





### If you choose Fermax, you choose safety

A brand close to its customers

#### SPANISH BRAND

Founded in **1949** in **Valencia** (Spain), where we still have **our headquarters and our production centres.** 



#### SPECIALIST MANUFACTURER

The entire **production process** is carried **out in our factories** in Valencia, which allows us to **guarantee supply in all circumstances.** 



#### SUSTAINABLE COMPANY

Environmental protection, worker integration, equality and social action are the fundamental pillars of our corporate social responsibility policy



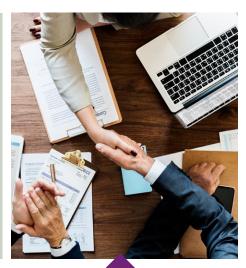
## Rely on a leading manufacturer

Reference brand in the industry in more than 70 countries



#### SAFE HOME

Our **video door entry systems** have become an essential element in guaranteeing the **safety** of **homes** and **people**.



#### PRODUCT AND SPARE PARTS AVAILABILITY

**Stock available** both at our headquarters in Valencia and at our main international distributors and also our subsidiaries



#### FROM VALENCIA TO THE REST OF THE WORLD

With sales and technical teams in France, United Kingdom, Poland, Belgium, Singapore, China, Portugal, UAE, Colombia and Turkey.

+ 70 COUNTRIES Large network of international distributors.

The world's first 100% digital **Smart System** in 2 wires



**DUOX PLUS** is the digital technology that simplifies installations, exceeds expectations and enables us to connect people and homes with the world.

It offers **higher performance and increased capacity, is faster and more user-friendly**. Above all, it brings us to a new dimension where all information (audio, video and data) is digital and transported using only two non-polarised wires.



The most powerful and fastest **2-wire** system to install and program



installation using existing wiring



**2 communication channels** within the same block



**Consistent quality** throughout the installation



Smart accessories for installations of all sizes



Up to 100 blocks and sub-blocks



Up to **10 panels** and **10** guard units at the general entrance



Up to **10 panels** and **10 guard units** in each **building or block of apartments** 



A system designed for the **professional installer ...** 

# Wiring **flexibility**

2 NON-POLARISED WIRES

#### Compatible with a wide variety of wiring.

In replacement installations, DUOX PLUS can be installed using existing wiring. Reduced errors, simplified installation on only 2 nonpolarised wires. **Simplicity** of installation

It saves time during installation and maintenance.



# Easy programming

**Monitors:** one person can program the installation in a few seconds directly from the OSD menu.

**Panels: digital panels** are programmed from the keypad, while on our **push button** panels, the amplifier includes a voice-guided programming system.

## Scalable system

For all kinds of projects; large or small, simple or complex, vertical structures or horizontal installations.

# Digital transmission

**FULL DIGITAL.** All information (audio, video and data) is fully digital, ensuring the same audio and video quality throughout the installation.

### ... and for the end-user



## Connectivity 📀 WiFi

Our WiFi video door entry systems open up the world of connectivity to every type of building and home, with call forwarding to mobile phones built into even the most basic monitors.

#### Accessibility Ì Ċ

Adapted and accessible products for everyone, both inside and outside the home.

### Security Photocaller

The video intercom automatically captures an image of the caller on the monitor and on the mobile phone in case of WiFi models.

# **PRODUCT** range









# **SKYLINE** Panel

	Modular panel.
<b>K</b> T	Made in anodised aluminium (IP43 IK07).
	Chromed zamak push buttons and reinforcements.
×.	Wide angle colour camera (Vertical=80º, Horizontal=100º).



Illumination for vision in low-light conditions.

#### 3.5" graphic display on digital panels:

- Display activation by presence sensors.
- Electronic directory agenda of residents.
- Menu-driven configuration from the keypad.
- Information pictograms (One-To-One) with the communication status (calling, in communication, door open, channel busy).
- Upload images, logos and personalised messages.
- Alphanumeric call to apartment.

#### Keypad:

- The metallic keys are made of zamak. It has permanent backlighting.
- Through the keypad it is possible to activate the installation's electric lock with a previously programmed PIN. 10,000 different users/codes in DUOX PLUS system.



**SKYLINE** consists of 9 different-sized frames where different modules can easily be fitted. Modules come in 2 sizes, designated V and W. W is twice the size of V.









#### ACCESSIBILITY

Voice synthesiser with the "The door is open" message in 32 languages. Integrated One-To-One. Visual information of the communication status (calling, in communication, door open, channel busy). In the One-to-One module with inductive loop, the induction system included in this module allows to transform the audio signal into a magnetic field adapted to the hearing aids or prostheses of hearing impaired persons.

Numeric keypad backlighted in blue, with marking for blind people on the keys (5) and (1).





# **MARINE** Panel



IP65 IK09 vandal-proof door entry panel.

Made in **stainless steel**, 2.5mm-thick.

AISI 316L AISI 316L steel, of high quality and resistant to extreme or adverse climatic conditions, wet or corrosive climates.







Wide angle colour camera (Vertical=80°, Horizontal=100°).

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Illumination for vision in low-light conditions.

#### 3.5" graphic display on digital panels:

- Display activation by presence sensors.
- Electronic directory agenda of residents.
- Menu-driven configuration from the keypad.
- Information pictograms (One-To-One) with the communication status (calling, in communication, door open, channel busy).
- Upload images, logos and personalised messages.
- Alphanumeric call to apartment.

#### Keypad:

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#### ACCESSIBILITY

**Voice synthesiser** with the "The door is open" message in 32 languages. **Integrated One-To-One.** Visual information of the communication status (calling, in communication, door open, channel busy).

**Numeric keypad backlighted** in blue, with marking for blind people on the keys (5) and (1).

# **VEO** monitor

4.3" (16:9) colour screen With handset

# **VEO-XS** monitor

4.3" (16:9) colour screen Hands-free





125x165x21 mm

Made of high-impact ABS white plastic.

Silicone buttons.

Surface installation.

Additional configurable functions such as activating second access, courtesy light, etc. (DUOX PLUS relay required). Colour screen with OSD menu.

Do not disturb function.

