

City Vision range

CITY VISION - 2-WIRE VIDEO ENTRYPHONE SYSTEM WITH IP/LAN EXTENSION

Video Entryphone System Technical Manual



CONTENTS

INTRODUCTION	4
THE SYSTEM	5
2-WIRE SYSTEMS WITH 1 LEVEL BACKBONE	7
2-WIRE SYSTEMS WITH 2 LEVEL BACKBONE	8
2-WIRE SYSTEMS WITH IP/LAN EXTENSION	10
PRODUCT SHEETS	12
ADDITIONAL POWER SUPPLIES: supply only power (no signals)	12
SYSTEM POWER SUPPLIES: supply BUS and power	13
GW19301: for 2-wire systems	13
GW19351: for IP extension system	14
OUTDOOR POSITIONS	15
AESIS	15
KARALIS	17
ANTAS	21
INDOOR POSITIONS:	23
NORA	23
VELIA	24
SENA	25
NAXOS	26
MASTER ICE	27
SYSTEM DEVICES: to be connected with 2-wire uprights on the BUS branches	28
GW19306: 2-wire signal distributor	28
GW19311: 2-wire signal amplifiers	28
GW19307: 2-wire amplified signal distributor	29
GW19304: 2-wire amplified signal repeater (max 2 on the BUS section)	29
DEVICES FOR ACCESSORY FUNCTIONS: to be connected on 2-wire BUS branches	30
GW19308: intercom module	30
DEVICES FOR ACCESSORY FUNCTIONS: to be connected on the 2-wire backbones	31
GW19309: cyclic TVCC selector to connect to GW19301	31
GW19310: remote relay unit for auxiliary services	31
DEVICES FOR ACCESSORY FUNCTIONS to be connected on the IP extension backbone	32
GW19359: cyclic TVCC selector to connect to GW19351	32
GW19360: relay unit for auxiliary services	32
DEVICES FOR EXTENDING THE SYSTEM ON IP/LAN:	33
GW19356: LAN network interface	33
GW19357: VoIP server to support the Master ICE	33
CABLES:	34
SOFTWARE:	34

ABSORPTION	35
Current supplied by City Vision power supplies	35
Current absorbed in a 2-wire upright	35
Current absorbed in the backbone for 2-wire system devices	36
Current absorbed in the backbone for IP extension system devices	37
EXAMPLES	38
Standard type of system: single family with AESIS outdoor position - Kit GW19401WH/BK	38
Standard type of system: single family with KARALIS outdoor position - Kit GW19410WH/BK	39
Standard type of system: building with power supply GW19301 and KARALIS flush-mounting outdoor position - Kit EVO GW19411/GW19412WH/BK	41
Standard type of system: building with power supply GW19301, KARALIS outdoor entryphone position and video selector for an outdoor telecamera	44
Multi-block residential system with KARALIS outdoor positions and porter's desk enclosure	46
Multi-block residential system with IP/LAN extension and KARALIS and ANTAS outdoor positions	49
System with IP/LAN extension with MASTER ICE and NAXOS COMBI indoor positions and domotics integration	51
Summary TABLE - characteristics and functions	53
FAQ	55
GENERAL	55
OUTDOOR POSITIONS	55
INDOOR POSITIONS	55
STANDARD or SINGLE BLOCK SYSTEMS	56
RESIDENTIAL or MULTI-BLOCK SYSTEMS	56
RESIDENTIAL or MULTI-BLOCK SYSTEMS WITH THE IP/LAN extension	56

INTRODUCTION

The purpose of this manual is to provide the GEWISS sales force with basic technical knowledge about the City Vision video entryphone system.

The system manual is structured as follows:

- The first part describing the system and devices
- The second part describes application examples
- The third and last part is dedicated to FAQ

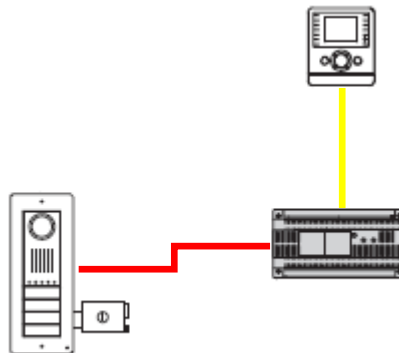
The document is structured so it can be used easily both when read completely, which is recommended at least once in order to understand functions and possibilities of the system, as well as when specific sections are read to quickly clarify doubts or to review specific arguments before going to meet with a customer or before making a presentation.

THE SYSTEM

The system is based on three basic elements: the indoor positions, the power supplies/enclosures and the outdoor positions. It uses 2-wire technology with the option of extending the system using IP technology, which makes it possible to use dedicated LAN infrastructures or LAN infrastructures shared with other systems.

System architecture includes two types of distribution or connection:

- horizontal, also called backbone, with which the outdoor positions are connected to the power supplies/enclosures; see the red line in the diagram below.
- the vertical one, also called upright, with which the indoor positions are connected to the power supplies/enclosures; see the yellow line in the diagram below.



