

COSEC DOOR V4

Quick Start



CONTENTS

Know Your COSEC DOOR	3
Front View	3
Rear View	4
Bottom View	5
What Your Package Contains	5
Things You Will Need	5
Prepare For Installation	6
Mounting the Door Controller	12
Powering On the Device	14
LED Status Indicators	14
Connecting the Door to COSEC Server	15
Connecting as Direct Door	15
Connecting as Panel Door	16
Assigning IP Address	17
Technical Specifications	19

Please read this guide first for correct installation and retain it for future reference. The information in this guide may change from time to time. However, Matrix Comsec reserves the right to make changes in product design and specifications without prior notice.

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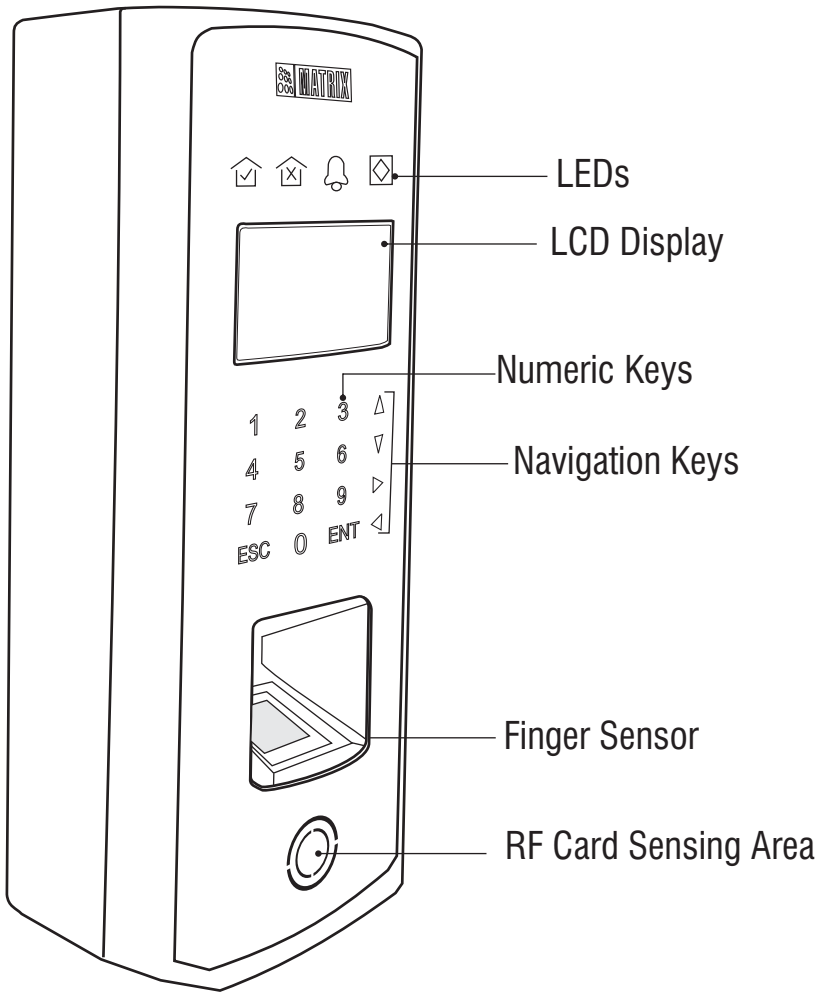
Warranty

Limited Warranty. Valid only if primary protection is provided, mains supply is within limit and protected, and environment conditions maintained within product specifications. Complete warranty statement is available on our website:

