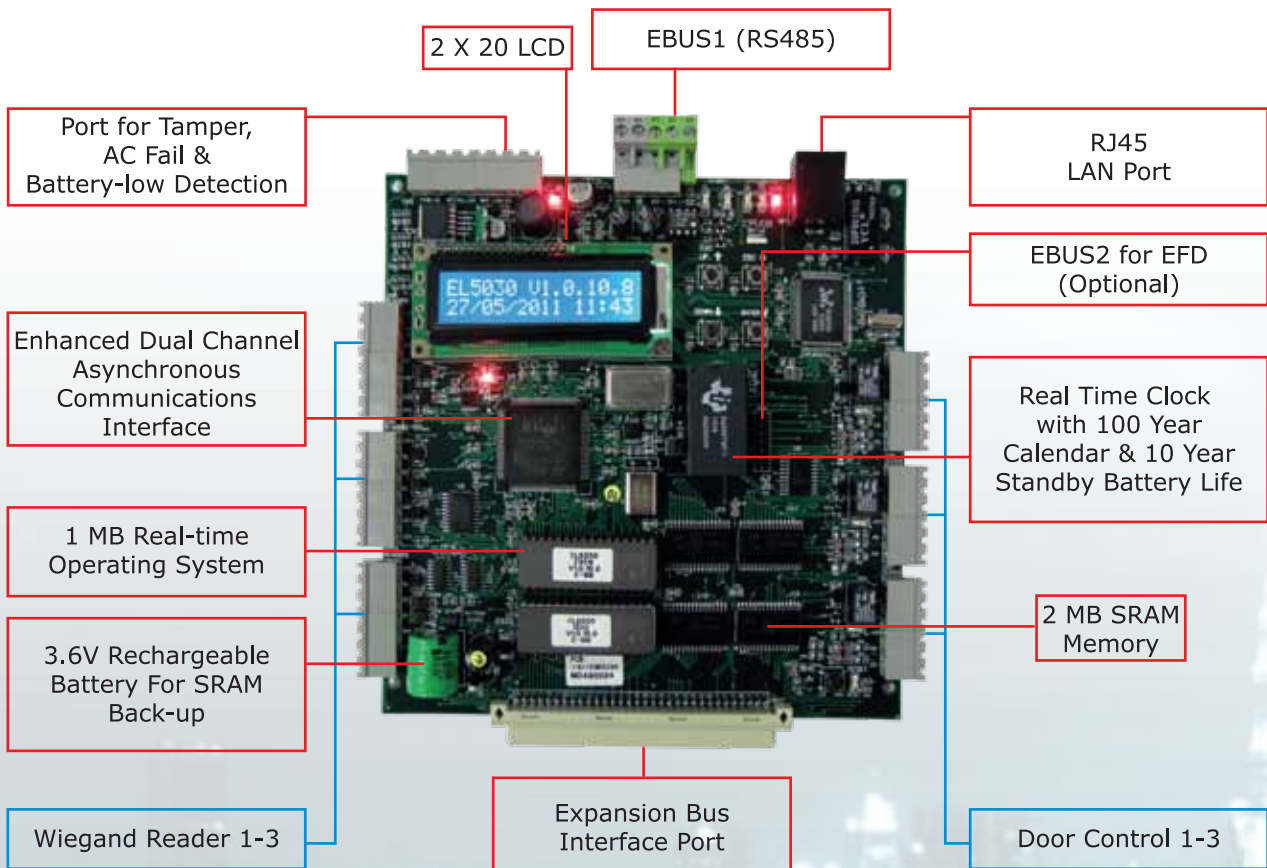
MATRIX V INTEGRATED SECURITY MANAGEMENT SYSTEM

The Matrix V v5.0 is developed over its highly successful predecessor v4.0 series. The new Matrix V Integrated Security Management System (ISMS) is Elid Sdn Bhd's premier and latest enterprise security management system for advanced security needs. It is suited for large-sized, complex areas equipped with high level encryption on TCP/IP Local Area Network infrastructure, with a high level of regular/visiting human traffic and requiring only the highest quality in security management. Examples of such areas include high-rise intelligent buildings, airports and government centers.

