WS4

Web Access Solution

VIDEX®

GET IT ON Google Play

Download on the App Store

VIDEX **WS4**

VIDEX WS4

WS4

Videx tech

Door 1

RELEASE
Open Door 1

OPEN (TIMED)
Open Door 1 for longer

CLOSE
Close Door 1

OK   No Alarms   Open

4G

BLOCK 2

SWITCH ROUTER

RS485   WS4 Controller 2   RS485

MTPXBK-RS-MF   MTPADPBK-RS-MF

BLOCK 1

WS4 Controller + 4G wireless router

RS485   WS4 Controller 1   RS485

RS485

RS485

MTPXBK-RS-MF

1 Way 4K Audio + 4849WS4/M

1 Way VR4K Audio + VR4KLCSRS

2 Way 8K Audio + 8849WS4
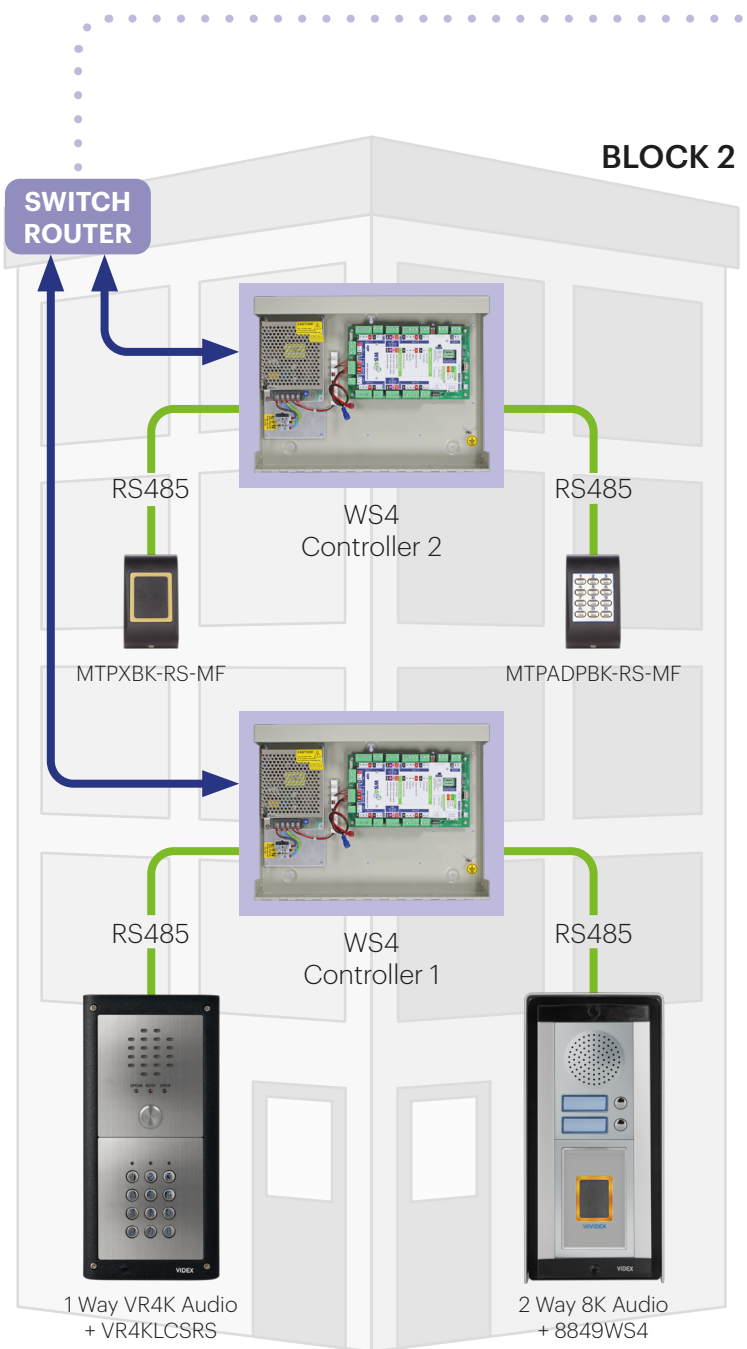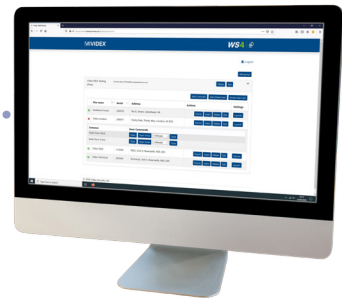
- Web Server Access Control.

- Remote global system management via a web browser.

- Full access control via iOS and Android Apps.

- Customisable email alerts and alarms.

- Fire Alarm integration.

- System health-check alerts.

- Lift integration feature.

- Third-party input and alarm triggers.

- CSV file format supported for import and export of data.
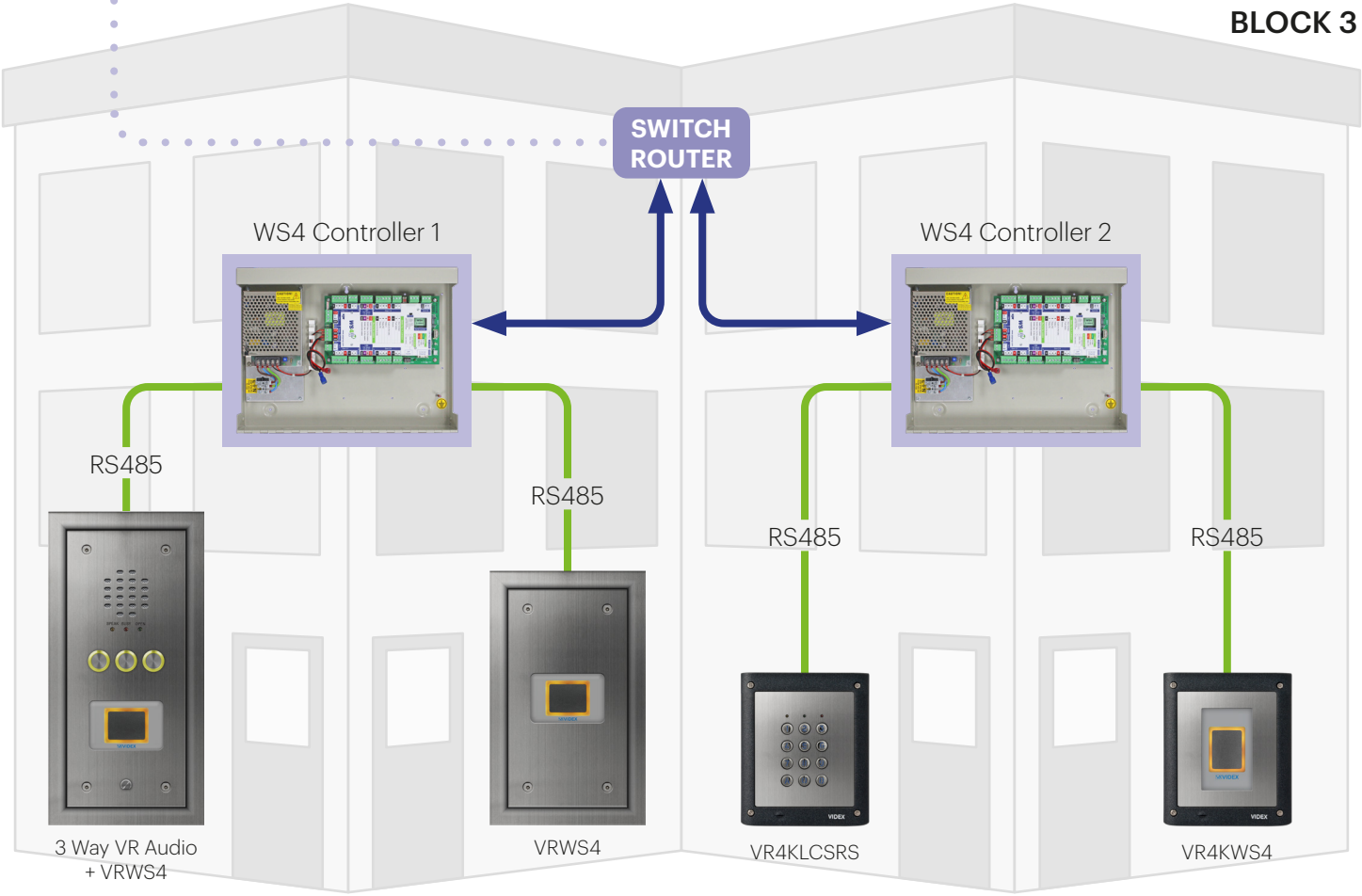
- Air-lock and anti-passback functions available.