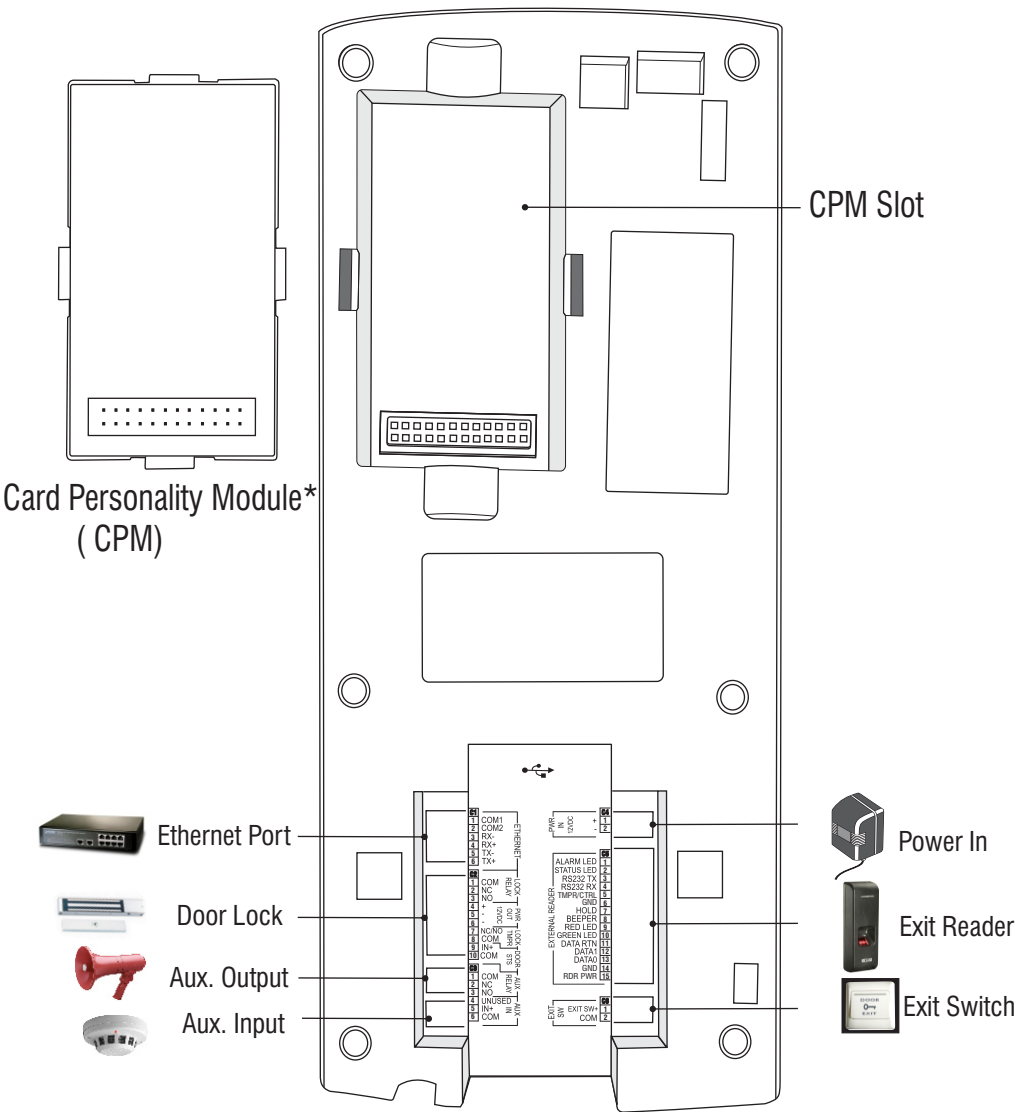
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Know Your DOOR Controller

COSEC DOOR- Front View

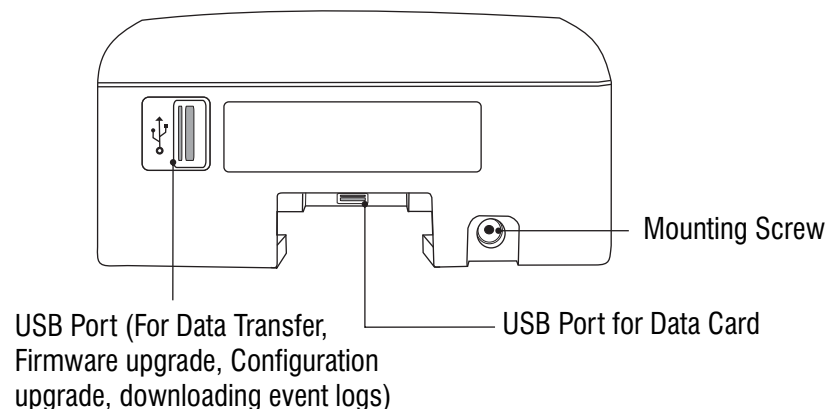


COSEC DOOR- Rear View



* Card Personality Module must be ordered separately.

