DUOXplus

It takes 2 to connect

FERMAX

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

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.

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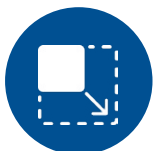The most powerful and fastest **2-wire** system to install and program

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**

DUOXplus

A system designed for the professional installer ...

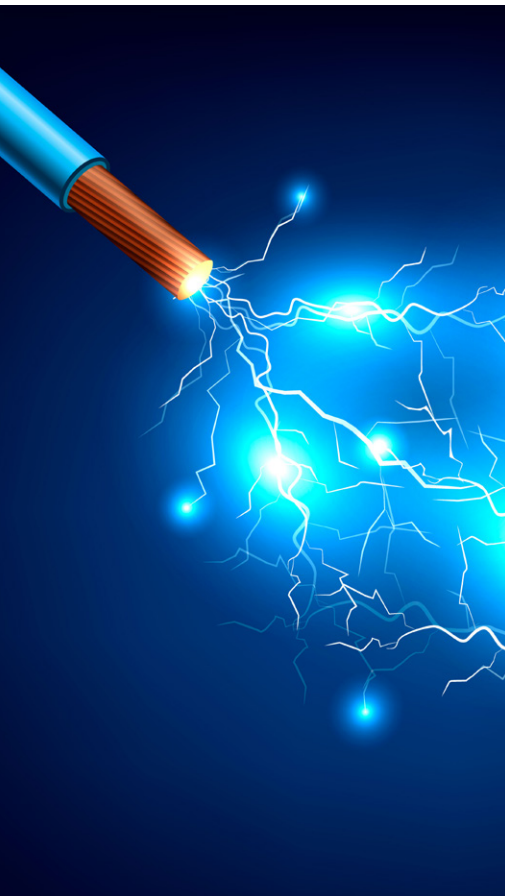## Wiring **flexibility**

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 non-polarised 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

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
DUOX plus

FERMAX

2 to
connect

Infinite possibilities

Fitted logo.
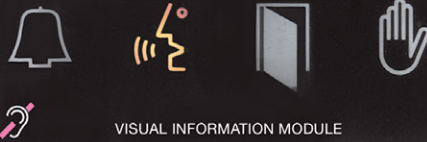Fastening screw to the panel

2W amplifier

Wide angle colour camera

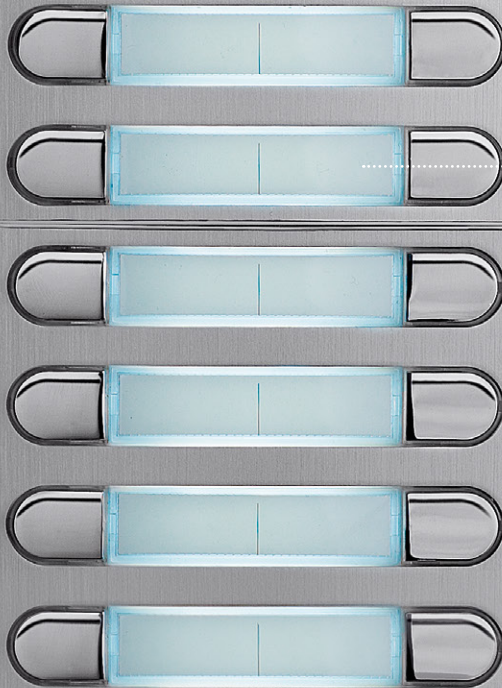One-To-One module. Visual information of the communication

With inductive loop to allow use by people with hearing aids

VISUAL INFORMATION MODULE

Back lit push button

Curved-convex aluminium profile

PROXIMITY ACCESS CONTROL

Proximity reader

Fastening screw

SKYLINE Panel

Modular panel.

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 (🔔).

IP65 IK09

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=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.

MARINE ELITE
Panel

- Special formats and dimensions.
- Available in all RAL colours.
- Laser logo or text marking. The engraving is only available on the panels in stainless steel colour.

Our differentiating proposal to make **your projects unique**

Colour

Composition

Size

Elite **Engraving**

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 (🔔).

All monitors are available in standard and WiFi models.

VEO
monitor

**4.3" (16:9) colour screen
With handset**

200x200x23 mm
(44 mm with handset)

VEO-XS
monitor

**4.3" (16:9) colour screen
Hands-free**
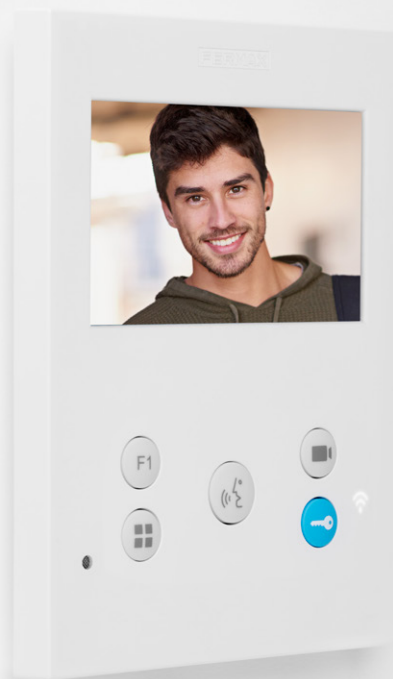
125x165x21 mm

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

185x185x21 mm

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.

DESVÍO DE LLAMADA A MÓVIL
CALL DIVERT TO MOBILE
APP BLUE GRATIS / FREE
Google Play
App Store

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 🔔.

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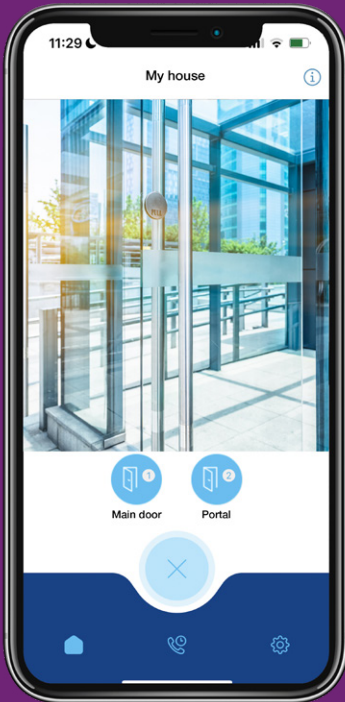
It allows to **see who is calling** before answering and **open a second auxiliary door.**

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.