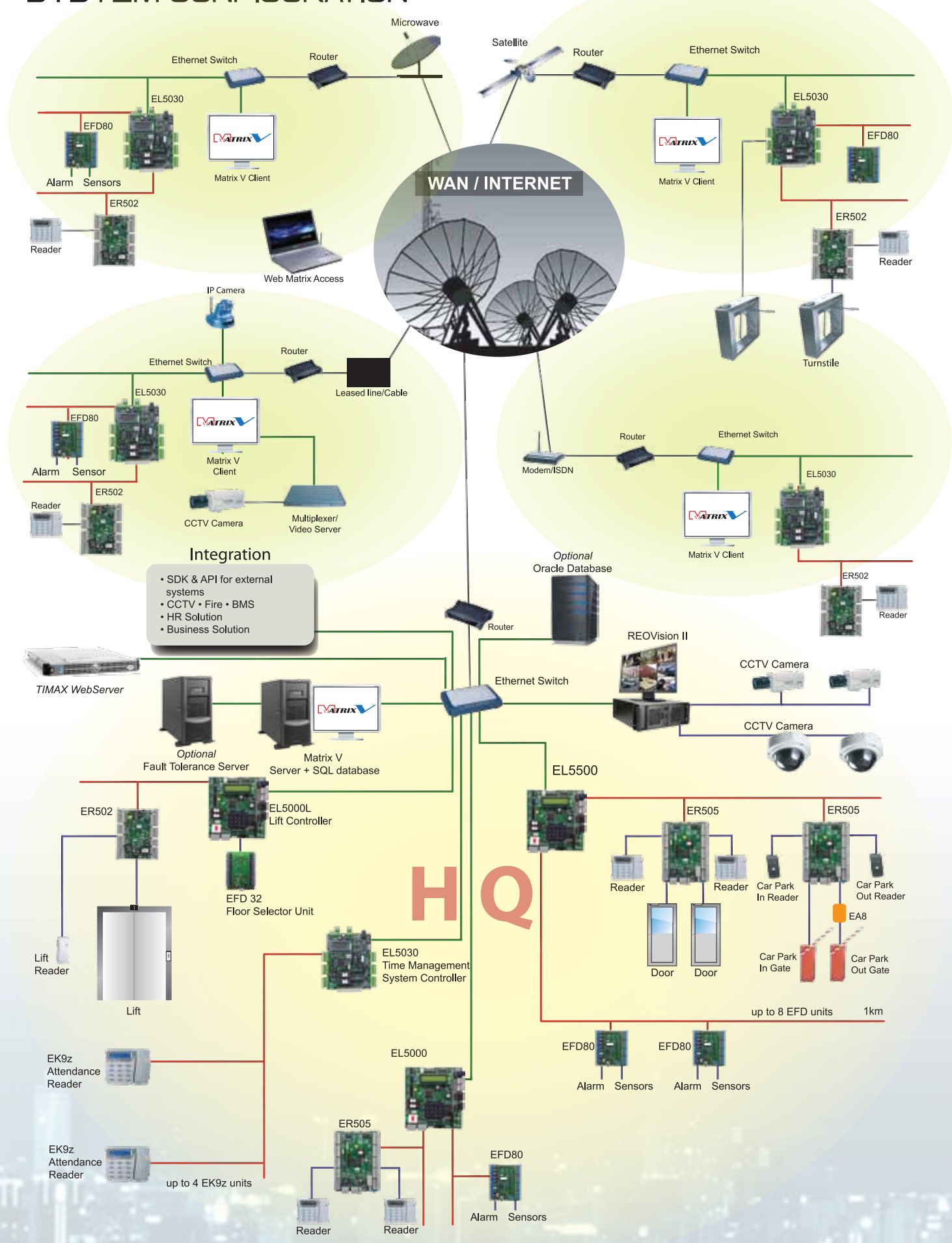
Matrix V takes advantage of the 5000 series Advanced Multi-door Controller, Elid's state-of-the-art, multi-purpose, TCP/IP network-ready Controller. It is capable of numerous security management functions previously available only in separate component systems. Now, you can manage human traffic, lift access, alarm monitoring, door access, CCTV Surveillance, car park access, visitor management and many other functions, all through a single 5000 series Controller. Each Controller comes equipped with a powerful, high-speed 32-bit Intel Processor and a large memory space for the storage of data for up to 500,000 user cards on board, plus Time Zones, Timers, PIN Code data, etc.

Matrix V system software extends the 5000 series Advanced Multi-door Controller's stand-alone functionality with numerous value-added software modules, enabling you to manage your security system more easily and efficiently than ever before. Matrix V manages up to 1,000 5000 series Advanced Multi-door Controllers and unlimited ISMS client workstations supporting 64 simultaneous logins, distributed over a single or multiple remote areas connected over a TCP/IP network. This translates to 8,000 doors, 8,000 remote field devices (144,000 input points (sensors) and 280,000 output points (alarms)), and an additional 64 input and 64 output points in the immediate proximity of each 5000 series Controller. It's wide capabilities make it suitable for even the largest, most complex building architectures, and even across countries and regions, in the most demanding security requirements.

EL5030 MOTHER BOARD FEATURES



SYSTEM CONFIGURATION



Seamless

Multi-Site Management

Leveraging On Network and Internet Capability

Manage your entire security system over a TCP/IP network or even remotely over the Internet through a Telnet client or HTML web browser. Leveraging on any existing LAN or WAN, helps with cost savings on special cabling and implementation time. Network Specialist will then be able to manage and securely configure the network according to the corporation security policies. Simultaneously control multiple 5000 series Controllers and their controlled field devices, card readers, alarms, etc. by simply plugging them into your TCP/IP network. Matrix V supports direct control over all readers, field devices and input/output points compatible with Elid's 5000 series Controller as well as system access from up to 32 simultaneous client workstations connected locally or remotely through a TCP/IP network.



Operator Decision Support
Network and Internet capability
Sophisticated Card Management System
Interfacing with Third Party System
Stable and Reliable Software Platform with Data Sharing
See, Hear and Control your Security System to your own preferences
Instant Accurate and powerful Data Gathering and Reporting Features
Made-to-fit
Keep Track of the Population
Dealing with Emergencies
Powerful, Easy-to-Use Graphic User Interface
Total Integrated Solution

Unrivaled

Security Power

Made-to-Fit

Matrix V possesses a scalable system architecture, in terms of both hardware and software. A single controller can control a maximum of up to 32 door readers, 208 input and 344 output points (with the appropriate number of I/O Modules, Reader Interface Units and Electronic Field Devices as required for a particular system configuration). More controllers may be added as needed - up to 8000 access portals per Matrix V system. New components may be added as necessary to meet the expanding needs of a growing or security threats to an organization.

In terms of software, numerous additional modules such as Visitor Management or Guard Tour functions may be activated to the standard functionality of Matrix V as needed. Also, custom system interfaces may be introduced to Matrix V to meet the particular needs of certain third party systems such as fire control systems, office automation systems, etc. Matrix V is thus highly scalable, and can be made to fit to individual security needs of any organization.

Matrix V software is fully compatible with all access reader systems, electronic field devices and input/output devices compatible with the EL5030. From Infrared Sensors and Motion Detectors to RFID Card Readers and Biometric Scanners, Matrix V possesses the functionality to meet any security need.