Settings: contrast, brightness, colour and volume.

Date and time settting.

Apartment entrance doorbell.

Automatic image capture per call (memory up to 150 photos).

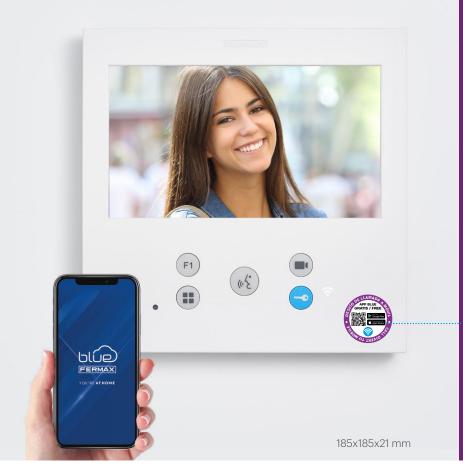
Auto-on: activate the outdoor panel and switch the display to another panel or camera.

Doormatic function (VEO-XS y VEO-XL): Automatic door opening for professionals (offices, clinics, etc.).

The same wall mounting connector is used for all monitor models. This makes the installer's job easier and provides great flexibility, allowing each resident in the building to choose the monitor they prefer.

# **VEO-XL** monitor

7" (16:9) colour screen Hands-free





# Call divert to mobile

All the **WiFi** monitors are equipped with WiFi connection that allows forwarding calls to mobile devices.

The BLUE by FERMAX application allows end-users to manage the functions of the video door entry system and much more directly from their smartphone or tablet.



All **WiFi** monitors include a sticker with a **QR** code so that end-users can download the **BLUE by FERMAX app.** They can easily pair their monitor and enjoy the call divert to mobile.



#### ACCESSIBILITY

**Voice synthesiser** with the "The door is open" message in 32 languages.

**Integrated One-To-One.** Visual information of the communication status (calling, in communication, door open, channel busy).

In the One-to-One module with inductive loop, the induction system included in this module allows to transform the audio signal into a magnetic field adapted to the hearing aids or prostheses of hearing impaired persons.

Numeric keypad backlighted in blue, with marking for blind people on the keys (5) and (1).



# Call divert to mobile/ tablet





More information on **BLUE by FERMAX** 

# Free application **BLUE by FERMAX**

With the DUOX PLUS WiFi monitors, the **call divert to mobile phones comes as standard.** 

It allows to establish communication with the outdoor panels and open the door.

It allows to **see who is calling** before answering and **open a second auxiliary door.** 

Automatic image capture of the caller and their register in the call log.

Up to 8 smartphones/tablets in the same apartment can receive the call simultaneously.

It is as simple as downloading the **BLUE by FERMAX** app from Google Play or the Apple Store.



### With the **BLUE by FERMAX** application the end-users can:

Pretend they are at home, even if they are not.

View the entrance camera via the auto-on function without the need of a previous call.

Open the door without the keys.

View the history of missed and received calls, as well as the images captured of the callers.

View other panels connected to your installation, either from the panel or via the camera interface.

Receive all calls from the video intercom on the mobile phone.

Answer and open the door from any location.

Invite their family to use the BLUE app when they require it.

Activate the additional functions configured in the video intercom from the mobile phone.

Request a concierge call in the instalation with a DUOX PLUS guard unit.

# **Telephones**

Made of high-impact ABS with a texturised finish for easy cleaning and ultraviolet protection.



VEO



**VEO** and **LOFT** telephones have a coiled cord with telephone plug connectors. A magnet located within the handset facilitates correct hangup position.

**iLOFT** telephone allows communication with the outdoor panel in hands-free mode.

**ILOFT** 



## **VEO, LOFT and iLOFT** telephones include the following features:

- Door opener button and call to guard.
- 5 selectable ringtones.
- Ring volume control and "do not disturb" function.
- Doorbell.

**Loft Extra and iLOFT** phones include buttons for additional functions:

- Lights on, 2<sup>nd</sup> door opening.
- Loft Extra: 2 additional buttons.
- iLOFT: 1 additional button.



# Audio Guard Unit





**DUOX PLUS Guard Unit** has a multi-functional 4,3" capacitive touchscreen and quick function access buttons for easy and convenient management.

Its unique handset design incorporating a magnet enables the end-user to put it back into position correctly. It includes a stainless steel desktop support. It allows a surface installation.

# References and diagrams











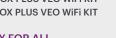
#### Video kits for residences and businesses