Door opening without the keys
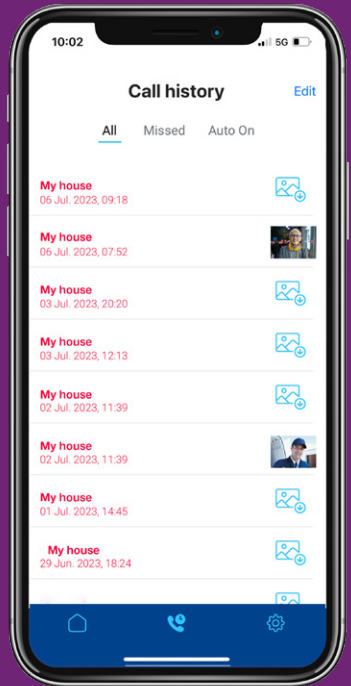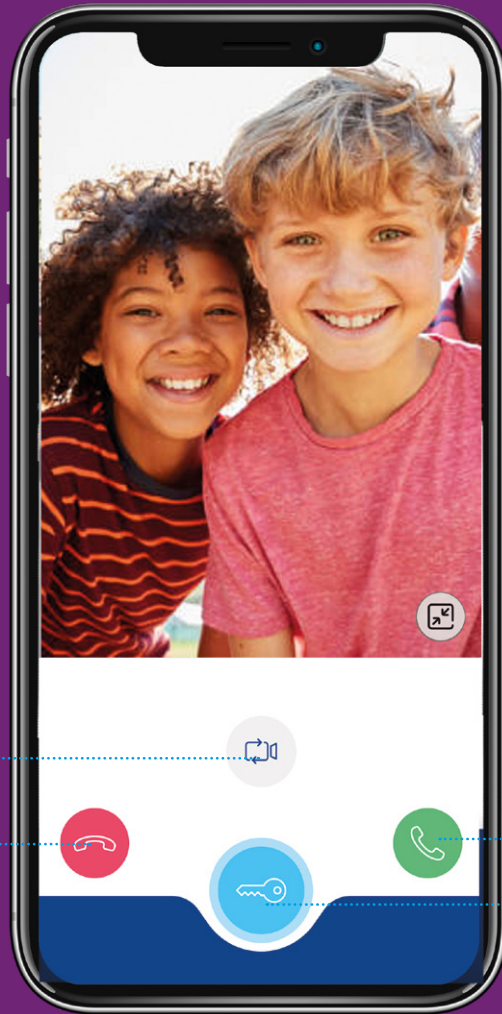
Image capture and call history

Change the camera

Hang up the call

Answer the call

Open the door

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

LOFT
by FERMAX
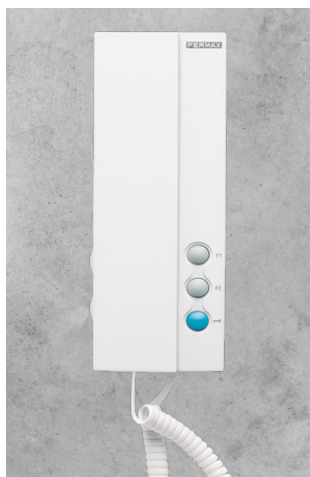
iLOFT
by FERMAX

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.

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, 2nd 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**

DUOXplus

FERMAX

Kits references

All the Fermax video kits are Plug & Play (they don't require programming).

PL²
Plug & Play

Video kits for residences and businesses

STANDARD SOLUTION

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

94511	1/W DUOX PLUS VEO-XS WiFi KIT
94521	2/W DUOX PLUS VEO-XS WiFi KIT
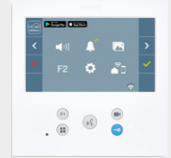
9471	1/W DUOX PLUS VEO-XL WiFi KIT
9472	2/W DUOX PLUS VEO-XL WiFi KIT

ACCESSIBILITY FOR ALL

49081   1/W DUOX PLUS ONE-TO-ONE
VEO WiFi KIT
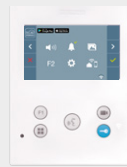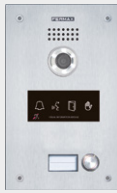
50781   1/W DUOX PLUS MARINE ONE-TO-ONE
VEO-XS WiFi KIT

WITH VANDAL-PROOF PANEL MADE IN STAINLESS STEEL

50731   1/W DUOX PLUS MARINE
VEO-XS WiFi KIT
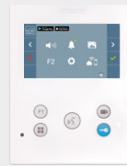
50831   1/W DUOX PLUS MARINE BLACK
VEO-XS WiFi KIT

KITS WITH WiFi MONITOR AT THE SAME PRICE AS STANDARD KITS!

WITH KEYPAD ACCESS CODE

49071   1/W DUOX PLUS MEMOVISION
VEO WiFi KIT

49121   1/W DUOX PLUS MEMOVISION
VEO-XS WiFi KIT
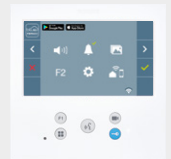
49171   1/W DUOX PLUS MEMOVISION
VEO-XL WIFI KIT

Audio kits

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

50772   1/W DUOX PLUS AUDIO
CITY iLOFT KIT
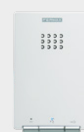
50762   1/W DUOX PLUS AUDIO
MARINE iLOFT KIT

49132   1/W DUOX PLUS AUDIO
MEMOPHONE CITY VEO KIT

Outdoor panels and accessories references

Skyline Panels

FRAMES

ref.7341	ref.7332	ref.7333	ref.7334	ref.7335	ref.7336	ref.7337	ref.7338	ref.7339
1V Series 1	2V Series 2	3V Series 4	4V Series 5	5V Series 6	6V Series 7	7V Series 8	8V Series 9	9V Series 10
130x128	130x151	130x199	130x246	130x294	130x341	130x389	130x436,5	130x486

VIDEO

ref.73911
Vídeo W

ref.73902
Audio W

DOUBLE PUSH BUTTONS

ref.7371
8 PUSH. 2x4 W

ref.7372
4 PUSH. 2x2 V

ref.7376
2 PUSH. 2x1 V

SIMPLE PUSH BUTTONS

ref.7367
4 PUSH. 1x4 W

ref.7368
2 PUSH. 1x2 V

ref.7375
1 PUSH. 1x1 V

INFORMATIVE MODULES

ref.7445
Panoramic
cardholder W

ref.7444
Panoramic
cardholder V

ref.7448
One-To-One V

ref.7452
One-To-One V
w/inductive loop

ACCESS CONTROL

ref.7438
Memokey
keypad W

ref.7440
Proximity
reader V

DIGITAL MODULES

DIRECT PANEL

DIGITAL PANEL

ref.7439
Direct keypad W

ref.7470
Graphic display W

+

ref.7457
Digital keypad W

ACCESSORIES

ref.7443
Metallic complement W

ref.7442
Metallic complement V

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

Outdoor panels and accessories references

Skyline / Cityline panel

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

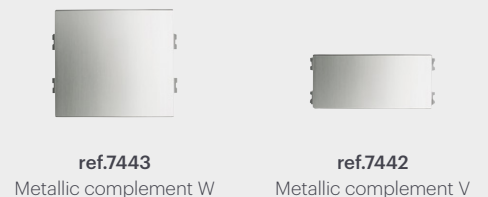* To make DOUBLE modular frames, add to the SINGLE frame a DOUBLE PANEL MODULAR FRAME KIT (ref.9200). Horizontal: 341mm.
* To make TRIPLE modular frames, add to the SINGLE frame a TRIPLE PANEL MODULAR FRAME KIT (ref.9201). Horizontal: 471mm.