Access Solution

WS4 Web Portal

chrome   safari   opera   edge   firefox

BLOCK 3

SWITCH ROUTER

WS4 Controller 1

WS4 Controller 2

RS485

RS485

RS485

RS485

3 Way VR Audio
+ VRWS4

VRWS4

VR4KLCSRS

VR4KWS4

- Live and past events viewable remotely.

- Multiple block control.

- 2500 users per block, unlimited app users.

- Rolling 50,000 events per block.

- System can be expanded up to 20 doors per block.

- 1 door, 2 door and 4 door controllers available.

- Relay rating: 2A @ 48V ac/dc.

- Switch 0V Push to Exit inputs.

- Battery backup facility.

- 4G control cabinets available.

Contents

Web Access - Introduction

Full access control via the Internet, wherever you are and with any device: mobile phone, tablet or computer.

We make it easier to control your access control needs, ideal for houses, offices, businesses, schools, hospitals...

Take control from anywhere and at anytime.

- Capacity for 2500 users, unlimited app users.
- 250 access groups.
- 50 weekly schedules.
- Stores the last 50,000 events.
- Air-lock function.
- Anti-passback function (read in/read out).
- Anti-passback time function.
- Web Portal to manage multiple sites.
- Admin and User Apps available.

- 10 operators (with one specially dedicated to the installer for the remote maintenance of the system).
- Import users.
- Export events and users (CSV format).
- Easy saving of data: on a USB Key, in the WS4-E internal memory (daily), or on the user interface.
- Lift Interface available (**WS4-RB-12**).
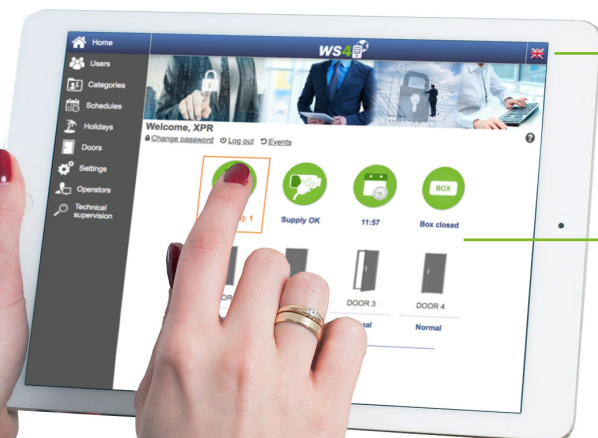
Main Advantages of the System

- The entire access system can be accessed and managed from anywhere in the world with an internet connection.

- Very easy to install and to use with an intuitive and ergonomic interface.

- Once installed, the system is 100% stand alone.

- Choose from 1, 2 or 4 door controllers and Mifare proximity readers or combined keypad & Mifare proximity readers.

- Expand up to 20 doors.

- Manage up to 2500 users and 250 access groups (categories) via the LAN or remotely using secure communication HTTPS (all data between the controller and web browser is encrypted).

- DynDNS, a fixed IP address is not required.

- Universal "plug & play" (UPnP) is supported.

- Port forwarding can also be setup if required.

- The readers communicate with RS485, establishing a bi-directional communication between the readers and the WS4 controller thereby reducing the number of wires required for the installation.

- The WS4 controllers have a TCP/IP Ethernet connection (10/100/1000 Base-T – HTTP or HTTPS).

- The power supply is located in the control cabinet (**WS4CU1 / WS4CU1-4G** : 1 door cabinet, **WS4CU2 / WS4CU2-4G** : 2 door cabinet, **WS4CU4 / WS4CU4-4G** : 4 door cabinet).

- Adaptive web format feature (Responsive Web Design) that adapts to the format of your device.

- Can be used with all types of devices: PC, MAC, Android Smartphone, iPhone, Tablet and iPad.

Complete visualization of the status of the system at a glance

You will be able to quickly setup and check all the following details:

- The status of the doors and the readers.

- The battery and power supply status.

- The presence or absence of alarms.

- The system date and time.

- The number of operators connected to the controller.

- Setup email alerts to inform a manager or engineer, including a system "health check" email schedule.

- Allocate different types of event reports to engineers and administrators (e.g. reader offline, power issues to an engineer and/or door open too long events to a manager).
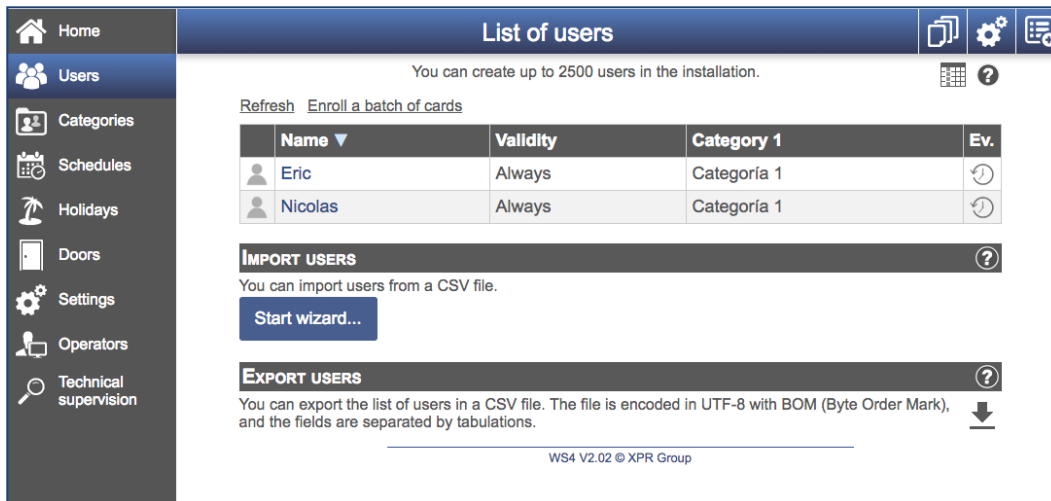

Available in English, French, German, Spanish, Dutch, Italian, Portuguese and Danish.