Powerful Intuitive Graphic User Interface

Matrix V is equipped with a 32/64-bit Windows-based GUI point-and-click interface. Perform powerful commands on your security system from your workstation with just a few clicks of your mouse. Your security system interface is displayed as an interactive image of your floor plan, with a menu of icons. This security interface animates whenever one or even multiple simultaneous activities occur on your security system, be it a door opening on the 22nd floor or a vehicle entering the building at the basement car park gantry. Events that would generate an alert such as a door forced open or a fire alarm will create more attention-grabbing effects such as flashing colours, more dynamic animations, sound effects, pop up message boxes giving alert details, etc. Click directly on icons in the interactive security interface for more details of different areas of your security system as well as to send commands to the various devices in your security layout.



Instantaneous and Accurate Reporting Features and Secured Data Storage

Every Matrix V module contains powerful transaction logging and database look-up features that can collect, sort, compile and store thousands of transactions from all modules daily for analysis. For example, every card access attempt, and details including where, when and who's card was used, is automatically stored in the security system database. Stored data is maintained at a fully shared and integrated relational database system based on Microsoft® SQL Server or Oracle® Database, that is compatible with any ODBC-compliant SQL database engine. Reports can be generated on demand with a simple mouse click.

DEVICE	CARD NO	CARD ID	AREA	DATE	TIME	LOCATION	TRANSACTION
000001	000001	000001	Security Office	08/01/08	10:00	000001	Card Access
000002	000002	000002	Security Office	08/01/08	10:05	000002	Card Access
000003	000003	000003	Security Office	08/01/08	10:10	000003	Card Access
000004	000004	000004	Security Office	08/01/08	10:15	000004	Card Access
000005	000005	000005	Security Office	08/01/08	10:20	000005	Card Access
000006	000006	000006	Security Office	08/01/08	10:25	000006	Card Access
000007	000007	000007	Security Office	08/01/08	10:30	000007	Card Access
000008	000008	000008	Security Office	08/01/08	10:35	000008	Card Access
000009	000009	000009	Security Office	08/01/08	10:40	000009	Card Access
000010	000010	000010	Security Office	08/01/08	10:45	000010	Card Access

Total Integrated Solution



Total &
Comprehensive
Enterprise Security

Total Solution Suite

Door Access Management



Maintain total control and surveillance of all door access in your secure areas directly from any of the unlimited client workstations. All door access activity is transmitted directly to your computer screen. You can also give specific commands to doors such as opening and closing them directly, sealing them off from further access, etc.

Features include:

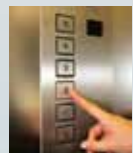
Anti-Passback Options - Anti-Passback enforces users who enter a secure area with a card to leave the area before the card may be used to enter that secure area again.

Inhibit Access and Permanent Lock Release - Permanently lock and unlock particular doors instantly on demand in response to specific events such as an escaping thief or a fire that demands immediate evacuation.

Special door configurations such as dual card mode, where in order to access a door, a higher level "escort" card is required, and interlock configurations, where one has to enter close one door before another door ahead will be unlocked.

Mixed Mode Capability

The same keypad reader used for Door Access can be utilised as a Time Attendance & Reasoning Terminal. For every Late In, Early Out clockings, up to 20 reasoning code labels can be displayed on the Keypad LCD and selected by Users. This enables Human Resource to enable users to self justify reasons for his or her tardiness.



Lift Access Control

Lift access may be restricted according to the access rights of a particular lift access cardholder to access particular floors. Unauthorized floor entry is restricted at the lift car level, as restricted floors buttons will be rendered inoperative. In addition, floor call overriding can be enabled to give lift usage priority to very important persons (VIP) such as Executive Officers, visiting dignitaries, etc.



REO Vision II Network Video Recording

REO Vision II is an ELID's PC-based Network Video Recording System (NVR) that provides for comprehensive surveillance with real time monitoring functions - a seamless integrated solution of surveillance technology with Matrix V system.



Car Park Access Control

Control access to a car park through the use of User ID Cards at the car park gantry areas.

Matrix V User and Visitor Cards can be used to gain access to car park gantries. Anti-passback applies to vehicles as well - once a card has been used for entry it can only be used to exit. This is to prevent multiple vehicles from using the same card to enter the car park area.

Monitor vehicle traffic and directly control the gantry from the client workstation.

- Log vehicle traffic according to Card ID, dates, entry and exit times, etc.
- Give commands such as opening and closing the gantry for special occasions, such as to facilitate the entry of a convoy of delivery vehicles quickly.



Detect & Alert

Receive alert messages regarding security breaches on your security system, such as unauthorized intrusions or device tampering, as well as a map of the immediate vicinity of the alert highlighting the location (s) of the occurrences directly on your computer screen in real time as they occur. This helps your response time and assists you in organizing and implementing a response such as contacting the police or deploying security personnel to the scene.



Interlogix

The Interlogix engine enables 3rd party systems to be integrated to Matrix V to become a total integrated knowledge solution by implementing any of the following methods;

- OPC® Alarm & Event (A&E) Standards
- Matrix V APIs
- Transaction text push & sharing via TCP/IP.

Additional features which can be incorporated into Matrix V's Security System:



Enterprise

Matrix V Enterprise supports centralized online monitoring of an established group of Matrix V sites. A system user will be able to log into any selected linked Matrix V database sites via an authorized login to centrally monitor online transactions, and this includes selective alarms.

For convenience, it provides both basic card database management and reporting which can also be saved in preferred format such as QuickReport format (.QRP), text format (.TXT), Excel format (.CSV), or HTML.



Visitor Manager

Manage a large volume of visitor traffic through your premise quickly, easily and accurately.

- Create and assign visitor cards instantly on demand.
- Keep track of visitor locations, areas visited, visitor population in a secure area, etc
- Restrict Access to sensitive areas based on security areas, floors or even particular doors.
- Analysis of visitor movement can identify popular routes and visitor destinations.
- Touch screen self-service kiosk station for card issuance



Mobile Alert E-mail

This is useful for passive tracing or monitoring purposes. It allows registered personnel(s) to receive alert messages in the form of an e-mail whenever a pre-determined alarm/activities occurs within the boundary of the Matrix V system. It supports scheduled reporting whereby report settings can be pre-defined, and correspondingly sent to registered personnel(s) according to defined schedules.