COSEC DOOR- Bottom View



What Your Package Contains

- COSEC DOOR Unit
- Mounting Plate
- Power Adapter 12V DC, 2 Amp
- Four Screws M 7/30
- Four Screw Grips
- A Threaded Screw M 3x6
- Exit Switch Cable
- Power Supply Cable with DC jack
- Ethernet Port Cable with RJ45 plug
- Auxiliary Port Cable
- Electromagnetic Lock Cable

Things You Will Need

- A Power Hand Drill
- A Wire Stripper
- A Screw Driver Set
- Insulation Tape
- Access to the COSEC Server Application.
- A Stand-alone Computer with a Web Browser to change the Network Settings of the Door Controller.

Preparing for Installation

Step 1: Unpacking the DOOR

- Unpack COSEC DOOR and check your package contents.
- Select a Location. It must be a flat surface such as a wall, close to the access point (door).
- You can mount the COSEC DOOR directly to the wall or to an electrical box recessed in the wall (recommended).
- Recommended height from ground level: 4.5 to 5 feet.



CAUTION

Do not install the device:

- In very hot, cold and humid environment temperatures
- Near heating/air conditioning equipment
- In dusty environment
- In direct sunlight
- Under direct light of incandescent or halogen lamps
- Near infra-red radiation emitting equipment
- Where ferromagnetic field or noise is induced
- Near volatile inflammable materials or inflammable goods such as drapes
- Where volatile gas and/or inflammable gas is created



WARNING

- Installation and servicing should be done only by a qualified technician.
- There are no user-serviceable parts inside.
- Opening or removing the device cover may result in electric shock or exposure to other hazards.
- Use this product only for the purpose for which it was designed.

Step 2: Mounting the Plate

- Place the Mounting Plate on the installation surface.
- Trace out the screw holes on the wall along the holes on the Mounting Plate (figure 1).
- If required, trace out the rectangular hole of the Mounting Plate.
- Remove the Mounting Plate.

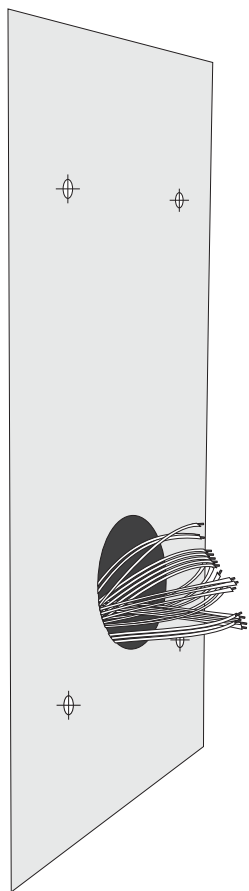


Figure 1

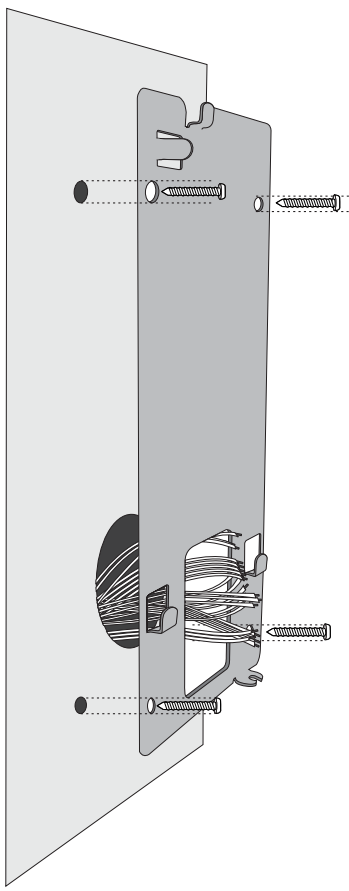


Figure 2

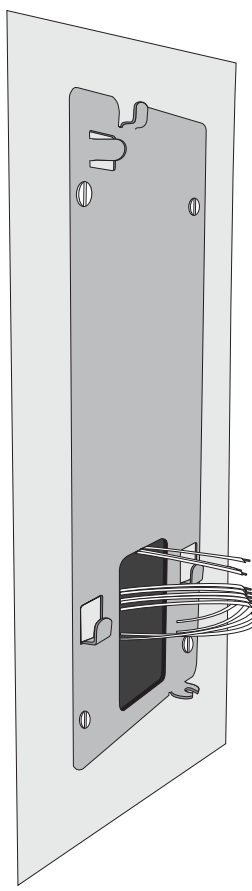


Figure 3

- Drill four screw holes along the markings you traced on the wall. Cut out the rectangular hole on the wall.
- Insert the screw grips into the holes you drilled.
- Fix the Mounting Plate on the installation surface with the four supplied screws (figure 2 and 3).