#### STANDARD SOLUTION





94411 1/W DUOX PLUS VEO WiFi KIT 94421 2/W DUOX PLUS VEO WiFi KIT





..... 0 × 0 0

50781

50831

94511 1/W DUOX PLUS VEO-XS WiFi KIT 94521 2/W DUOX PLUS VEO-XS WiFi KIT

VEO-XS WIFI KIT

VFO-XS WiFi KIT





**KITS WITH** 

**WiFi MONITOR** 

AT THE SAME PRICE

**AS STANDARD KITS!** 

9471 1/W DUOX PLUS VEO-XL WIFI KIT 9472 2/W DUOX PLUS VEO-XL WiFi KIT

ACCESSIBILITY FOR ALL





49081 1/W DUOX PLUS ONE-TO-ONE VEO WiFi KIT

#### WITH VANDAL-PROOF PANEL MADE IN STAINLESS STEEL



50731 1/W DUOX PLUS MARINE VEO-XS WIFI KIT

#### WITH KEYPAD ACCESS CODE



- 49071 1/W DUOX PLUS MEMOVISION VEO WIFI KIT



1/W DUOX PLUS MARINE BLACK

1/W DUOX PLUS MARINE ONE-TO-ONE

49121 1/W DUOX PLUS MEMOVISION VEO-XS WiFi KIT



49171 1/W DUOX PLUS MEMOVISION VEO-XL WIFI KIT

#### **Audio kits**



49202 1/W DUOX PLUS AUDIO CITY VEO KIT 2/W DUOX PLUS AUDIO 49212 CITY VEO KIT



50772 1/W DUOX PLUS AUDIO CITY ILOFT KIT



50762 1/W DUOX PLUS AUDIO MARINE ILOFT KIT



49132 1/W DUOX PLUS AUDIO MEMOPHONE CITY VEO KIT

### Outdoor panels and accessories references

#### **Skyline Panels**

FRAMES



**ref.7439** Direct keypad W

ref.7470

Graphic display W

**ref.7457** Digital keypad W

**ref.7442** Metallic complement V

ref.7443

Metallic complement W

#### Skyline / Cityline panel

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	FLUSH	SURFACE	HOOD		MODULAR	CITY FRAME		ANGULAR
	BOX	BOX	SINGLE	DOUBLE	FRAME*	SINGLE	DOUBLE	COMPLEMENT
S1	<b>ref.8851</b> 115x114x45	<b>ref.7061</b> 130x128x33	<b>ref.8400</b> 135x130	-	<b>ref.9191</b> 211x210	<b>ref.8251</b> 225x310	-	ref.8378
S2	<b>ref.8852</b> 115x138x45	<b>ref.7062</b> 130x151x33	<b>ref.8401</b> 135x155	-	<b>ref.9192</b> 211x234	<b>ref.8252</b> 225x310	-	ref.8379
S3 CITYLINE	<b>ref.8853</b> 115x162x45	<b>ref.7063</b> 130x175x33	<b>ref.8402</b> 135x177,5	-	<b>ref.9193</b> 211x257	<b>ref.8253</b> 225x375	-	ref.8380
S4	<b>ref.8854</b> 115x185x45	<b>ref.7064</b> 130x199x33	<b>ref.8403</b> 135x203	<b>ref.8411</b> 265x203	<b>ref.9194</b> 211x281	<b>ref.8254</b> 225x375	<b>ref.8427</b> 355x385	ref.8381
S5	<b>ref.8855</b> 115x233x45	<b>ref.7065</b> 130x246x33	<b>ref.8404</b> 135x250	<b>ref.8412</b> 265x250	<b>ref.9195</b> 211x329	<b>ref.8255</b> 225x375	<b>ref.8428</b> 355x385	ref.8382
S6	<b>ref.8856</b> 115x280x45	<b>ref.7066</b> 130x294x33	<b>ref.8405</b> 135x300	<b>ref.8413</b> 265x300	<b>ref.9196</b> 211x376	<b>ref.8256</b> 225x450	<b>ref.8429</b> 355x460	ref.8383
S7	<b>ref.8857</b> 115x328x45	<b>ref.7067</b> 130x341x33	<b>ref.8406</b> 135x345	<b>ref.8414</b> 265x345	<b>ref.9197</b> 211x424	<b>ref.8257</b> 225x450	<b>ref.8430</b> 355x460	ref.8384
S8	<b>ref.8858</b> 115x375x45	<b>ref.7068</b> 130x389x33	<b>ref.8407</b> 135x393	<b>ref.8415</b> 265x393	<b>ref.9198</b> 211x471	<b>ref.8258</b> 225x450	<b>ref.8431</b> 355x460	ref.8385
S9	<b>ref.8982</b> 115x420,5x45	<b>ref.7069</b> 130x436,5x33	<b>ref.8480</b> 135x440,5	<b>ref.8483</b> 265x440,5	<b>ref.9199</b> 211x519	<b>ref.8259</b> 225x495	<b>ref.8474</b> 355x500	ref.8386
S10	<b>ref.8983</b> 115x471x45	<b>ref.7081</b> 130x486x33	<b>ref.8481</b> 135x488	-	<b>ref.9198</b> 211x567	<b>ref.8264</b> 225x543	-	ref.8387

\* To make DOUBLE modular frames, add to the SINGLE frame a DOUBLE PANEL MODULAR FRAME KIT (ref.9200). Horizontal: 341mm.
\* To make TRIPLE modular frames, add to the SINGLE frame a TRIPLE PANEL MODULAR FRAME KIT (ref.9201). Horizontal: 471mm.

#### If the configuration requires more than one panel



#### 8829 JOINING BOLTS SET

It allows to combine two or more frames. One set is required for each additional frame installed on flush box.

A cable is required per each additional frame in order to connect the push button modules between both frames (70 cm).

 2541
 DUOX PLUS/VDS CONNECTION CABLE (6W)

 2542
 DUOX PLUS/VDS CONNECTION CABLE (5W)

Dimensions: (width) x (height) x (depth) mm.

#### Marine panel





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**ref.44438** 1 Push button

ref.44338ref.443481 Push button2 Push buttons

Dimensions: 150x180mm





ref.55261 ref.5471 Dimensions: 150x360mm





**PUSH BUTTON PANELS** 

The MARINE outdoor panels with push buttons (except 1 and 2 ways panels), always require a call extension module, depending on the number of push buttons. (ref. 2008 - 8 call extension module, ref. 2441 - 16 call extension module).

	FLUSH	SURFACE BOX	SIMPLE HOOD
	BOX	(with hood)	(for flush box)
ST1	<b>ref.4641</b> 130x160x55	<b>ref.4645</b> 154x184x96	ref.4701

#### **DIGITAL PANELS**

- The DIGITAL MARINE panel includes a keypad to call the apartments by dialling the door number or the corresponding code.
- The DIRECTORY DISPLAY allows the user to search for residents and their door number.
- Once the code is dialled, press the BELL KEY to call.
- The metallic keys are made of zamak. It has permanent back lit keys.
- Through the keypad it is possible to activate the installation's electric lock with a previously programmed PIN. 10.000 different users/codes in DUOX PLUS system.

55261	DUOX PLUS DIGITAL MARINE VIDEO PANEL ST3
55281	DUOX PLUS DIGITAL MARINE VIDEO PANEL ST3+ PROX
5471	DIRECTORY PANEL ST3

If the configuration requires more than one panel, they will need to be connected together with a connection cable (ref. 2541) (1 cable for each additional panel) and a set of joining bolts (ref. 2289) to attach them to unite the flush boxes.