Unlimited Matrix V users can be registered into the module with valid e-mail addresses and they can be categorized individually or as group.



Broadcast Manager

Allows brief messages to be left for particular cardholders as they access card reader points. The message is displayed on the accessed card reader's LED/LCD display upon the recipient(s) swiping his/her card on the card reader. This system is similar to the Short Message Service (SMS) used with mobile phones and can be very useful alternative method for the proliferation of urgent short messages to one or a number of personnel within a large building quickly.



Web Matrix II

Web Matrix II allows authorized users to log on to the Matrix V systems via the internet. These users are able to access to the system, operating at basic level from anywhere in the world. The basic operations include alarm monitoring functions and generation of reports.



Time Track

Users coming and going from work have their access times logged at the card reader entrances and exits of their work areas. This enables human resource personnel to notice personnel access behavior such as promptness, tardiness, early out, overtime, absenteeism, lengthy breaks, incomplete entries (i.e. an out entry but no in-entry, an in-entry but no out-entry), abnormal permissible movement (i.e. a person from Accounting and Finance in the R&D Department, etc.).



Guard & Patrol

Guard Touring is an additional security feature involving the close monitoring of guard patrol movement through their assigned routes in security areas. During a Guard Tour, patrolling guards swipe their Guard Tour cards at specific card readers along their tour, which register on the security interface. Each Guard Tour has a strict schedule, with a list of periods during which the patrolling guard must swipe the Guard Tour card at a particular Tour card reader. If a guard is late at swiping, or misses swiping a card reader along the tour, it is automatically assumed that the guard may have run into some kind of trouble and an alert will be activated, informing other security personnel.



ID Card Maker

Design and create your own unique card layout. Cards may also be optionally created with a photo of it's assigned cardholder printed onto the card. This photo can be acquired easily using a digital video camera linked to the ID Card Maker Badging System. ID cards provides the visual identification of personnel in your building.



Mobile Alert GSM

Mobile Alert GSM enables the instant sending of selected events to registered personnel(s) via a GSM (Global System for Mobile communication) handset in the form of SMS (Short Message Service) within the Matrix V System's boundary.

It also allows authorised personnel(s) to operate a limited number of Door Access Control and Alarm Monitoring Functions by using their mobile phones through SMS.



CCTV Interfacer

CCTV Remote Cameras may be logically linked to particular security devices, such as card readers. Should an alarm originate from that security device, footage from the linked camera can be fed directly to your computer screen through the Matrix V software to aid security personnel in assessing the situation. Also, event-triggered recording allows a video recorder to automatically record footage from CCTV cameras whenever a system event occurs,



Facility Manager

Facility manager is used to maintain and manage rooms (meeting rooms, function halls), facilities (sports, recreational) and control the access these different areas for predefined groups of people in multi-room and area facilities. The administrator will be able to control, Access & duration for any of the facility is booked for. Facility manager helps the administrator or booking manager to pre-book events & issue booking slips and have an overview of all events in the facility to prevent double booking and managing events throughout the facility.

Interfacing for Intelligent Integrated Solutions

Matrix V can be customized for interfacing with virtually any 3rd party system.

- Implementing OPC® Alarm & Event (A&E) Standard for integration with Building Management System. OPC® is the world standard in implementing process automation.
- Communicate via Matrix V APIs for high level interface to Business Solutions (i.e HR Solutions, ERP, etc)
- Export data/transaction log files into text format for use with spreadsheets/Crystal reports software.
- Communicate directly and interface with 3rd party systems sharing the same protocol through the TCP /IP network.
- Hard-wire third party systems and devices such as building automation systems and fire supervisory systems to input/output points controlled by the 5000 series Controller. Such systems can then be activated through Matrix V via dry contact relays.

Robust and Reliable Operating Platform for Data Management & Sharing

Matrix V is built around the powerful and reliable Microsoft® Windows 2013 Server with Microsoft® SQL Server 2013 or Oracle® 11G Server platforms, which offers numerous advantages:

- Worldwide usage & support.
- Compatible with various third-party software/hardware and alternate operating systems.
- Facilitates easy data sharing between applications on the same platform.
- Helps eliminate redundant data entry, inconsistent data on different databases and incompatible report formats.

An example of Data Sharing would be sharing Staff Credentials from an existing HR Software to Matrix V Software.

Design Your Security System in Accordance to Your Building Policies

- Enhanced Global Antipassback: Design your own Antipassback according to your security policies, with Matrix V controllers that are able to communicate peer-to-peer, you will be able group any number of doors to be interlocked and interlinked with antipassback, throughout the system to do just what you need.
- Clock Access Rights: While maintaing standard Door Access Rights for different groups of people at different times of the the day, Matrix V takes its one step further to implement Clock Access Rights allow different groups of people to Clock IN and OUT at specific locations at different times of the day, to achieve better productivity and prevent errant employee behaviour.
- System Reaction Management: You can also pre-program your own System Reactions for Matrix V. It enables the system to intelligently react in multiple specific periods and locations according to how events occur. System reactions are very flexible and robust and can be easily programmed for any purpose one can think of. Any device attached to the system such as security doors or alarms and third party equipment connected to the Matrix V system, such as fire detectors, lights, air-conditioning, etc. can be programmed under the System Reaction Manager.