If the configuration requires more than one panel
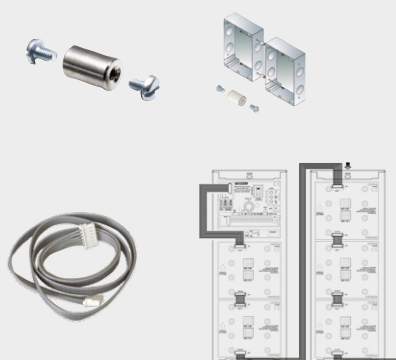
8829   JOINING BOLTS SET

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

ref.44438
1 Push button

ref.44338
1 Push button

ref.44348
2 Push buttons

Dimensions: 150x180mm

ref.55261   ref.5471

Dimensions: 150x360mm

ref.55281

Dimensions: 150x420mm

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 BOX	SURFACE BOX (with hood)	SIMPLE HOOD (for flush box)
ST1	ref.4641 130x160x55	ref.4645 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	ref.4643 130x340x55	ref.4647 154x364x96	ref.4703
ST3+	ref.4653 130x400x55	ref.4654 154x423x96	ref.4655

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

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**

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.
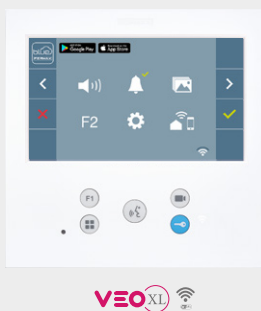
VEO, VEO-XS and VEO-XL WIFI monitors

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.

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.

ref.9447

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

VEO   LOFT   iLOFT

3444   DUOX PLUS VEO TELEPHONE
Dimensions: 82x214x43mm

3452   DUOX PLUS LOFT EXTRA TELEPHONE
Dimensions: 85x220x40mm

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

GUARD UNIT

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
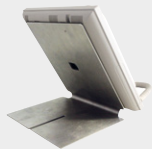
ref.9410   ref.9420

ref.5636   ref.3749

ref.3388   ref.3389

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. 120X240
3389   UNIVERSAL LARGE DECORATIVE FRAME. 210X240

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

3441   LOFT HANDSET WITH INDUCTIVE LOOP
3443   VEO HANDSET WITH INDUCTIVE LOOP

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

Installation devices

LESS COMPONENTS REQUIRED FOR INSTALLATION.
NO FLOOR DISTRIBUTORS. NO DECODERS. NO SWITCHERS
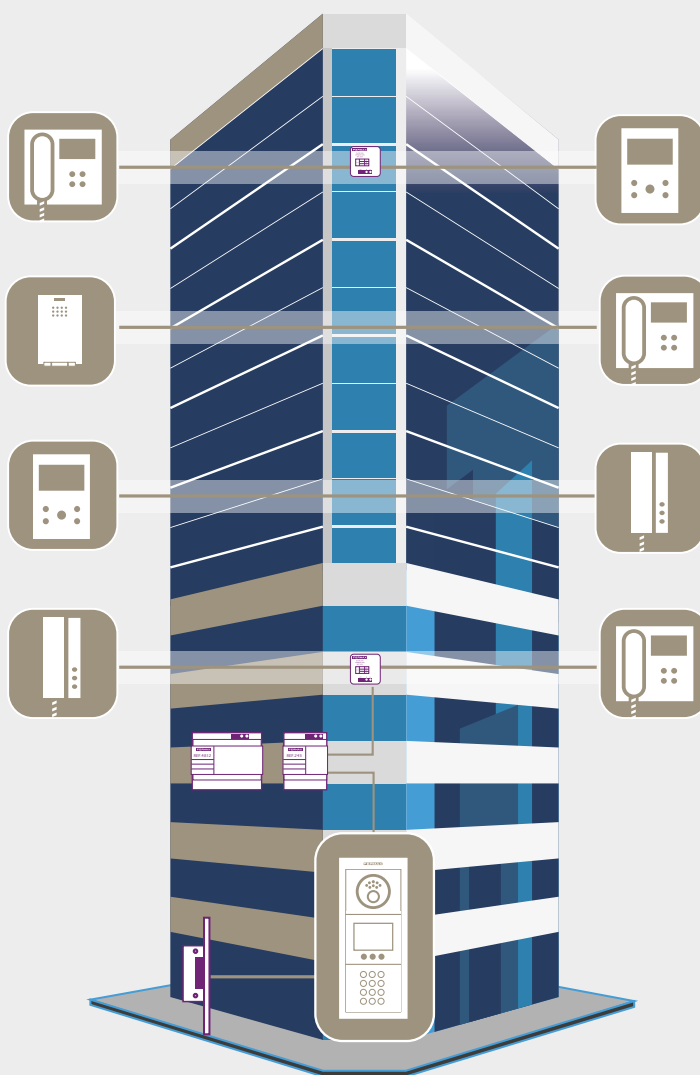
The only materials required are:

- 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.3255
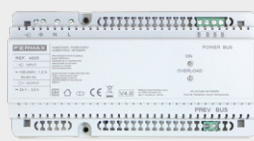
ref.4825

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
0.5mm²	40	38	30	24	24	18
0.2mm²	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
0.5mm²	32	28	22	20	18	14
0.2mm²	16	14	10	12	10	8

For specific cases

ref.4840

ref.3289

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.

ref.4802

ref.4800

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.