	FLUSH BOX	SURFACE BOX (with hood)	SIMPLE HOOD (for flush box)
ST3	<b>ref.4643</b> 130x340x55	<b>ref.4647</b> 154x364x96	ref.4703
ST3+	<b>ref.4653</b> 130x400x55	<b>ref.4654</b> 154x423x96	ref.4655

#### **Marine Elite panel**

31728	DUOX PLUS MARINE ELITE PANEL
4579	MARINE ELITE RAINHOOD FOR FLUSH BOX PANEL
4580	MARINE ELITE FLUSH BOX
4581	MARINE ELITE SURFACE BOX WITH HOOD

Dimensions: (width) x (height) x (depth) mm.

### Indoor terminals and complements references

VEO and VEO-XS 4.3" colour monitors and VEO-XL 7" colour monitors are made from high-impact ABS plastic. They include automatic capture of images with the call (memory up to 150 photos), adjustment of contrast, brightness, colour, audio volume and call tone volume, "do not disturb" function, doorbell, date and time settings, silicone door opener buttons to activate the door opener, access the on-screen OSD menu, activate the outdoor panel camera or any another additional function that can be configured as for example activate a second access, courtesy light, etc. Available in white and surface installation.







DUOX PLUS VEO, VEO-XS and VEO-XL WiFi monitors are equipped with WiFi connection that allows to forward calls to mobile devices. Thanks to BLUE by FERMAX app, the functions of the video door phone and much more can be managed from a smartphone or a tablet.

#### 9446 DUOX PLUS VEO WIFI MONITOR

- 9456 DUOX PLUS VEO WIFI MONITOR WITH INDUCTIVE LOOP Dimensions: 200x200x23mm (44 mm with handset).
  - 9449 DUOX PLUS VEO-XS WIFI MONITOR
- 9459 DUOX PLUS VEO-XS WIFI MONITOR WITH INDUCTIVE LOOP Hands-free. Dimensions: 125x165x21 mm.
  - 9469 DUOX PLUS VEO-XL WIFI MONITOR
- 9479 DUOX PLUS VEO-XL WIFI MONITOR WITH INDUCTIVE LOOP Hands-free. Dimensions: 185x185x21mm.

#### 9447 DUOX PLUS CONNECTOR

The same wall mounting connector is used for all monitor models. This makes the installer's job easier and provides great flexibility, allowing each resident in the building to choose the monitor they prefer.

Note: The WiFi option does not require additional power supply compared to the non-WiFi alternative.





ref.9447

#### **VEO, VEO-XS and VEO-XL monitors**

- 9445 DUOX PLUS VEO MONITOR
- 9455 DUOX PLUS VEO MONITOR WITH INDUCTIVE LOOP Dimensions: 200x200x23mm (44 mm with handset).
- 9448 DUOX PLUS VEO-XS MONITOR
- 9458 DUOX PLUS VEO-XS MONITOR WITH INDUCTIVE LOOP Hands-free. Dimensions: 125x165x21 mm.

#### 9468 DUOX PLUS VEO-XL MONITOR

9478 DUOX PLUS VEO-XL MONITOR WITH INDUCTIVE LOOP

Hands-free. Dimensions: 185x185x21mm.

#### 9447 DUOX PLUS CONNECTOR

The same wall mounting connector is used for all monitor models. This makes the installer's job easier and provides great flexibility, allowing each resident in the building to choose the monitor they prefer.



Note: In models with inductive loop, the induction system included in the monitors allows to transform the audio signal into a magnetic field adapted to the hearing aids or prostheses of hearing impaired persons.

Dimensions: (width) x (height) x (depth) mm.

#### **TELEPHONES**

**GUARD UNIT** 



### 3444DUOX PLUS VEO TELEPHONEDimensions: 82x214x43mm

**3452 DUOX PLUS LOFT EXTRA TELEPHONE** Dimensions: 85x220x40mm

**3450 DUOX PLUS iLOFT TELEPHONE** Dimensions: 90x146,5x20mm.



DUOX PLUS Audio Guard Unit has a multi-functional 4,3" capacitive touchscreen and quick function access buttons for easy convenient management. Its unique handset design incorporating a magnet enables the end-user to put it back into position correctly. It includes a stainless steel desktop support. It allows a surface installation.

9423 DUOX PLUS AUDIO VEO GUARD UNIT Dimensions: 200x200mm

#### Monitors and telephones COMPLEMENTS



- 9410 VEO MONITOR DESKTOP SUPPORT
- 9420 VEO-XS AND VEO-XL MONITOR DESKTOP SUPPORT
- 3749 VEO/LOFT TELEPHONE DESKTOP SUPPORT
- 5636 ILOFT TELEPHONE DESKTOP SUPPORT

FERMAX desktop supports allow to answer a call to the entrance panel from the office desktop. Made of stainless steel (AISI 316L).

3388 UNIVERSAL DECORATIVE FRAME. 120X2403389 UNIVERSAL LARGE DECORATIVE FRAME. 210X240

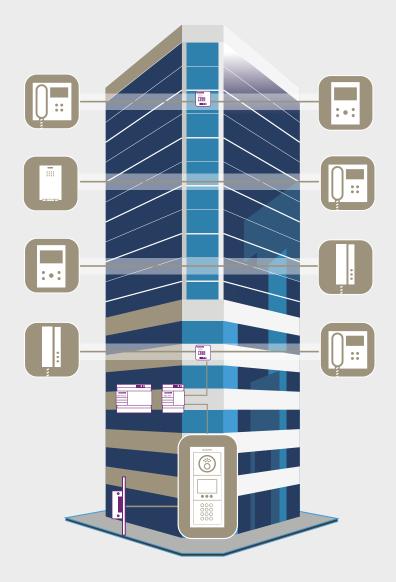
FERMAX Decorative Frames are aesthetic complements. Useful in retrofitting applications or replacement of previous equipment.

3441LOFT HANDSET WITH INDUCTIVE LOOP3443VEO HANDSET WITH INDUCTIVE LOOP

### Installation devices

### SIMPLE INSTALLATION (1 Building)

#### LESS COMPONENTS REQUIRED FOR INSTALLATION. NO FLOOR DISTRIBUTORS. NO DECODERS. NO SWITCHERS



The only materials required are:

- Panel
- Power Supply
- Monitors and telephones
- Line adaptors

Apartments are easily connected at each level using simple terminal strips.