The upright consists of a 2-wire cable that transmits audio and video signals, with analogue modulation, in a similar manner as with TV antenna systems. The power supply for the indoor positions is also available on the same cable together with the audio video signal.

This brings us to the first two important considerations regarding 2-wire technology:

- the audio/video signal is transmitted in an analogue mode
- both the audio/video signal as well as the power supply for the indoor positions are transmitted via the same duplex cable; therefore, all indoor positions are connected only via a duplex cable, with the exception of the NAXOS indoor position (as will be explained later), which must always be powered separately.

The analogue transmission of the audio/video signal requires a few plant-engineering aspects, the most important of which are:

- Line impedance: the impedance must be correctly adapted via specific devices and settings (just as in the case of TV antenna systems).
- Limit distances: there are limit distances that must be respected when connecting various devices together, due to the weakening of the signal along the cable.
- Exceeding the limit distances: accessories are available for exceeding the limit distances, which act as signal amplifiers and regenerators

Main functions of the system:

- Privacy
- Landing call function from an indoor position
- Door opener from an indoor position
- Door opener from an outdoor position
- Video control
- Auxiliary commands
- Intercom:
 - o between indoor positions in the same apartment
 - o between indoor positions in different apartments
- Video answering machine
- Call notice during an intercom conversation
- Call transfer
- Contemporaneous calls on the LAN backbone

System programming:

- *Manually* via associations between the outdoor position and indoor positions
- *Via PC* with software connected to the system power supply

System classification according to the different types:

- 2-wire systems with 1 level backbone: to implement single-family homes or small sized buildings, with a single building or block, the building can also have multiple staircases (uprights).
- 2-wire systems with a 2 level backbone: to implement medium and large sized residential complexes with multiple buildings or blocks.
- 2-wire systems with IP/LAN extension: to implement large sized systems for residential complexes with multiple buildings or blocks where the connection between buildings is via the LAN network.

Notes:

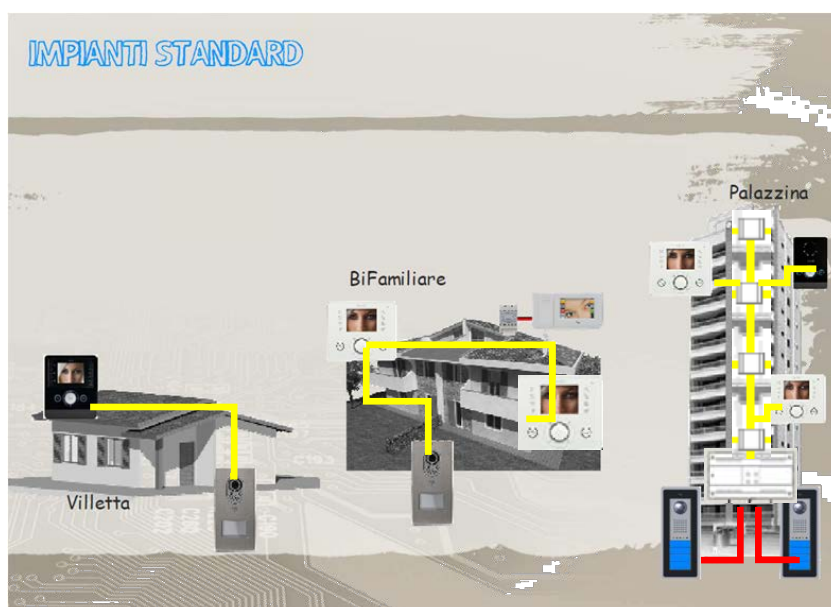
- the term “2-wire” used for each type of system refers to the uprights, which for all types, has 2 wires.
- The term “IP extension” can be associated with systems with the physical presence of a LAN network as well as with normal installations”; these devices also include different types of outdoor positions: KARALIS and ANTAS, the system power supply GW19351, the telecamera selector GW19359 and the auxiliary relay GW19360.

The following paragraphs describe the various types of systems defined above in more detail.

2-WIRE SYSTEMS WITH 1 LEVEL BACKBONE

This type of system makes it possible to implement video entryphone systems for small sized systems:

- Applications: single-family homes or small sized buildings, with a single building or block, the building can also have multiple indoor staircases (uprights).
- Architecture: the system may also consist of one or more uprights (one per staircase), but there is a maximum of only one system power supply, type GW19301 or GW19351, to which the outdoor positions are connected; in more simple systems, instead of a system power supply, there can be a simple power supply, type GW19302 or GW19303. The connection between the outdoor positions and the system power supply GW19301/GW19351 is called a backbone connection.
- Limits using the system power supply GW19301:
 - o Up to 3 outdoor position (one can be the main one)
 - o Passage control (with PE KARALIS)
 - o Up to 108 apartments per building
 - o Up to 8 indoor video entryphone positions per apartment
 - o Up to 8 videocameras per video control
 - o Intercom inside the same apartment or between apartments
 - o Up to 2 block porter's desks (with GW19202 WH/BK)
- Limits using the system power supply GW19351:
 - o Up to 4 outdoor position (one can be the main one)
 - o Passage control (with PE KARALIS and PE ANTAS)
 - o Up to 108 apartments per building
 - o Up to 8 indoor video entryphone positions per apartment
 - o Up to 12 videocameras per video control
 - o Intercom inside the same apartment or between apartments (an additional device is necessary)
 - o Up to 2 block porter's desks (with GW19202 WH/BK)



Main connections:

- in yellow, the connection of the 2-wire uprights
- in red, the backbone connections: with 4 wires with system power supply GW19301, with 8 wires with system power supply GW19351

2-WIRE SYSTEMS WITH 2 LEVEL BACKBONE

This type of system makes it possible to implement video entryphone systems for medium and large sized systems:

- Applications: medium and large sized residential complexes with multiple buildings or blocks.
- Architecture: the system may consist of one or more uprights per building, one per staircase; each building has one system power supply GW19301 to which the building's secondary outdoor positions are connected, all the power supplies GW19301 are connected to a system power supply GW19351 to which the main outdoor positions common to all buildings are connected.

The connections for the secondary outdoor positions for the individual buildings to the respective power supplies GW19301 are called second level backbone connections.

The connections for the main outdoor positions common to all the buildings to the respective power supplies GW19351 are called first level backbone connections.

- Limits:
 - o For each building:
 - Up to 2 outdoor position
 - Up to 108 apartments per building
 - Up to 8 indoor video entryphone positions per apartment
 - Passage control (with PE KARALIS)
 - Up to 8 videocameras per video control
 - Intercom inside the same apartment or between apartments
 - Up to 2 porter's desks (with GW19202 WH/BK in the Gewiss 2014 catalogue)
 - Up to 4 videocameras for video control, visible in the single building
 - Up to 2 block porter's desks for each block (with GW19202 WH/BK)
 - o For the entire complex:
 - maximum 64 buildings
 - Up to 4 main outdoor positions (with possible passage control)
 - Up to 2000 apartments (with PE ANTAS)
 - Intercom limited to the apartments in the single block and not possible between different blocks
 - Up to 12 videocamera per video control, visible to all (with GW19359)
 - Up to 2 main porter's desks (with GW19202 WH/BK)

Even though large sizes can be reached, it is recommended to limit this type of system to a few blocks, due to functional limits and those caused by distances.

The following figure shows an example with 5 blocks, each with a single staircase.



Main connections:

- in yellow, the connection of the 2-wire uprights
- in red the second level backbone connections have 4 wires
- in violet the first level backbone connections have 8 wires
- the part marked in blue indicates one of the 5 blocks

2-WIRE SYSTEMS WITH IP/LAN EXTENSION

This type of system makes it possible to implement video entryphone systems large and very extended systems:

- Applications:
 - o large sized systems for residential complexes with multiple buildings or blocks where the connection between buildings is via the LAN network;
 - o Small sized systems (small number of residential units), but where the distances are considerable, e.g.: individual family residences where there is a large distance between the entry gate and the home.

Large distances can be easily covered using an optic fibre connection.
- Architecture: the system may consist of one or more uprights per building, one per staircase; each building has a system power supply GW19351 and a LAN interface GW19356, thanks to the LAN interfaces GW19356 all the bulidings can be connected together via the LAN network.
- Limits:
 - o For each building:
 - Up to 4 outdoor position
 - Up to 108 apartments per building
 - Up to 8 indoor video entryphone positions per apartment
 - Passage control (with PE KARALIS and PE ANTAS)
 - Up to 12 videocameras per video control per IP-extension block (with GW19359) and possibly another 4 for each individual 2-wire block
 - Intercom inside the same apartment or between apartments
 - Up to 2 porter's desks (with GW19202 WH/BK)
 - o For the entire complex:
 - o Unlimited number of buildings
 - o Unlimited outdoor positions (above 108 apartments, PE ANTAS is necessary, which manages a max of 2000 calls)
 - o Unlimited no. of apartments
 - o Up to 8 indoor positions per apartment
 - o Intercom limited to the apartments in the single block and not possible between different blocks
 - o Passage control
 - o Up to 12 videocameras per video control visible to all for each IP-extension block (building)

The following figure shows the same example as the previous paragraph, with 5 blocks and a staircase for each block. But in this case, the individual blocks are connected together via IP/LAN; one of the advantages in comparison to the previous example is that the use of LAN makes it possible to reach large distances: 100 metres with cable (extendable with switches and similar devices) and kilometres with optic fibre.