Installation devices

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

Simply add the required number of regenerators depending on the distances.
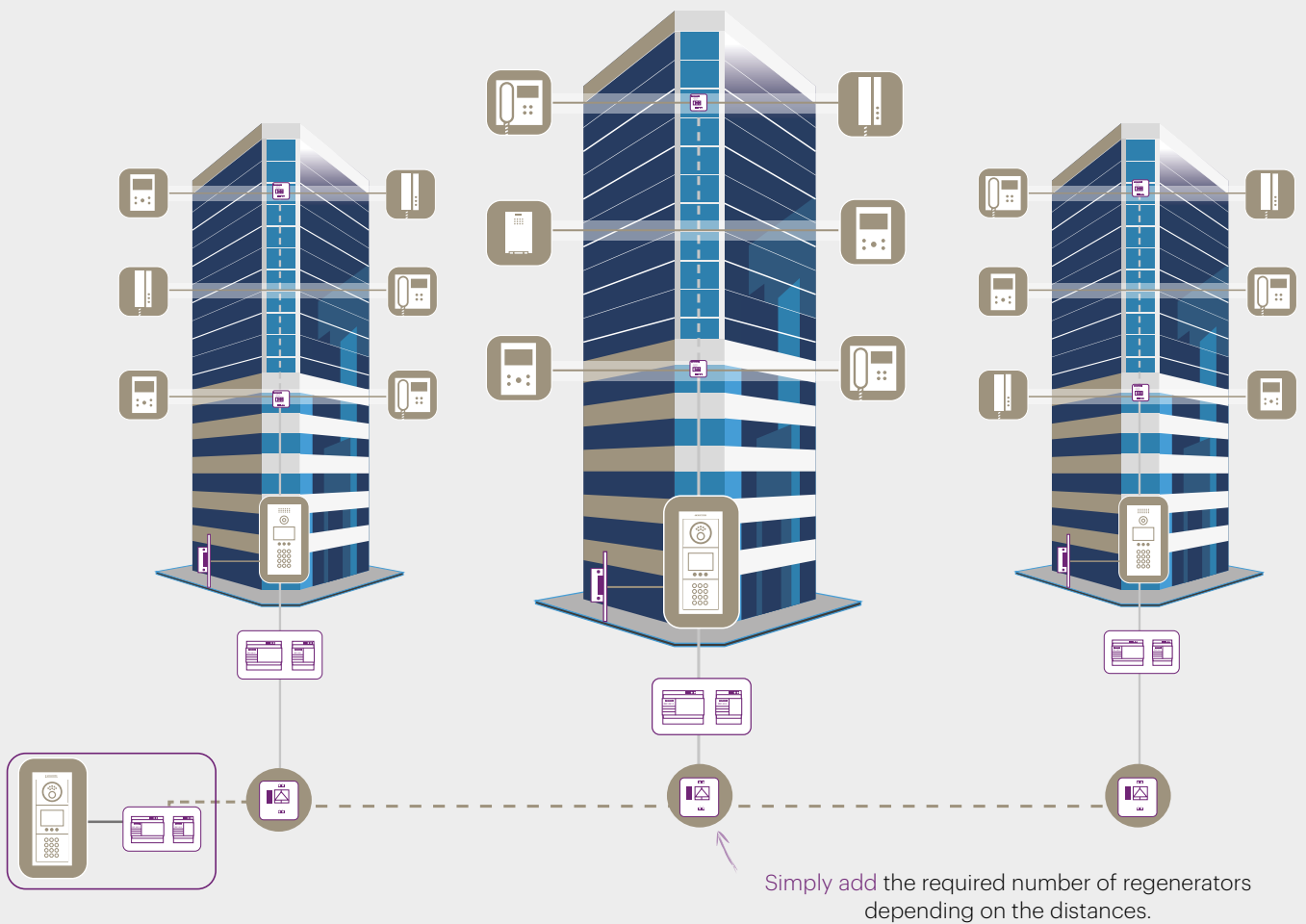
DUOX PLUS allows you to push the boundaries of digital technology.

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

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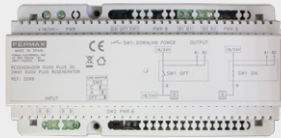
REGENERATORS

ref.3269

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.

3269   2/W DUOX PLUS REGENERATOR

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

ref.3268

3268   1/W DUOX PLUS DUAL REGENERATOR

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

ref.9419

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 short-circuit occurs on an output, the red LED associated with the output will light up, indicating the output on which the fault has occurred.

ref.9425

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.

9425   4/W DUOX PLUS DECODER/ISOLATOR

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.

Installation devices

ADDITIONAL FUNCTIONS

MORE SECURITY
Add IP cameras to monitor specific areas of the building

Bring security to all your installations!

ref.9454

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.

9453   **IP/DUOX PLUS INTERFACE+CAMERA KIT**

PL² Plug & Play

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).

ref.9985

ref.1586

9985   **PERIPHERAL IP DOME CAMERA**

IP minidome camera (ceiling mount), 2MP resolution, 2.8mm fixed lens, IR LEDs, 30m range.

9982   **POWER SUPPLY PERIPHERAL CCTV CAMERA**

Power supply for analogue or IP auxiliary cameras.

9984   **POWER ADAPTOR PERIPHERAL CCTV CAMERA**

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

ref.3233

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.

ref.3267

3267 **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.
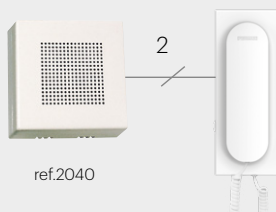
ref.2040