One click, and you will be able to:

- Navigate through the menu.
- View events.
- Open a door.
- Lock and unlock the doors for a time period.

Simple and efficient programming for users and user access

The main menu gives direct access to the user list.
Creating and modifying users is then accessible.
The list of information displayed can be configured.
Users can be imported from an existing CSV file and exported if required.

Users (2500)

For adding, editing and deleting.
- The username (name and surname).
- Up to 5 customizable fields.
- Authorized dates and times.
- 3 categories (access levels).
- Up to 2 fobs/cards and an access level per user.

Users may be de-activated in a single click.

Categories - Access Levels (250)

Setup access levels for groups of users.
- The category name (access group).
- The doors for which this category has access.
- The timeband during which access is allowed.
- 2 override options:
  - Blocking during forbidden periods.
  - The anti-pass-back function.

Schedules - Timebands (50)

Define periods during which access is allowed. There is a timeband for each day of the week and a timeband for holidays. 3 active periods can be set for each daily timeband.
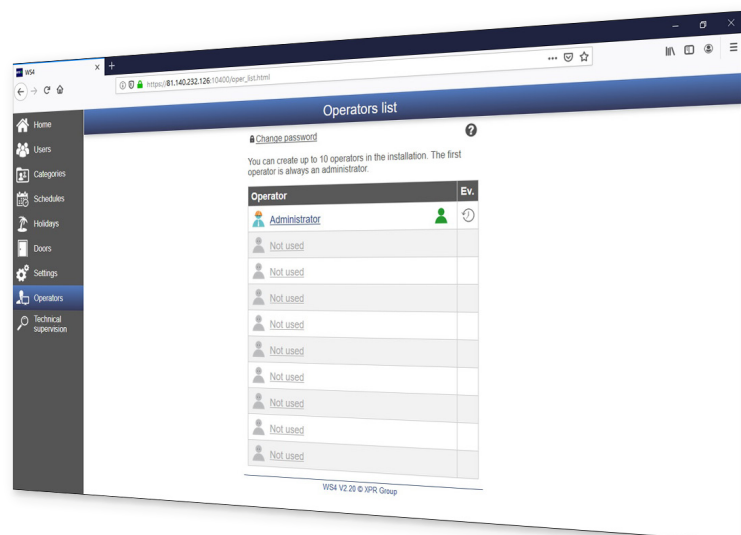
Holidays - Calendar

One off and annual holidays can be set, for example public holidays. On these dates the active timeband for holidays takes priority over the actual days access level.

Operators (10)

A list of 10 operators is available. 1 of 4 rights can be assigned to each operator.
- Total control (Administrator).
- Equipment installation.
- Access control management.
- System monitoring.

Technical monitoring screen

Monitor the system, this screen shows the status of the system.

General information

- Power supply status.
- Power supply voltage input level.
- Tamper status.
- The status of the configuration dip-switches.
- Internal memory usage.

For each door

- The status of the push button.
- The status of the door contact.
- The control status of the lock.
- Connection status of the readers.

For inputs and outputs

- The status of the inputs.
- The status of the outputs.

Settings

The settings screen provides access to various features.

- Network configuration.
- Date and time.
- "System" options.
- Reader configuration.
- Auxiliary inputs and outputs.
- "User" options.
- Backup and update.
- Restore.
- Firmware update.
- System log.
- Email alerts.

WS4 Update Version 2.50

The new WS4 update - version 2.50 - offers several new features and tools.

New door icons - In order to make the interface even more user-friendly and have a better visualization of the type of door used, the update allows selection of new door icons in the door set-up. Choose between the standard door, barrier, garage shutter, bollard, tripod and turnstile. This feature allows the user to identify the doors quickly to operate or carry out the configuration.

Fixed holidays update - The number of fixed holidays has been increased up to 20 to provide more flexibility according to different worldwide calendars.
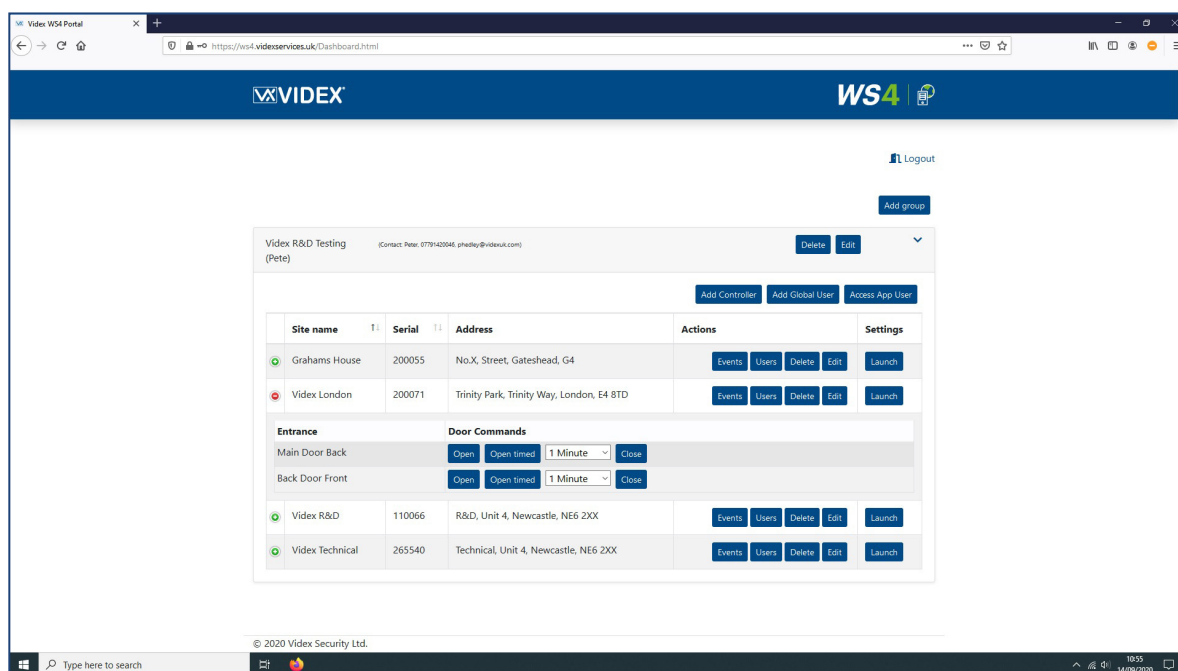
Alarm function - The new update allows the connection of the WS4 access control system to any alarm panel (also refer to example on page 12). This solution involves the following options:

- Automatic deactivation of the alarm system by the first user who opens one of the access doors into the building.
- Automatic activation of the alarm system at a predetermined time.
- Automatic activation of the alarm system when the last user leaves the building. APB (anti-passback) mode possible with an input and an output reader.
- Activation of the alarm system with a "reset code" from a reader (inside or outside). It is necessary to have at least one **MTPADPBK-RS-MF** dual technology reader (keypad and proximity).

