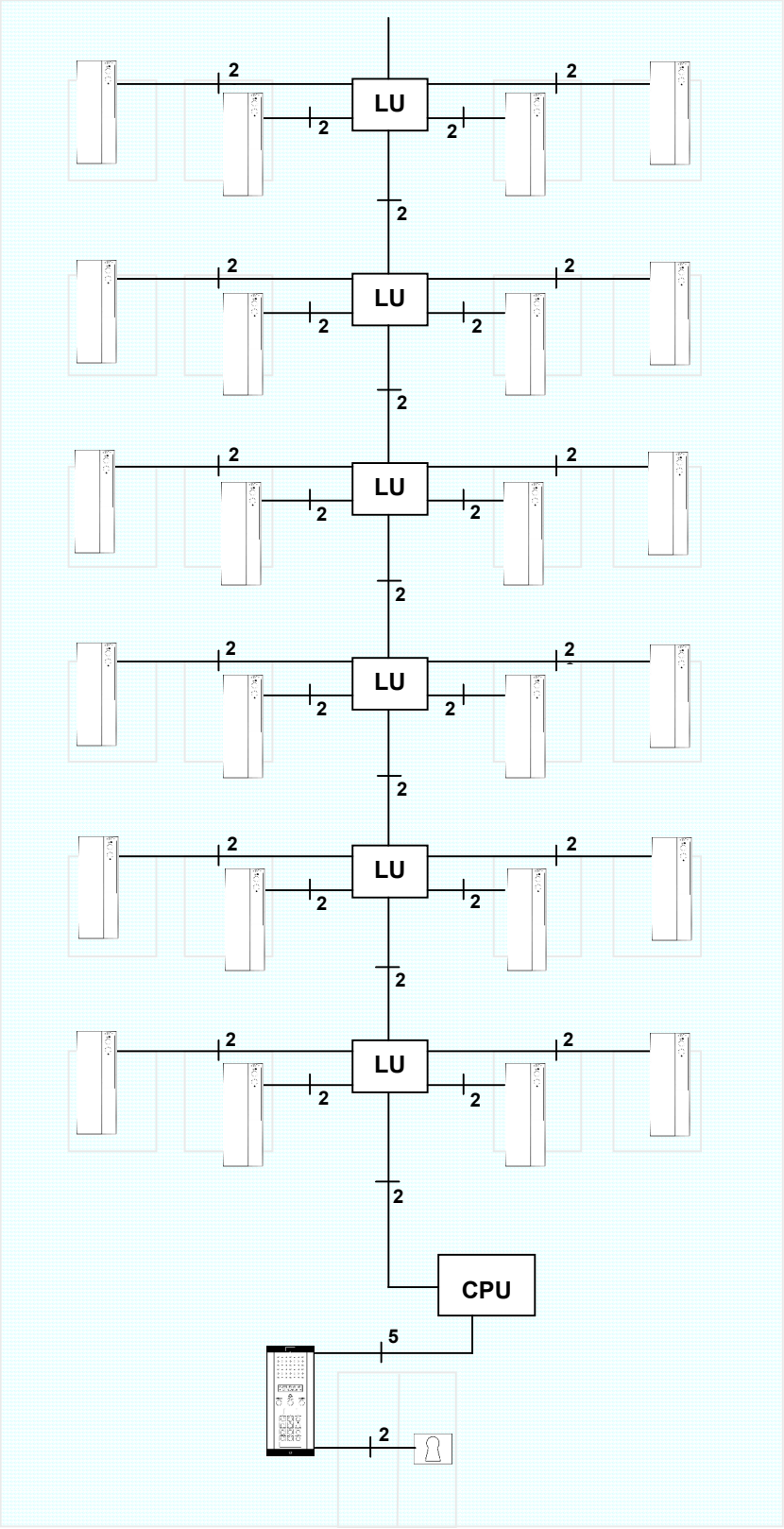
VX2200 SYSTEM CABLE GUIDE & BLOCK DIAGRAMS



BLOCK DIAGRAM MANUAL
EDITION 1.3

VIDEX
The Power to Secure

CONTENTS

Notes:

1. The Max. distance is the distance from furthest door panel to furthest telephone.
2. Door panels with the addition of coded access need no additional cores.
3. Push to exits and accessories are not shown.
4. It may be possible to use more than one block diagram to workout the cable requirements (i.e. for a system with concierge and proximity, combine a diagram with concierge and a diagram with proximity).

INTRODUCTION

The purpose of this guide is to help identify the best cable choice for the VX2200 system. Deciding the correct cable to use is a very important step in the design of any door entry system and can be complicated due to the number of different types of cable available and the number of different terminologies used to identify the cable sizes.

For convenience the following two tables cross reference some of the different sizes used by cable manufacturers and suppliers. The first table shows AWG (American Wire Gauge) along with its equivalent size in both mm diameter and mm². The second table shows SWG (Standard Wire Gauge) along with its equivalent mm diameter and mm²

AWG	mm Diameter	mm²
8	3.264 mm	8.35 mm²
9	2.906 mm	6.62 mm²
10	2.588 mm	5.27 mm²
11	2.304 mm	4.15 mm²
12	2.052 mm	3.31 mm²
13	1.829 mm	2.63 mm²
14	1.628 mm	2.08 mm²
15	1.450 mm	1.65 mm²
16	1.291 mm	1.31 mm²
17	1.150 mm	1.04 mm²
18	1.024 mm	0.823 mm²
19	0.9119 mm	0.653 mm²
20	0.8128 mm	0.519 mm²
21	0.7239 mm	0.412 mm²
22	0.6426 mm	0.325 mm²
23	0.5740 mm	0.259 mm²
24	0.5106 mm	0.205 mm²
25	0.4547 mm	0.16 mm²

SWG	mm Diameter	mm²
8	4.064 mm	12.97 mm²
9	3.658 mm	10.5 mm²
10	3.251 mm	8.3 mm²
11	2.946 mm	6.81 mm²
12	2.642 mm	5.48 mm²
13	2.337 mm	4.29 mm²
14	2.032 mm	3.24 mm²
15	1.829 mm	2.63 mm²
16	1.626 mm	2.08 mm²
17	1.422 mm	1.59 mm²
18	1.219 mm	1.17 mm²
19	1.016 mm	0.81 mm²
20	0.914 mm	0.66 mm²
21	0.813 mm	0.52 mm²
22	0.711 mm	0.4 mm²
23	0.610 mm	0.29 mm²
24	0.599 mm	0.28 mm²
25	0.5 mm	0.19 mm²

Note: All cables sizes should be the same throughout the full length of the system. When calculating the cable distance this should be taken from furthest point to furthest point (i.e. In most cases this will be the furthest door panel to the furthest handset on the system).

A popular cable type to use on short distances of no more than 40 metres would be CW1308 or an equivalent. CW1308 is a solid core twisted pair telephone cable readily available in a selection or pair quantities ranging from 2 pair up to 100 pair with a core size of 0.19mm² (0.5mm). CW1308 is an internal telephone cable. For external cable runs use CW1128 which has the same core size as CW1308 (CW1128 is available in duct grade and direct burial grade).

For larger distances an alternative to the above could be an equivalent to a Belden. These are available in a variety of sizes including 18 AWG (0.8mm²), 20 AWG (0.5mm²) 22 AWG (0.3mm²) and 24 AWG (0.2mm²). For large installations it may also be convenient to run a large bus and riser cable and then revert to CW1308 for the connections from riser to apartment.

The cable sizes and core quantities shown in this guide are minimum requirements only. It is quite acceptable to exceed these guides but to avoid unpredictable operation of the system it is important not to use cables of a smaller size. It is also worth noting that the VX2200 system uses a balanced pair video signal on video systems and so it is important to use a paired cable for these connections throughout the installation.

MINIMUM CABLE SIZES

ALL CABLE SIZES SHOWN ARE MINIMUM REQUIREMENTS

	Connections	50m	100m	200m	300m	400m	500m
	L	0.4mm²	0.5mm²	0.75mm²	1.0mm²	1.5mm²	2.5mm²
	-	0.4mm²	0.5mm²	0.75mm²	1.0mm²	1.5mm²	2.5mm²
*	V1	0.35mm²	0.5mm²	0.75mm²	1.0mm²	1.5mm²	2.0mm²
*	V2	0.35mm²	0.5mm²	0.75mm²	1.0mm²	1.5mm²	2.0mm²
*	+20 (I)	0.5mm²	0.75mm²	1.0mm²	1.5mm²	2.0mm²	
*	Vid Gnd (F1)	0.5mm²	0.75mm²	1.0mm²	1.5mm²	2.0mm²	
**	+LED	0.25mm²	0.35mm²	0. 5mm²	0.75mm²	1.0mm²	1.5mm²
	+12V	0.5mm²	0.75mm²	1.0mm²	1.5mm²	2.0mm²	2.5mm²
	GND	0.5mm²	0.75mm²	1.0mm²	1.5mm²	2.0mm²	2.5mm²
	All others	0.25mm²	0.35mm²	0. 5mm²	0.75mm²	1.0mm²	1.5mm²

Lines * are only required on video systems
Lines ** are only required on telephones with door monitoiring LED (Art. 3176, 3376 * 3476)
V1 & V2 MUST BE A TWISTED PAIR.
Maximum acceptable resistance for all terminals except +20 & Vid GND = 7.5Ω and for +20 & Vid Gnd = 5Ω
Maximum of 400m for video systems.
Power supply should be as close to door panel as possible and a maximum resistance of 5Ω.

POPULAR CABLE TYPES

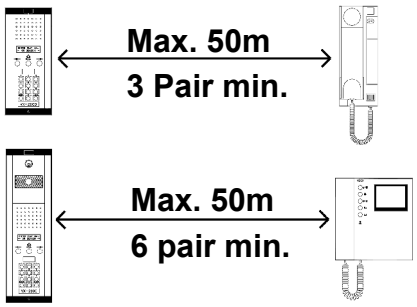
Consult other sections of this manual to find the number of cores required on your system.

Resistance/km (@20°C) **97.8Ω**
Core size & type **0.2mm²**

Notes: Available in several pair quantities from 1 pair through to 100 pair.

Use on short distance systems only.

Recommend a 3 pair for audio systems and a 6 pair for video systems to allow doubling up on power carrying cores.

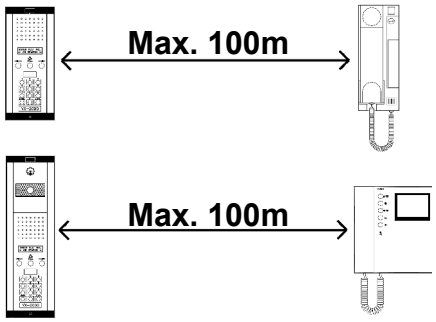


Resistance/km (@20°C) **55Ω**
Core size & type **0.325mm²**

Notes: A twisted pair cable available in several pair quantities.

Available from several manufacturers/suppliers.

Doubling up on CW1308 would give a similar resistance (We would recommend using 3 cores for power carrying connections).

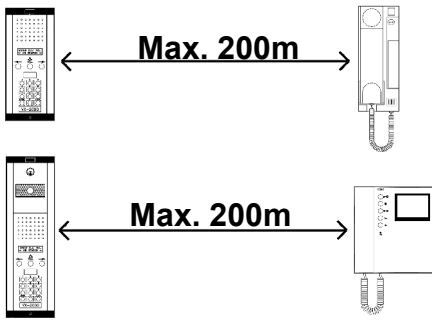


Resistance/km(@20°C) **33Ω**
Core size & type **0.5mm²**

Notes: A twisted pair cable available in several pair quantities.

Available from several manufacturers/suppliers.

3 CW1308 cores would give a similar resistance (We would recommend using 4 cores for power carrying connections).

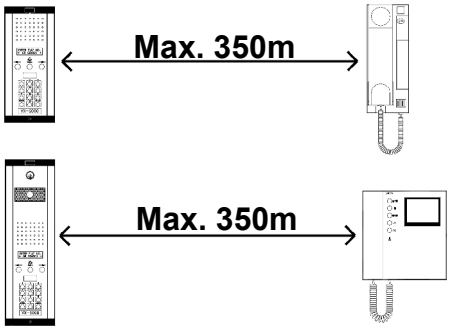


Resistance/km(@20°C) **19Ω**
Core size & type **0.8mm²**

Notes: A twisted pair cable available in several pair quantities.

Available from several manufacturers/suppliers.

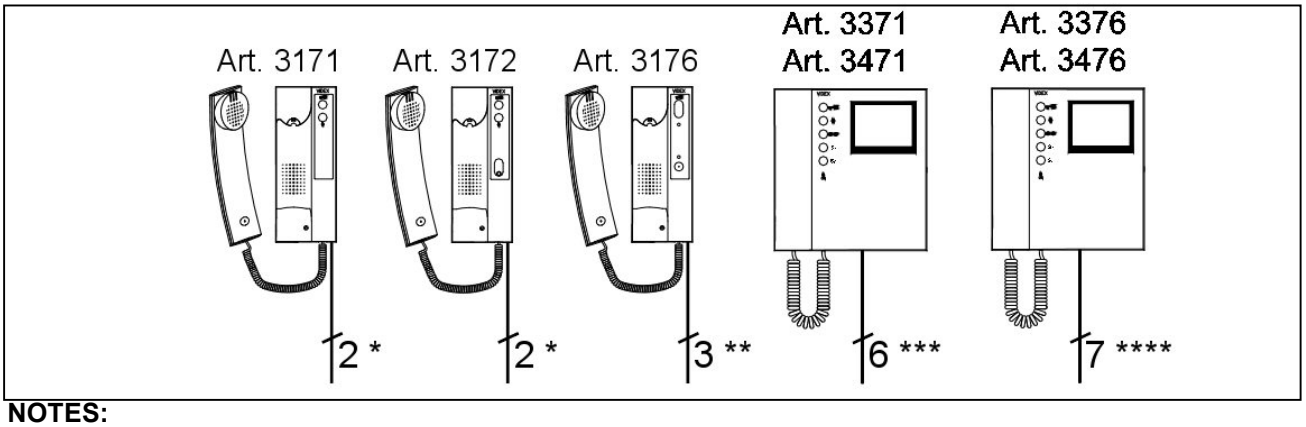
4 CW1308 cores would give a similar resistance (We would recommend using 5 cores for power carrying connections).



For larger distances please consult the table on the previous page (MAXIMUM ACCEPTABLE RESISTANCE OF BUS = 7.5Ω).

DOUBLING UP A CORE IS PERMITTED TO ALLOW A SMALLER CORE TO BE USED OVER A LARGER DISTANCE BUT AVOID USING MORE THAN 3 CORES PER CONNECTION on the L&- BUS BECAUSE THIS CAN INCREASE THE CAPACITANCE OF THE CABLE.

TELEPHONE CONNECTIONS



NOTES:

*****

An additional two cores are required if the spare service dry contact button is to be used.
Another two cores are required if the local door panel facility is to be used (These two core will only run back to the local door bell push button).

******

An additional two cores are required if the local door panel facility is to be used (These two core will only run back to the local door bell push button).

****

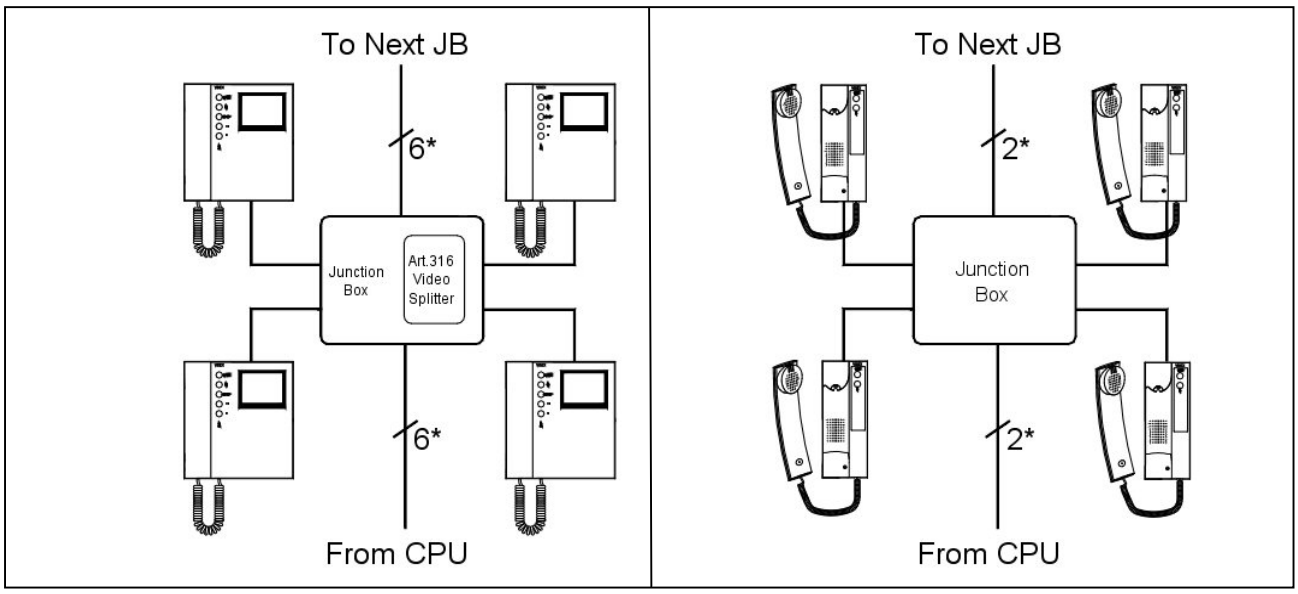
Out of the six cores, two must be a twisted pair (V1 & V2 which are the video signal pair).
Additional cores will be required if the three spare service buttons ● ●, S1, S2 are used.