Main connections:

- in yellow, the connection of the 2-wire uprights
- in violet, the 8-wire backbone block connections
- in black, the LAN backbone connections
- the part marked in blue indicates one of the 5 IP/LAN extension blocks

PRODUCT SHEETS

The purpose of this chapter is to clarify the basic information about the main products.

ADDITIONAL POWER SUPPLIES: supply only power (no signals)

GW19302: 18Vdc - 0.5A in continuous operation and 1A max for one minute No. DIN modules: 2	 The image shows the GW19302 power supply module. It is a white, DIN-rail mounted unit. The top cover is partially open, revealing internal components including two electrolytic capacitors and a toroidal inductor. The front panel features a label with the GEWISS logo, model number GW19302, and technical specifications: 'In 230VAC 50/60Hz 0.2A' and 'Out 18VDC 180mA 5A'. There are two rows of terminal blocks for wiring.
GW19303: 17.5Vdc - 1.7A in continuous operation No. DIN modules: 8	 The image shows the GW19303 power supply module. It is a white, DIN-rail mounted unit. The top cover is partially open, revealing internal components. The front panel features a label with the GEWISS logo, model number GW19303, and technical specifications: 'In 230VAC 50/60Hz 0.25A' and 'Out 17.5VDC 1.7A'. There are two rows of terminal blocks for wiring.
GW19305: 18Vdc - dedicated to supply power to NAXOS indoor positions No. DIN modules: 3	 The image shows the GW19305 power supply module. It is a white, DIN-rail mounted unit. The front panel features a label with the GEWISS logo, model number GW19305, and technical specifications: 'In 230VAC 50/60Hz 68mA' and 'Out 18VDC 350mA'. There are two rows of terminal blocks for wiring.

SYSTEM POWER SUPPLIES: supply BUS and power

GW19301: for 2-wire systems

GW19301 - System power supply for 2-wire systems



Central unit that manages the operation of the video entryphone upright, to which the indoor positions (upright) and the outdoor positions (point-point) are connected, the unit not only supplies power for the devices, it also sorts the audio and video signal. For more information about the type and architecture, see the chapter dedicated to examples (ref. page 38). Protected against overloads and short-circuiting. With an 18V DC output for powering outdoor positions, a 20V DC output for connecting and powering the video entryphone upright, inputs for managing up to 3 outdoor positions, and 2 open collector outputs for auxiliary functions. Includes the general intercom function, and manages the access control devices (RFID reader GW19141, card GW19142 and transponder key GW19143). Can be programmed manually or with PC equipped with software GW19373 (via mini USB connectors).

CHARACTERISTICS AND FUNCTIONS

Number of apartments	Max 64 Up to 108 using GW19304 signal repeaters
Max. number of outdoor positions	3
Maximum distance from each outdoor position	100 m
Maximum distance from the last indoor position	100 m
Maximum distance from the outdoor position to the last indoor position	150 m
Integrated intercom	Yes, for the general intercom function
Access control	Supported

COMPATIBILITY

2-wire system	Yes, with outdoor positions AESIS (GW19001, GW19006) and KARALIS (GW19011TG, GW19011ME, GW19016TG, GW19016ME)
IP ext. system	Not supported
IP/LAN ext. system	Not supported

TECHNICAL DATA

Dimensions no. of DIN modules	12
Operating temperature	0°C to +35°C
Power supply	230Vac 50÷60 Hz
2-wire upright supply	20Vdc - 0.2A in continuous operation and 0.8A max for one minute
Backbone supply	18Vdc - 0.6A in continuous operation , 1,1A max for 15 seconds, 1.6A if the upright is separately powered
Outputs	Two, open collector 12Vdc 100mA max
IP rating	30

ACCESSORIES

None	
------	--

GW19351: for IP extension system

GW19351 - System power supply for IP extension systems



Central unit that manages the operation of the video entryphone upright, to which the indoor positions (upright) and the outdoor positions (point-point) are connected, the unit not only supplies power for the devices, it also sorts the audio and video signal. In comparison to the unit GW19301, in addition to implementing individual uprights, it can also be used to create systems with multiple uprights (blocks). For more information about the type and architecture, see the chapter dedicated to examples (ref. page 38).

Protected against overloads and short-circuiting. It has an 18V DC output for powering outdoor positions, a 20V DC output for connecting and powering the video entryphone upright, inputs for managing up to 4 outdoor positions, 2 GW19356 open collector outputs for auxiliary functions and a connection for LAN network interface GW19356. Manages the access control devices (RFID reader GW19141, card GW19142 and transponder key GW19143). Can be programmed manually or with PC equipped with software GW19373 (via mini USB connectors).