NOTE: Depending on the type and condition of cable and distances, additional regenerators, decoders or power supply might be required.

#### Power supply and Adaptors

#### For most common cases

In the most common installations, DUOX PLUS does not require any installation devices other than the power supply and a pair of line adapters per riser. The maximum number of monitors that can be connected to each power supply ref. 4825 depends on the installation topology, cable type and monitor model, as shown in the tables below.



ref.4825

#### 3255 DUOX PLUS LINE ADAPTOR

Necessary at the beginning and the end of every riser.

4825 POWER SUPPLY + FILTER 24Vdc-2.5A DIN10

#### TERMINAL CONSUMPTION TABLE PER POWER SUPPLY IN DISTRIBUTION (6 PER FLOOR)

	NO WIFI			WIFI		
	VEO	VEO-XS	VEO-XL	VEO	VEO-XS	VEO-XL
1.0mm	40	40	34	28	28	24
0.5mm <sup>2</sup>	40	38	30	24	24	18
0.2mm <sup>2</sup>	32	26	20	18	18	12

#### TERMINAL CONSUMPTION TABLE PER POWER SUPPLY IN CASCADE

		NO WIFI			WIFI	
	VEO	VEO-XS	VEO-XL	VEO	VEO-XS	VEO-XL
1.0mm	40	38	30	26	22	20
0.5mm <sup>2</sup>	32	28	22	20	18	14
0.2mm <sup>2</sup>	16	14	10	12	10	8

#### For specific cases



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ref.4802



20.0 00 002

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ref.4800

#### 4840 POWER SUPPLY DIN-6 100-240VAC/24VDC-2A

To be used exclusively with the filter ref. 3289 or with the 2-way regenerator ref. 3269.

#### 3289 DUOX PLUS FILTER 24VDC

In case the ref. 4825 cannot be installed due to lack of space. This filter can be used only with 24Vdc power supply (ref. 4840). Do not use it with 18Vdc. power supply.

#### 4802 POWER SUPPLY DIN4 230VAC 12VAC/1A

12Vac for altern current lock release.

4800 POWER SUPPLY DIN4 230VAC 12VAC/1,5A

12Vac for altern current lock release.

#### Door lock release



#### UNIVERSAL DOOR LOCK RELEASE

67501 UNIV. LOCK RELEASE 990N-P22 MAX 10-24Vac/dc

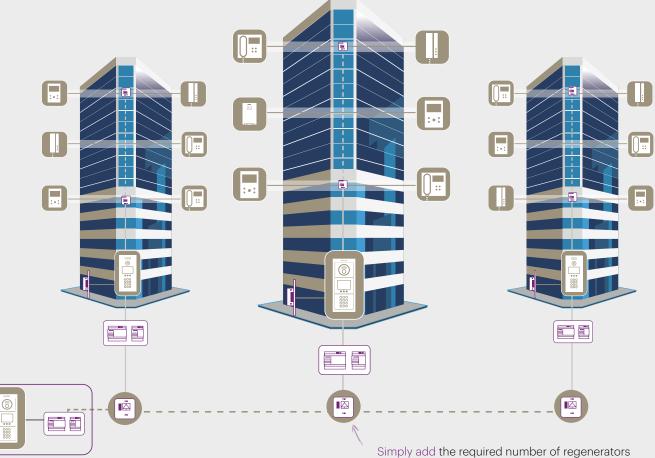
#### UNIVERSAL ELECTRIC STRIKE

6750	UNIV. ELECTRIC STRIKE 990N MAX 10-24Vac/dc
6752	UNIV. ELECTRIC STRIKE 990A MAX 12-24Vac/dc

**Note**: If other models of door lock release are used and their power consumption is greater than 250mA, an additional separate power supply must be used.

#### EXTENDED INSTALLATION (multiple buildings or longer distances)

# FOR ALL KINDS OF PROJECTS WITH LONGER DISTANCES, VERTICAL STRUCTURES OR HORIZONTAL INSTALLATIONS



depending on the distances.

#### DUOX PLUS allows you to push the boundaries of digital technology.

Thanks to the digitalisation of the system, it can now be used in all kinds of installations. The more complex the installation is, the more powerful DUOX PLUS will be. Regenerators and decoders are the only elements to be added for large installations or long distances.

#### **Regenerators and Decoders**



ref.3269



ref.3268

Regenerators and decoders take scalability to the next level. No installation, no matter how large, can resist DUOX PLUS.

#### REGENERATORS

It allows to regenerate and amplify the signal in both ways, as well as amplify distances and number of indoor terminals. Moreover, the connected sections to input and output protect against short-circuit, charge and signal reflections mutually. Maximum 5 units in cascade. Up to 99 if connected in parallel.

#### 2/W DUOX PLUS REGENERATOR 3269

It has 1 input and 2 outputs. By having 2 outputs (also isolated from each other) it enables the number of risers to be increased. Requires 24Vdc power supply without filter (ref. 4840). For more information: https://fermax.com/intl-en/documents

#### 1/W DUOX PLUS DUAL REGENERATOR 3268

It has 1 input and 1 output. As per factory default settings, electrical energy does not flow, but this can be configured via a dipswitch so that the data (which regenerates) as well as the power supply can pass through. That way there is no need to always install a power supply at the output. The number of devices that can be fed at the output without an additional power supply units will depend on the power that reaches the regenerator. For more information: https://fermax.com/intl-en/documents

	3269	3268
Number of inputs	1	1
Number of outputs	2	1
Regenerates	YES	YES
Isolates	YES	YES
Incorporates power supply filter	YES	NO
Additional conversation channel per riser	NO	YES
		(in multichannel mode)

#### DECODERS

#### 9419 10/W DUOX PLUS DECODER/ISOLATOR

10-outputs floor decoder. One output per home, allowing up to 3 terminals (monitors/telephones) per home. Multiple decoders can be installed on each floor. Each output allows to increase the diversion distances on a floor up to 100 m.