Another two cores are required if the local door panel facility is to be used (These two core will only run back to the local door bell push button).

****

Out of the seven cores, two must be a twisted pair (V1 & V2 which are the video signal pair).
Additional cores will be required if the two spare service buttons ● ●, S1 are used.

RISER CONNECTIONS



*****

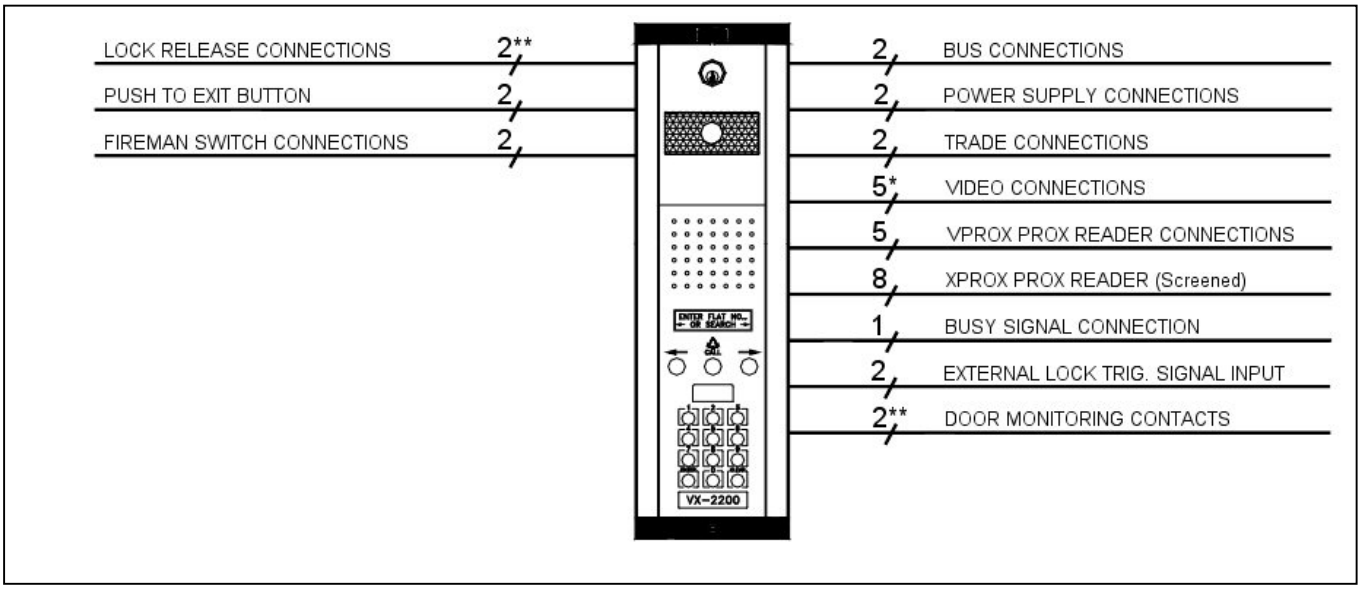
Remember to add any additional wires required as indicated in the 'Telephone Connections' section above (i.e. For 3176 audio phones the riser cable will be a minimum of 3 cores and for 3376 videophones the riser cable will be a minimum of 7 cores). Also ensure the cores are the correct size as indicated in the cable size chart.

DOOR PANEL CONNECTIONS

Not all the cables shown below will be required for every installation. Cables that will be required in every installation are the bus connections and the power supply connections. The busy connection will only be required on multiple door systems. The rest are self explanatory.

The cables shown coming from the right of the door panel will all run back to the CPU. The cables shown coming from the left of the panel are local to that door.

Note: The panel shown is only for example. Your chosen panel may differ from the style shown but will have the same cable requirements.



NOTES:

* Out of the five cores, two must be a twisted pair (V1 & V2 which are the video signal pair).

** Two additional cores are required to the lock release if door monitoring is used.

1. Bus connections are always required.
2. Power supply connections are always required.
3. Trade connections are only required when a trade button is to be used.
4. Video connections are only required on video systems (Cables shown are for non-coax video).
5. Vprox or Xprox prox reader connections are only required when proximity access control are included on the door panel (The Xprox reader cables must be screened).
6. Busy signal connection is only required on multiple door and two level systems.
7. External lock trigger signal input is required when an external source is used to trigger the lock output on the door panel. (For example, in conjunction with a proximity access control system).
8. Lock release connections may be different if used in conjunction with a proximity access control system (i.e. the lock release connected directly to the proximity system).

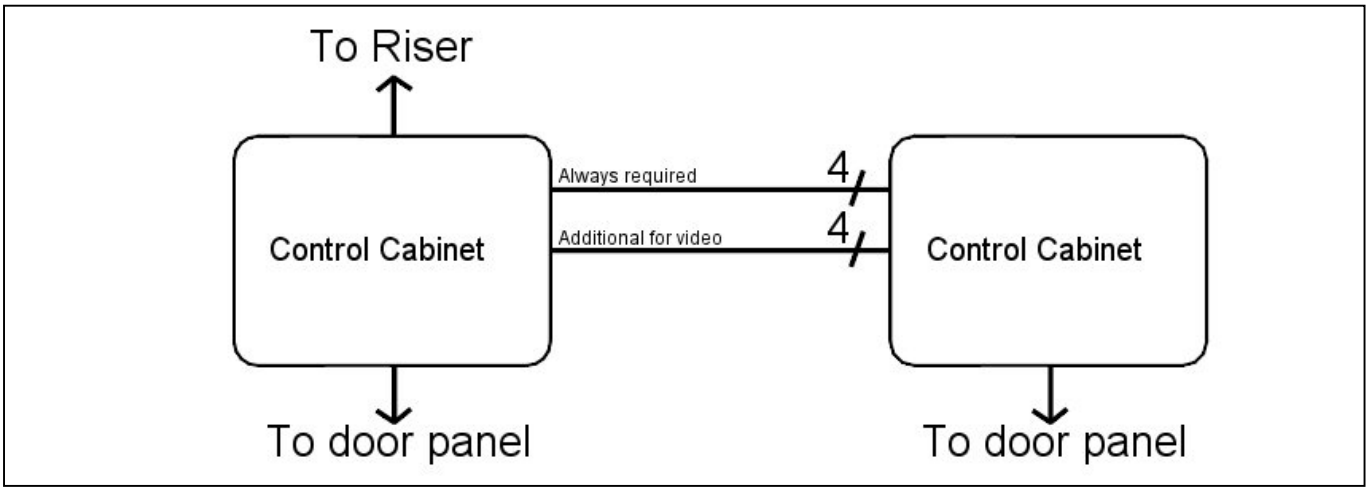
CONTROL CABINET CONNECTIONS

NOTE: The control cabinet should be no more the 30m from the door panel.

The system requirements may only require a single control cabinet to control one or more entrances or may require a cabinet for each entrance. In some cases it may be possible to mount multiple cabinets together and in other situations it may be necessary to have the cabinets remote from one another (For example, when distances between door panels is greater than 30m). The notes below should help decide the configuration required.

1. **Single entrance audio system:-** A single control cabinet (SP400) can be used.
2. **2 – 4 entrance audio system:-** A single control cabinet (SP405) can be used if the entrances are within 30m of the control cabinet otherwise use multiple (SP400) control cabinets.
3. **Audio systems with more than four entrances:-** Use multiple (SP400, SP405) cabinets as required.
4. **Single entrance video system:-** A single control cabinet (SP410) can be used.
5. **2 - 4 entrance video system with door panels less than 30 meters from control cabinet:-** A single four entrance video control cabinet (SP415) can be used.
6. **2 or more entrance video system with door panels more than 30 meters apart:-** A single entrance video control cabinet can be used for each entrance (SP410). Two Art.506 relays will be required for each cabinet to switch the video power and signal.
7. **Two level system (Audio or video):-** A two level system means a system with communal entrances and block entrances. We suggest using a minimum of a control cabinet per block and a control cabinet(s) for communal entrances following the rules above.

LINKS BETWEEN CONTROL CABINETS:-

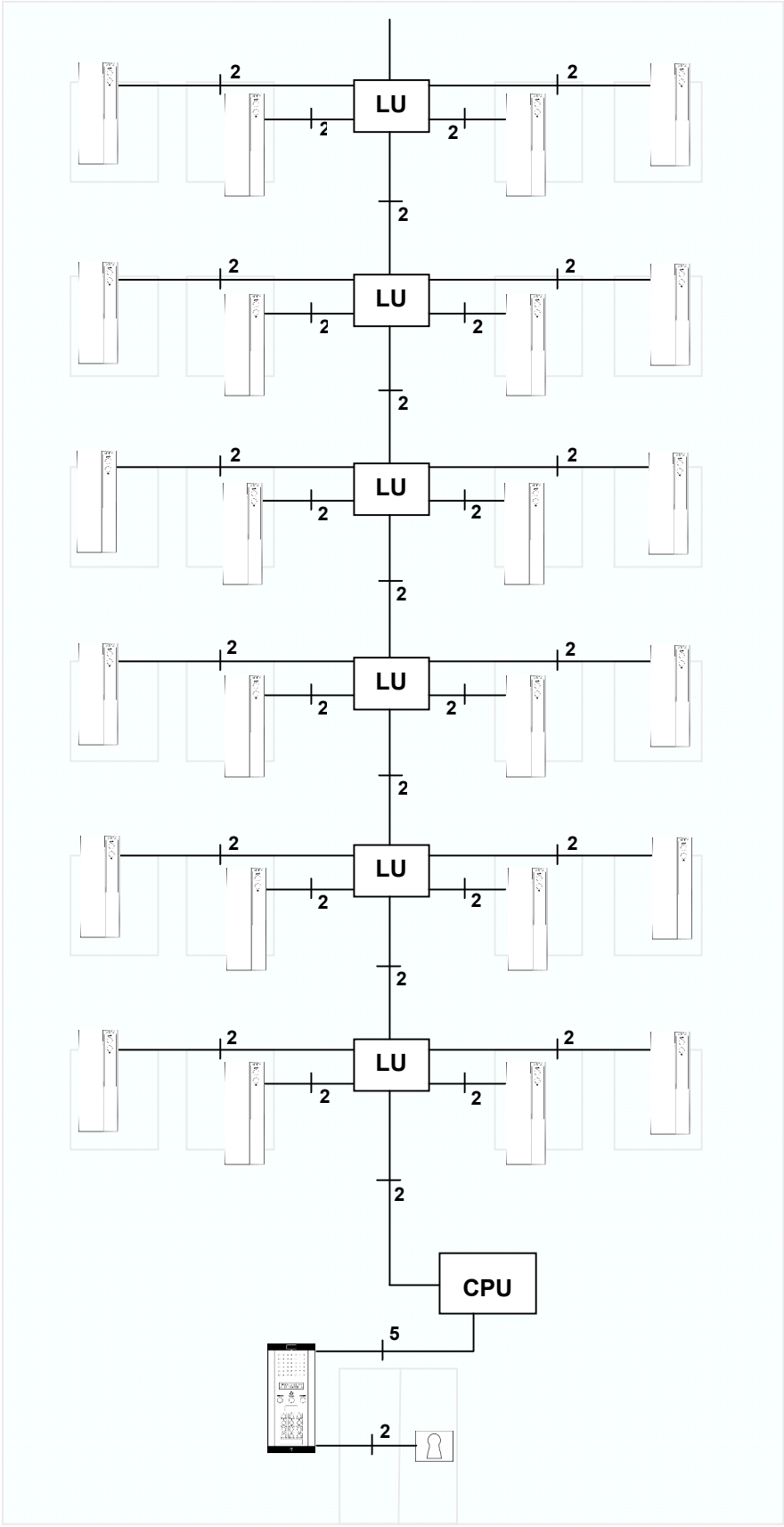


The cables shown in the diagram above are a minimum requirement. Additional cables may be required for proximity access control, door monitoring etc.

Also see block diagrams section for more examples of cable requirements.

VX2200 Block Diagram

1 Audio entrance to multiple apartments using Art.3171 or Art.3172 telephones



Product Key

- **Art.3171 or Art.3172 Telephones**
- **LU** — **4 way junction box Landing Unit**
- **CPU** — **SP400 control cabinet**
- **VX2200 digital or functional door panel**
- **12Vdc fail secure or fail open lock release**

Min. cable requirements

Max. distance 100m

2 — 1 Pair
AWG22 (0.325mm²)
Resistance/km 54Ω

5 — 6 Pair
AWG20 (0.325mm²)
Resistance/km 54Ω

Max. distance 200m

2 — 1 Pair
AWG20 (0.5mm²)
Resistance/km 33Ω

5 — 6 Pair
AWG20 (0.5mm²)
Resistance/km 32.8Ω

Max. distance 350m

2 — 1 Pair
AWG20 (0.8mm²)
Resistance/km 19Ω

5 — 6 Pair
AWG20 (0.8mm²)
Resistance/km 19Ω

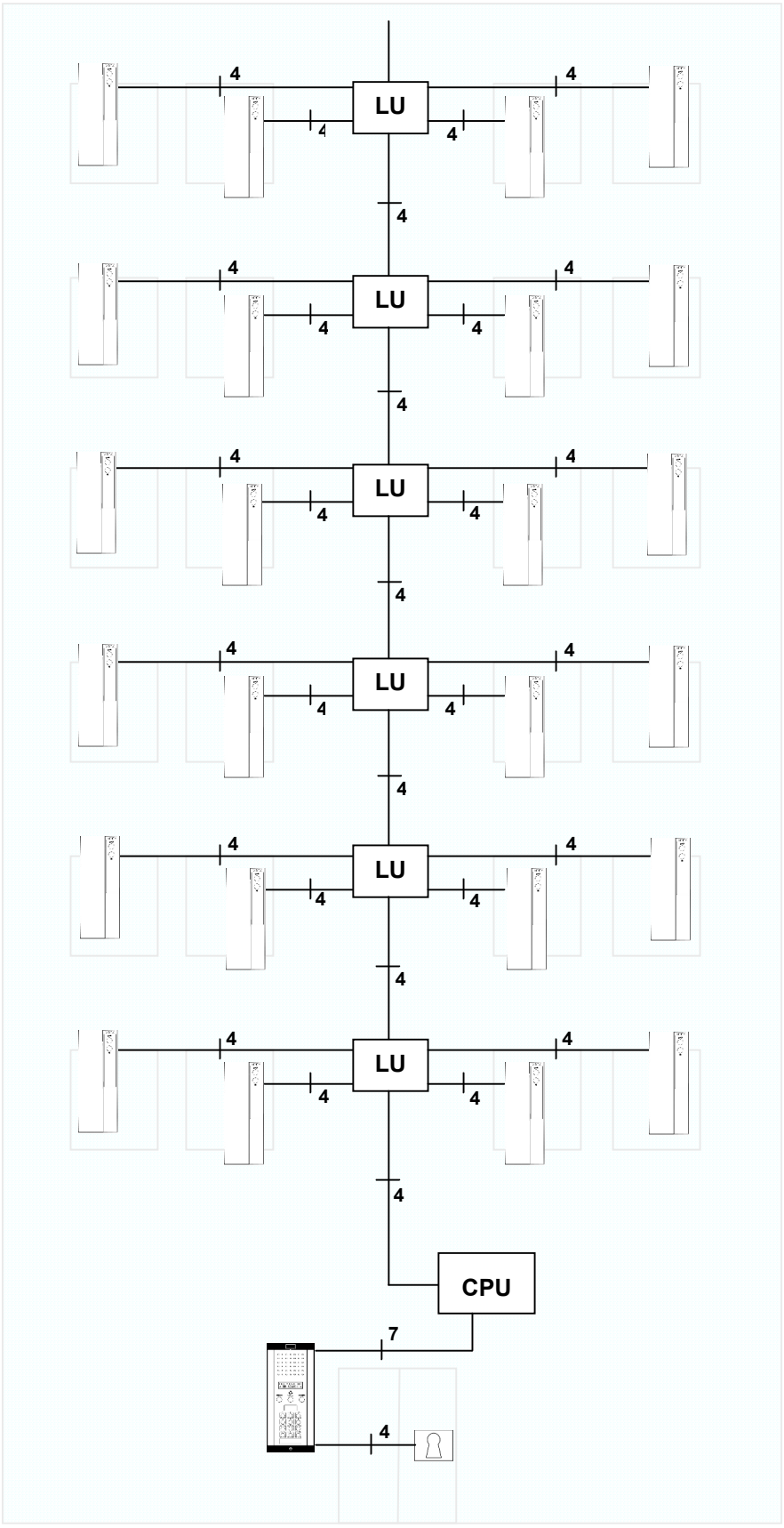
Consult the VX2200 cable guide for more information