Step 3: Mounting the Card Personality Module

To access the door controller with card, you must order Matrix COSEC CPM (Card Personality Module) separately.

The module needs to be mounted on the COSEC DOOR prior to starting the wall mounting procedure as shown below.



Step 4: Connecting the wires

- If your wiring is from behind the surface/through an electrical box, first draw out sufficient length of the cables from rectangular hole you have cut on the mounting surface.
- Make the electrical connections.
- Refer the wire color code mapping for the terminals (figure 4).



The Variant COSEC DOOR FOP has all the connectors shown below whereas COSEC DOOR FOT has only Power, Ethernet and Exit switch connectors.

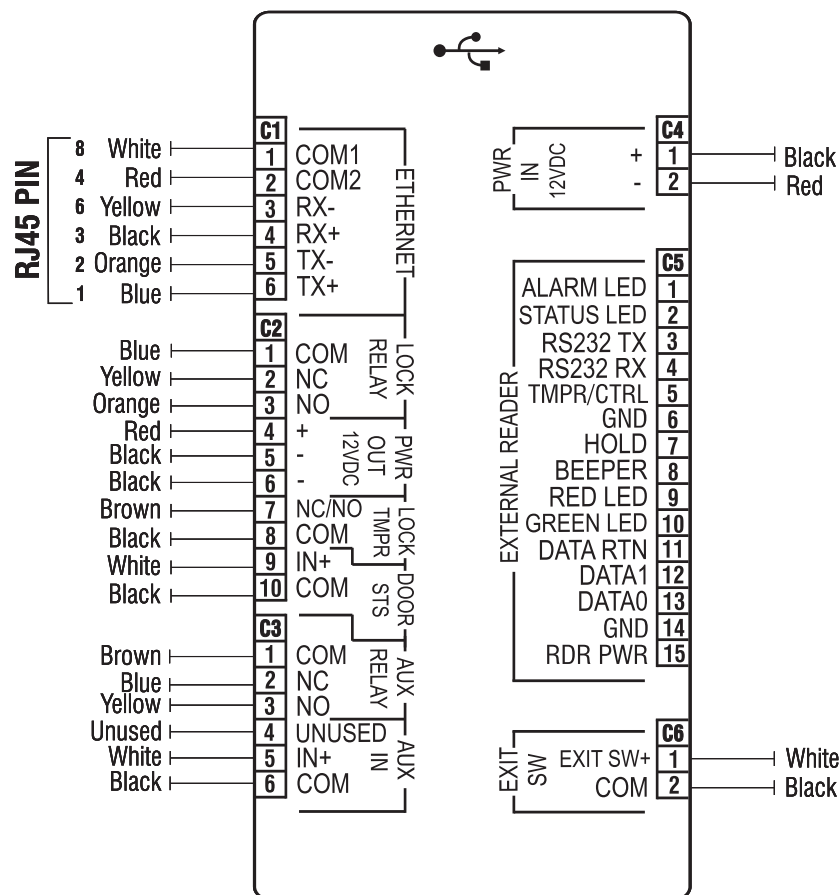


Figure 4

Power

- Insert the power supply cable (2-pin connector with a DC jack on one end) into the power terminal 'PWR In (C6)'. Care must be taken to maintain the correct polarity.
- Connect the power adapter to the DC jack. Plug the adaptor into a power outlet.

If connecting Matrix PSBB-Universal Mains Power Supply (13.8 VDC@2A) with battery backup to the PWR In terminal, be sure to maintain correct polarity.



CAUTION

Do not apply Power to the unit until you have completed all the connections.

Ethernet

- Connect the Ethernet cable (with RJ45 plug at one end) into the 'ETHERNET' terminal (C1).