Daily update verification - If the WS4 controller is connected to the internet, it will check new available updates on a daily basis. This information will be displayed in the notification icon on the home page as well as in the "connection test report" that is sent to you via email.

WS4 - Portal

The new **WS4 Portal** (https://ws4.videxservices.uk/) is the most convenient way to manage multiple site and multiple systems from one easy to navigate portal.

The portal will keep track of all the systems and sites allowing administrators to:

- Create new sites and add additional WS4 controllers.
- Open and close entrances, including setup of timed open (from 1 minute up to 15 minutes, 30 minutes and from 1 up to 12 hours).

- Add, view, edit and delete users.
- Monitor events for a particular site or a specific user.

Also access fobs and cards, access codes and **WS4 Access App** users can be added, deleted, enabled or disabled and modified for one or more installations if required.

Additionally, all installations can be monitored to ensure you are the first to know of any issues that may arise. The portal can be accessed from any web browser and via any device such as a desk top PC, tablet or mobile device.

chrome   safari   opera   edge   firefox

WS4 - Mobile Apps

Also available to help manage the WS4 system on the move over secure HTTPS communication are two new WS4 mobile apps: the **WS4 App** for administrators and the **WS4 Access App** for users.

Both WS4 mobile apps are available for Android and iOS devices and can be downloaded from Google Play or the Apple App Store.

WS4 App

The **WS4 App** has been designed for administrators of the system and includes the following features:

- Enables the activation of entrances either momentarily or latched for set times.
- Adding, modifying and deleting of users.
- View events.

Additionally the **WS4 App** will show the entrance status and the status of the system, for example if there are any active alarms on the system or any power issues on site.
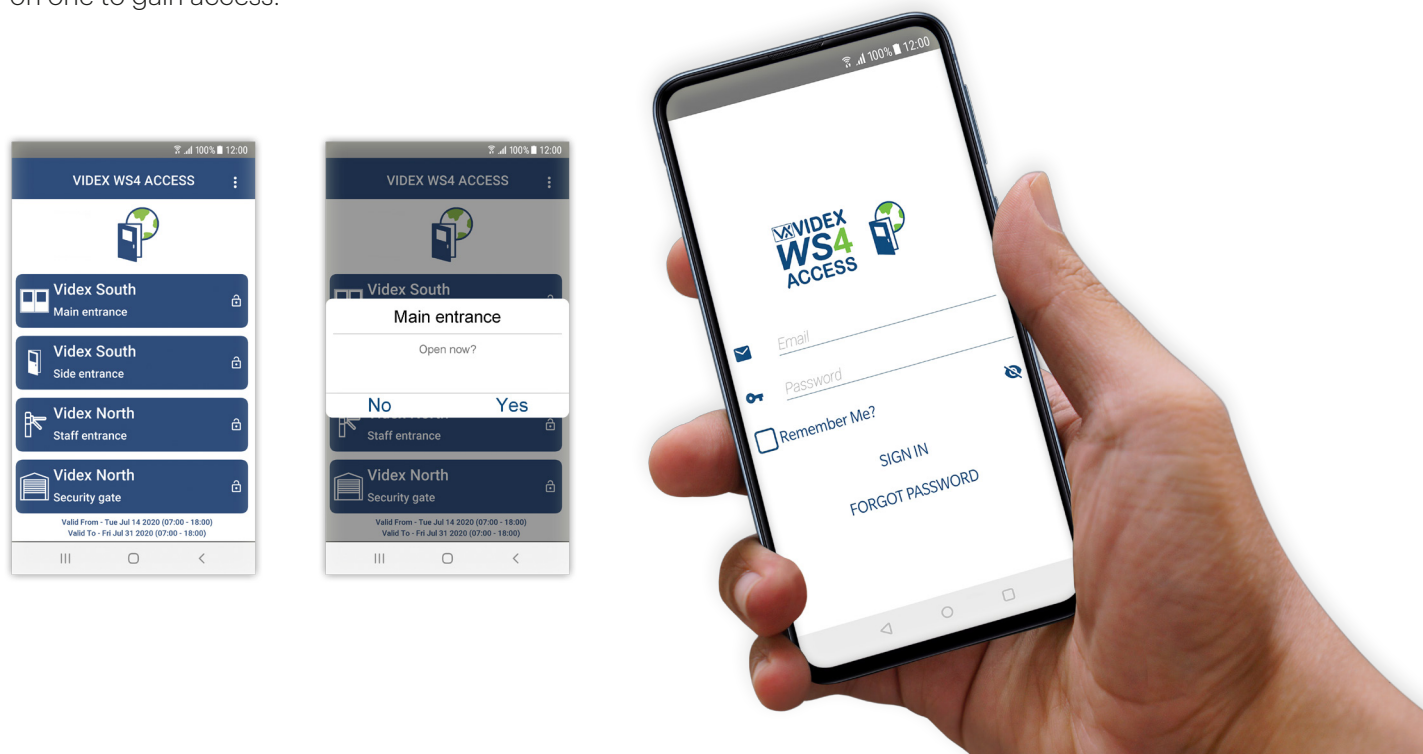

WS4 Access App

The **WS4 Access App** has been designed for users to use for access control purposes as an alternative to the traditional fob or coded access.

The administrator of the system creates a new user through the **WS4 Portal** using their email address and selecting which entrances on which sites they are allowed access and for what times and dates they will have access rights for. The user will then receive an email with a temporary password.

Once the user downloads the **WS4 Access App** from either the Google Play or the Apple App Store they will be able to login using their assigned username and temporary password.

From the **WS4 Access App** they will see all the entrances they have access through and can simply click on one to gain access.

Manage an Alarm Panel

With the WS4 web-server system it is possible to connect an alarm panel which can be armed and/or disarmed very easily from the **MTPADPBK-RS-MF** reader/keypad and does not require any specific knowledge or previous training.

This system is very useful for many applications, especially in the area of business establishments and private offices or co-working.

Using an alarm panel with the WS4 web-server couldn't be easier. When the first person enters the premises, they open the door using their personal card/PIN code and the alarm is disabled automatically.

In order to activate it again, the last person leaving the premises enters the PIN code (of the alarm panel) into the keypad and he/she has a specific time to leave. Then, the alarm panel will be armed. There is also an option to activate the alarm automatically at a specific time should the activation be forgotten.