CALL ACCESSORIES

2040 **ELECTRONIC CALL EXTENSION BELL**

ref.5925

CABLES

5925 **DUOX PLUS PARALLEL CABLE 2x1mm2**

TESTER

ref.9404

9404 **DUOX PLUS TESTER**

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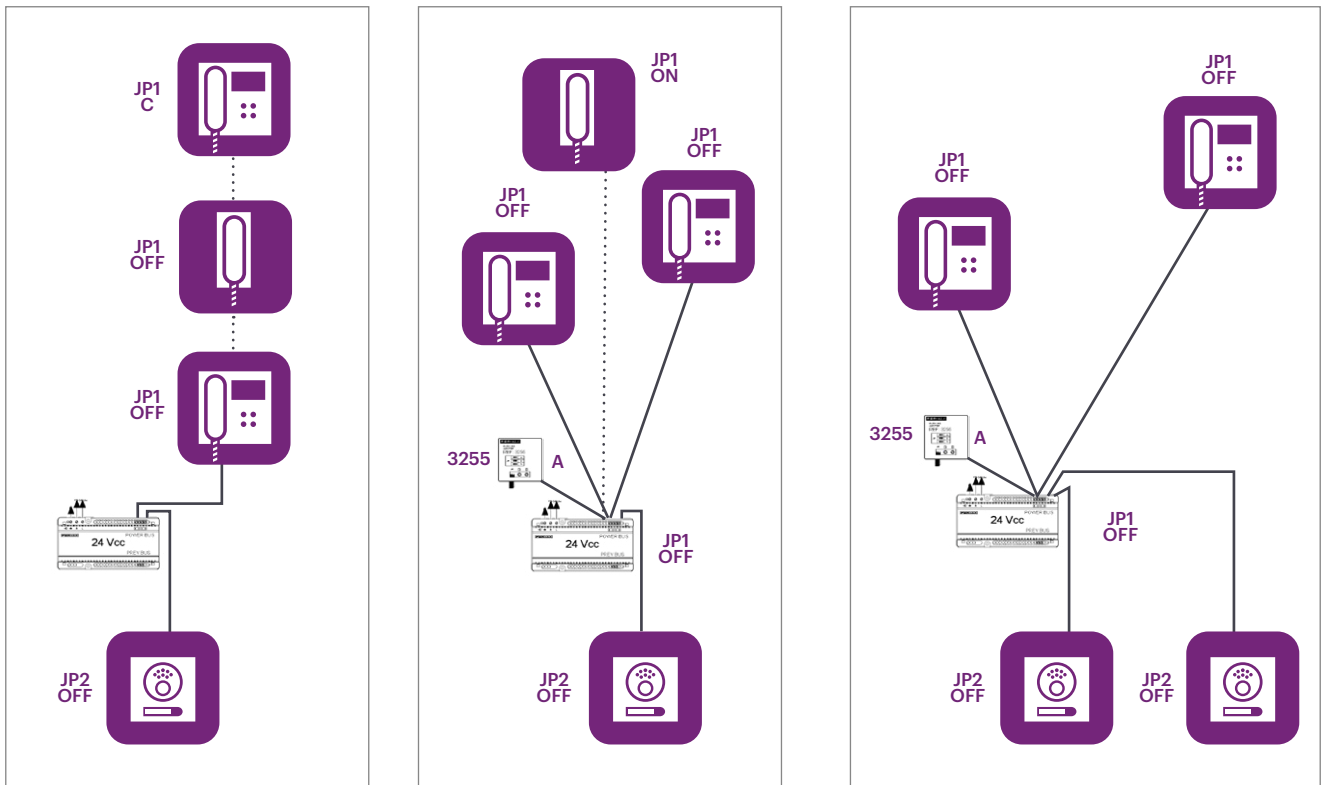
INDOOR: the kit allows a maximum of 3 terminals (the included one and 2 additional ones). Depending on the type of cable and distances, an additional power supply (ref.4825), line adaptor ref.3255 and/or regenerators might be required.

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
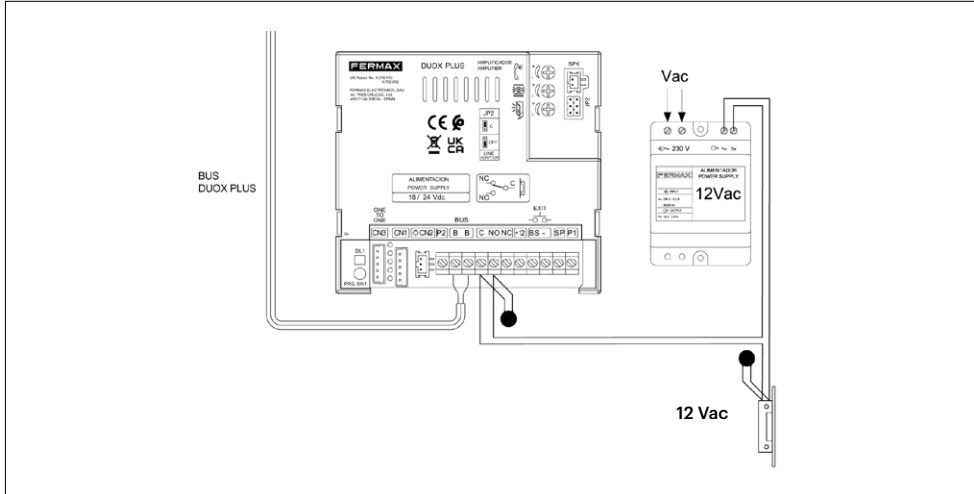
AC ELECTRIC LOCK RELEASE CONNECTION (Consumption > 250mA)
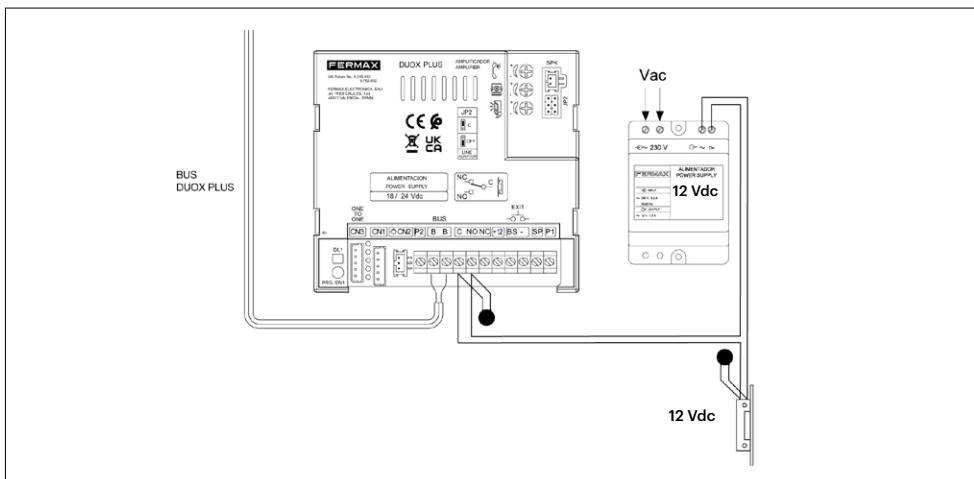
DC ELECTRIC LOCK RELEASE CONNECTION (Consumption < 250 mA)
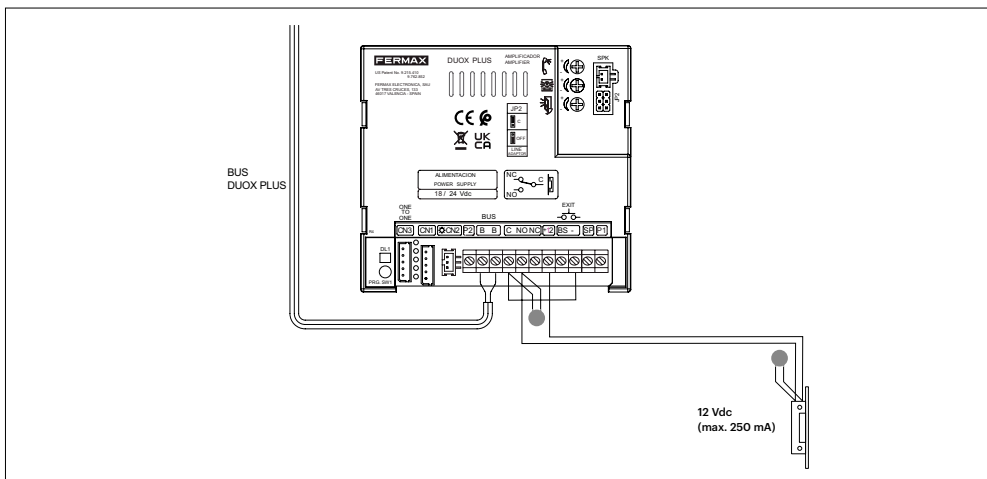
For more information about DUOX PLUS, see the technical books available at: https://fermax.com/intl-en/documents