Door Lock

- Use the electromagnetic door lock cable (10-pin connector at one end and free at the other) to connect a Door Lock to the Door Lock terminal (C5).
- Door Lock spec: Relay SPDT, Form C, 2A @ 24 VDC



NOTE

- Always use a standard hydraulic door closer to ensure that the door closes automatically after an entry or exit. This is to prevent "door open too long" or "door left open" alarms.
- The NO or NC output can operate DC-powered locking devices like electro-mechanical strikes and magnetic locks. The maximum permitted current is 500 mA @ 12VDC per output.
- If you are using a lock of higher capacity, you must use an external 12/24 VDC power supply, according to the technical specifications of the magnetic lock.

- To use the 12VDC of the Door, short the terminals COM (C5-1) and +ve (C5-4) as shown in figure 5, before connecting the NC/NO and the -ve terminal (C5-5) to the Door lock.

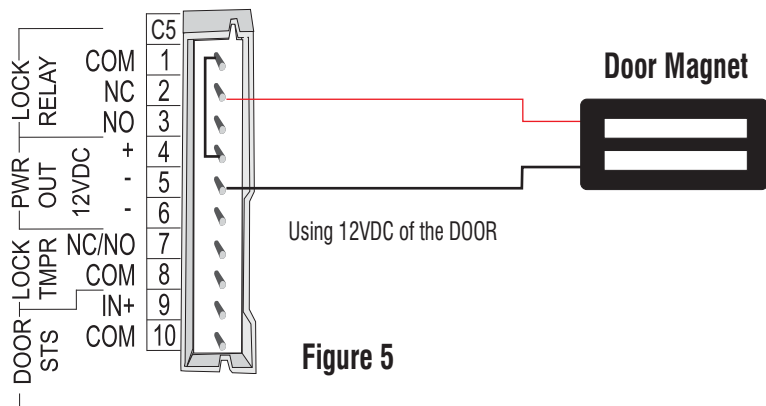


Figure 5

- To connect a lock of higher capacity using external power supply, connect the wires as shown in the figure below, considering the technical specifications of the magnetic lock.

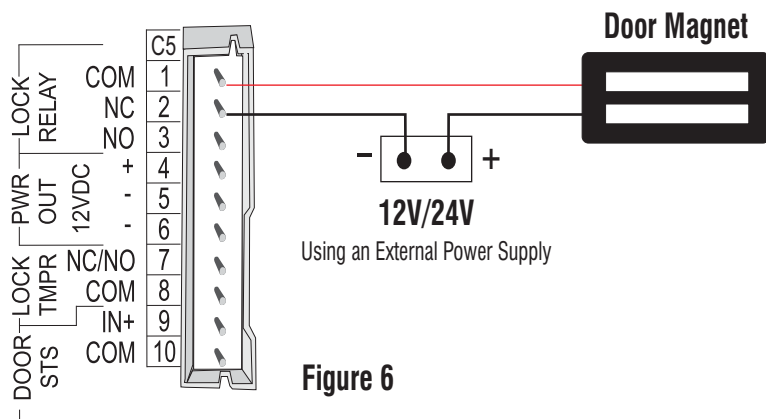


Figure 6

Exit Switch

- If you are using an exit switch to open the door lock, connect the exit switch cable (2-pin connector on one end and free on the other) in the 'EXT SW' terminal (C3).

Auxiliary Input

- If you are connecting a sensor for detecting alarm conditions, connect the wire pair from the sensor device to the auxiliary input port 'AUX' (C4).

Auxiliary Output

- The Auxiliary output port can be used for activating alarm devices like hooter; energize some devices; control annunciation devices.
 - If you are connecting an alarm device like a hooter or an annunciation device, connect the wires from the alarm devices to the 'AUX RELAY' (C4).
- Aux Output Spec: Form C SPDT Relay output, max 2A@24VDC

Exit Reader

- COSEC DOOR supports external Serial and Wiegand reader.
- Connect a Serial or a Wiegand reader to the 'EXTERNAL READER' terminal (C2).



WARNING

Do not leave unused wires with stripped ends free. Seal them with insulation tape.

Step 5: Mounting the DOOR Controller

- After you have completed all the electrical connections, lead all the cables through the rectangular hole into the electrical box recessed in the wall (figure 7).
- Attach the COSEC DOOR to the mounting plate you fixed on the wall.

If your wiring is not concealed, lead all the cables through the bottom of the device before you attach it to the Mounting Plate.