The arming time of the alarm panel is configurable. It can be set from 5 up to 60 seconds. Once the PIN is entered, all the readers of the premises start to beep, indicating that the alarm panel is going to be armed, and once it is activated all the readers stop beeping. Any person still in the premises can stop the alarm panel activation just by presenting their card in front of any reader.

Alarm panel and reader combinations

There are many other possibilities to use an alarm panel with the WS4 web-server system:

- **1x MTPADPBK-RS-MF reader/keypad ('anti-passback' is not required)**

  For this combination only one **MTPADPBK-RS-MF** reader/keypad is required (with or without RFID) at the main door.

  Any user can open the door with their card or user PIN code and disarm the alarm panel. To activate the alarm again, the PIN code of the alarm panel must be entered.

- **2x MTPXBK-RS-MF readers ('anti-passback' is required to count the users inside)**

  This combination requires two **MTPXBK-RF-MF** readers where the first user disarms the alarm panel when they present their card to the reader to open the door.

  The last user (if all users have used the card on the exit reader) will activate the alarm automatically just by presenting the card to the exit reader.

Door Programming

The presence of a door contact makes it possible to activate an alarm, either in the event of a breach or in the event of a door being opened for too long.

Readers are also monitored, for instance, in the event of a short circuit or interruption of its connection, an alarm is activated. There are different door combinations depending on the controller required.

WS4CU1 / WS4CU1-4G   **1 Possible Combination:**

- 1 door with 2 readers, for entry and exit.

WS4CU2 / WS4CU2-4G   **2 Possible Combinations:**

- 2 doors with 1 reader and 1 push button.
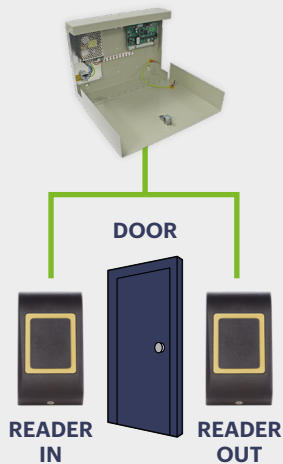- 1 door with 2 readers, for entry and exit.

WS4CU4 / WS4CU4-4G   **3 Possible Combinations:**

- 4 doors with 1 reader and 1 push button.
- 2 doors with 2 readers, for entry and exit.
- 1 door with 2 readers, for entry and exit, plus 2 doors with 1 reader and 1 push button.
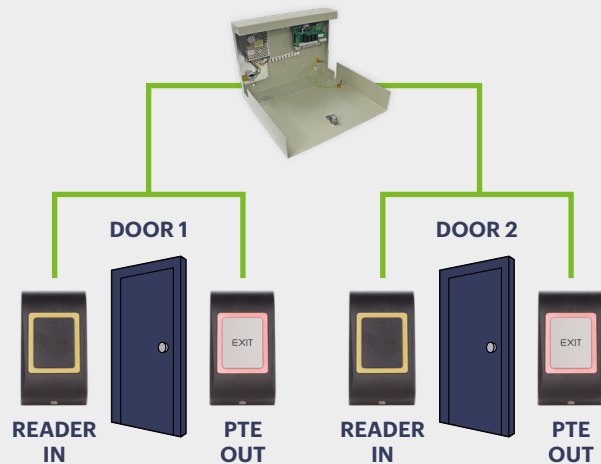

WS4 controller door combination examples

WS4CU1 / WS4CU1-4G

1 door with 2 readers, for entry and exit.

WS4CU2 / WS4CU2-4G

2 doors with 1 reader and 1 push button.

WS4CU4 / WS4CU4-4G 4 doors with 1 reader and 1 push button.

Proximity Readers

MTPXBK-RS-MF

Mifare Proximity Reader

up to 6cm

-20°C / +50°C

0% → 95%

9 - 14Vdc

IP 65

A compact 13.56MHz Mifare reader in a black ABS housing incorporating a rectangular "halo" tri-colour status indication LED. It has been designed to be installed either internally or externally and has an RS485 bus. It's tri-color LED, tamper and buzzer are managed directly by the WS4 controls. It can read Mifare Classic, Desfire & Ultralight fobs/cards.

51mm

92mm

27mm

4849WS4/M

4000 Series Mifare Proximity Reader Module

A compact 13.56MHz Mifare reader with the same technical characteristics as the MTPXBK-RS-MF reader described above.

For mounting in Videx's popular 4000 series modular housing, in a matt stainless steel finish, allowing for integration with Videx's full range of 4000 series audio and video intercom door entry systems.

Compatible with the 4000 series surface and flush back boxes including the 4000 series surface and flush rainshields.

Dimensions (mm): 103 (W) x 120 (H) x 36 (D)

8849WS4

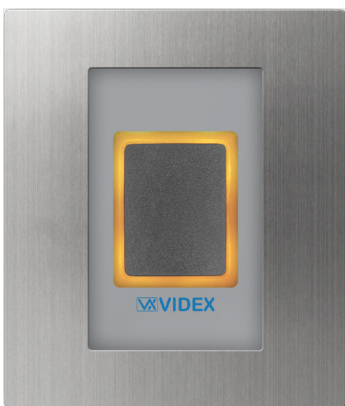**8000 Series Mifare Proximity Reader Module**

A compact 13.56MHz Mifare reader with the same technical characteristics as the MTPXBK-RS-MF reader described above.

For mounting in Videx's popular 8000 series modular housing allowing for integration with Videx's full range of 8000 series audio and video intercom door entry systems.

Compatible with the 8000 series surface and flush back boxes.

Dimensions (mm): 97 (W) x 120 (H) x 36 (D)

VR4KWS4

Vandal Resistant 4000 Series Mifare Proximity Reader Module
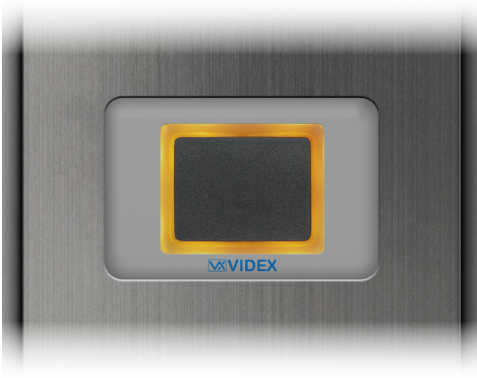
A compact 13.56MHz Mifare reader with the same technical characteristics as the MTPXBK-RS-MF reader described above.

For mounting in Videx's vandal resistant 4000 series (VR4K)modular housing. The front plate is manufactured from 316 grade brushed stainless steel and is compatible with Videx's full range of VR4K series audio and video intercom door entry systems.

Compatible with the 4000 series surface and flush back boxes including the 4000 series surface and flush rainshields.

Dimensions (mm): 103 (W) x 120 (H) x 40 (D)

VRWS4

Vandal Resistant Mifare Proximity Reader

A vandal resistant panel mount 13.56MHz Mifare reader with the same technical characteristics as the MTPXBK-RS-MF reader previously described.