CHARACTERISTICS AND FUNCTIONS

Number of apartments	Max 64 Up to 108 using GW19304 signal repeaters
Max. number of outdoor positions	4
Maximum distance from each outdoor position	250 m
Maximum distance from the last indoor position	100 m
Maximum distance from the outdoor position to the last indoor position	100 m + distance from the power supply to PE
Integrated intercom	No, only supported with module GW19308
Access control	Supported

COMPATIBILITY

2-wire system	No supported with a backbone connection
IP ext. system	Yes, with KARALIS (GW19051TG, GW19051ME, GW19056TG, GW19056ME) and ANTAS (GW19061) outdoor positions
IP/LAN ext. system	Supported by means of connection to module GW19356

TECHNICAL DATA

Dimensions no. of DIN modules	12
Operating temperature	0°C to +35°C
Power supply	230Vac 50-60 Hz
2-wire upright supply	20Vdc - 0.8A
Backbone supply	18Vdc - 1,1A max
Outputs	Two, open collector 12Vdc 100mA max
IP rating	30

ACCESSORIES

None	
------	--

OUTDOOR POSITIONS

AESIS

GW19001 - Two-wire outdoor video entryphone position

GW19006 - Two-wire outdoor entryphone position



Outdoor positions with grey technopolymer body and stainless steel finish, available only for 2-wire systems. The outdoor position can be audio/video or audio only and can house from 1 to 4 call push-buttons with blue button key backlighting. It is possible to house call push-buttons - single (2 x GW19131), double (2 x GW19133), or dual-height (1 x GW19132). Can be surface-mounted or flush-mounted: in the latter case you will need a flush-mounting box (GW19101) and flush-mounting frame (GW19102).

CHARACTERISTICS AND FUNCTIONS

Number of apartments	Max 4
Signalling LED	Not included
Integrated intercom	Yes, for the general intercom function
Access control	Not supported
Keyboard control	Not supported

COMPATIBILITY

2-wire system	Yes, in stand alone mode or connected to GW19301
IP ext. system	Not supported

TECHNICAL DATA

Dimensions (LxHxD) mm	99x207x30
Operating temperature	- 15°C to +50°C
Telecamera	With NTSC/PAL colour 680x512 pixel resolution, 94° horizontal aperture angle, 77° vertical aperture angle, digital zoom regulation and high-efficiency white LED lighting.
Power supply	16-18Vdc power supply input.
Absorption from the backbone	2-wire system for the entryphone version: 75mA in stand by 620mA maximum 2-wire system for the audio/video version: 100mA in stand by 750mA maximum
Inputs	One for a possible door opener push-button
Outputs	One for the electro-lock
IP rating	54

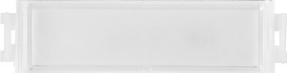
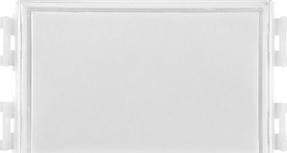
ACCESSORIES

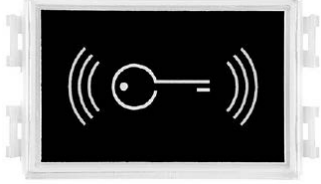
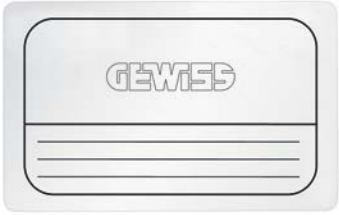
GW19101: Flush-mounting box	
GW19102: Flush-mounting frame	
GW19103: Rainproof roof (not suitable for flush-mounting assembly)	
GW19131: single push-button (makes 1 call)	
GW19132: Dual-height push-button (makes 1 call)	
GW19133: Double push-button (makes 2 calls)	

KARALIS

GW19011TG - Two-wire outdoor video entryphone position - grey GW19011ME - Two-wire outdoor video entryphone position - metallic GW19016TG - Two-wire outdoor entryphone position - grey GW19016ME - Two-wire outdoor entryphone position - metallic GW19051TG - IP extension outdoor video entryphone position - grey GW19051ME - IP extension outdoor video entryphone position - metallic GW19056TG - IP extension outdoor entryphone position - grey GW19056ME - IP extension outdoor entryphone position - metallic	
Outdoor positions with grey technopolymer body and a finish in the same colour (version TG) or in satin chrome (version ME), available for two-wire and IP extension systems. The outdoor positions can be audio/video or audio only and can house from 1 to 8 call push-buttons with blue button key backlighting. The positions are to be completed with a metal front plate (GW19116MM/MG/MB). They can house call push-buttons - single (4 x GW19131), double (4 x GW19133), or dual-height (2 x GW19132), RFID reader modules for access control (GW19141), keyboards for access control (GW19137TG/ME). The number of call push-buttons can be increased by adding extra push-button panels (GW19091). Can be surface-mounted or flush-mounted: in the latter case you will need a flush-mounting box (GW19111) and flush-mounting frame (GW19112TG/ME).	
CHARACTERISTICS AND FUNCTIONS	
<i>Number of apartments</i>	Max 8 (without additional push-button panels) Max 108 (with additional push-button panels)
<i>Signalling LED</i>	Red (call in progress), green (door open), yellow (conversation in progress), blue (system occupied)
<i>Integrated intercom</i>	No, the intercom function requires the power supply GW19301 or the intercom module GW19308.
<i>Access control</i>	Yes, with the additional RFID reader accessory module GW19141; using transponder keys or cards it is possible to open the input connected to the outdoor position.
<i>Keyboard control</i>	Yes, with the additional keyboard accessory module GW19137TG/ME; it makes it possible to open the input connected to the outdoor position and to enter the number of the apartment to call.
COMPATIBILITY	
<i>2-wire system</i>	Yes, only for 2-wire KARALIS in stand alone mode or connected to GW19301
<i>IP ext. system</i>	Yes, only for IP ex. KARALIS connected to GW19351
TECHNICAL DATA	
<i>Dimensions (LxHxD) mm</i>	99x254x25
<i>Operating temperature</i>	- 15°C to +50°C
<i>Telecamera</i>	With NTSC/PAL colour 680x512 pixel resolution, 100° horizontal aperture angle, 82° vertical aperture angle, digital zoom regulation and high-efficiency white LED lighting.
<i>Power supply</i>	14-18Vdc power supply input.
<i>Absorption from the backbone</i>	2-wire system for the entryphone version: 130mA in stand by 630mA maximum 2-wire system for the audio/video version: 130mA in stand by