Project material list with **Duox Plus WiFi Monitors**

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

No. APA.	SERIES	FRAME 3V ref.7333	FLUSH BOX ref.8854	FRAME 4V ref.7334	FLUSH BOX ref.8855	5V ref.7335	FLUSH BOX ref.8856	6V ref.7336	FLUSH BOX ref.8857	7V ref.7337	FLUSH BOX ref.8858	8V ref.7338	FLUSH BOX ref.8982	JOINING BOLTS ref.8829	CABLE ref.2541	AMPLIF. MODULE ref.73911	201 ref.7376	202 ref.7372	204 ref.7371	BLANK V ref.7442	BLANK 2V ref.7443	POWER SUPPLY ref.4825	LINE ADAPTOR ref.3255	REGENERATOR ref.3268	VEO MONIT. + CONNECT. ref.9446 + ref.9447	VEO-XS MON. + CONNECT. ref.9449 + ref.9447
2	S4	1	1													1	1					1	2		2	2
4	S4	1	1													1		1				1	2		4	4
6	S5			1	1											1		1				1	2		6	6
8	S5			1	1											1			1			1	2		8	8
10	S6					1	1									1			1			1	2		10	10
12	S6					1	1									1	1	1				1	2		12	12
14	S7							1	1							1	1	1	1			1	2		14	14
16	S7							1	1							1			2			1	2		16	16
18	S8									1	1				1	1			2			1	2		18	18
20	S8									1	1				1	1		1	2			1	2		20	20
22	S9											1	1		1	1		1	2			1	2		22	22
24	S9											1	1		1	1			3			1	2		24	24
24	S5			2										1	1	1			3			1	2		24	24
26	S6					2	2							1	1	1		2	2	1		1	2		26	26
28	S6					2	2							1	1	1		1	3	1		1	2		28	28
30	S6					2	2							1	1	1		1	3			2	2		30	30
32	S6					2	2							1	1	1		2	3			2	2		32	32
32	S7							2	2					1	1	1			4		1	2	2	1	32	32
34	S7							2	2					1	1	1	1		4	1		2	2	1	34	34
36	S7							2	2					1	1	1		1	4	1		2	2	1	36	36
38	S7							2	2					1	1	1		1	4			2	2	1	38	38
40	S7							2	2					1	1	1			5			2	2	1	40	40

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.

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

No. APA.	SERIES	FRAME 3V ref.7333	FLUSH BOX ref.8854	FRAME 4V ref.7334	FLUSH BOX ref.8855	FRAME 5V ref.7335	FLUSH BOX ref.8856	FRAME 6V ref.7336	FLUSH BOX ref.8857	FRAME 7V ref.7337	FLUSH BOX ref.8858	FRAME 8V ref.7338	FLUSH BOX ref.8982	JOINING BOLTS ref.8829	CABLE ref.2541	AMPLIF. MODULE ref.73911	PB 201 ref.7376	PB 202 ref.7372	PB 204 ref.7371	BLANK V ref.7442	BLANK 2V ref.7443	POWER SUPPLY + FILTER ref.4825	LINE ADAPTOR ref.3255	REGENE RATOR ref.3268	VEO MONIT. + CONNECT ref.9445 + ref.9447	VEO-XS MON. + CONNECT ref.9448 + ref.9447
2	S4	1	1													1	1					1	2		2	2
4	S4	1	1													1		1				1	2		4	4
6	S5			1	1											1	1	1				1	2		6	6
8	S5			1	1											1	1		1			1	2		8	8
10	S6					1	1									1	1		1			1	2		10	10
12	S6					1	1									1		1	1			1	2		12	12
14	S7							1	1							1	1	1	1			1	2		14	14
16	S7							1	1							1			2			1	2		16	16
18	S8									1	1					1	1		2			1	2		18	18
20	S8									1	1					1		1	2			1	2		20	20
22	S9											1	1			1		1	2			1	2		22	22
24	S9											1	1			1			3			1	2		24	24
24	S5			2	2									1	1	1	1		3			1	2		24	24
26	S6					2	2							1	1	1	1	2	2	1		1	2		26	26
28	S6					2	2							1	1	1	1	1	3	1		1	2		28	28
30	S6					2	2							1	1	1	1	1	3			1	2		30	30
32	S6					2	2							1	1	1		2	3		1	1	2	1	32	32
32	S7							2	2					1	1	1	1		4			1	2	1	32	32
34	S7							2	2					1	1	1	1	1	4	1		1	2	1	34	34
36	S7							2	2					1	1	1	1		4	1		1	2	1	36	36
38	S7							2	2					1	1	1	1	1	4			1	2	1	38	38
40	S7							2	2					1	1	1	1	1	5			1	2	1	40	40

This table has been configured assuming 1mm2 multi-core parallel cable and floor distribution. For other situations, see the tables on page 50 of DUOX PLUS section in the 2023 General Catalogue.