The reader can be mounted to any of Videx's extensive range of vandal resistant panel range: VR120 series, VR130 series and bespoke vandal resistant panels allowing for integration with Videx's full range of audio and video intercom door entry systems.
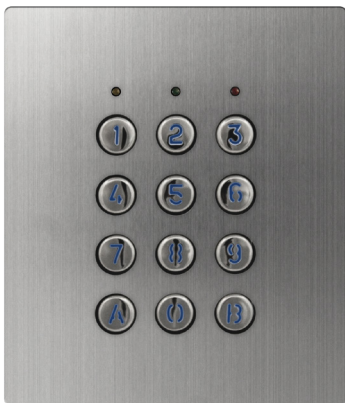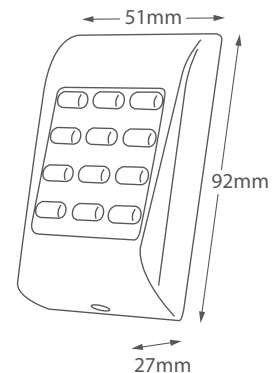
Keypads

MTPADPBK-RS-MF

Keypad and Mifare Proximity Reader

This combined keypad & 13.56MHz Mifare reader, in black ABS, offers double security: via code and via fob/card. It can be installed either internally or externally. It comes with an RS485 bus and has a backlit keypad. It's LEDs, tamper and buzzer are managed directly by the WS4 controls. It can read Mifare Classic, Desfire & Ultralight fobs/cards.

up to 6cm

-20°C / +50°C

0% → 95%

9 - 14Vdc

IP 65

51mm

92mm

27mm

VR4KLCSRS

Vandal Resistant 4000 Series Keypad Module with RS485 output

A robust keypad with blue back-lit metallic style buttons and RS485 output to connect directly to a WS4 controller.
For mounting in a vandal resistant 4000 series (VR4K) modular housing. The front plate is manufactured from 316 grade brushed stainless steel and is compatible with the full range of VR4K series audio and video intercom door entry systems.

Compatible with the 4000 series surface and flush back boxes including the 4000 series surface and flush rainshields.

Dimensions (mm): 103 (W) x 120 (H) x 40 (D)

VRLCSRS

Vandal Resistant Keypad with RS485 output

A robust keypad with blue back-lit metallic style buttons and RS485 output to connect directly to a WS4 controller.
It can be mounted to any of Videx's extensive range of vandal resistant panel range: VR120 series, VR130 series and bespoke vandal resistant panels allowing for integration with Videx's full range of audio and video intercom door entry systems.
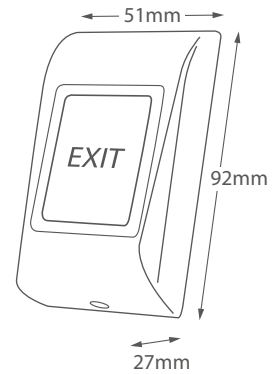
Exit Button

MTTBK-EXIT

Touch Sensitive Exit Button

The MTTBK-EXIT is a touch sensitive push to exit button and is entirely electronic, non-mechanical and is an ergonomically designed access control device. It can either function as an independent manually controlled push button or alternatively, be connected to a WS4 series controller to facilitate the exit from a secure area.

➡️ Exit device

°C -20°C / +50°C

0% → 95%

⚡ 9 - 14Vdc

IP 65

51mm

92mm

27mm

Accessories - Fobs and Cards

A selection of Mifare Classic 13.56MHz fobs and cards are available:

Mifare Classic MS50 (1K memory) Fobs & Mifare Classic MS50 (1K memory) Card

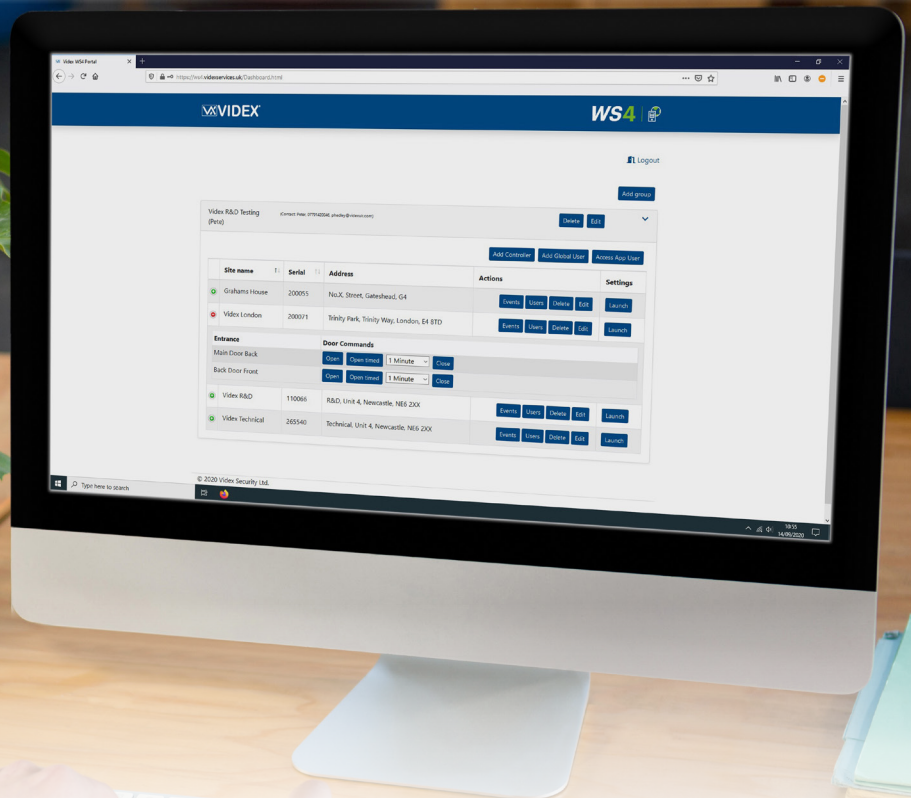| **PBX-1E-MS50**	**PBXB-1E-MS50**	**PBXBK-1E-MS50**	**PBXG-1E-MS50**	**PBXR-1E-MS50**	**PBX-2-MS50**
Grey ABS keyfob, Mifare Classic, 1K memory.	Blue ABS keyfob, Mifare Classic, 1K memory.	Black ABS keyfob, Mifare Classic, 1K memory.	Green ABS keyfob, Mifare Classic, 1K memory.	Red ABS keyfob, Mifare Classic, 1K memory.	0.75mm thick ISO card, Mifare Classic, 1K memory.

There are a selection of controllers to choose from depending on the system requirements:

- **WS4CU1** : 1 door control cabinet.
- **WS4CU2** : 2 door control cabinet.
- **WS4CU4** : 4 door control cabinet.
- **WS4CU1-4G** : 1 door control cabinet including 4G router.
- **WS4CU2-4G** : 2 door control cabinet including 4G router.
- **WS4CU4-4G** : 4 door control cabinet including 4G router.

All controllers can be combined up to 20 doors if required (using a maxiumum of 10 cabinets). There is no need to install or download any special software as communication is carried out directly with the controller through a web browser.