In the event of a malfunction (short circuit) of any of the decoder's outputs, both the input DUOX PLUS bus and the rest of the outputs will continue to operate normally. In addition, when a shortcircuit occurs on an output, the red LED associated with the output will light up, indicating the output on which the fault has occurred.

It is not necessary to enter a house to program the address of the terminal since the decoder includes a group of microswitches (dipswitches) to program the addresses of each of its outputs (sequential programming). Also, the decoder addresses can be programmed non-sequentially (open programming).

The decoder is powered directly from the DUOX PLUS bus. With DIN10 rail mounting and removable terminal strips for easy wiring and installation.

#### 4/W DUOX PLUS DECODER/ISOLATOR 9425

Same as ref. 9419 but this is a 4-outputs floor decoder (DIN4) and the terminal strips are not removable.

- WHEN IS IT RECOMMENDED TO INSTALL THE SMART DECODER?
- When we have to install more than 6 terminals per floor in the building.
- When the distance between the terminals and the riser is greater than 25 metres or when this distance is unknown.
  When different types of wires are mixed in the same installation or all the cables go to the same point.



ref.9419



ref.9425

#### ADDITIONAL FUNCTIONS

#### MORE SECURITY

Add IP cameras to monitor specific areas of the building

9454



#### IP/DUOX PLUS CAMERA INTERFACE

Allows the integration of IP video CCTV cameras into a DUOX PLUS installation. It transforms the IP video signal (standard RTSP) into a DUOX PLUS signal that is connected directly to the DUOX PLUS bus.

• Generally, one interface will be required for each camera installed in the DUOX PLUS installation. However, in the particular case of 2 cameras in the same block, up to 2 cameras can be configured on the same interface (in this case a PoE switch is required).

· Each camera will be powered externally with its additional power supply (ref. 9982+ref. 9984) or via a PoE switch.

• The interface is powered directly from the DUOX PLUS bus.

An outdoor panel can be associated to the interface, so that, while the IP camera is being viewed, it is possible to activate the opening of this panel.



#### **IP/DUOX PLUS INTERFACE+CAMERA KIT**

It includes the IP/DUOX PLUS camera interface (ref.9454) and the IP camera (ref.9985) already pre-configured for the most common case of an outdoor panel and an additional camera. It also includes the camera power supply (ref.9982) and its adapter (ref.9984).

1	-	
6	-	
8		

ref.9985



ref1586

9985	<b>PERIPHERAL IP DOME CAMERA</b> IP minidome camera (ceiling mount), 2MP resolution, 2.8mm fixed lens, IR LEDs, 30m range.
9982	<b>POWER SUPPLY PERIPHERAL CCTV CAMERA</b> Power supply for analogue or IP auxiliary cameras.
9984	<b>POWER ADAPTOR PERIPHERAL CCTV CAMERA</b> Power adapter, with a jack plug to connect the power supply to the camera.
1586	4 POE PORTS SWITCH

#### **MORE FUNCTIONS**

Activate a second gate, garden gate, or garage entrance door with DUOX PLUS relays that connect directly to the system bus, without additional wiring





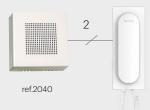
#### 3233 DUOX PLUS BASIC RELAY

Basic functions. Allows you to activate an additional function from F1 or F2 of the DUOX PLUS terminals, without additional wiring. The relay can also be activated by the call or by activating the lock release. It can be connected at any point of the bus.



#### DUOX PLUS RELAY MODULE

Advanced functions. Allows you to pair 2 relays, 1 as a transmitter and other as a receiver, to perform remote activations. An address can be programmed with the address assistance (001-999) using the DUOX PLUS Programmer ref. 3254 via the relay's telephone connector.



#### CALL ACCESSORIES

2040 ELECTRONIC CALL EXTENSION BELL



#### CABLES

5925 DUOX PLUS PARALLEL CABLE 2x1mm2

TESTER

#### 9404 DUOX PLUS TESTER



ref.9404

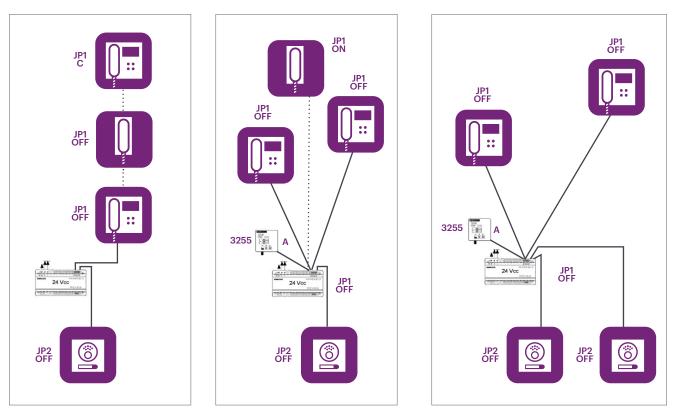
# The DUOX PLUS Tester is the ideal tool for the installer. It is used to assess the operation of each outdoor panel with the DUOX PLUS terminals in an installation, without the need to enter the apartments.

A test is initiated from a panel to one or more terminals and the operation of that panel with those terminals is checked.

This action is performed from a user interface on a web browser. From a mobile phone, tablet or computer we can connect to the installation through the WiFi generated by the TESTER DUOX PLUS.

### Video Kit Diagram

#### **KITS EXTENSIONS**

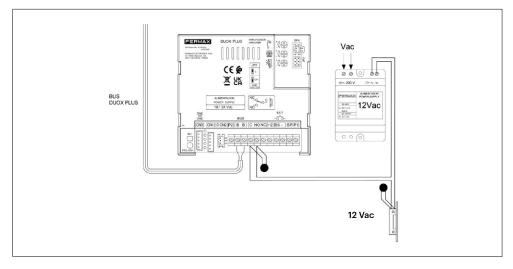


**INDOOR:** the kit allows a maximum of 3 terminals (the included one and 2 additional ones). Depending on the type of cable and distances, an additional power supply (ref.4825), line adaptor ref.3255 and/or regenerators might be required.