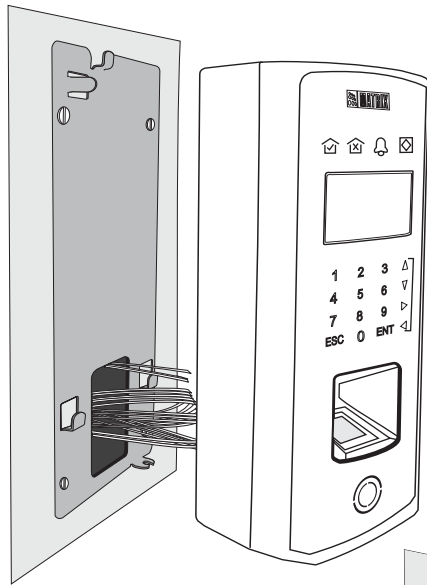


Figure 7

- Match the mounting hooks (A, B, C, D, E) on the plate with the respective mounting slots (1, 2, 3, 4, 5) at the back of the device. Refer figure 8.
- Tilt the device to allow mounting hook A into slot 1. Straighten the device and then slide it down on the plate.
- Use the M 3x6 screw provided to you to secure the bottom mounting slot on the plate. Match E to 5 as in figure 8.

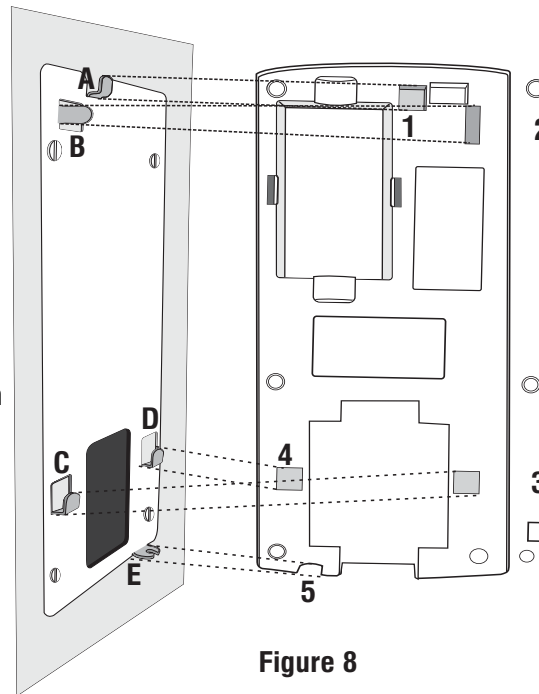


Figure 8

Powering On the Device

Apply Power to the COSEC Door Controller and wait for the reboot cycle to complete. At power on, all four LEDs will glow and will be turned off at the end of booting cycle.

LED Status Indicators



Allowed



Denied



Alarm



Network

- The 'Network' LED will start blinking with regular cadence indicating the current network connection status as shown in the table below.

LED	Color	Cadence	Meaning
Network	Red	Blinking	No Ethernet connection
	Orange	Blinking	Ethernet connection on, but not connected to COSEC Server
	Green	Blinking	Door is connected to the COSEC Server

The COSEC DOOR can be connected to the network over Ethernet, Wi-Fi or Mobile Broadband.

The COSEC DOOR is pre-configured with a default IP address and Subnet Mask.

Default IP Address: 192.168.50.1

Default Subnet Mask: 255.255.255.0

You need to change the IP Address to connect the Door to the network. You can do this in one of the following ways:

1. From the DOOR display
2. From the DOOR Webpage

Connecting the Door to COSEC Server

The COSEC Door Controller can communicate with the COSEC Server in two ways:

- As a Direct Door
- As a Panel Door

Connecting as a Direct Door

In this type of architecture, you can connect the COSEC Door Controller either directly to the monitoring computer using an Ethernet Crossover/Straight cable or through an Ethernet Switch or hub using standard straight-through Ethernet cables (Figure 9).