Also there is no need to have a dedicated PC either. Everything is available online once the operator has registered with the controller using its unique serial number (located on the internal software chip).

Minimal hardware required

Each control unit includes the appropriate WS4 control pcb housed in a lockable powder coated steel cabinet (CAB2). They also include an intelligent power supply with full battery discharge protection and protection of power supplies against short circuits. Sufficient space for a rechargeable 12Vdc/7Ah battery is also available. The 4G cabinets also include an integrated 4G wireless router which will require a data SIM with a public IP addess. The management electronics of each WS4 control pcb is based on a powerful microprocessor with a Linux kernel.
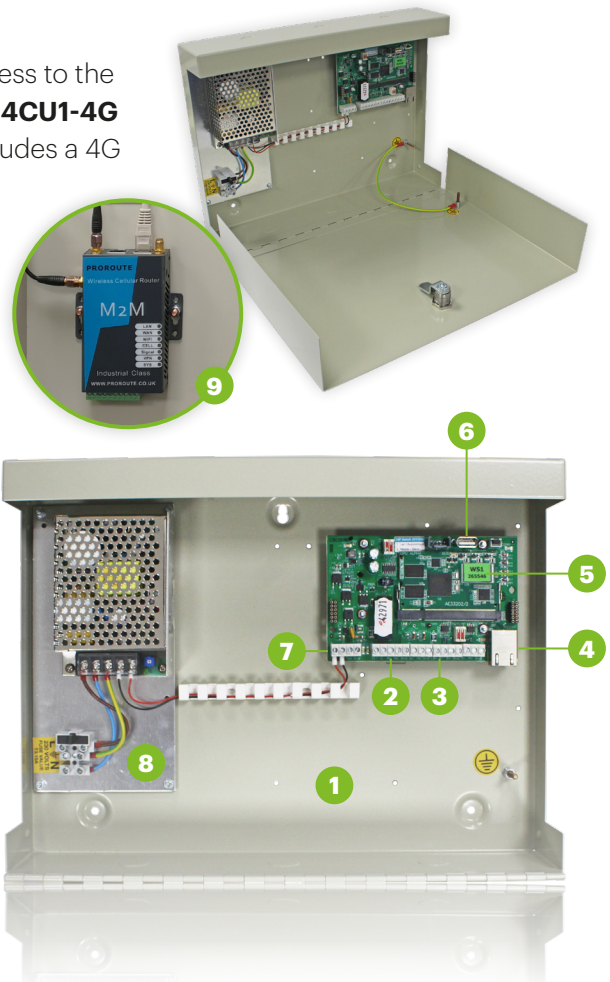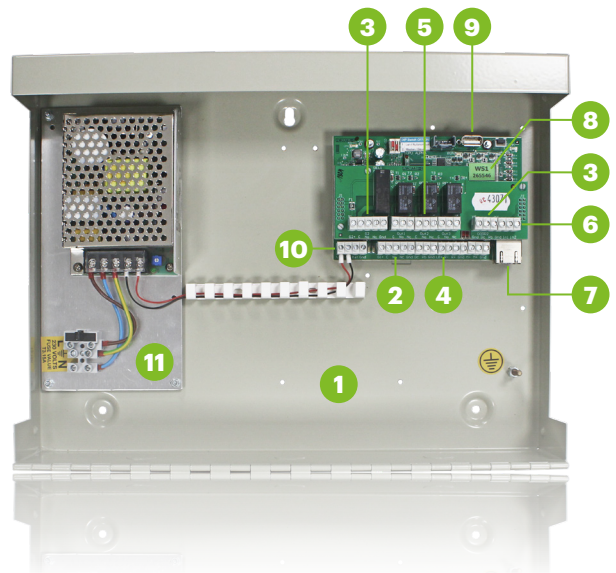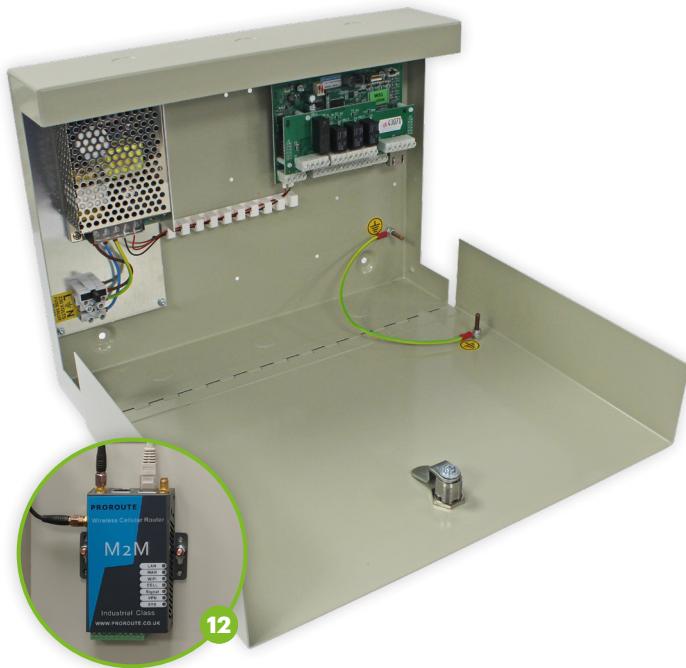
CAB2 Cabinet Specification

- Materials: Powder coated steel
- Operating temperature: 0 °C to +50 °C
- Dimensions (mm): 360 (W) x 265 (H) x 75 (D)
- Humidity: 0% to 85% (non-condensing)

WS4CU1 / WS4CU1-4G

The **WS4CU1** contains a WS4-1D-E control pcb with easy access to the pcb terminals and a 14Vdc, 3.2A switched mode PSU. The **WS4CU1-4G** contains the same components as the **WS4CU1** and also includes a 4G wireless router.