Duox Plus Video Diagram

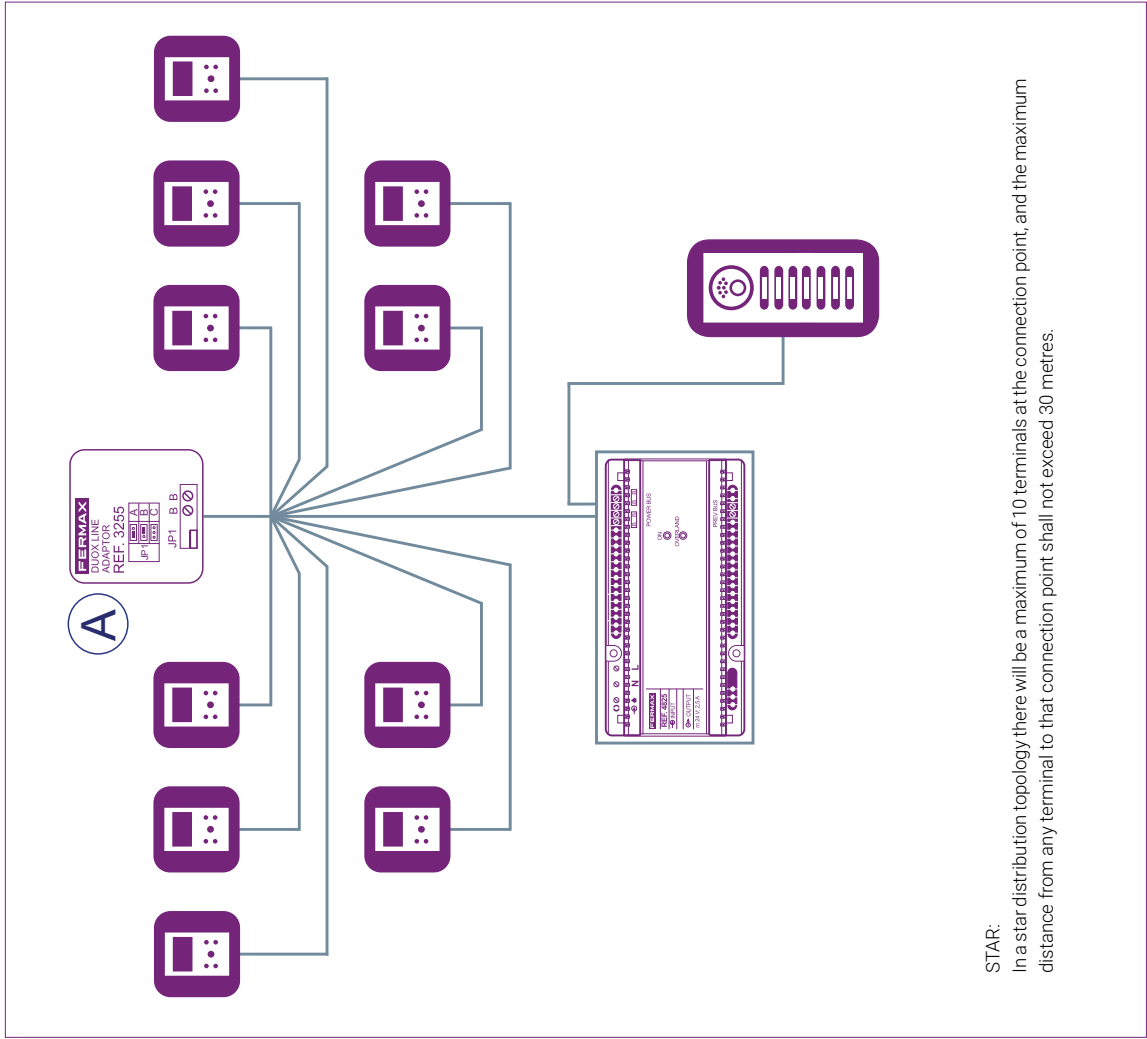**MAXIMUM DISTANCE FROM THE OUTDOOR PANEL TO THE FIRST CONNECTION POINT**

| Cascade 1 riser	Cascade 2-4 risers	Star	Distribution 1 riser	Distribution 2 risers
55 m	25 m	30 m	55 m	35 m

Distance between connection points: A minimum distance of 3 metres between different connection points is always recommended.