Integrated Solution means
Real Solutions

Putting you in Absolute Control

Manage, Monitor and Control from One Location or Many

- Monitor and manage your entire security system from an unlimited number of workstations or Mobile Devices connected to Matrix V Integrated Security Management System through a TCP/IP Local/Wide Area Network or remotely through the Internet.
- Set Matrix V system access rights for each user to restrict what functions are accessible by whom and protect those access rights with biometric login or encrypted user login and passwords.
- Receive and respond to alarms promptly through highlighted pop-up dialog boxes. You may also enable, disable and otherwise give commands to any security device on your network with just a few clicks of the mouse.
- Record all activity in your security system, both routine (eg. normal access to the IT department) and extraordinary (eg. Invalid entry, Device Failure, etc.). System activity and statistical reports can be automatically generated on demand.



Instantaneous Results

Keep Track of Everyone's Whereabouts

Instantly receive a breakdown of the number of people in any area of the security system. Know details such as:

- How many people are in that area.
- Credentials of each person on location.
- Log & monitor the duration a person has been at a location.

This information is logged in the transaction database and can be retrieved for analysis at a later time.

Dealing with Emergencies

Design your security system to respond to emergencies according to your disaster management & recovery policies. Any relay controlled output device such as sirens, entry-exit points, lights, communication lines, etc. may be programmed to activate in response to direct user commands or an automatically detected emergency

For example, should your security system sensors detect an emergency, it can automatically:

- Set off audible alarms and alarm signals and inform all personnel.
- Page, SMS or Alert relevant authorities such as the fire brigade or police.
- Disarm Fire Exit doors & Lockdown fire threat areas.
- Perform mustering reporting.

Organize an evacuation of the premises by determining the locations and number of persons currently present in the building by providing instructions to evacuate the building via "mustering stations". These stations will gather the information of the evacuees successfully evacuated from the building. The system can be programmed to be intelligent to suggest evacuation routes that avoid "danger" areas which have triggered sensors within them, as well as tally personnel who have mustered and who might be left behind in the premises.

Breathtaking CCTV & DVR Integration

By integrating REOVision II with Matrix V, customers can realize a true, event-driven system architecture whereby automated security is enabled by linking real-live security-related events. Event video can be monitored & streamed to the Security Director without the need initiate a search for the video.

REOVision II & Matrix V Security Manager communicates the status of video recorders and cameras, illustrates alarm location with the use of multimedia graphical maps, and enables operators with in-view PTZ control, auto-launch of video on alarm and camera touring - all on a single platform to provide a "bird's eye view" of the entire security & surveillance system.



Comprehensive Credential Management System

Matrix V also comes with a comprehensive credential management system, which enables you to set up basic User Cards with User Details, Anti-Passback options, Card Expiry and Access Time Zones. All card access is logged, and cardholders can be traced down and located according to the last zone they accessed with their cards. Matrix V supports storage for an unlimited number of card details on-server, while each 5000 Series Controller can store up to 100,000 User IDs.

Matrix V also supports special card functions:

Escort Cards - Certain highly sensitive areas may be equipped with an extra layer of protection through the use of dual-card doors. Such doors can only be accessed by a holder of a normal user card and another special Escort card, which, for example, may be held by a security officer posted at the door entry point or a trusted executive officer.

Guard Tour - Guard Tour cards are used specifically with the Guard Tour Module previously described.

Emergency Response Prompter

Emergency Response Prompter is activated upon Matrix V detecting a pre-determined event on the security system, such as a forced door. It suggests courses of action to the guards or system operator, such as:

1. Summoning the police.
2. Deploying guards at the alert location and along the intruder's possible route(s).
3. Sealing off nearby doors and alerting/evacuating staff.

This function is meant to supplement the normal training provided to security personnel when responding to such situations by providing a checklist of critical actions that need to be taken.

Device Digital Input/Output Points

Device Name	Device Description	Input/Output Point Capacity
EA5168 Input/Output Module	I/O Modules attach to the EL5000 I/O Expansion Port in a daisy chain configuration	Each EL5000 can fit 8 x EA5168. Each EA5168 is equipped with 8 input and 8 output points. Total of 64 input and 64 output points associate with 8 x EA5168
EFD80 Electronic Field Device (EFD)	EFD units attach to E_BUS2 in a daisy chain configuration	Each EL5000 or EL5030 can fit 8 x EFD80 EFD. Each EFD is equipped with 16 input points and 32 output points each. Total of 128 input points and 256 output points associated with 8 x EFD80

Popular Compatible Reading Technology Listing

Abbreviation	Format	Technology
WIEG	WIEGAND 26 bit	Proximity, Smartcard, Biometric
ELID	ELID Proprietary	Magnetic
PROX	ELID Format	Proximity, Smartcard, Biometric
FWEI	Free-form WIEGAND	Proximity, Smartcard, Biometric
ABAF	ABA Format	Magnetic
BC39	3 of 9	Barcode
BC25	2 of 5	Barcode

Maximum Data Cable Communication Range

Device Connection	Maximum Range	Cable Type
EL5000 series Controller to Hub	100 meters	Shielded four twisted pair 24 AWG copper
EL5000 series Controller to ER505/ER502/EK9z Reader Interface Unit (RIU)	1 Kilometer (to last RIU in the daisy chain)*	Shielded one twisted pair 4 AWG copper
EL5030 Controller to Wiegand Readers	150 meters	2x Shielded four twisted pair 18 AWG copper
ER505/ER502/EK9z Reader Interface Unit to EK9S Door Reader	40 meters	Shielded standard 8-core screened copper cable (16/0.2mm)
ER505/ER502 Reader Interface Unit EA8 Board	15 cm	Shielded standard 8-core screened copper cable (16/0.2mm)
EL5000 series Controller to EFD80 Electronic Field Device	1Kilometer (to last EFD80 unit in the daisy chain)	Shielded 2 twisted pair screened copper cable (16/0.2mm)
EL5000 series Controller to EA5168 I/O Module	15 cm	Shielded standard 8-core screened copper cable (16/0.2mm)

Matrix V Command Centre & Client Specifications:

- * TCP/IP Protocol Network Infrastructure Required
- * Computer Platform Requirements:

Minimum Server Platform Requirements:

Processor:	Intel Core Processor 2.8 GHz (minimum)
RAM:	4 GB (minimum)
Hard Disk:	320 GB
Operating System:	Microsoft Windows Server 2003 with latest Service Pack
Others:	Microsoft SQL Server 2008 (with latest Service Pack) HD Monitor with resolution set to High Color (32 bit) 1366 by 768 DVD Burner

Minimum Client Platform Requirements:

Processor:	Intel Core Processor 2.8 GHz (minimum)
RAM:	2 GB (minimum)
Hard Disk:	250 GB
Operating System:	Microsoft Windows Vista/7 Operating System
Others:	HD Monitor with resolution set to High Color (32 bit) 1366 by 768 DVD Burner

- * Printer: Any Microsoft Windows compatible printer
- * Maximum number of Matrix V workstations:32

System Capability:

* Maximum number of ID Digits Supported:	10
* Maximum number of Access Portals:	8000
* Maximum number of floors per lift:	64
* Maximum number of sensor points:	208,000
* Maximum number of output points:	344,000
* Maximum number of cardholders on system:	Unlimited
* Maximum number of system operators:	Unlimited
* Operator Access Rights:	Unlimited
* Maximum number of preset times :	99
* Maximum number of preset times zones:	99
* Maximum number of Holidays:	40
* Maximum number of logged system transactions:	Limited to Disk Space



SYSTEM RANGE



EL5030

Model	EL5030
Manufacturer	ELID Sdn Bhd
Country of Origin	Malaysia
CPU	32-bit Intel386EX Microprocessor running at 25 Mhz
Card Users	15,000
Transactions	25,000
Memory	2MB RAM, 1MB ROM
Modes of Operation	Card, PIN & Card + PIN, PIN Only
Standalone Operation	YES
Real-Time Scanning	YES
Tamper Detection	YES
Display	N/A
Connectivity	TCP / IP, RS485
No of RS485 BUS	1 (Upgradable to 2)
Access Applications	Door, Car Park Access, Time Clocking
Max. Doors Supported	5 (Centralized) OR 8 (Field Deployment)
Type of Readers Supported	i. Barcode, Magnetic, Proximity, Smart Cards, Biometrics, Touch Memory (Field Deployment) ii. Proximity, Smart Cards, Biometrics, (Centralized)
Max. Readers Supported	i. 10 (5 IN and 5 OUT Readers) - Centralized ii. 16 (8 IN and 8 Out Readers) - Field Deployment
Max. RIU Supported	8 units of ER502 OR EK9Z
Max. EFD Supported	8 units of EFD80
Max. I / O Modules	N/A
Operating Temperature	0°C to 60°C
Humidity	10% to 90% non-condensing
Power Requirements	12VDC with 1.5 Amp Charger
Casing Dimensions	410 (H) x 400 (L) x 120 (W) mm
Approximate Weight	5 kg with casing and Power Supply



EL5500

Model	EL5500
Manufacturer	ELID Sdn Bhd
Country of Origin	Malaysia
CPU	32-bit Intel386EX Microprocessor running at 25 Mhz
Card Users	24,000 local
Transactions	25,000 local
Memory	2MB RAM, 1MB ROM
Modes of Operation	Card, PIN & Card + PIN, PIN only
Standalone Operation	YES
Real-Time Scanning	YES
Tamper Detection	YES
Display	2 x 20 alphanumeric
Connectivity	TCP / IP, RS485
No of RS485 BUS	2
Access Applications	Door, Car Park Access, Time Clocking,
Max. Doors Supported	8 Doors
Type of Readers Supported	Barcode, Magnetic, Proximity, Smart Cards, Biometrics, Touch Memory
Max. Readers Supported	16 (8 IN and 8 Out Readers)
Max. RIU Supported	4 units of ER505 2-Door Reader Interface unit (RIU) or 8 units of ER504 1-door RIU
Max. EFD Supported	8 units of EFD 80 Electronic Field Device
Max. I / O Modules	8 units of EA5168 I / O Module
Operating Temperature	0°C to 60°C
Humidity	10% to 90% non-condensing
Power Requirements	5VDC / 12VDC with 3 Amp Charger
Casing Dimensions	410 (H) x 400 (L) x 120 (W) mm
Approximate Weight	7 kg with casing and Power Supply 600gm without casing and Power Supply



EL5000

Model	EL5000
Manufacturer	ELID Sdn Bhd
Country of Origin	Malaysia
CPU	32-bit Intel386EX Microprocessor running at 25 Mhz
Card Users	38,000 local
Transactions	25,000 local
Memory	2MB RAM, 1MB ROM
Modes of Operation	Card, PIN & Card + PIN, PIN only
Standalone Operation	YES
Real-Time Scanning	YES
Tamper Detection	YES
Display	2 x 20 alphanumeric
Connectivity	TCP / IP, RS485
No of RS485 BUS	2
Access Applications	Door, Car Park Access, Time Clocking, Lift Control
Max. Doors Supported	8 Doors
Type of Readers Supported	Barcode, Magnetic, Proximity, Smart Cards, Biometrics, Touch Memory
Max. Readers Supported	16 (8 IN and 8 Out Readers)
Max. RIU Supported	4 units of ER505 2-Door Reader Interface unit (RIU) or 8 units of ER504 1-door RIU
Max. EFD Supported	8 units of EFD 80 Electronic Field Device
Max. I / O Modules	8 units of EA5168 I / O Module
Operating Temperature	0°C to 60°C
Humidity	10% to 90% non-condensing
Power Requirements	5VDC / 12VDC with 3 Amp Charger
Casing Dimensions	410 (H) x 400 (L) x 120 (W) mm
Approximate Weight	7 kg with casing and Power Supply 600gm without casing and Power Supply