Notes:
Two extra cores required to the telephone's if the local door bell facility is required (Not available on isolation systems)

VIDEX SECURITY LTD, UNIT 4-7 CHILLINGHAM IND. EST., NEWCASTLE UPON TYNE, NE6 2XX
TEL 0870 300 1240 FAX 0191 224 5678 E-MAIL SALES@VIDEX-SECURITY.COM WEB WWW.VIDEX-SECURITY.COM

VX2200 Block Diagram

1 Audio entrance to multiple apartments using Art.3176 telephones



Product Key

- **Art.3176 Telephones**
- **LU** — **4 way junction box Landing Unit**
- **CPU** — **SP400 control cabinet**
- **VX2200 digital or functional door panel**
- **Monitored 12Vdc fail secure or fail open lock release**

Min. cable requirements

Max. distance 100m

4 — 3 Pair
AWG22 (0.325mm²)
Resistance/km 54.12Ω

7 — 6 Pair
AWG22 (0.325mm²)
Resistance/km 54.12Ω

Max. distance 200m

4 — 3 Pair
AWG20 (0.5mm²)
Resistance/km 32.8Ω

7 — 6 Pair
AWG20 (0.5mm²)
Resistance/km 32.8Ω

Max. distance 350m

4 — 3 Pair
AWG18 (0.8mm²)
Resistance/km 19.2Ω

7 — 6 Pair
AWG18 (0.8mm²)
Resistance/km 19.2Ω

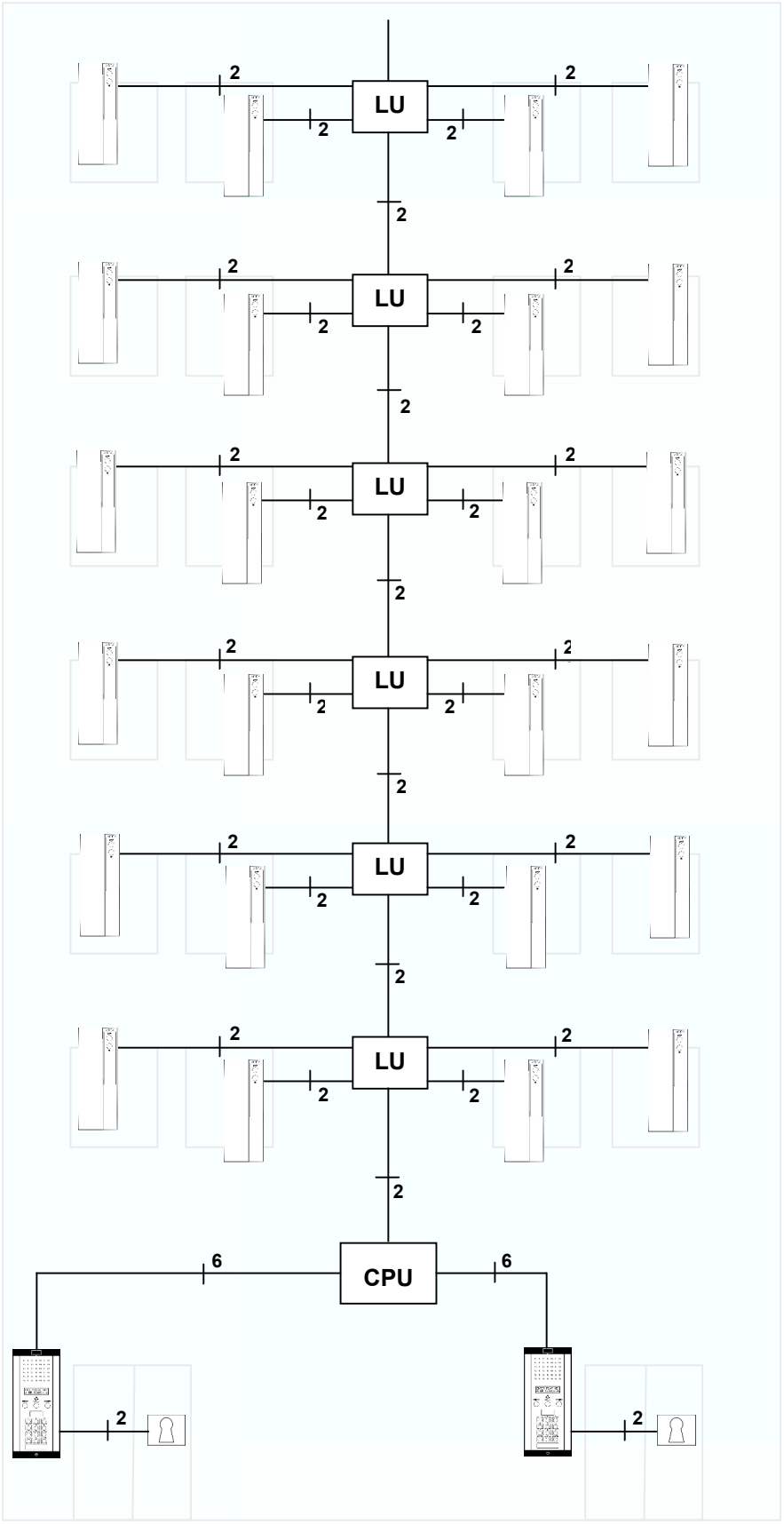
Consult the VX2200 cable guide for more information

Notes:
Two extra cores required to the telephone's if the local door bell facility is required (Not available on isolation systems)

VIDEX SECURITY LTD, UNIT 4-7 CHILLINGHAM IND. EST., NEWCASTLE UPON TYNE, NE6 2XX
TEL 0870 300 1240 FAX 0191 224 5678 E-MAIL SALES@VIDEX-SECURITY.COM WEB WWW.VIDEX-SECURITY.COM

VX2200 Block Diagram

2 or more Audio entrances (Control cabinets in one location) to multiple apartments using Art.3171 or Art.3172 telephones



Product Key

	Art.3171 or Art.3172 Telephones
LU	**4 way junction box Landing Unit**
CPU	**SP400 control cabinet**
	VX2200 digital or functional door panel
	12Vdc fail secure or fail open lock release

Min. cable requirements

Max. distance 100m

2 — 1 Pair
AWG22 (0.325mm²)
Resistance/km 54Ω

6 — 6 Pair
AWG20 (0.325mm²)
Resistance/km 54Ω

Max. distance 200m

2 — 1 Pair
AWG20 (0.5mm²)
Resistance/km 33Ω

6 — 6 Pair
AWG20 (0.5mm²)
Resistance/km 32.8Ω

Max. distance 350m

2 — 1 Pair
AWG20 (0.8mm²)
Resistance/km 19Ω

6 — 6 Pair
AWG20 (0.8mm²)
Resistance/km 19Ω

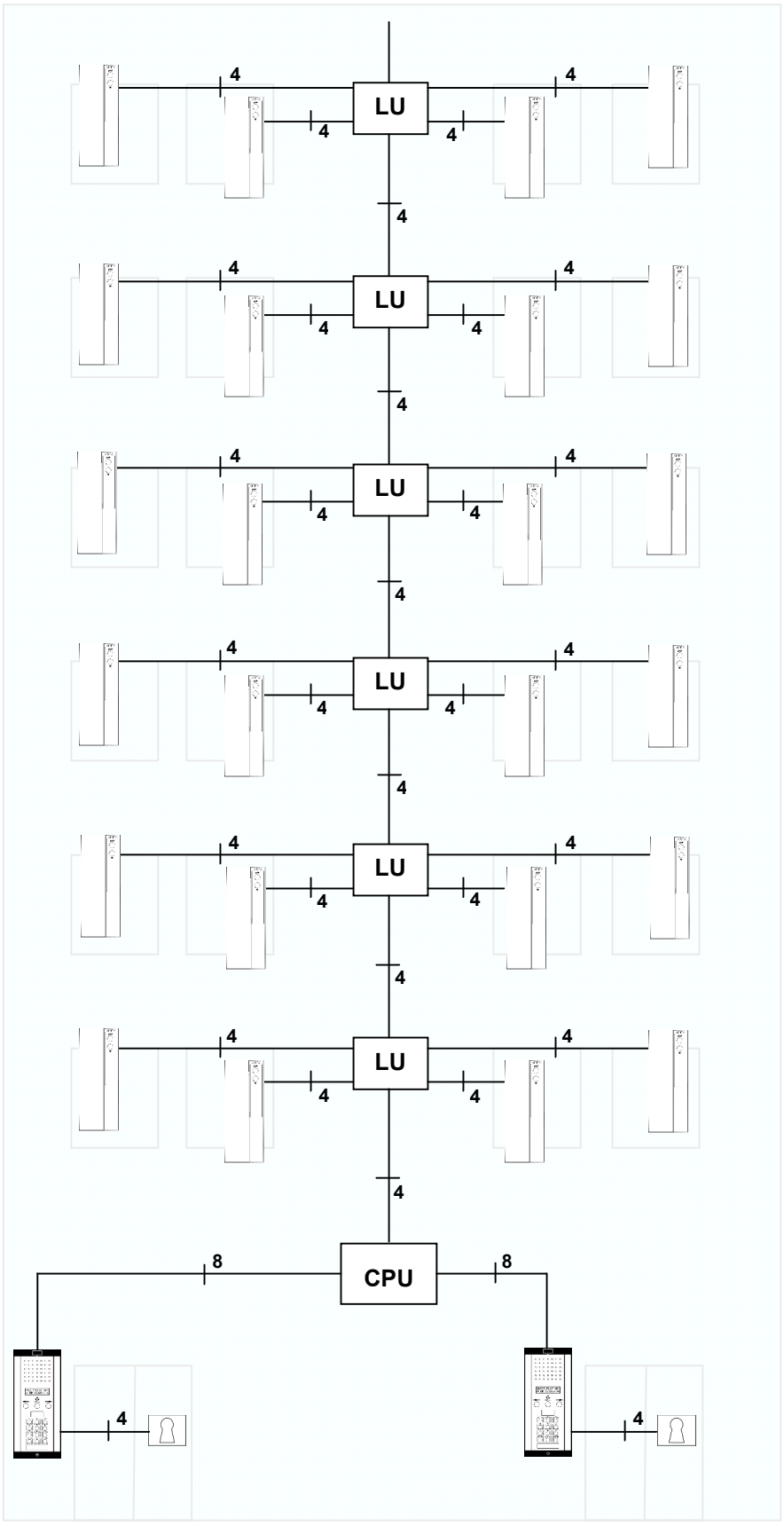
Consult the VX2200 cable guide for more information

Notes:
Two extra cores required to the telephone's if the local door bell facility is required (Not available on isolation systems)

VIDEX SECURITY LTD, UNIT 4-7 CHILLINGHAM IND. EST., NEWCASTLE UPON TYNE, NE6 2XX
TEL 0870 300 1240 FAX 0191 224 5678 E-MAIL SALES@VIDEX-SECURITY.COM WEB WWW.VIDEX-SECURITY.COM

VX2200 Block Diagram

2 or more Audio entrances (Control cabinets in one location) to multiple apartments using Art.3176 telephones



Product Key

Art.3176 Telephones

LU — **4 way junction box Landing Unit**

CPU — **SP400 control cabinet**

VX2200 digital or functional door panel

Monitored 12Vdc fail secure or fail open lock release

Min. cable requirements

Max. distance 100m

4 — 3 Pair
AWG22 (0.325mm²)
Resistance/km 54.12Ω

8 — 6 Pair
AWG22 (0.325mm²)
Resistance/km 54.12Ω

Max. distance 200m

4 — 3 Pair
AWG20 (0.5mm²)
Resistance/km 32.8Ω

8 — 6 Pair
AWG20 (0.5mm²)
Resistance/km 32.8Ω

Max. distance 350m

4 — 3 Pair
AWG18 (0.8mm²)
Resistance/km 19.2Ω

8 — 6 Pair
AWG18 (0.8mm²)
Resistance/km 19.2Ω

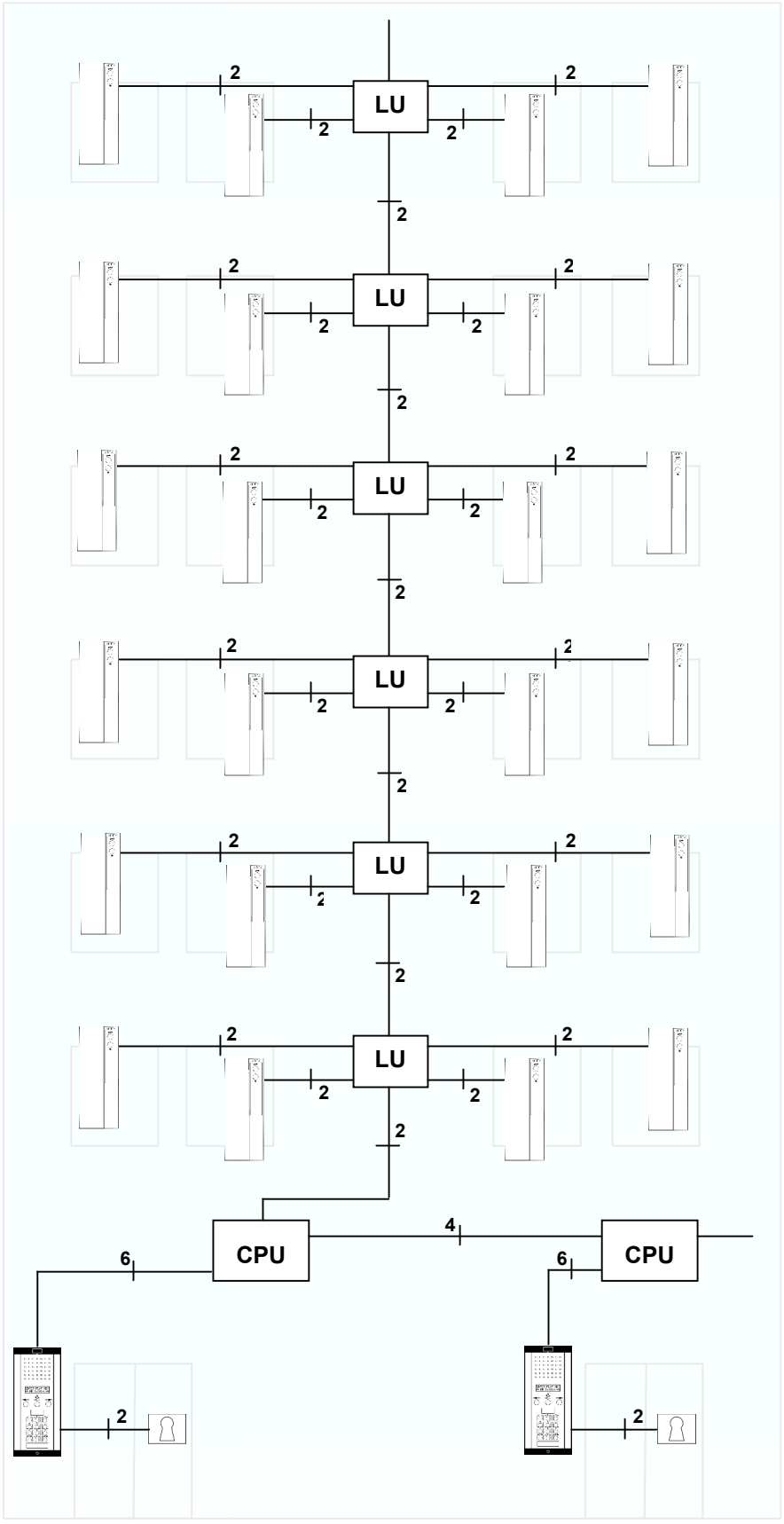
Consult the VX2200 cable guide for more information