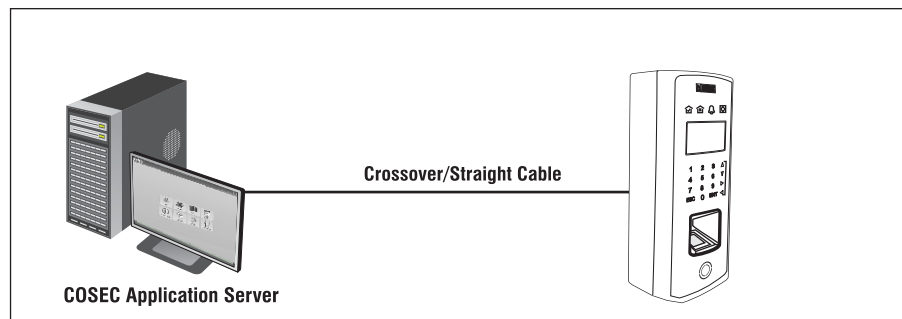
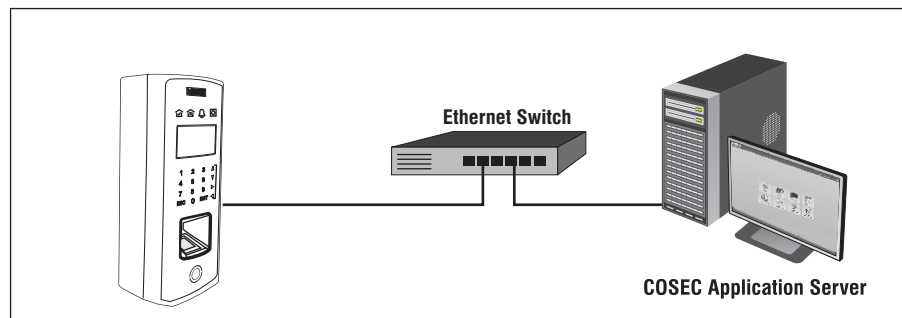


Figure 9: Connecting to the Monitoring Computer



Connecting as a Panel Door

To use the COSEC Door Controller as a Panel Door, connect it directly to a COSEC Panel over Ethernet. The typical master-slave architecture shall appear as shown in Figure 10.