EL5004

Model	EL5004
Manufacturer	ELID Sdn Bhd
Country of Origin	Malaysia
CPU	32-bit Intel386EX Microprocessor running at 25 MHz
Card Users	38,000 local
Transactions	23,000 local
Memory	2MB RAM, 1MB ROM
Access Modes	Card, PIN & Card + PIN, PIN Only
Standalone Operation	YES
Real-Time Scanning	YES
Tamper Detection	YES
Display	2 x 20 alphanumeric
Connectivity	TCP / IP, RS485
No of RS485 BUS	1
Onboard I / O	2 Inputs / 1 Output Point
Max. Doors Supported	4 Doors
Type of Readers Supported	Barcode, Magnetic, Proximity, Smart Cards, Biometrics, Touch Memory
Max. Readers Supported	8 (4 IN and 4 Out Readers)
Max. RIU Supported	1 unit of ER505 2-Door Reader Interface Unit (RIU) or 2 units of ER504 1-Door RIU
Max. EFD Supported	2 units of EA8
Max. I / O Modules	8 units of EA5168 I / O Module
Operating Temperature	-8°C to 60°C



EKG9Z

Model	EKG9z
Manufacturer	ELID Sdn Bhd
Country of Origin	Malaysia
CPU	Freescale 16-bit MC9S12GC with 128K flash and 4K RAM
Bus Speed	25.8048 MHz
Communication	2 wires RS485 Interface (Data+, Data-)
Baud Rate	9600bps or 57600bps
Display	16 Characters by 2 Lines Blue Backlit LCD
Keypad	3 by 4 Keypad
Protocol	Peer-to-peer collision detection protocol (E-BUS)
Max. Doors Supported	1 Door
Standalone Operation	No (Only with 10 Emergency Card Access)
Modes of Operation	Card, PIN, Card + PIN, Time Clock
Status Detection	Tamper, Battery and Alternating Current
Type of Reader Supported	Proximity (HID, EM, MiFare)
Max. Readers Supported	2 (one IN and one OUT)
I / O Capacity	1 x EL3Z (4 Inputs and 6 Outputs)
Onboard Inputs / Outputs	N/A
Operating Temperature	0°C to 60°C
Humidity	10% to 90% non-condensing
Power Requirements	12VDC 100mA excluding reader
Dimension	110(H) x 90(L) x 35 (D) mm
Approximate Weight	400grams



ER502

Model	ER502
Manufacturer	ELID Sdn Bhd
Country of Origin	Malaysia
CPU	Freescale 16-bit MC9S12GC with 128K flash and 4K RAM
Bus Speed	25.8048 MHz
Communication	2 wires RS485 Interface (Data+, Data-)
Baud Rate	9600bps or 57600bps
Protocol	Peer-to-peer collision detection protocol (E-BUS)
Max. Doors Supported	1 Door
Standalone Operation	No (Only with 10 Emergency Card Access)
Modes of Operation	Card, PIN, Card + PIN, Time Clock
Status Detection	Tamper, Battery and Alternating Current
Type of Reader Supported	Proximity (HID, EM, MiFare, Barcode 3of9 and ITF)
Max. Readers Supported	2 (one IN and one OUT)
Onboard I / O Capacity	2 Inputs and 2 Outputs
External I / O Capacity	1 x EA8 (2 Inputs and 6 Outputs)
Onboard Inputs / Outputs	8 Inputs, 4 Outputs
Operating Temperature	0°C to 60°C
Humidity	10% to 90% non-condensing
Power Requirements	12VDC 100mA excluding reader
Recommended Casing Dimensions	410 (H) x 400 (L) x 120 (W) mm
Approximate Weight	400grams



NUEVO

Model	NUEVO
Manufacturer	ELID Sdn Bhd
Country of Origin	Malaysia
CPU	Freescale 16-bit MC9S12GC with 128K flash and 4K RAM
Bus Speed	25.8048 MHz
Communication	2 wires RS485 Interface (Data+, Data-)
Baud Rate	9600bps or 57600bps
Display	16 Characters by 2 Lines Blue Backlit LCD
Keypad	3 by 4 Keypad
Protocol	Peer-to-peer collision detection protocol (E-BUS)
Max. Doors Supported	1 Door
Standalone Operation	No (Only with 10 Emergency Card Access)
Modes of Operation	Card, PIN, Card + PIN, Time Clock
Status Detection	Tamper, Battery and Alternating Current
Type of Reader Supported	Proximity (HID, EM, MiFare)
Max. Readers Supported	2 (one IN and one OUT)
I / O Capacity	1 EL3Z (4 Inputs and 6 Outputs)
Onboard Inputs / Outputs	N/A
Operating Temperature	0°C to 60°C
Humidity	10% to 90% non-condensing
Power Requirements	12VDC 100mA excluding reader
Dimension	100 (H) x 130 (L) x 32 (D) mm
Approximate Weight	400grams



EFD32 for DSC

Model	ER505
Manufacturer	ELID Sdn Bhd
Country of Origin	Malaysia
Microprocessor	8-bit CPU (68HC11) with 128K ROM and 8K RAM
Communication	2 wires RS485 Interface (Data+, Data-)
Protocol	Peer-to-peer collision detection protocol (E-BUS)
Max. Doors Supported	2 Doors (each with one IN and one OUT reader)
Modes of Operation	Card, PIN & Card + PIN
Standalone Operation	No
Type of Reader Supported	Barcode, Magnetic, Proximity, Smart Cards, Biometrics, Touch Memory
Max. Readers Supported	4 (2IN and 2 Out)
Onboard Inputs / Outputs	4 Inputs, 2 Output
EA8 I / O Capacity	2x EA8 units (4 dedicated door outputs, 2 inputs and 2 outputs per EA8)
Operating Temperature	0°C to 60°C
Humidity	10% to 90% non-condensing
Power Requirements	12VDC 100mA excluding reader
Recommended Casing Dimensions	410 (H) x 400 (L) x 120 (W) mm
Approximate Weight	400grams