Notes:
Two extra cores required to the telephone's if the local door bell facility is required (Not available on isolation systems)

VIDEX SECURITY LTD, UNIT 4-7 CHILLINGHAM IND. EST., NEWCASTLE UPON TYNE, NE6 2XX
TEL 0870 300 1240 FAX 0191 224 5678 E-MAIL SALES@VIDEX-SECURITY.COM WEB WWW.VIDEX-SECURITY.COM

VX2200 Block Diagram

2 or more Audio entrances (Control cabinets in different locations) to multiple apartments using Art.3171 or Art.3172 telephones



Product Key

- **Art.3171 or Art.3172 Telephones**
- **LU** — **4 way junction box Landing Unit**
- **CPU** — **SP400 control cabinet**
- **VX2200 digital or functional door panel**
- **12Vdc fail secure or fail open lock release**

Min. cable requirements

Max. distance 100m

- 2 — 1 Pair AWG22 (0.325mm²) Resistance/km 54.12Ω
- 4, 6 — 6 Pair AWG22 (0.325mm²) Resistance/km 54.12Ω

Max. distance 200m

- 2 — 1 Pair AWG20 (0.5mm²) Resistance/km 32.8Ω
- 4, 6 — 6 Pair AWG20 (0.5mm²) Resistance/km 32.8Ω

Max. distance 350m

- 2 — 1 Pair AWG18 (0.8mm²) Resistance/km 19.2Ω
- 4, 6 — 6 Pair AWG18 (0.8mm²) Resistance/km 19.2Ω

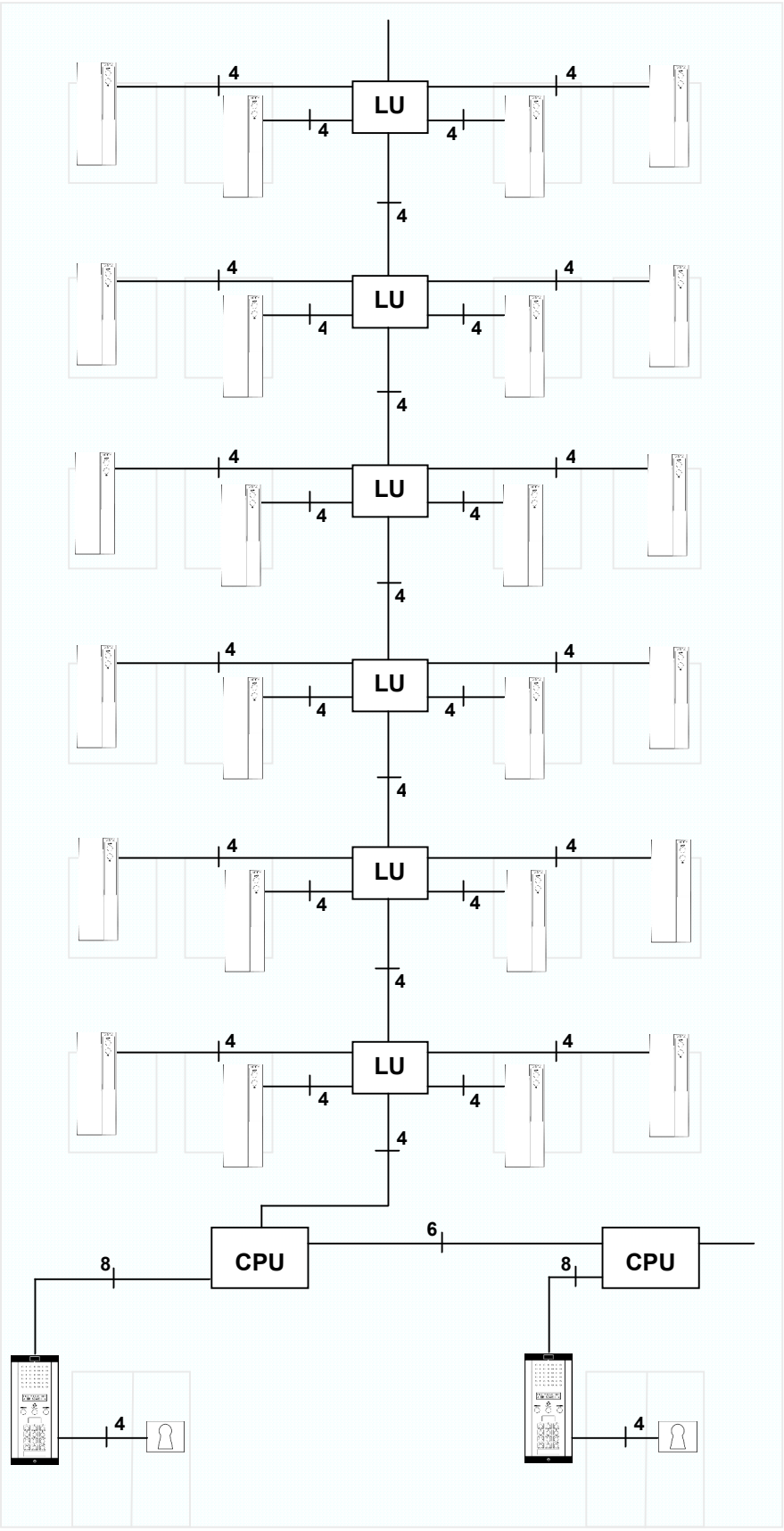
Consult the VX2200 cable guide for more information

Notes:
Two extra cores required to the telephone's if the local door bell facility is required (Not available on isolation systems)

VIDEX SECURITY LTD, UNIT 4-7 CHILLINGHAM IND. EST., NEWCASTLE UPON TYNE, NE6 2XX
TEL 0870 300 1240 FAX 0191 224 5678 E-MAIL SALES@VIDEX-SECURITY.COM WEB WWW.VIDEX-SECURITY.COM

VX2200 Block Diagram

2 or more Audio entrances (Control cabinets in different locations) to multiple apartments using Art.3176 telephones



Product Key

- **Art.3176 Telephones**
- **LU** — 4 way junction box Landing Unit
- **CPU** — SP400 control cabinet
- **VX2200 digital or functional door panel**
- **Monitored 12Vdc fail secure or fail open lock release**

Min. cable requirements

Max. distance 100m

- 4 — 3 Pair AWG22 (0.325mm²) Resistance/km 54.12Ω
- 6 / 8 — 6 Pair AWG22 (0.325mm²) Resistance/km 54.12Ω

Max. distance 200m

- 4 — 3 Pair AWG20 (0.5mm²) Resistance/km 32.8Ω
- 6 / 8 — 6 Pair AWG20 (0.5mm²) Resistance/km 32.8Ω

Max. distance 350m

- 4 — 3 Pair AWG18 (0.8mm²) Resistance/km 19.2Ω
- 6 / 8 — 6 Pair AWG18 (0.8mm²) Resistance/km 19.2Ω

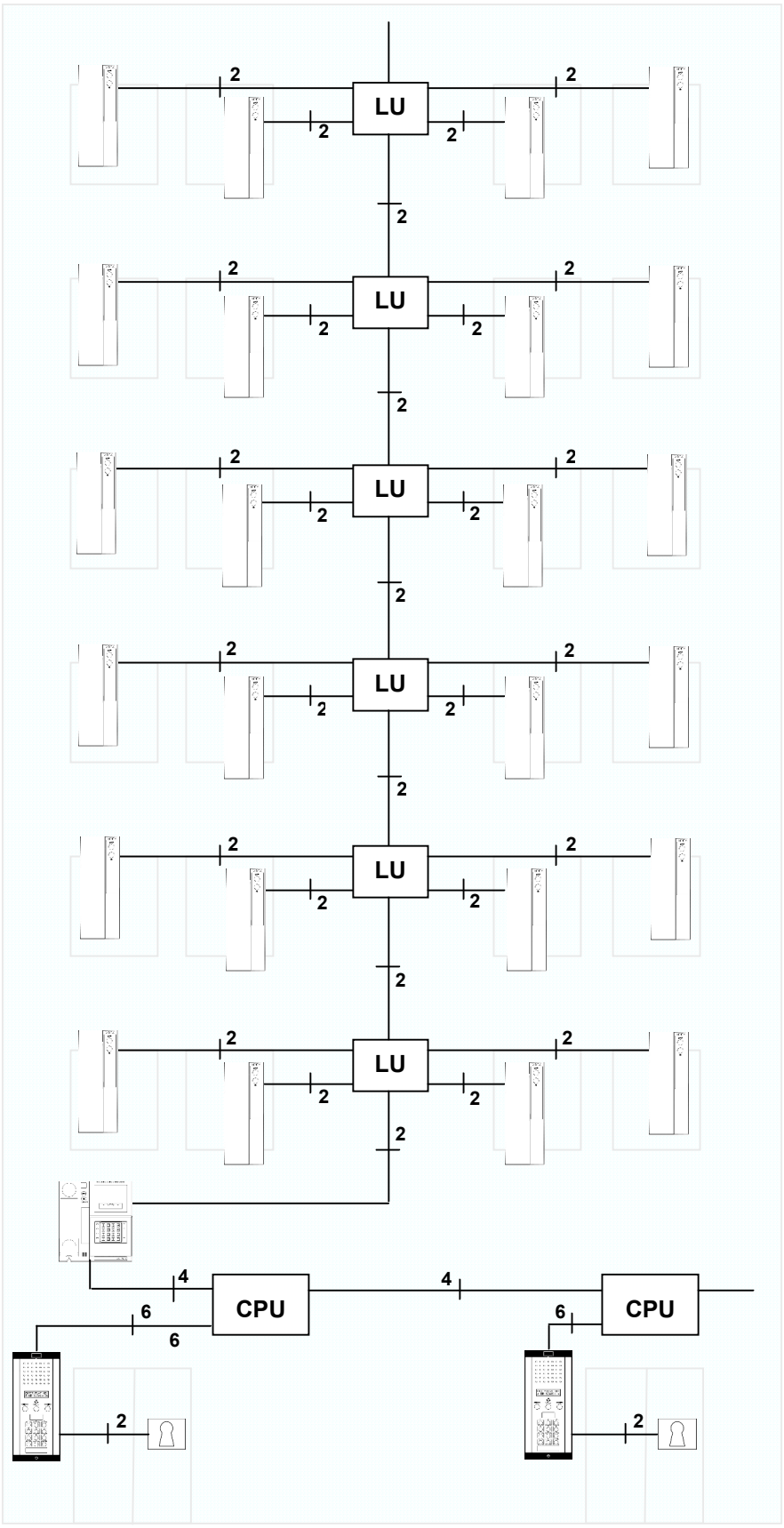
Consult the VX2200 cable guide for more information

Notes:
Two extra cores required to the telephone's if the local door bell facility is required (Not available on isolation systems)

VIDEX SECURITY LTD, UNIT 4-7 CHILLINGHAM IND. EST., NEWCASTLE UPON TYNE, NE6 2XX
TEL 0870 300 1240 FAX 0191 224 5678 E-MAIL SALES@VIDEX-SECURITY.COM WEB WWW.VIDEX-SECURITY.COM

VX2200 Block Diagram

1 or more Audio entrances and audio concierge to multiple apartments using Art.3171 or Art.3172 telephones



Product Key

- **Art.3171 or Art.3172 Telephones**
- **LU** — **4 way junction box Landing Unit**
- **CPU** — **SP400 control cabinet**
- **VX2200 digital or functional door panel**
- **12Vdc fail secure or fail open lock release**
- **VX2210 Audio concierge unit**

Min. cable requirements

Max. distance 100m

2 — 1 Pair
AWG22 (0.325mm²)
Resistance/km 54.12Ω

4
6 — 6 Pair
AWG22 (0.325mm²)
Resistance/km 54.12Ω

Max. distance 200m

2 — 1 Pair
AWG20 (0.5mm²)
Resistance/km 32.8Ω

4
6 — 6 Pair
AWG20 (0.5mm²)
Resistance/km 32.8Ω

Max. distance 350m

2 — 1 Pair
AWG18 (0.8mm²)
Resistance/km 19.2Ω

4
6 — 6 Pair
AWG18 (0.8mm²)
Resistance/km 19.2Ω

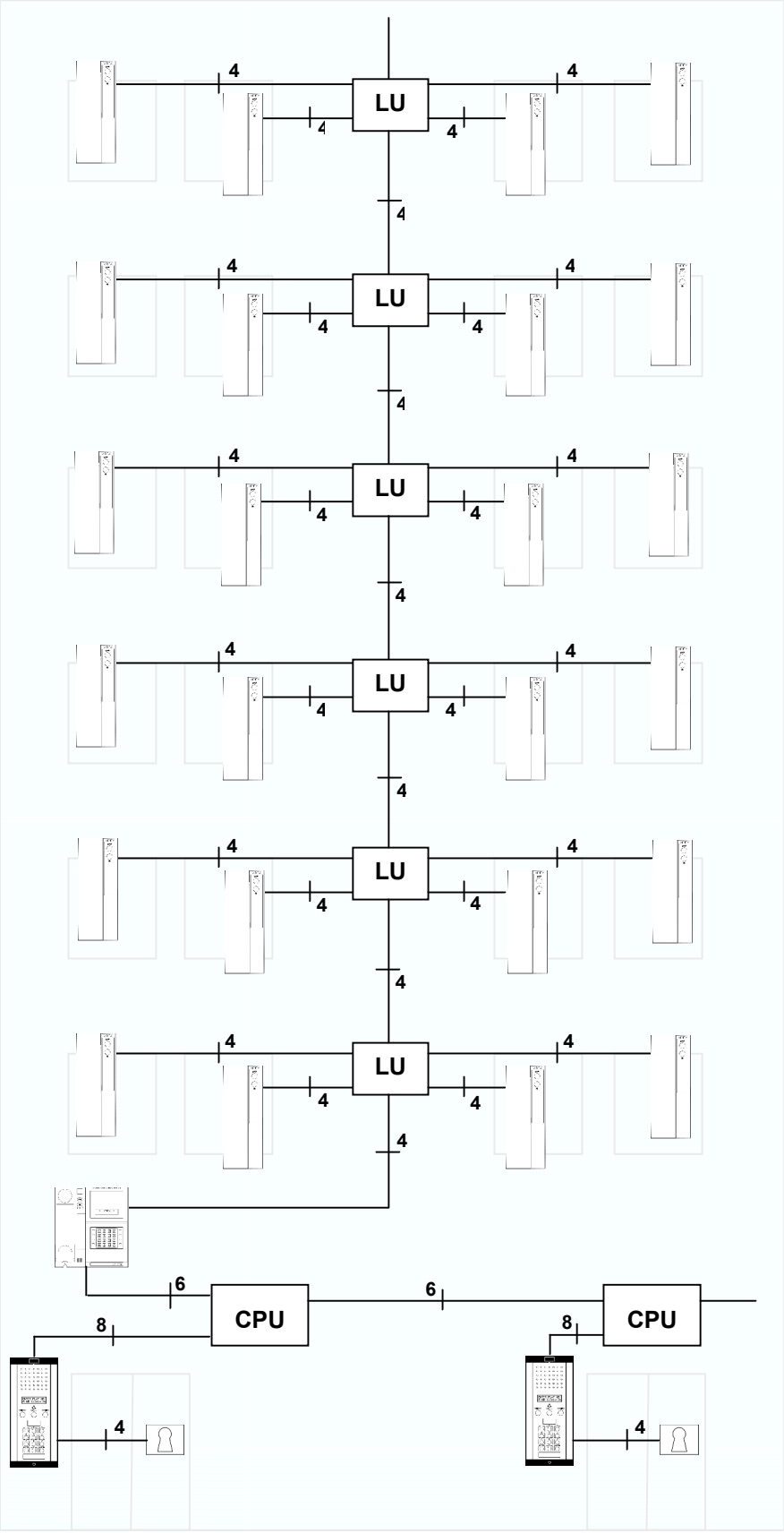
Consult the VX2200 cable guide for more information

Notes:
Two extra cores required to the telephone's if the local door bell facility is required (Not available on isolation systems)