**OUTDOOR:** it is possible to extend the installation by adding more outdoor panels (up to 10). Depending on the type of cable and topology, it may be required an additional power supply (ref.4825), line adaptors ref.3255 and/or regenerators might be required.

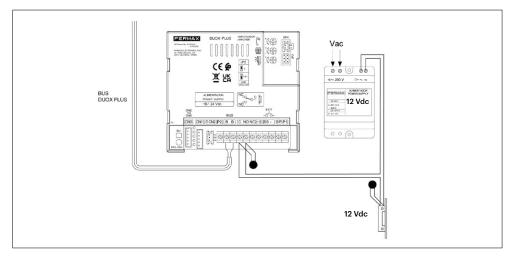
Possibility of adding an IP CAMERA/DUOX PLUS INTERFACE.

**IMPORTANT:** Remember to install the supplied protective varistors in the amplifier and in the opener. Failure to do so may result in damage to the amplifier due to current spikes during opening.

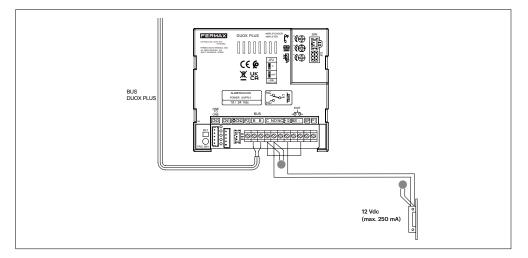


#### AC ELECTRIC LOCK RELEASE CONNECTION

AC ELECTRIC LOCK RELEASE CONNECTION (Consumption > 250mA)



DC ELECTRIC LOCK RELEASE CONNECTION (Consumption < 250 mA)



For more information about DUOX PLUS, see the technical books available at: https://fermax.com/intl-en/documents

SKYLINE		No. SERIES APA.	2 S4	4 S4	6 S5	8 S5	10 S6	12 S6	14 S7	16 S7	18 S8	20 S8	22 S9	24 S9	24 S5	26 S6	28 S6	30 S6	32 S6	32 S7	34 S7	36 S7	38 S7	
	FRAME 3V	ES ref. 7333	4	4	D	ß	g	G	7	7	8	8	6	6	ß	G	G	9	9	7	7	7	7	
	FLUSH BOX	ref. 8854	~	<del>~~</del>																				
	FRAME 4V	ref. 7334			~	~									2									
	AE FLUSH BOX	. ref. 4 8855			~	-									2									
·	ы П П	ref. 7335					~	~								7	7	7	7					
	FLUSH BOX	: ref. 15 8856					~	~								7	7	2	2					-
	н 6V	. ref. 6 7336							~	~										2	2	2	2	-
	FLUSH BOX	: ref. 6 8857							~	~										7		7	7	
	× ×	, ref. 7 7337									~	~												-
	FLUSH BOX	ref. 7 8858									~	~												
1	- <sup>4</sup>	ref. 7338											~	~										
	FLUSH BOX	ref. 1 8982											~	~										
Bi		ref. 2 8829													-	-	-	~	-	-	-	-	-	
O	JOINING CABLE BOLTS	ref. 9 2541													~	~	~	~	~	~	~	~	-	-
		ref. 73911	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	
l	E PUSH B	·	-		~		~		~		~		~			~		~			~		~	
00	UTTON	202 6 ref.737		-	-			~	~			~	~			7	~	~	7			~	~	
0000 0000	AODULES	201 202 204 ref.7376 ref.7372 ref.7371				~	~	~	~	2	7	7	7	ო	ო	2	ო	ო	ო	4	4	4	4	
	AMPUE: PUSH BUTTON MODULES BLANK MODULES	V ref.7442														~	~				-	-		
	ODULES	2V ref.7443																		~				
	POWER SUPPLY	ref. 4825	<del></del>	1	~	-	~	~	-	~	-	-	-	~	-	~	~	2	2	2	2	2	2	
12=E	LINE ADAPTOR	ref. 3255	2	2	2	2	2	2	2	2	2	7	2	2	2	2	2	2	2	2	2	2	2	
	REGENE RATOR	ref. 3268																	-	-	-	-	-	
	VEO MONIT. + CONNECT.	ref.9446 + ref.9447	5	4	9	œ	0	12	4	16	18	20	22	24	24	26	28	30	32	32	34	36	38	
	VEO-XS MON. + CONNECT.	ref.9449 + ref.9447	2	4	9	œ	0	12	4	16	18	20	22	24	24	26	28	30	32	32	34	36	38	