For more information about DUOX PLUS, see the technical books available at: https://fermax.com/intl-en/documents
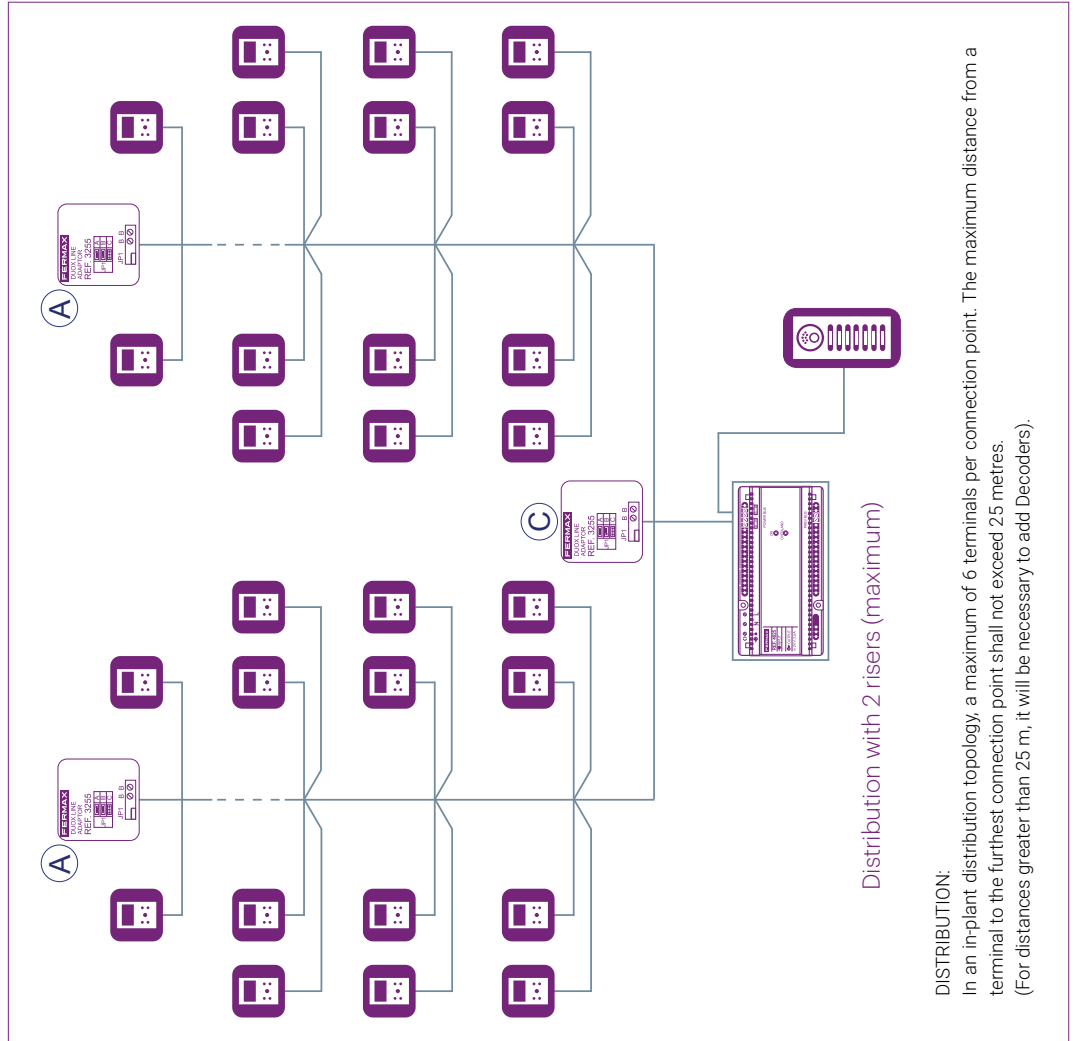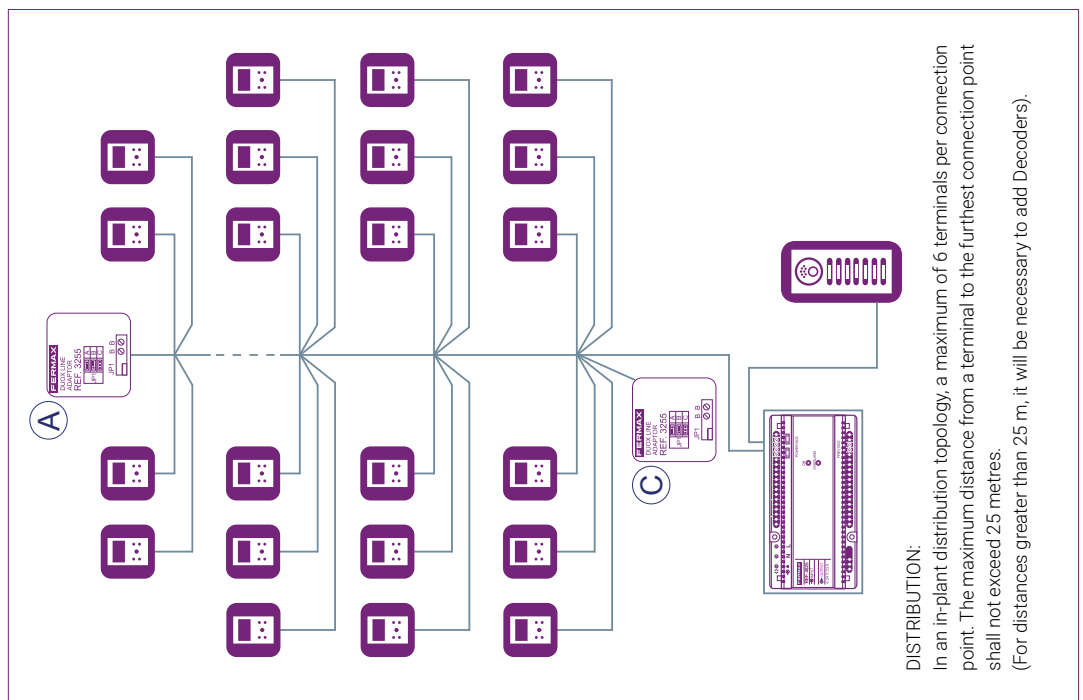
Distribution with 2 risers (maximum)

DISTRIBUTION:
In an in-plant distribution topology, a maximum of 6 terminals per connection point. The maximum distance from a terminal to the furthest connection point shall not exceed 25 metres.
(For distances greater than 25 m, it will be necessary to add Decoders).

DISTRIBUTION:
In an in-plant distribution topology, a maximum of 6 terminals per connection point. The maximum distance from a terminal to the furthest connection point shall not exceed 25 metres.
(For distances greater than 25 m, it will be necessary to add Decoders).

STAR:
In a star distribution topology there will be a maximum of 10 terminals at the connection point, and the maximum distance from any terminal to that connection point shall not exceed 30 metres.
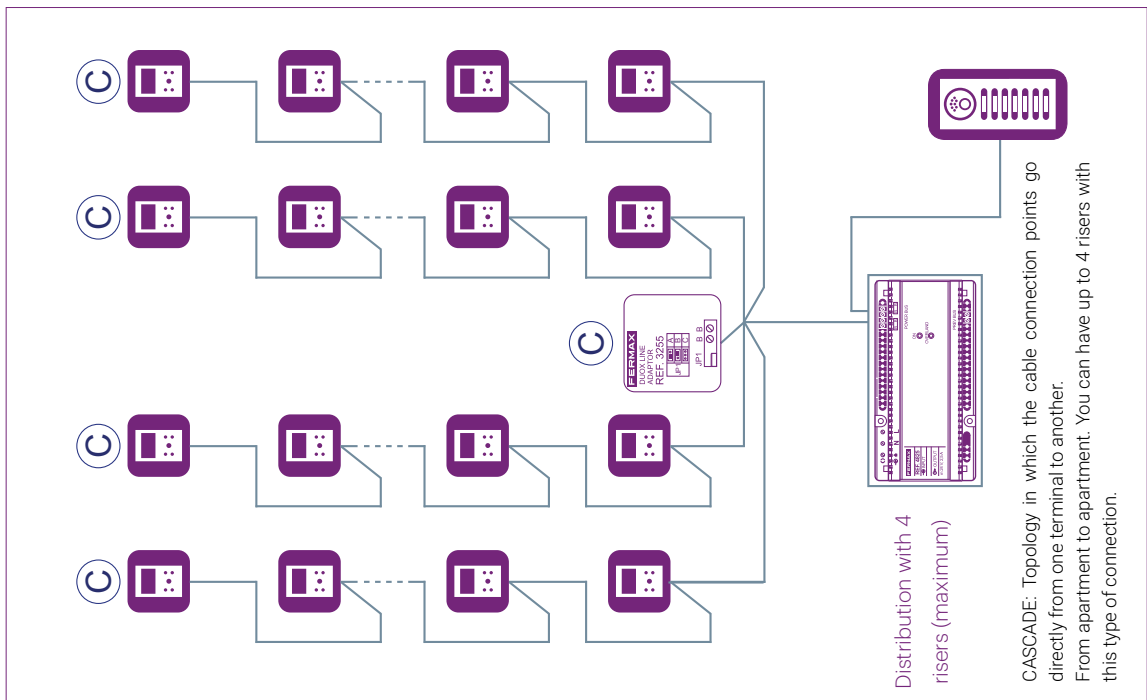
Distribution with 4 risers (maximum)

CASCADE: Topology in which the cable connection points go directly from one terminal to another.
From apartment to apartment. You can have up to 4 risers with this type of connection.

FERMAX

CONNECTIVITY FOR ALL