	▪ 820mA maximum IP extension system for entryphone version: ▪ 100mA in stand by ▪ 600mA maximum IP extension system for audio/video version: ▪ 100mA in stand by ▪ 700mA maximum Absorption from the backbone line per additional push-button panel module: ▪ 35mA in stand by ▪ 35mA maximum
<i>Inputs</i>	One for a possible door opener push-button. One for the status of a possible door contact (open/closed).
<i>Outputs</i>	One for the electro-lock. One for telecamera enabling as an alternative to the one mounted on the outdoor position and/or for an external light.
<i>IP rating</i>	54
ACCESSORIES	
GW19111 : flush-mounting box	
GW19112TG: grey flush-mounting frame GW19112ME: metallic flush-mounting frame	
GW19116MM: metallic front plates GW19116MG: grey front plates GW19116MB: black front plates	

GW19113: Rainproof roof (not suitable for flush-mounting assembly)	
GW19091: additional outdoor push-button panel (installation: max 10)	
GW19131: single push-button (makes 1 call)	
GW19132: dual-height push-button (makes 1 call)	
GW19133: double push-button (makes 2 calls)	
GW19134TG: single grey cap GW19134ME: single metallic cap	 
GW19135TG: dual-height grey cap GW19135ME: dual-height metallic cap	 

GW19136: information module (with name card)	
GW19141: RFID reader for access control	
GW19137TG: grey keyboard for access control GW19137ME: metallic keyboard for access control	
GW19142: transponder card for access control	
GW19143: transponder key for access control	

ANTAS

GW19061 - Outdoor video entryphone position with electronic index



Outdoor position equipped with LCD graphic display, 4 button keys for navigation, alphanumeric keyboard, integrated RFID reader module for proximity keys. The outdoor position is equipped with volume adjustment for the microphone and speaker, electro-lock activation time, output for the electro-lock and for activation of the outdoor telecameras. It has front LEDs for visual signalling of system status.

Option of surface-mounting or flush-mounting with the relative boxes.

CHARACTERISTICS AND FUNCTIONS

Number of apartments	Max 2000
Signalling LED	Red (call in progress), green (door open), yellow (conversation in progress), blue (system occupied)
Integrated intercom	No, the intercom function requires the intercom module GW19308.
Access control	Yes, already integrated with the RFID reader model GW19141; using transponder keys or cards it is possible to open the input connected to the outdoor position.
Keyboard control	Yes, integrated in the device keyboard; it makes it possible to open the input connected to the outdoor position and to enter the number of the apartment to call or search for it in the index.

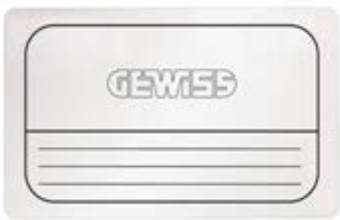
COMPATIBILITY

2-wire system	Not supported
IP ext. system	Yes, to connect to GW19351 or to GW19356

TECHNICAL DATA

Dimensions (LxHxD) mm	140x380x42
Operating temperature	- 15°C to +50°C
Telecamera	With NTSC/PAL colour 680x512 pixel resolution, 100° horizontal aperture angle, 82° vertical aperture angle, digital zoom regulation and high-efficiency white LED lighting.
LCD graphic display	128X128 pixel, white backlighting
Power supply	14-18Vdc power supply input.
Absorption from the backbone	IP extension system for audio/video version: 150mA in stand by 720mA maximum
Inputs	One for a possible door opener push-button. One for the status of a possible door contact (open/closed).
Outputs	One for the electro-lock. One for telecamera enabling as an alternative to the one mounted on the outdoor position and/or for an external light.
IP rating	54