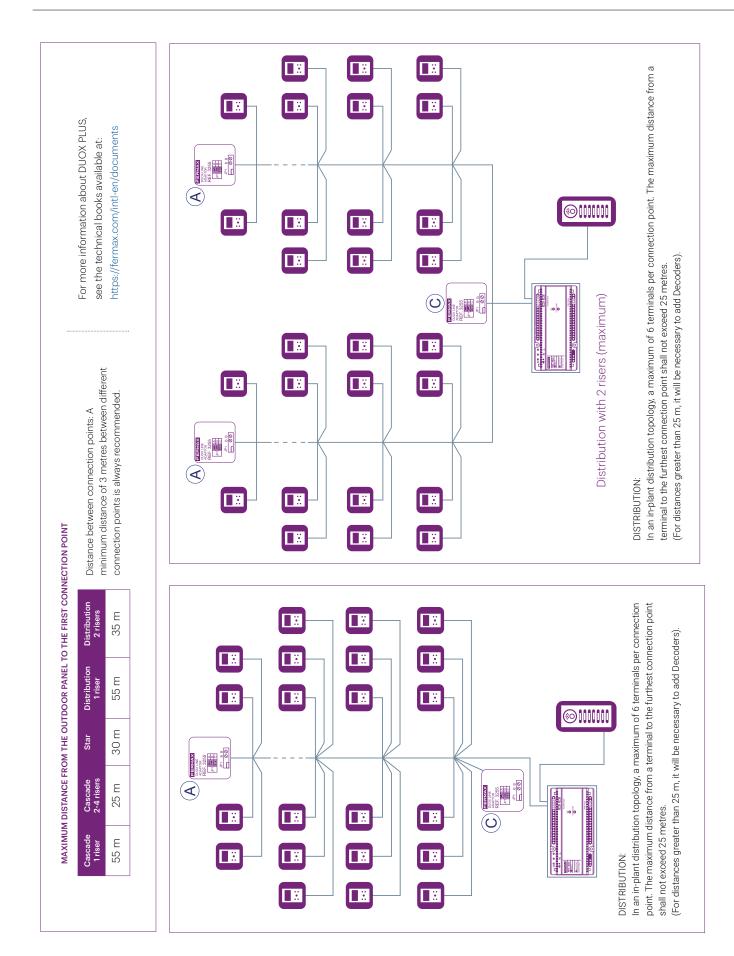
DUOX PLUS VIDEO. SKYLINE PANEL/VEO WIFI AND VEO-XS WIFI MONITOR

For installations where WiFi and NON-WiFi monitors are combined, in the consumption tables one WiFi monitor is equivalent to 3 NON-WiFi monitors. This table has been configured based on 1mm2 multi-wire parallel cable and floor distribution. For other situations please refer to the tables on page 50 of DUOX PLUS section in the 2023 General Catalogue.

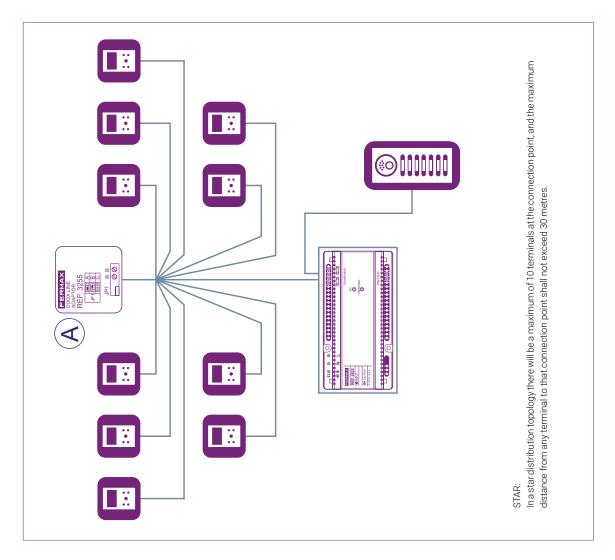
SKYLINE PANEL		12			1 1	12 20		12 20					<b>J</b> .	O		00 0 0	0000 0000 0000 000				12 <b>- 1</b> .		<b>_</b>	<b>**</b>
	FRAME 3V	FLUSH BOX	FRAME FLUSH 4V BOX		FRAME 5V	FLUSH FRAME BOX 6V	FRAME 6V	FLUSH FF BOX	FRAME FLI TV B	FLUSH FR. BOX 8	FRAME FLI 8V Bi	FLUSH JOI BOX BC	JOINING BOLTS		AMPLIF. MODULE	PUSH B MOD	PUSH BUTTON MODULES	BLANK MODULES		POWER SUPPLY + FILTER	LINE ADAPTOR	REGENE RATOR	VEO MONIT. + CONNECT	VEO-XS MON. + CONNECT
No. SERIES APA.	ref. 7333	ref. 8854	ref. 7334	ref. 8855	ref. 7335	ref. 8856	ref. 7336	ref. 8857 7	ref. r 7337 88	ref. r 8858 73	ref. r 7338 89	ref.   8982 8	ref. r 8829 2	ref. re 2541 73	ref. 21 73911 ref.7	201 202 ref.7376 ref.7372	02 204 7372 ref.73	. V 71 ref.7442	2V ref.7443	ref. 4825	ref. 3255	ref. 3268	ref.9445 + ref.9447	ref.9448 + ref.9447
2 S4	~	-												-		~				~	5		7	2
4 S4	~	~														-	_			~	7		4	4
6 S5			~	~										~		-				~	2		9	9
8 S5			~	~										~			~			~	7		œ	ω
10 S6					~	~								~		~	~			~	2		0	6
12 S6					~	~								~		~	~ 			~	2		12	12
14 S7							~	~						~		- -	~ _			~	7		4	4
16 S7							~	~						-			2			~	0		16	16
18 S8									~	<del>.</del>				-		-	2			~	7		18	18
20 S8									~	~				~		-	- 2			~	7		20	20
22 S9											~	~		~		~	1 2			~	2		22	22
24 S9											~	~		~			က			~	2		24	24
24 S5			2	2									~	-			က			~	2		24	24
26 S6					7	7							~	~		1	2	~		~	7		26	26
28 S6					7	2							<del>.                                    </del>	-		-	ς Γ	~		~	2		28	28
30 S6					7	7							<del>~</del>	-	1 1 1 1 1 1 1 1	-	ო _			~	2		30	30
32 S6					7	7							~	-		7	ς α			~	7	~	32	32
32 S7							7	7					~	-			4		~	-	7	~	32	32
34 S7							7	7					~	- -		<del></del>	4	~		-	2	~	34	34
36 S7							2	7					~	-		~	4	~		~	2	~	36	36
38 S7							7	2					~	-		-	4			~	7	-	38	38
40 S7							2	2					~	-			D			~	2	-	40	40

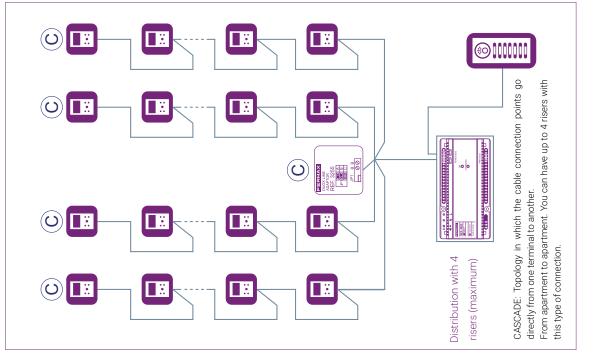
DUOX PLUS VIDEO. SKYLINE PANEL/VEO AND VEO-XS MONITOR

### Duox Plus Video Diagram











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