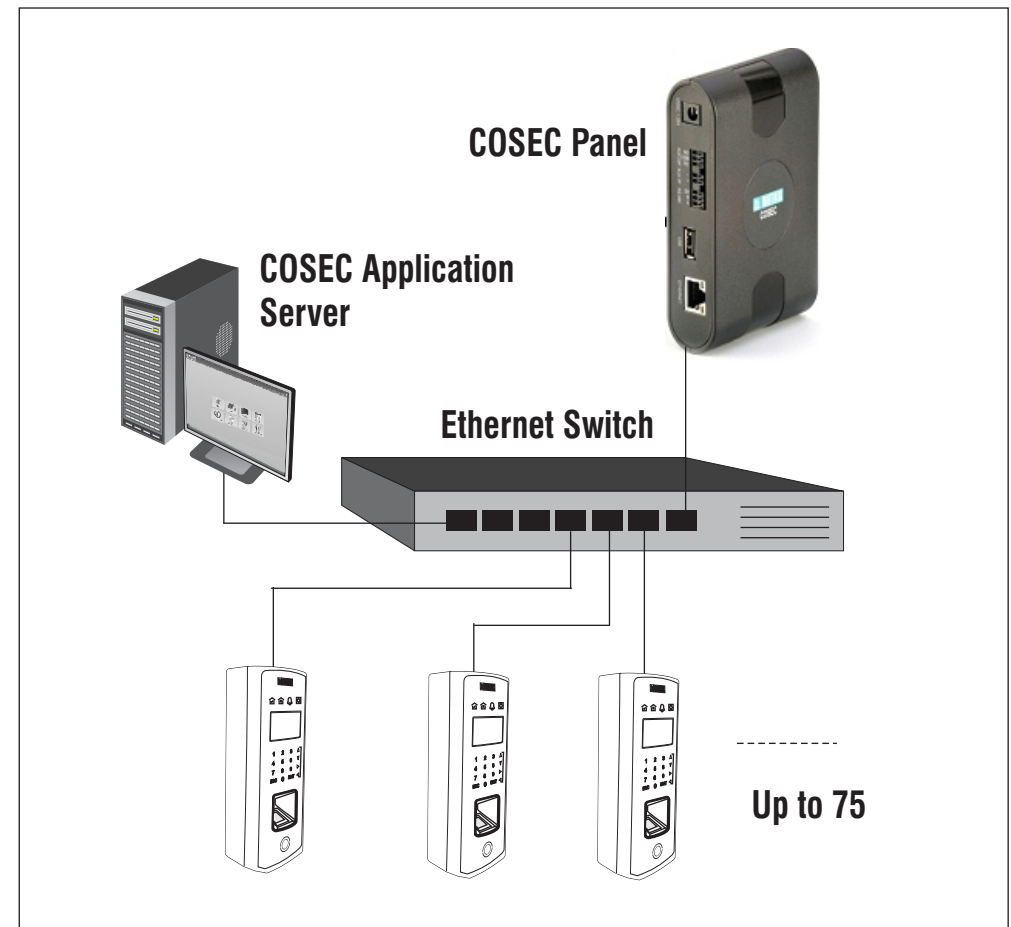


Figure 10: Connecting as Panel Door

Assigning IP Address and other Network Settings

- Open the Web browser in your computer.
- Enter the IP Address of the COSEC ARG0, default: **http://192.168.50.1** in the address bar of the browser and press the Enter key on your computer keyboard.
- The Login page appears.
- Select the User Name as **Admin**.
- You need set the password, hence enter the desired password in **New Password** and re-enter the same in **Confirm Password**.
- Click Login.
- You can now set the parameters as per your requirement.



The screenshot shows the login interface for the MATRIX V4 Door. The header is dark blue with the 'MATRIX V4 Door' logo. The main content area is a white rounded rectangle containing the login form. The form has three input fields: 'User Name' with a dropdown menu showing 'Admin', 'New Password', and 'Confirm Password'. A blue 'Login' button is at the bottom of the form.

If the first login is done from the Device Display, the Password can be set from here also. The device displays the screen to enter the New Password and then to re-enter the same in Confirm Password.

The Password set during first login (whether from the Web Page or the Device Display) will be applicable to both the logins.

Technical Specifications

SPECIFICATION	COSEC DOOR V4- Product Variants					
	FOP	FOPW	FOPQ	FOT	FOTQ	FOTW
GENERAL						
User Capacity	50,000					
Event Buffer	50,00,000					
Credential Supported	Card, Pin, Finger					
Temper Detection	Yes					
Input Power	12V DC @2A					
Communication Port	Ethernet and USB					
USB Type	(2 ports) (For USB drive and WiFi/Broadband Dongle connectivity)					
Built in POE	Yes (IEEE 802.3 af)	Yes (IEEE 802.3 af)	No	Yes (IEEE 802.3 af)	Yes (IEEE 802.3 af)	Yes (IEEE 802.3 af)
Built in WiFi	No	Yes (IEEE 802.11 b, g, n)	Yes (IEEE 802.11 b, g, n)	No	No	Yes (IEEE 802.11 b, g, n)
Built in Bluetooth	No	Yes	Yes	No	No	Yes
Types of Card	EM Prox HID i-class & MIFARE®/NFC	EM Prox HID i-class & MIFARE®/NFC	MIFARE®/NFC	EM Prox	MIFARE®/NFC	EM Prox
Buzzer	Yes					
READER						
Interface	RS - 232 and Wiegand			No		
Power Output	Internal 12V DC @2A or External			No		

Specification	COSEC DOOR V4- Product Variants					
	FOP	FOPW	FOPQ	FOT	FOTQ	FOTW
IN/OUT						
Exit Switch Port	Yes	Yes	Yes	No	No	No
Door Status Sense	Yes	Yes	Yes	No	No	No
Door Lock Relay	Yes	Yes	Yes	No	No	No
Door Lock Power	Yes	Yes	Yes	No	No	No
Aux Input Port	Yes	Yes	Yes	No	No	No
Aux Output Port	Yes	Yes	Yes	No	No	No
PHYSICAL						
Dimensions(LxWxH)	219.5mm x 100.1mm x 53.7mm					
Weight	520 g (approx)					
ENVIRONMENTAL						
Operating Temperature	0° to 45°C					
Storage Temperature	Minus 20° to 60°C					
Humidity Range	5% to 95 % RH Non-Condensing					

WEEE Directive 2002/96/EC

The product referred is covered by the waste Electrical and Electronic Equipment (WEEE) directive and must be disposed of in a responsible manner.

At the end of product life cycle; batteries, soldered boards, metal components and plastic components must be disposed through recyclers.

If you are unable to dispose-off the products or unable to locate e-waste recyclers, you may return the products to Matrix Return Material Authorization (RMA) department.

Compliance



MATRIX COMSEC

Head Office

394-GIDC, Makarpura, Vadodara - 390010, India

Ph: (+91)1800-258-7747

Email: Support@MatrixComSec.com

www.matrixaccesscontrol.com