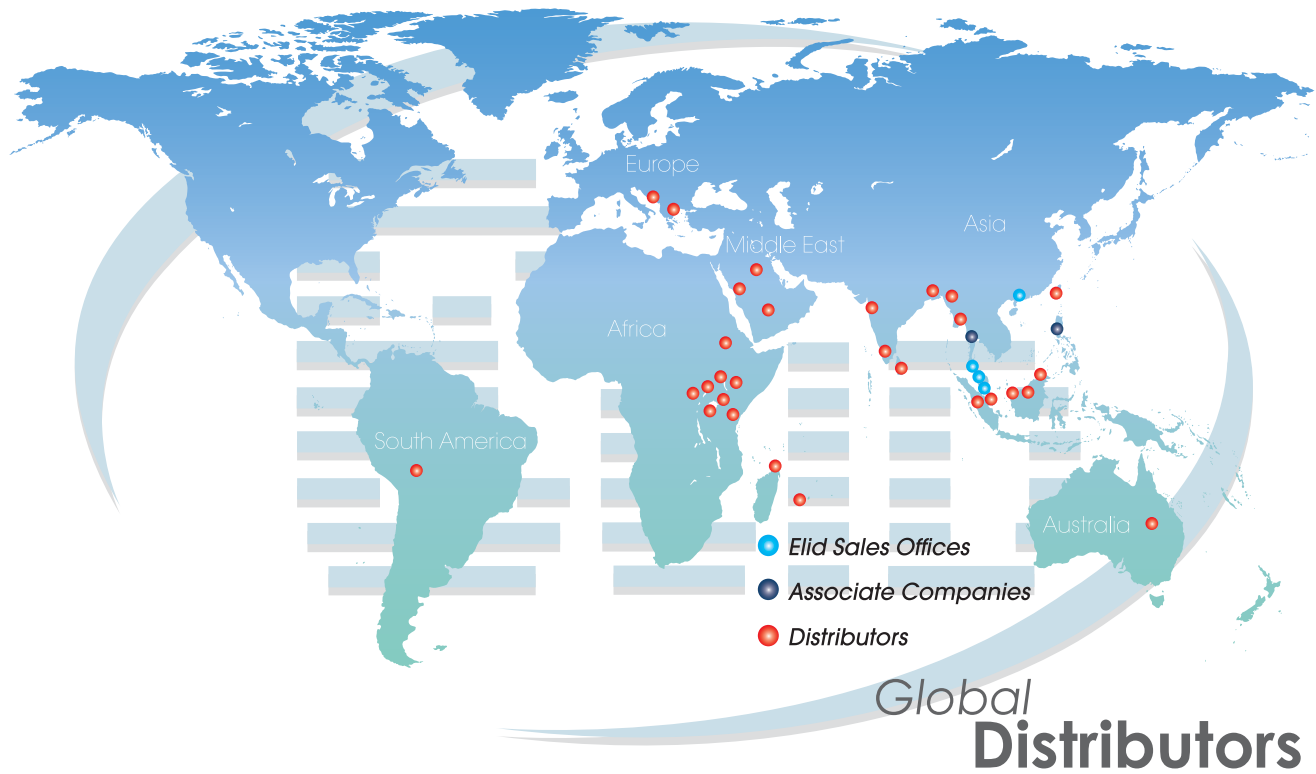
REOVISION II

Model	EO-RV32-002
Video compression	H.264 or MPEG4
Preview resolution	Real Time, CIF to 5 MegaPixel
Playback resolution	High Resolution, H.264
Video Input & Output	Support up to 32 Video inputs & outputs
Frame rate	Display up to 800 fps; Record 800 fps
Stream type	Video/ Video & Audio
Audio input	16 Audio inputs
Audio compression	16KHZ or 16 bit/32bit
Communication interface	PCI-E
Keyboard interface	1 Port / USB
SATA interface	Up to 8 Ports
External alarm input & output	Up to 16 Inputs and 16 Outputs
Power supply	100~240VAC, 6.3A, 50~60Hz
Dimension	180(H) x 440 (L) x 550 (D) mm
Power consumption	20~42W (without HDD and CD-R/W)
Operating Temperature	-10°C to 55°C
Humidity	10% to 90% non-condensing
Approximate Weight	25Kg (without HDD and CD-R/W)



EFD80

Model	EFD80 (ES1608)
Manufacturer	ELID Sdn Bhd
Country of Origin	Malaysia
CPU	Freesale 8-bit 68HC908 Microcontroller
Onboard Supervised Inputs	16 Input Points
Onboard Relay Outputs	8 Output Points
Output Expansion Capacity	24 Output Points
Power Supply	12VDC
Dimension	350 (H) x 240 (L) x 80 (D) mm
Built-in Tamper Detection	YES
Operating Temperature	YES
Operating Temperature	0°C to 50°C
Humidity	10% to 90% non-condensing
Recommended Casing Dimensions	410 (H) x 400 (L) x 120 (W) mm
Approximate Weight	500grams



ELID Offices



MALAYSIA

Kuala Lumpur (HQ)

No. 19 Jalan 51A/223,
Section 51A,
46100 Petaling Jaya,
Selangor, Malaysia.

Tel: 603 - 7960 9055
Fax: 603 - 7960 9579
URL: www.elid.com



Penang

No.5016 (1st Floor),
Jalan New Ferry,
Taman Mewah,
12100 Butterworth,
Penang, Malaysia.



Johor

12-02, Jalan Molek 1/9,
Tmn Molek,
81100 Johor Bahru,
Johor, Malaysia.



CHINA

Guangdong

ELID Electronics & Information Technology Limited

7, 2nd floor, East Block,
Jin Hua 1st street,
Jin Xiu road,
Guangzhou Economic &
Technological
Development District,
Guangzhou 510730,
China.



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