VIDEX SECURITY LTD, UNIT 4-7 CHILLINGHAM IND. EST., NEWCASTLE UPON TYNE, NE6 2XX
TEL 0870 300 1240 FAX 0191 224 5678 E-MAIL SALES@VIDEX-SECURITY.COM WEB WWW.VIDEX-SECURITY.COM

VX2200 Block Diagram

1 or more Audio entrances and audio concierge to multiple apartments using Art.3176 telephones



Product Key

- **Art.3176 Telephones**
- **LU** — 4 way junction box Landing Unit
- **CPU** — SP400 control cabinet
- **VX2200 digital or functional door panel**
- **Monitored 12Vdc fail secure or fail open lock release**
- **VX2210 Audio concierge unit**

Min. cable requirements

Max. distance 100m

4 — 3 Pair
AWG22 (0.325mm²)
Resistance/km 54.12Ω

6 / 8 — 6 Pair
AWG22 (0.325mm²)
Resistance/km 54.12Ω

Max. distance 200m

4 — 3 Pair
AWG20 (0.5mm²)
Resistance/km 32.8Ω

6 / 8 — 6 Pair
AWG20 (0.5mm²)
Resistance/km 32.8Ω

Max. distance 350m

4 — 3 Pair
AWG18 (0.8mm²)
Resistance/km 19.2Ω

6 / 8 — 6 Pair
AWG18 (0.8mm²)
Resistance/km 19.2Ω

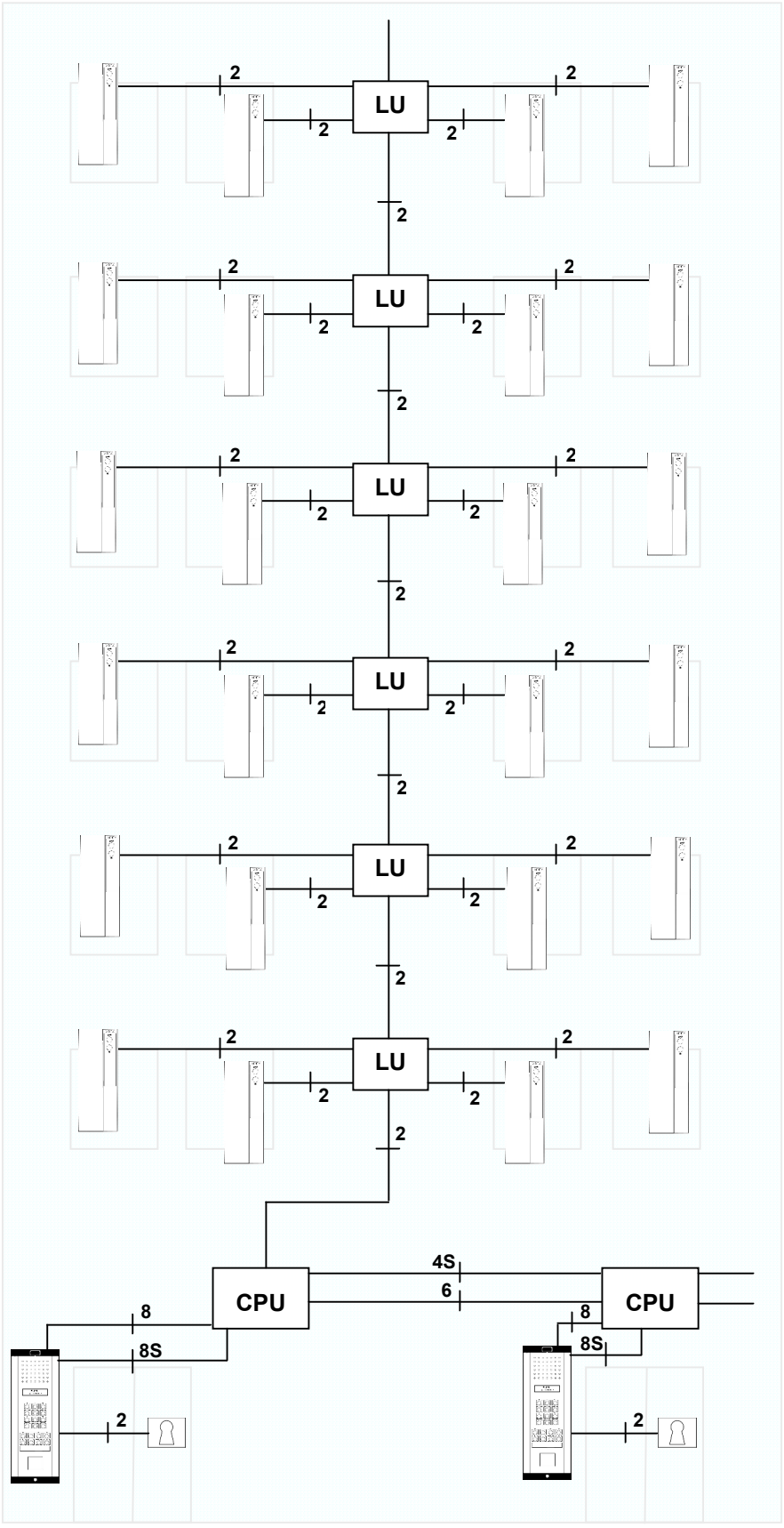
Consult the VX2200 cable guide for more information

Notes:
Two extra cores required to the telephone's if the local door bell facility is required (Not available on isolation systems)

VIDEX SECURITY LTD, UNIT 4-7 CHILLINGHAM IND. EST., NEWCASTLE UPON TYNE, NE6 2XX
TEL 0870 300 1240 FAX 0191 224 5678 E-MAIL SALES@VIDEX-SECURITY.COM WEB WWW.VIDEX-SECURITY.COM

VX2200 Block Diagram

1 or more Audio entrances with proximity access control to multiple apartments using Art.3171 or Art.3172 telephones



Product Key

	Art.3171 or Art.3172 Telephones
LU	**4 way junction box Landing Unit**
CPU	**SP400 control cabinet with proximity controller**
	VX2200 digital or functional door panel with proximity reader
	12Vdc fail secure or fail open lock release

Min. cable requirements

Max. distance 100m

2 — 1 Pair
AWG22 (0.325mm²)
Resistance/km 54.12Ω

4
6 — 6 Pair
AWG22 (0.325mm²)
Resistance/km 54.12Ω

Max. distance 200m

2 — 1 Pair
AWG20 (0.5mm²)
Resistance/km 32.8Ω

4
6 — 6 Pair
AWG20 (0.5mm²)
Resistance/km 32.8Ω

Max. distance 350m

2 — 1 Pair
AWG18 (0.8mm²)
Resistance/km 19.2Ω

4
6 — 6 Pair
AWG18 (0.8mm²)
Resistance/km 19.2Ω

Consult the VX2200 cable guide for more information

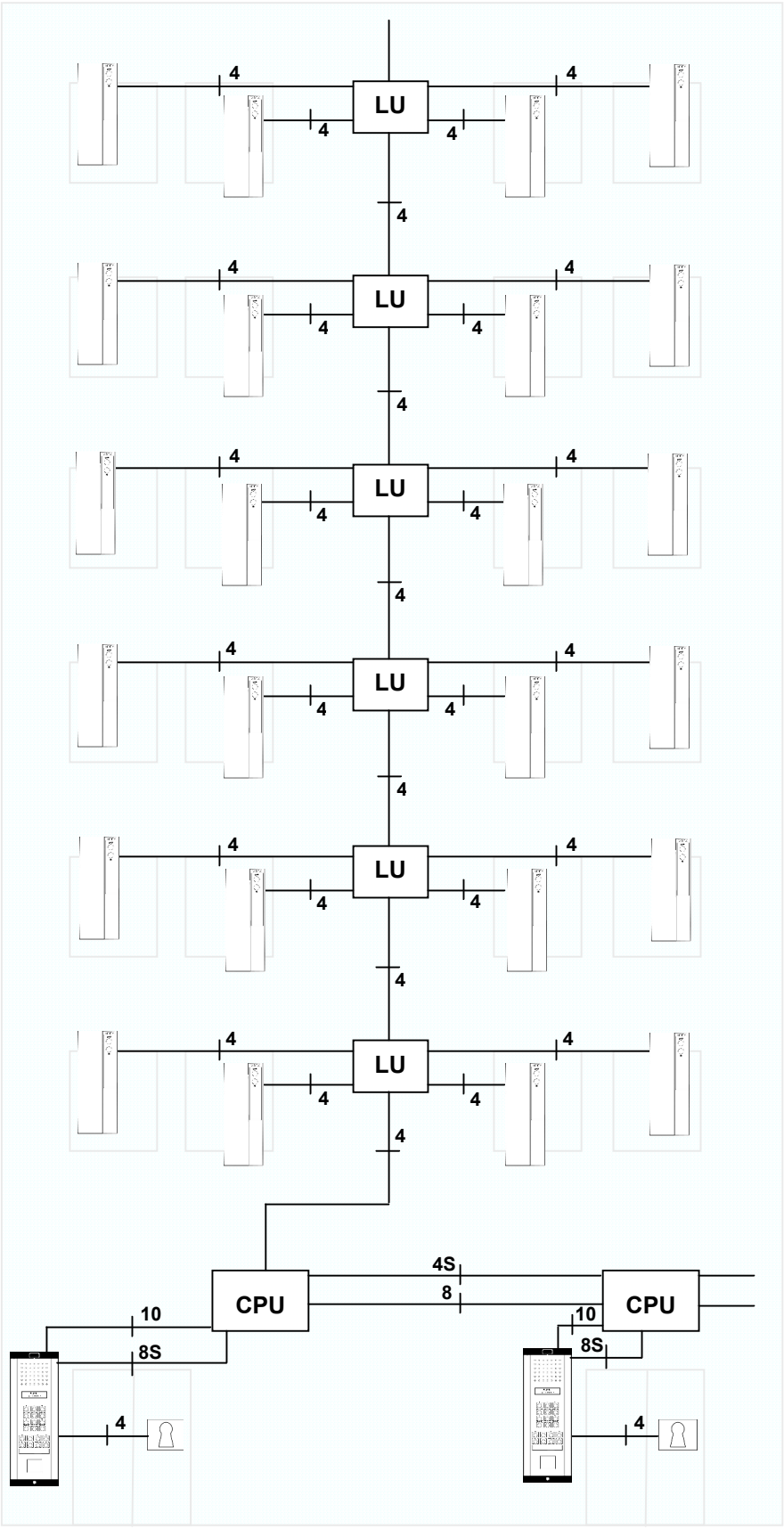
Notes:
Two extra cores required to the telephone's if the local door bell facility is required (Not available on isolation systems)

Proximity readers must be no more than 50 meters from their controller. A suitable screened cable could be (20AWG, 4 Pair)

VIDEX SECURITY LTD, UNIT 4-7 CHILLINGHAM IND. EST., NEWCASTLE UPON TYNE, NE6 2XX
TEL 0870 300 1240 FAX 0191 224 5678 E-MAIL SALES@VIDEX-SECURITY.COM WEB WWW.VIDEX-SECURITY.COM

VX2200 Block Diagram

1 or more Audio entrances with proximity access control to multiple apartments using Art.3176 telephones



Product Key

Art.3176 Telephones

LU — **4 way junction box Landing Unit**

CPU — **SP400 control cabinet with proximity controller**

VX2200 digital or functional door panel with proximity reader

Monitored 12Vdc fail secure or fail open lock

Min. cable requirements

Max. distance 100m

4 — 3 Pair
AWG22 (0.325mm²)
Resistance/km 54.12Ω

8
10 — 6 Pair
AWG22 (0.325mm²)
Resistance/km 54.12Ω

Max. distance 200m

4 — 3 Pair
AWG20 (0.5mm²)
Resistance/km 32.8Ω

8
10 — 6 Pair
AWG20 (0.5mm²)
Resistance/km 32.8Ω

Max. distance 350m

4 — 3 Pair
AWG18 (0.8mm²)
Resistance/km 19.2Ω

8
10 — 6 Pair
AWG18 (0.8mm²)
Resistance/km 19.2Ω

Consult the VX2200 cable guide for more information

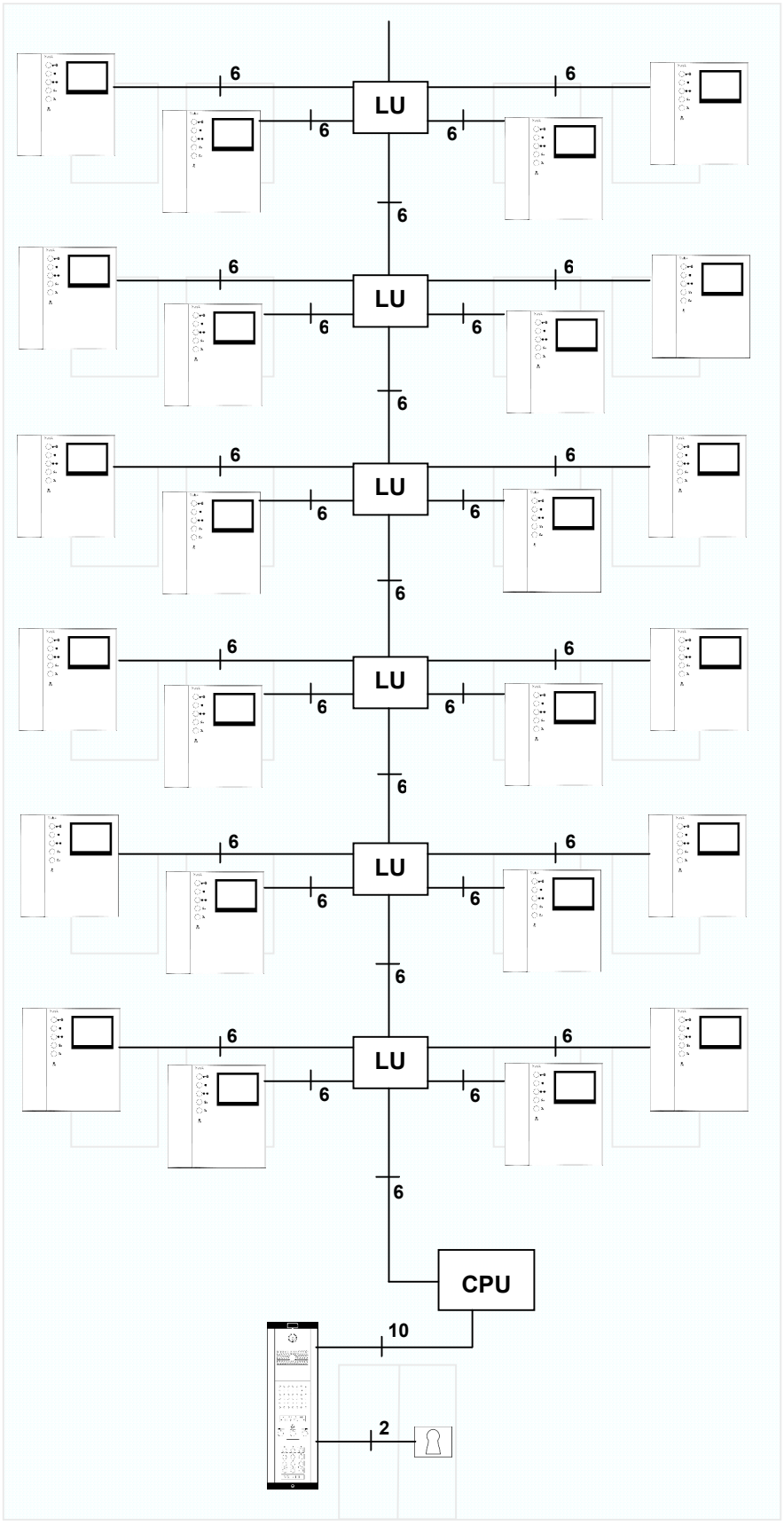
Notes:
Two extra cores required to the telephone's if the local door bell facility is required (Not available on isolation systems)

Proximity readers must be no more than 50 meters from their controller. A suitable screened cable could be (20AWG, 4 Pair)

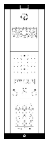
VIDEX SECURITY LTD, UNIT 4-7 CHILLINGHAM IND. EST., NEWCASTLE UPON TYNE, NE6 2XX
TEL 0870 300 1240 FAX 0191 224 5678 E-MAIL SALES@VIDEX-SECURITY.COM WEB WWW.VIDEX-SECURITY.COM

VX2200 Block Diagram

1 Video entrance to multiple apartments using Art.3371 or Art.3471 videophones



Product Key

	**Art.3371 or Art.3471 videophone**
LU	**Art.316 & 4 way junction box Landing Unit**
CPU	**SP410 control cabinet**
	**VX2200 digital or functional door panel with non-coax camera**
	**12Vdc fail secure or fail open lock release**