ACCESSORIES

GW19161: flush-mounting box	
GW19162: surface-mounting box with roof	
GW19163: rainproof roof (not suitable for surface-mounting assembly)	
GW19142: transponder card for access control	
GW19143: transponder key for access control	

INDOOR POSITIONS:

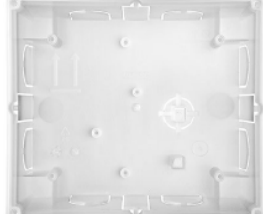
NORA

GW19236 - 2-wire indoor entryphone position with handset	
Indoor positions equipped with push-buttons for door opening and one auxiliary function. Surface-mounting installation only. To fix it, use flush-mounting boxes - round $\varnothing$ 60mm (e.g.: GW24232), square (e.g.: GW24231), rectangular (e.g.: GW24403) or fix directly on the wall with the aid of wall plugs.	
CHARACTERISTICS AND FUNCTIONS	
<i>Auxiliary functions</i> (e.g.: opening of gate, switch-on of stair raiser light),	2
<i>Intercom</i>	8
<i>Ringer disabled</i>	Yes, with signalling by red LED on
<i>Mute in conversation</i>	No
<i>Ringtones</i>	Different depending on if the call is from an outdoor position, from the landing or an alarm
<i>Video mail</i>	No
<i>Max. number per apartment</i>	8
<i>Integration with KNX</i>	Not supported
COMPATIBILITY	
<i>2-wire system</i>	Yes, exclusively for upright connection
TECHNICAL DATA	
<i>Dimensions (LxHxD) mm</i>	Entryphone version with handset 102x190x39
<i>Operating temperature</i>	+5°C to +40°C
<i>Display</i>	Not present
<i>Power supply</i>	Exclusively from the BUS
<i>Absorption from the upright</i>	2-wire system for the entryphone version: ▪ <0.5mA in stand by ▪ 30mA maximum
<i>Inputs</i>	One for a possible call from the landing One for alarm signalling (example bath pull-cord)
<i>Outputs</i>	none
<i>IP rating</i>	30
ACCESSORIES	
<i>None</i>	

VELIA

GW19211WH – 2-wire indoor video entryphone position with speakerphone GW19211BK - 2-wire indoor video entryphone position with speakerphone GW19216WH – 2-wire indoor entryphone position with speakerphone GW19216BK - 2-wire indoor entryphone position with speakerphone	
Indoor positions equipped with push-buttons with blue LED backlighting for activating/deactivating the communication. Surface-mounting installation only. To fix it, use flush-mounting boxes - round ø 60mm (e.g.: GW24232), square (e.g.:GW24231), rectangular (e.g.: GW24403) or fix directly on the wall with the aid of wall plugs.	
CHARACTERISTICS AND FUNCTIONS	
<i>Auxiliary functions</i> (e.g.: opening of gate, switch-on of stair raiser light),	Yes, two
<i>Intercom</i>	Up to 2 calls for the entryphone version Up to 8 calls for the audio/video version
<i>Ringer disabled</i>	Yes with red LED backlight indicating disabled ringer
<i>Mute in conversation</i>	Only for indoor video entryphone
<i>Ringtones</i>	Different depending on if the call is from an outdoor position, from the landing or an alarm
<i>Video mail</i>	No
<i>Max. number per apartment</i>	8, based on the type of system, there will be n Masters (monitors on during the call) and n Slaves (monitors off during the call)
<i>Integration with KNX</i>	Not supported
COMPATIBILITY	
<i>2-wire system</i>	Yes, exclusively for upright connection
TECHNICAL DATA	
<i>Dimensions (LxHxD) mm</i>	Entryphone version with speakerphone 110x170x31 Audio/video version with speakerphone 145x170x31
<i>Operating temperature</i>	0°C to +35°C
<i>Display</i>	3.5" colour LCD
<i>Power supply</i>	Exclusively from the BUS
<i>Absorption from the upright</i>	2-wire system for the entryphone version: <1mA in stand by 80mA maximum 2-wire system for the audio/video version: <1mA in stand by 200mA maximum
<i>Inputs</i>	One for a possible call from the landing One for alarm signalling (example bath pull-cord)
<i>Outputs</i>	none
<i>IP rating</i>	20
ACCESSORIES	
<i>None</i>	