1. Space for rechargeable 12Vdc/7Ah battery.
2. Door 1:
   - Input for door contact and push button.
   - Direct output for latch/lock with 12Vdc - 600mA power supply.
3. RS485 reader connection
   - Max. current per reader: 225mA.
   - Reader power supply voltage: 12Vdc.
4. TCP/IP Ethernet connection: 10/100/1000 Base-T - HTTP or HTTPS.
5. Processor
   - ARM A5 - 528MHz.
   - Memory 64MB RAM DDR2 133MHz.
   - Built-in clock (RTC) - continues for up to 4 days without power.
6. USB Port for backup on USB drive.
7. Power and Battery inputs
   - 12Vdc power input terminals.
   - 12Vdc/7Ah backup battery input terminals.
8. 14Vdc, 3.2A PSU (230-240Vac, 50/60Hz mains input).
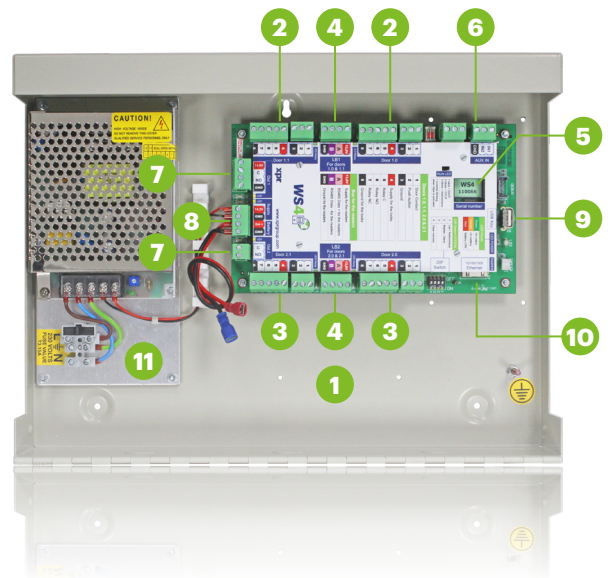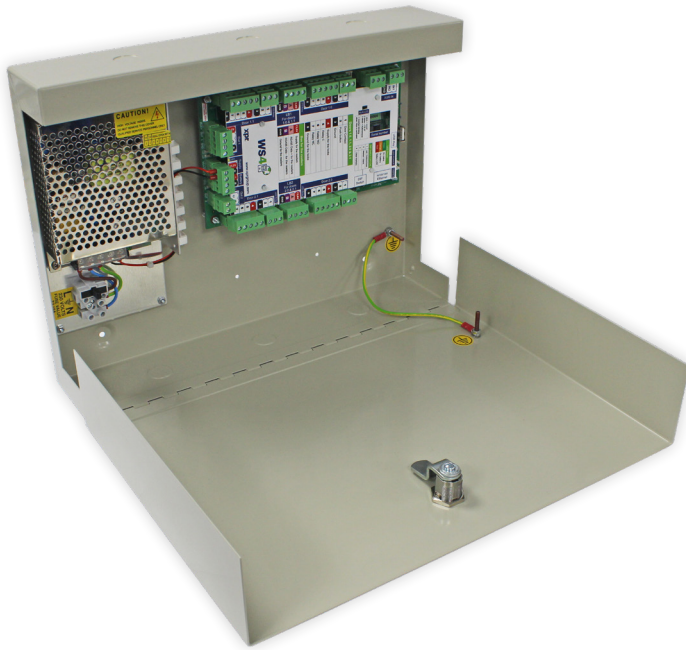9. 4G wireless router (**WS4CU1-4G** cabinet only).

WS4CU2 / WS4CU2-4G

The **WS4CU2** contains a WS4-1D-E control pcb fitted with a WS4-EXT extension pcb and has easy access to the pcb terminals and a 14Vdc, 3.2A switched mode PSU. The **WS4CU2-4G** contains the same components as the **WS4CU2** and also includes a 4G wireless router.
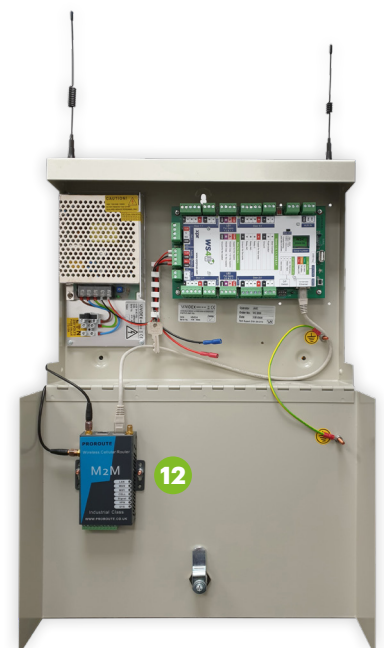
1 Space for rechargeable 12V / 7Ah battery with reverse polarity protection. Low battery detection and anti deep discharge.

2 Door 1:
- Input for door contact and push button.
- Direct output for latch/lock with 12Vdc - 600mA power supply.

3 Door 2:
- Input for door contact and push button.
- Direct output for latch/lock with 12Vdc - 600mA power supply.

4 RS485 reader connection (for doors 1 and 2)
- Maximum current per reader: 225mA.
- Reader power supply voltage: 12Vdc.

5 3 auxiliary relay outputs
- Alarm activation feature.
- Storing/memorizing alarm status.
- Presence indication of at least 1 user in the area.

6 2 auxiliary inputs
- Emergency input (e.g. break glass).
- Vehicle detection ground loop.

7 TCP/IP Ethernet connection, 10/100/1000 Base-T - HTTP or HTTPS.

8 Processor
- ARM A5 - 528MHz.
- Memory 64MB RAM DDR2 133MHz.
- Built-in clock (RTC) - continues for up to 4 days without power.

9 USB Port for backup on USB drive.

10 Power and Battery inputs
- 12Vdc power input terminals.
- 12V / 7Ah backup battery input terminals.

11 14Vdc, 3.2A PSU (230-240Vac, 50/60Hz mains input).

12 4G wireless router (**WS4CU2-4G** cabinet only).

WS4CU4 / WS4CU4-4G

The **WS4CU4** contains a WS4-E 4 door control pcb and has easy access to the plug-in terminals and a 14Vdc, 5A switched mode PSU. The **WS4CU4-4G** contains the same components as the **WS4CU4** and also includes a 4G wireless router.

1   Space for rechargeable 12V / 7Ah battery with reverse polarity protection. Low battery detection and anti deep discharge.

2   Doors 1 and 2:
- Input for door contact and push button.
- Direct output for latch/lock with 12Vdc - 2x 600mA power supply.

3   Doors 3 and 4:
- Input for door contact and push button.
- Direct output for latch/lock with 12Vdc- 2x 600mA power supply.

4   RS485 reader connection (for doors 1, 2, 3 and 4)
- Maximum current per reader: 225mA.
- Reader power supply voltage: 12Vdc.

5   Processor
- ARM A5 - 528MHz.
- Memory 64MB RAM DDR2 133MHz.
- Built-in clock (RTC) - continues for up to 4 days without power.

6   2 auxiliary inputs (to be programmed as desired)
- Evacuation contact (door release).
- Emergency input (e.g. break glass).
- Vehicle detection ground loop.

7   2 auxiliary outputs (to be programmed as desired)
- Alarm activation feature.
- Storing/memorizing alarm status.
- Presence indication of at least 1 user in the area.
- Alarm bell activation.

8   Power and Battery inputs
- 12Vdc power input terminals.
- 12V / 7Ah backup battery input terminals.

9   USB Port for backup on USB drive.

10   TCP/IP Ethernet connection, 10/100/1000 Base-T - HTTP or HTTPS.

11   14Vdc, 5A PSU (230-240Vac, 50/60Hz mains input).

12   4G wireless router (**WS4CU4-4G** cabinet only).

Web Access

Southern Office
1 Osprey, Trinity Park,
Trinity Way, London,
E4 8TD
T 0370 300 1240

Northern Office
Unit 4-7 Chillingham Ind. Estate,
Chapman Street,
Newcastle Upon Tyne, NE6 2XX
T 0370 300 1240

www.videxuk.com

For further information contact Videx sales: sales@videxuk.com