Cable requirements

Max. distance 100m

6 + 2 — 4 Pair AWG22 (0.325mm²) Resistance/km 54.12Ω

10 — 6 Pair AWG22 (0.325mm²) Resistance/km 54.12Ω

Max. distance 200m

6 + 2 — 4 Pair AWG20 (0.5mm²) Resistance/km 32.8Ω

10 — 6 Pair AWG20 (0.5mm²) Resistance/km 32.8Ω

Max. distance 350m

6 + 2 — 4 Pair AWG18 (0.8mm²) Resistance/km 19.2Ω

10 — 6 Pair AWG18 (0.8mm²) Resistance/km 19.2Ω

Consult the VX2200 cable guide for more information

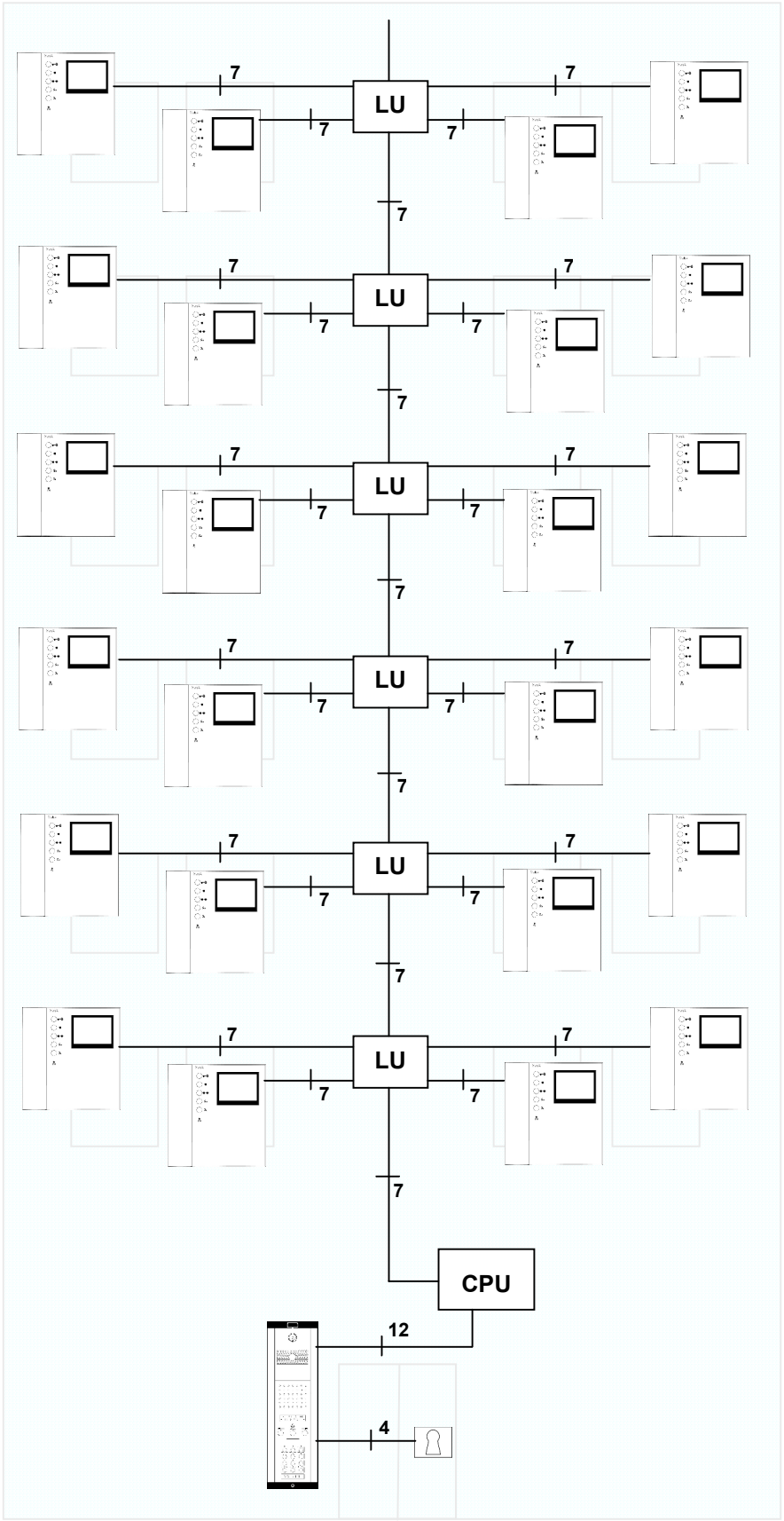
Notes:

Two extra cores required to the telephone's if the local door bell facility is required (Not available on isolation systems)

VIDEX SECURITY LTD, UNIT 4-7 CHILLINGHAM IND. EST., NEWCASTLE UPON TYNE, NE6 2XX
TEL 0870 300 1240 FAX 0191 224 5678 E-MAIL SALES@VIDEX-SECURITY.COM WEB WWW.VIDEX-SECURITY.COM

VX2200 Block Diagram

1 Video entrance to multiple apartments using Art.3376 or 3476 videophones

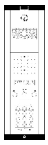


Product Key

Art.3376 or Art.3476 videophone

LU — **Art.316 & 4 way junction box Landing Unit**

CPU — **SP410 control cabinet**



VX2200 digital or functional door panel with non-coax camera

Monitored 12Vdc fail secure or fail open lock

Cable requirements

Max. distance 100m

7 / 4 — 4 Pair AWG22 (0.325mm²) Resistance/km 54.12Ω

12 — 6 Pair AWG22 (0.325mm²) Resistance/km 54.12Ω

Max. distance 200m

7 / 4 — 4 Pair AWG20 (0.5mm²) Resistance/km 32.8Ω

12 — 6 Pair AWG20 (0.5mm²) Resistance/km 32.8Ω

Max. distance 350m

7 / 4 — 4 Pair AWG18 (0.8mm²) Resistance/km 19.2Ω

12 — 6 Pair AWG18 (0.8mm²) Resistance/km 19.2Ω

Consult the VX2200 cable guide for more information

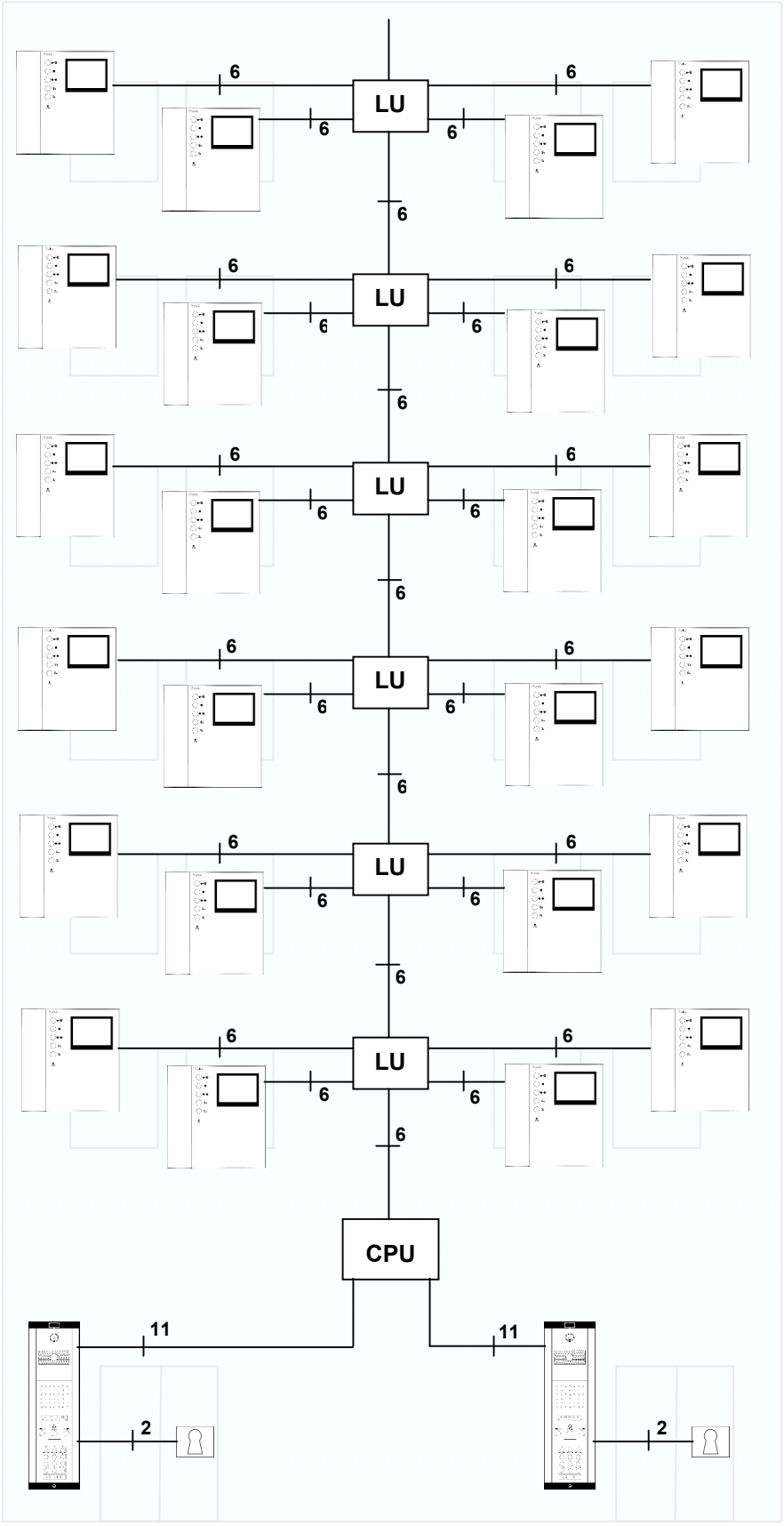
Notes:

Two extra cores required to the telephone's if the local door bell facility is required (Not available on isolation systems)

VIDEX SECURITY LTD, UNIT 4-7 CHILLINGHAM IND. EST., NEWCASTLE UPON TYNE, NE6 2XX
TEL 0870 300 1240 FAX 0191 224 5678 E-MAIL SALES@VIDEX-SECURITY.COM WEB WWW.VIDEX-SECURITY.COM

VX2200 Block Diagram

2-4 Video entrances to multiple apartments using Art.3371 or Art.3471 videophones



Product Key

	Art.3371 or Art.3471 videophone
LU	**Art.316 & 4 way junction box Landing Unit**
CPU	**SP415 control cabinet**
	VX2200 digital or functional door panel with non-coax camera
	12Vdc fail secure or fail open lock release

Cable requirements

Max. distance 100m

6 — 4 Pair AWG22 (0.325mm²) Resistance/km 54.12Ω

2

11 — 6 Pair AWG22 (0.325mm²) Resistance/km 54.12Ω

Max. distance 200m

6 — 4 Pair AWG20 (0.5mm²) Resistance/km 32.8Ω

2

11 — 6 Pair AWG20 (0.5mm²) Resistance/km 32.8Ω

Max. distance 350m

6 — 4 Pair AWG18 (0.8mm²) Resistance/km 19.2Ω

2

11 — 6 Pair AWG18 (0.8mm²) Resistance/km 19.2Ω

Consult the VX2200 cable guide for more information

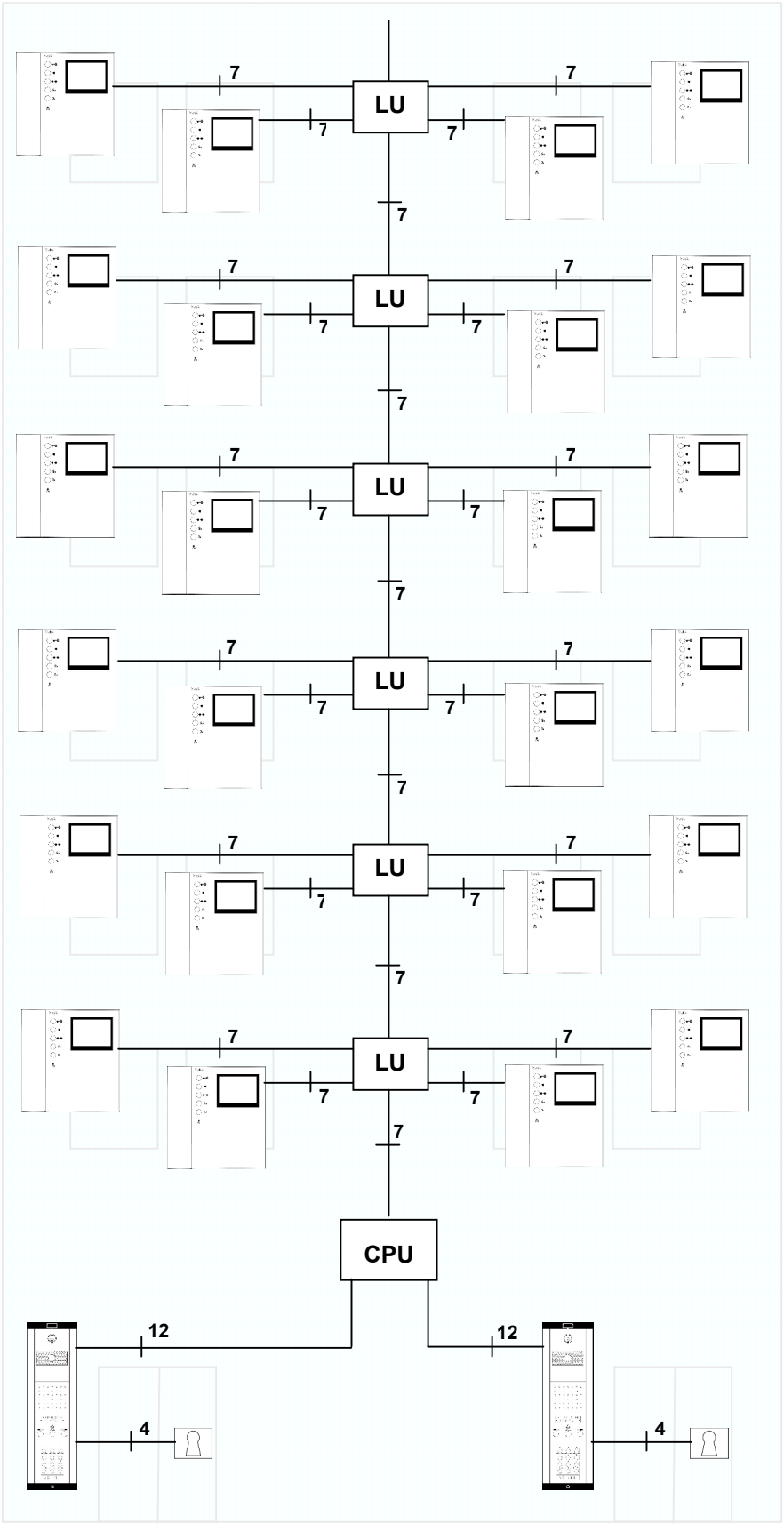
Notes:

Two extra cores required to the telephone's if the local door bell facility is required (Not available on isolation systems)

VIDEX SECURITY LTD, UNIT 4-7 CHILLINGHAM IND. EST., NEWCASTLE UPON TYNE, NE6 2XX
TEL 0870 300 1240 FAX 0191 224 5678 E-MAIL SALES@VIDEX-SECURITY.COM WEB WWW.VIDEX-SECURITY.COM

VX2200 Block Diagram

2-4 Video entrances to multiple apartments using Art.3376 or 3476 videophones



Product Key

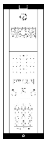

Art.3376 or Art.3476 videophone

LU

Art.316 & 4 way junction box Landing Unit

CPU

SP415 control cabinet


VX2200 digital or functional door panel with non-coax camera


Monitored 12Vdc fail secure or fail open lock

Cable requirements

Max. distance 100m

7
4
4 Pair
AWG22 (0.325mm²)
Resistance/km 54.12Ω

12
6 Pair
AWG22 (0.325mm²)
Resistance/km 54.12Ω

Max. distance 200m

7
4
4 Pair
AWG20 (0.5mm²)
Resistance/km 32.8Ω

12
6 Pair
AWG20 (0.5mm²)
Resistance/km 32.8Ω

Max. distance 350m

7
4
4 Pair
AWG18 (0.8mm²)
Resistance/km 19.2Ω

12
6 Pair
AWG18 (0.8mm²)
Resistance/km 19.2Ω

Consult the VX2200 cable guide for more information

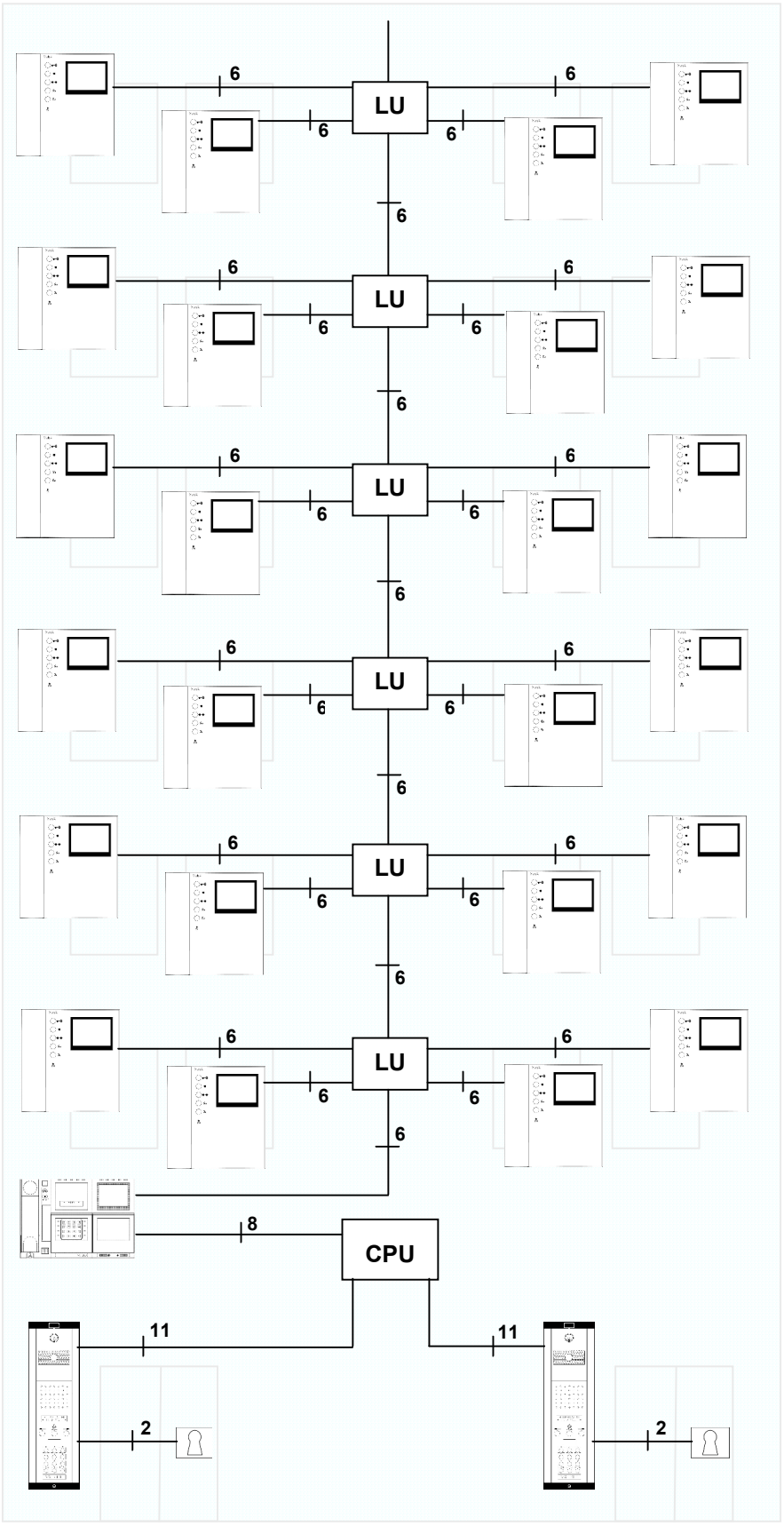
Notes:

Two extra cores required to the telephone's if the local door bell facility is required (Not available on isolation systems)

VIDEX SECURITY LTD, UNIT 4-7 CHILLINGHAM IND. EST., NEWCASTLE UPON TYNE, NE6 2XX
TEL 0870 300 1240 FAX 0191 224 5678 E-MAIL SALES@VIDEX-SECURITY.COM WEB WWW.VIDEX-SECURITY.COM

VX2200 Block Diagram

1-4 Video entrances and video concierge to multiple apartments using Art.3371 or Art.3471 videophones



Product Key


Art.3371 or Art.3471 videophone

LU — **Art.316 & 4 way junction box Landing Unit**

CPU — **SP410 (Single entrance) or SP415 (Multiple entrance) control cabinet**


VX2200 digital or functional door panel with non-coax camera


12Vdc fail secure or fail open lock release


VX2210V video concierge unit

Cable requirements

Max. distance 100m

6 / 2 — 4 Pair AWG22 (0.325mm²) Resistance/km 54.12Ω

8/11 — 6 Pair AWG22 (0.325mm²) Resistance/km 54.12Ω

Max. distance 200m

6 / 2 — 4 Pair AWG20 (0.5mm²) Resistance/km 32.8Ω

8/11 — 6 Pair AWG20 (0.5mm²) Resistance/km 32.8Ω

Max. distance 350m

6 / 2 — 4 Pair AWG18 (0.8mm²) Resistance/km 19.2Ω

8/11 — 6 Pair AWG18 (0.8mm²) Resistance/km 19.2Ω

Consult the VX2200 cable guide for more information

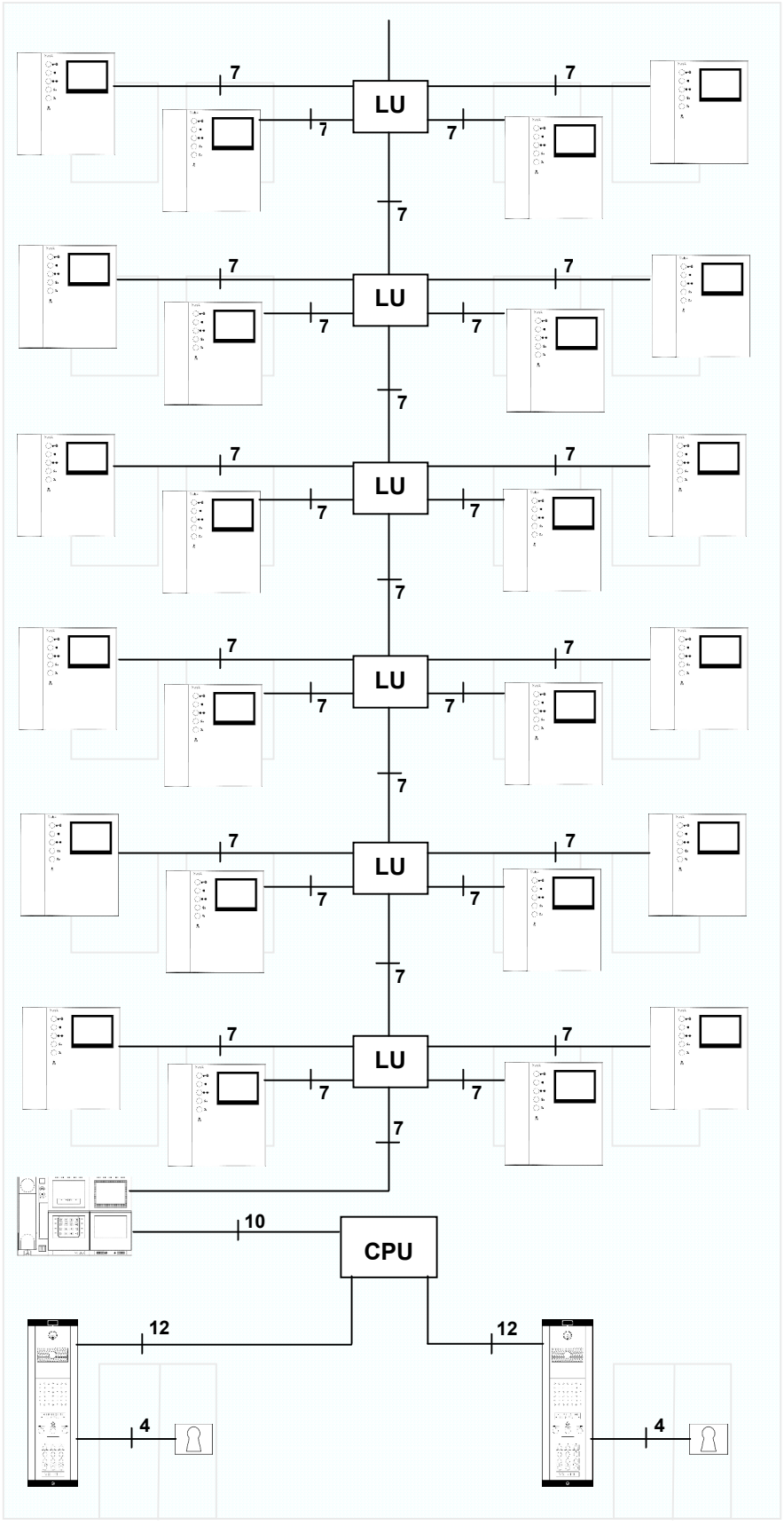
Notes:

Two extra cores required to the telephone's if the local door bell facility is required (Not available on isolation systems)

VIDEX SECURITY LTD, UNIT 4-7 CHILLINGHAM IND. EST., NEWCASTLE UPON TYNE, NE6 2XX
TEL 0870 300 1240 FAX 0191 224 5678 E-MAIL SALES@VIDEX-SECURITY.COM WEB WWW.VIDEX-SECURITY.COM

VX2200 Block Diagram

1-4 Video entrances and video concierge to multiple apartments using Art.3376 or 3476 videophones



Product Key

	Art.3376 or Art.3476 videophone
LU	**Art.316 & 4 way junction box Landing Unit**
CPU	**SP410 (Single entrance) SP415 (Multiple entrance) control cabinet**
	VX2200 digital or functional door panel with non-coax camera
	Monitored 12Vdc fail secure or fail open lock
	VX2210V video concierge unit

Cable requirements

Max. distance 100m

7 / 4 — 4 Pair AWG22 (0.325mm²) Resistance/km 54.12Ω

10/12 — 6 Pair AWG22 (0.325mm²) Resistance/km 54.12Ω

Max. distance 200m

7 / 4 — 4 Pair AWG20 (0.5mm²) Resistance/km 32.8Ω

10/12 — 6 Pair AWG20 (0.5mm²) Resistance/km 32.8Ω

Max. distance 350m

7 / 4 — 4 Pair AWG18 (0.8mm²) Resistance/km 19.2Ω

10/12 — 6 Pair AWG18 (0.8mm²) Resistance/km 19.2Ω

Consult the VX2200 cable guide for more information

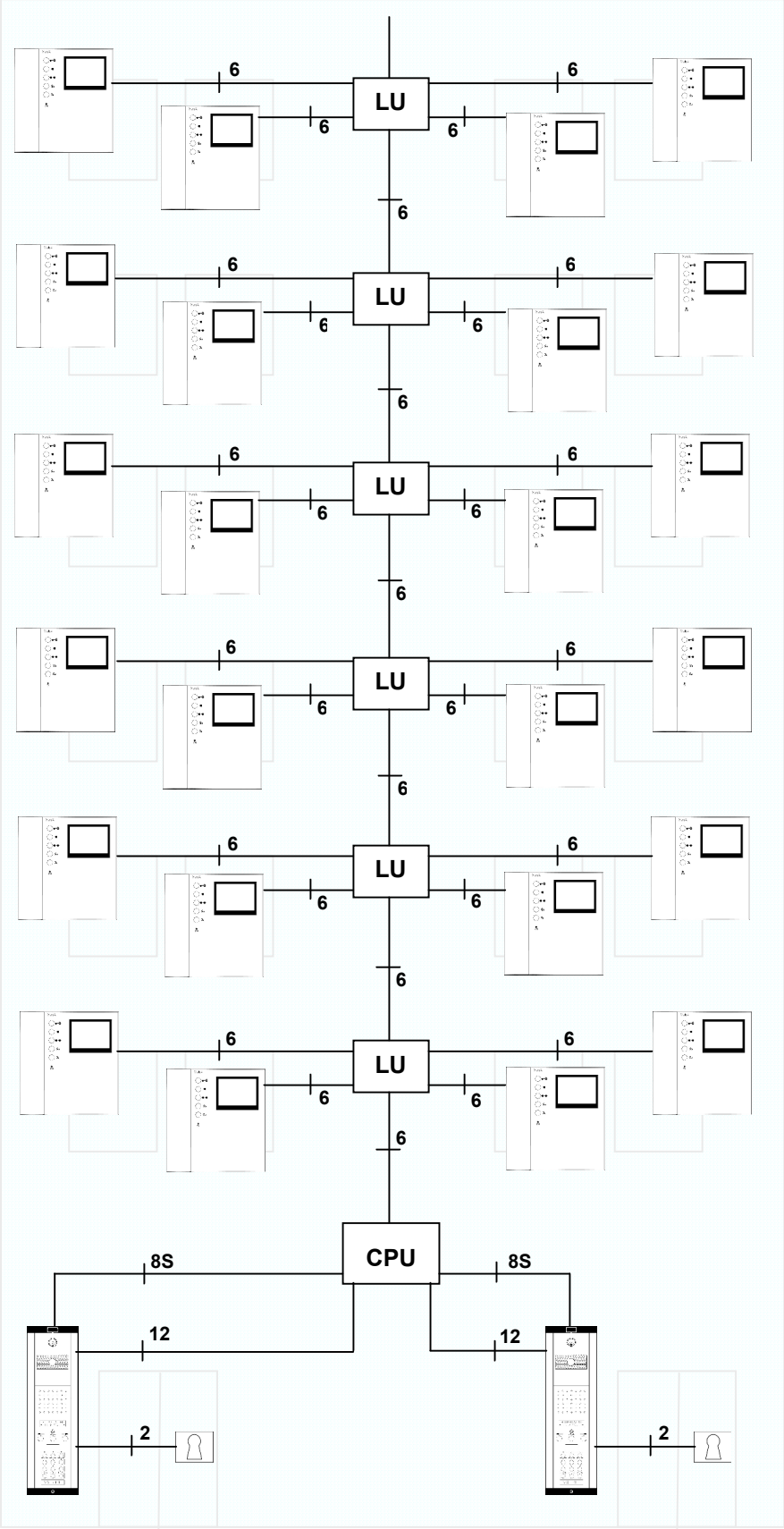
Notes:

Two extra cores required to the telephone's if the local door bell facility is required (Not available on isolation systems)

VIDEX SECURITY LTD, UNIT 4-7 CHILLINGHAM IND. EST., NEWCASTLE UPON TYNE, NE6 2XX
TEL 0870 300 1240 FAX 0191 224 5678 E-MAIL SALES@VIDEX-SECURITY.COM WEB WWW.VIDEX-SECURITY.COM

VX2200 Block Diagram

1-4 Video entrances with proximity access to multiple apartments using Art.3371 or Art.3471 videophones



Product Key

	Art.3371 or Art.3471 videophone
LU	**Art.316 & 4 way junction box Landing Unit**
CPU	**SP415 control cabinet**
	VX2200 digital or functional door panel with non-coax camera & proximity reader
	12Vdc fail secure or fail open lock release

Cable requirements

Max. distance 100m

6 / 2 — 4 Pair AWG22 (0.325mm²) Resistance/km 54.12Ω

8/12 — 6 Pair AWG22 (0.325mm²) Resistance/km 54.12Ω

Max. distance 200m

6 / 2 — 4 Pair AWG20 (0.5mm²) Resistance/km 32.8Ω

8/12 — 6 Pair AWG20 (0.5mm²) Resistance/km 32.8Ω

Max. distance 350m

6 / 2 — 4 Pair AWG18 (0.8mm²) Resistance/km 19.2Ω

8/12 — 6 Pair AWG18 (0.8mm²) Resistance/km 19.2Ω

Consult the VX2200 cable guide for more information

Notes:

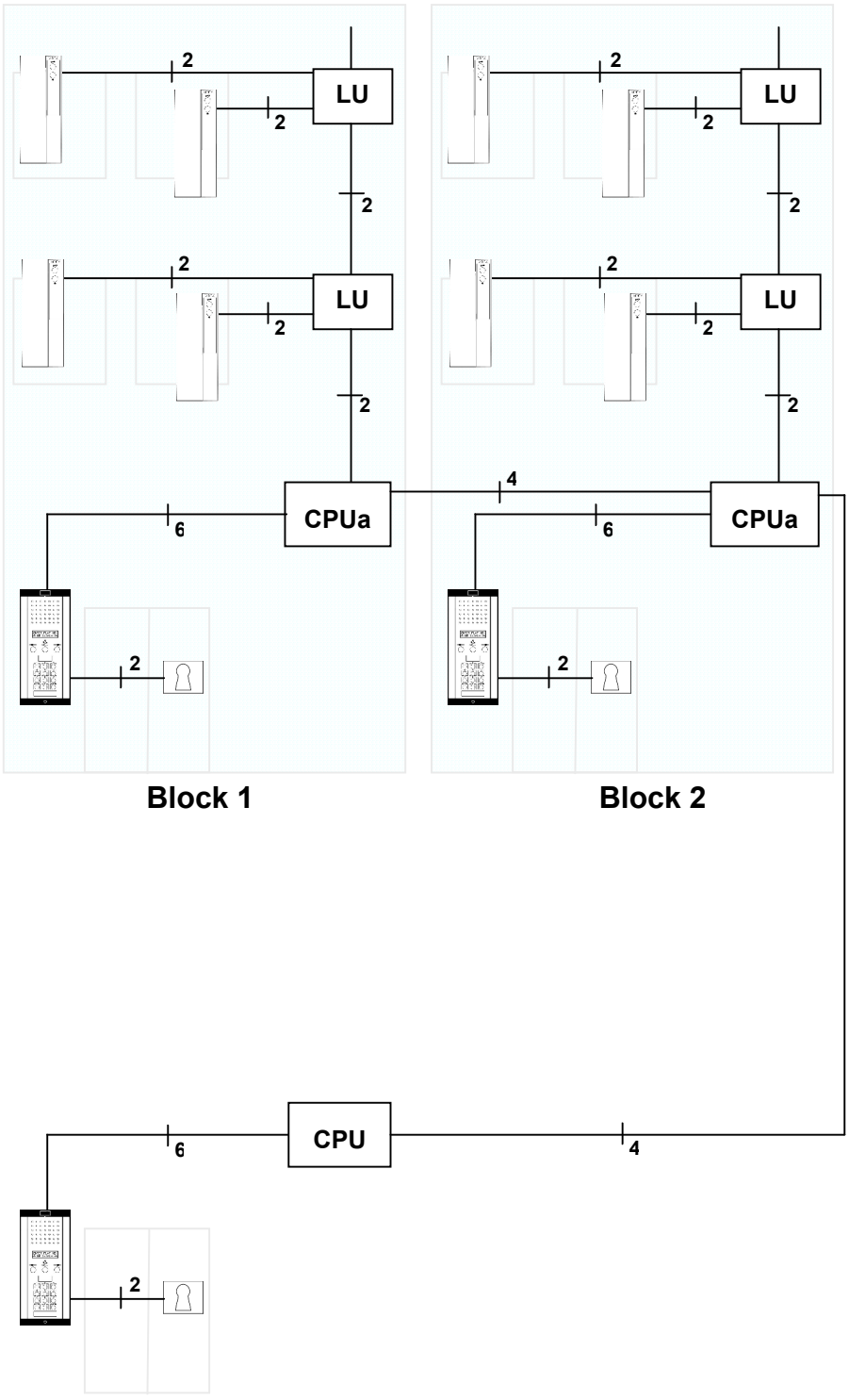
Two extra cores required to the telephone's if the local door bell facility is required (Not available on isolation systems)

Proximity readers must be no more than 50 meters from their controller. A suitable screened cable could be (20AWG, 4 Pair)

VIDEX SECURITY LTD, UNIT 4-7 CHILLINGHAM IND. EST., NEWCASTLE UPON TYNE, NE6 2XX
TEL 0870 300 1240 FAX 0191 224 5678 E-MAIL SALES@VIDEX-SECURITY.COM WEB WWW.VIDEX-SECURITY.COM

VX2200 Block Diagram

1 main audio entrance and multiple block audio entrances to multiple apartments using Art.3171 or Art.3172 telephones



Product Key

- **Art.3171 or Art.3172 Telephones**
- **LU** — 4 way junction box Landing Unit
- **CPU** — SP400 control cabinet
- **CPUa** — SP400 control cabinet with 2206A bus exchange device
- **VX2200 digital or functional door panel**
- **12Vdc fail secure or fail open lock release**

Min. cable requirements

Max. distance 100m

- 2 — 1 Pair AWG22 (0.325mm²) Resistance/km 54.12Ω
- 4, 6 — 6 Pair AWG22 (0.325mm²) Resistance/km 54.12Ω

Max. distance 200m

- 2 — 1 Pair AWG20 (0.5mm²) Resistance/km 32.8Ω
- 4, 6 — 6 Pair AWG20 (0.5mm²) Resistance/km 32.8Ω

Max. distance 350m

- 2 — 1 Pair AWG18 (0.8mm²) Resistance/km 19.2Ω
- 4, 6 — 6 Pair AWG18 (0.8mm²) Resistance/km 19.2Ω

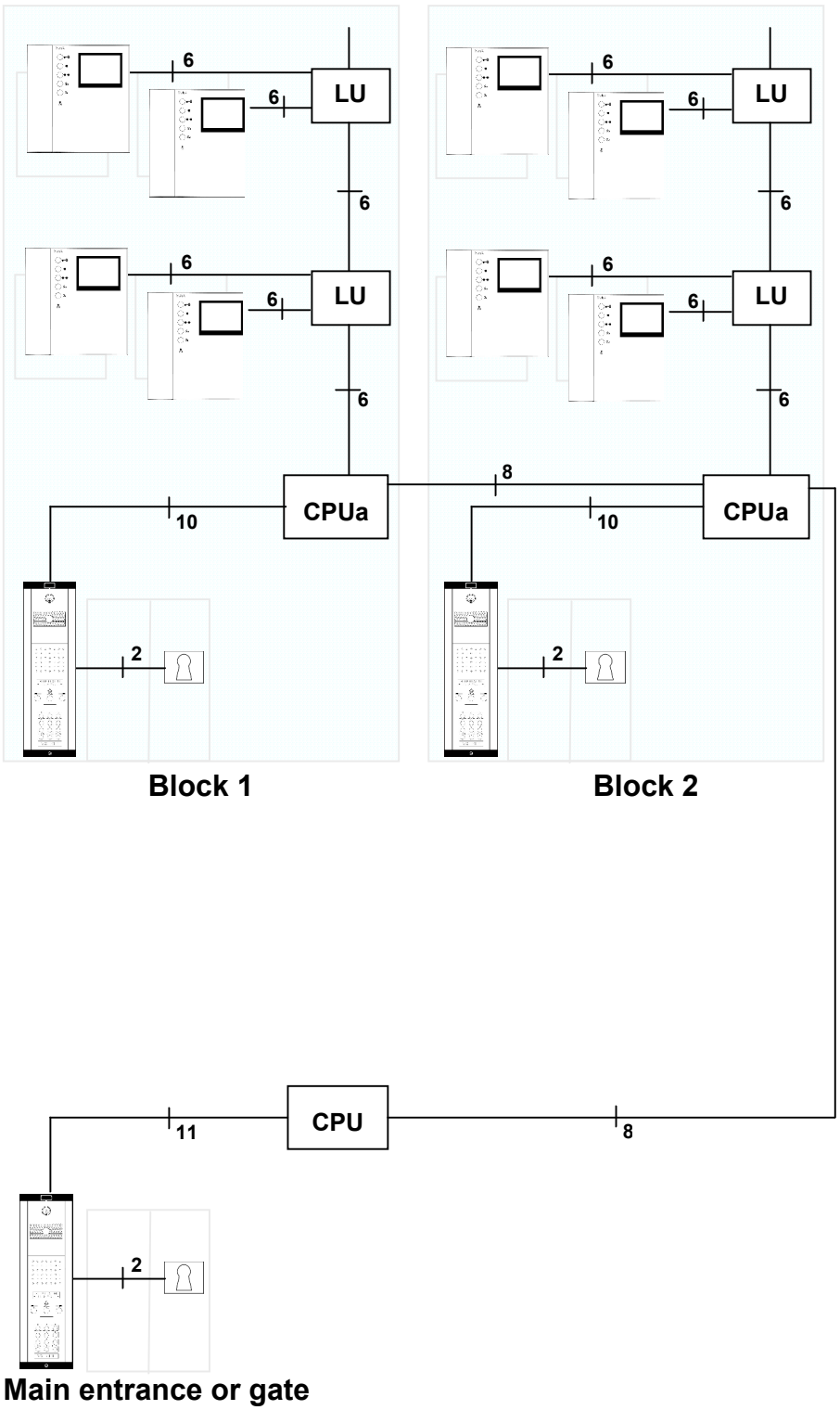
Consult the VX2200 cable guide for more information

Notes:
Two extra cores required to the telephone's if the local door bell facility is required (Not available on isolation systems)

VIDEX SECURITY LTD, UNIT 4-7 CHILLINGHAM IND. EST., NEWCASTLE UPON TYNE, NE6 2XX
TEL 0870 300 1240 FAX 0191 224 5678 E-MAIL SALES@VIDEX-SECURITY.COM WEB WWW.VIDEX-SECURITY.COM

VX2200 Block Diagram

1 main video entrance and multiple block video entrances to multiple apartments using Art.3371 or Art.3471 videophones



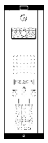
Product Key

Art.3371 or Art.3472 Videophones

LU — **4 way junction box Landing Unit**

CPU — **SP410 control cabinet**

CPUa — **SP410 control cabinet with 2206V bus exchange device**



VX2200 digital or functional door panel with non-coax camera

12Vdc fail secure or fail open lock release

Min. cable requirements

Max. distance 100m

8 — 4 Pair
AWG22 (0.325mm²)
Resistance/km 54.12Ω

8
11 — 6 Pair
AWG22 (0.325mm²)
Resistance/km 54.12Ω

Max. distance 200m

6 — 4 Pair
AWG20 (0.5mm²)
Resistance/km 32.8Ω

8
11 — 6 Pair
AWG20 (0.5mm²)
Resistance/km 32.8Ω

Max. distance 350m

6 — 4 Pair
AWG18 (0.8mm²)
Resistance/km 19.2Ω

8
11 — 6 Pair
AWG18 (0.8mm²)
Resistance/km 19.2Ω

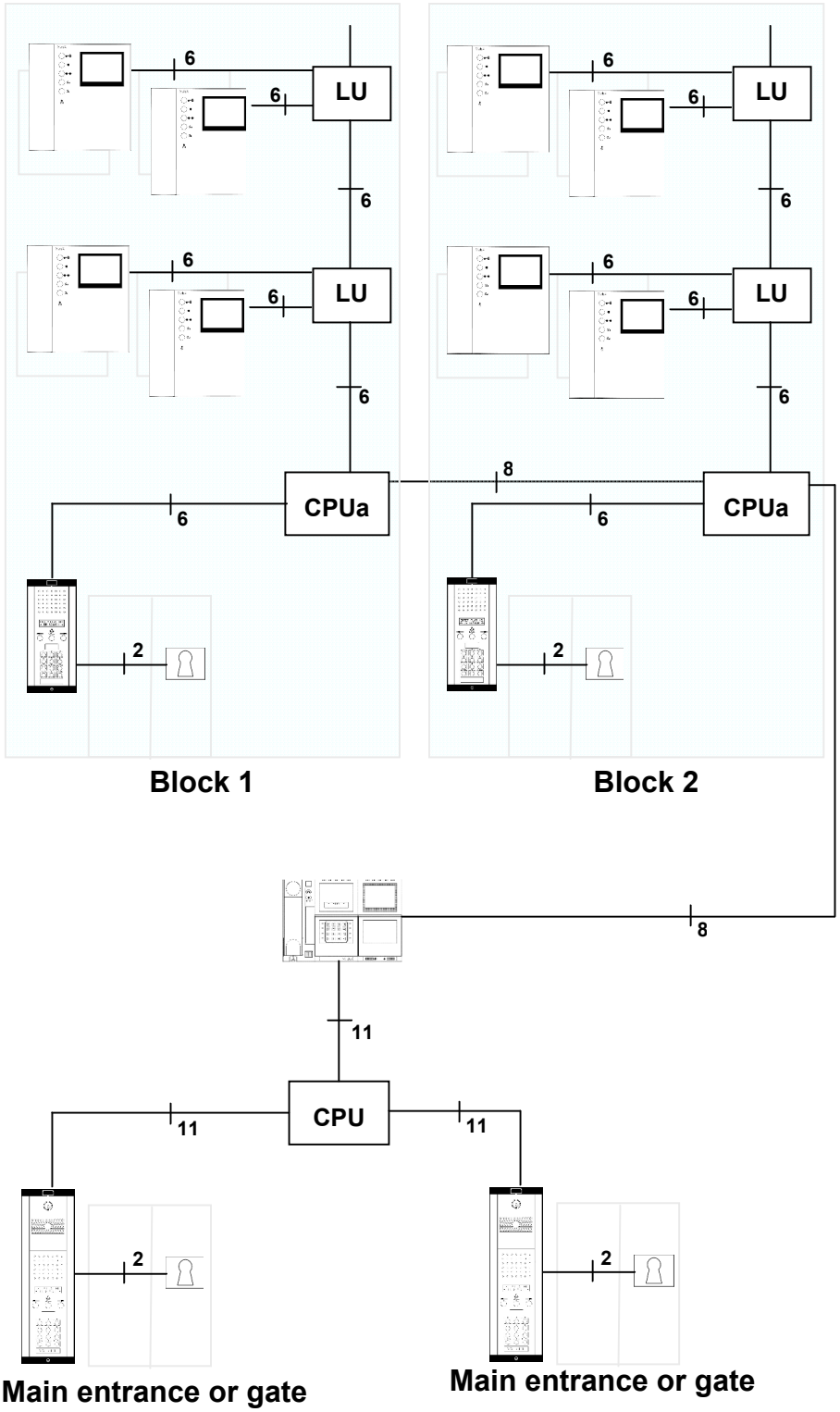
Consult the VX2200 cable guide for more information

Notes:
Two extra cores required to the telephone's if the local door bell facility is required (Not available on isolation systems)

VIDEX SECURITY LTD, UNIT 4-7 CHILLINGHAM IND. EST., NEWCASTLE UPON TYNE, NE6 2XX
TEL 0870 300 1240 FAX 0191 224 5678 E-MAIL SALES@VIDEX-SECURITY.COM WEB WWW.VIDEX-SECURITY.COM

VX2200 Block Diagram

2 main video entrances, video concierge and multiple block audio entrances to multiple apartments using Art.3371 or Art.3471 videophones



Product Key

- Art.3371 or Art.3472 Videophones
- LU — 4 way junction box Landing Unit
- CPU — SP415 control cabinet
- CPUa — SP410 control cabinet with 2206V bus exchange device
- VX2200 digital or functional door panel
- VX2200 digital or functional door panel c/w non-coax camera
- VX2210V Concierge
- 12Vdc fail secure or fail open lock release

Min. cable requirements

Max. distance 100m

6 — 4 Pair
AWG22 (0.325mm²)
Resistance/km 54.12Ω

8
11 — 6 Pair
AWG22 (0.325mm²)
Resistance/km 54.12Ω

Max. distance 200m

6 — 4 Pair
AWG20 (0.5mm²)
Resistance/km 32.8Ω

8
11 — 6 Pair
AWG20 (0.5mm²)
Resistance/km 32.8Ω

Max. distance 350m

6 — 4 Pair
AWG18 (0.8mm²)
Resistance/km 19.2Ω

8
11 — 6 Pair
AWG18 (0.8mm²)
Resistance/km 19.2Ω

Consult the VX2200 cable guide for more information

Notes:
Two extra cores required to the telephone's if the local door bell facility is required (Not available on isolation systems)

VIDEX SECURITY LTD, UNIT 4-7 CHILLINGHAM IND. EST., NEWCASTLE UPON TYNE, NE6 2XX
TEL 0870 300 1240 FAX 0191 224 5678 E-MAIL SALES@VIDEX-SECURITY.COM WEB WWW.VIDEX-SECURITY.COM

Northern Office
Videx Security Ltd
Unit 4-7 Chillingham Ind. Est.
Newcastle Upon Tyne
NE6 2XX
TEL 0870 300 1240
FAX 0191 224 5678

Southern Office
1 Osprey
Trinity Park
Trinity Way
London
E4 8TD
FAX 0208 523 5825

TECHNICAL SUPPORT
tech@videx-security.com
TEL 0191 224 3174
FAX 0191 224 4938
http://www.videx-security.com