SENA

GW19221WH – 2-wire indoor video entryphone position with speakerphone GW19221BK - 2-wire indoor video entryphone position with speakerphone	
Indoor positions equipped with touch push-buttons with blue LED backlighting for activating/deactivating the communication Surface-mounting installation with support GW19223WH/BK or flush-mounting installation with box GW19224.	
CHARACTERISTICS AND FUNCTIONS	
<i>Auxiliary functions</i> (e.g.: opening of gate, switch-on of stair raiser light),	9 of which 2 with direct soft-touch commands and 7 commands from the OSD menu.
<i>Intercom</i>	Up to 8 calls
<i>Ringer disabled</i>	Yes with red LED backlight indicating disabled ringer
<i>Mute in conversation</i>	Yes
<i>Ringtones</i>	Different depending on if the call is from an outdoor position, from the landing or an alarm
<i>Video mail</i>	No
<i>Max. number per apartment</i>	8, based on the type of system, there will be n Masters (monitors on during the call) and n Slaves (monitors off during the call)
<i>Integration with KNX</i>	Not supported
COMPATIBILITY	
<i>2-wire system</i>	Yes, exclusively for upright connection
TECHNICAL DATA	
<i>Dimensions (LxHxD) mm</i>	Audio/video version with speakerphone 158x138x31
<i>Operating temperature</i>	0°C to +35°C
<i>Display</i>	3.5" colour LCD
<i>Power supply</i>	From the BUS or external
<i>Absorption from the upright</i>	2-wire system: ▪ <1mA in stand by ▪ 250mA maximum
<i>Inputs</i>	One for a possible call from the landing One for alarm signalling (example bath pull-cord)
<i>Outputs</i>	none
<i>IP rating</i>	20
ACCESSORIES	
GW19224: flush-mounting box	
GW19223WH: white surface-mounting supports GW19223BK: black surface-mounting supports	

NAXOS

GW19201WH - 2-wire IP video entryphone GW19201BK - 2-wire IP video entryphone GW19202WH - 2-wire porter's desk enclosure GW19202BK - 2-wire porter's desk enclosure GW10962WH - Combined KNX 2-wire PI video entryphone GW12962BK - Combined KNX 2-wire PI video entryphone	
Indoor positions equipped with integrated 4.3" LCD touchscreen colour display, speakerphone audio and handset. Surface-mounting installation only. To fix it, use flush-mounting boxes - round ø 60mm (e.g.: GW24232), square (e.g.: GW24231), rectangular (e.g.: GW24403) or fix directly on the wall with the aid of wall plugs. For free-standing use, you will need the accessory GW19203WH or GW19203BK (already included in the porter's desk enclosure).	
CHARACTERISTICS AND FUNCTIONS	
<i>Auxiliary functions (e.g.: opening of gate, switch-on of stair raiser light),</i>	2
<i>Intercom</i>	Up to 10 calls
<i>Ringer disabled</i>	Yes
<i>Mute in conversation</i>	Yes
<i>Ringtones</i>	9 polyphonic ringtones
<i>Video mail</i>	Yes, up to 10 video messages
<i>Max. number per apartment</i>	8, all Masters as they are always powered externally only and not by the 2-wire BUS
<i>Porter's desk functions</i>	Only for the GW19202 version, and permits basically to receive and forward direct calls to users in your block.
<i>Integration with KNX</i>	Only for Naxos Combi GW10962 versions, both with specific video entryphone/KNX functions or exclusively KNX functions. In particular, the following video entryphone events can generate KNX commands: call from OP, missed call from OP, intercom call, missed intercom call, auto ON command from the panel, door opener command from the panel, auxiliary commands 1 and 2, intercom call from the panel, response from the panel to a call, call from porter. The following events generated in KNX can instead activate video entryphone functions such as: activation of auto ON, enable/disable video mail, enable/disable privacy, activate landing call ringer, auxiliary commands 1 and 2, door opener command. The KNX only functions include: ON/OFF commands, roller shutters, dimmer, temperature adjustment commands, timed thermostat function (in combination with a KNX temperature sensor), scenes, timers, logics, load control and Gewiss burglar alarm system management.
COMPATIBILITY	
<i>2-wire system</i>	Yes, exclusively for connection to the 2-wire BUS
TECHNICAL DATA	
<i>Dimensions (LxHxD) mm</i>	Audio/video version with speakerphone 203x108x31
<i>Operating temperature</i>	0°C to +35°C
<i>Display</i>	4.3" colour touch screen LCD
<i>Power supply</i>	External via GW19305
<i>Absorption</i>	Does not absorb from the upright as it is always externally powered
<i>Inputs</i>	One for a possible call from the landing One for alarm signalling (example bath pull-cord)
<i>Outputs</i>	None
<i>IP rating</i>	20
ACCESSORIES FOR NAXOS GW19201	
GW19203WH: white free-standing support GW19203BK: black free-standing support	

MASTER ICE

GW12015CB - 15" KNX panel with video entryphone functions with speakerphone GW12015CN - 15" KNX panel with video entryphone functions with speakerphone GW12010CB - 10" KNX panel with video entryphone functions with speakerphone GW12010CN - 10" KNX panel with video entryphone functions with speakerphone	
Colour TFT touch screen control panel in 4:3 format used for KNX supervision and includes the functions of the City Vision indoor video entryphone position in a IP/LAN system, with VoIP server GW19357. Available in 10" and 15" versions with a plate in white or black glass. GW12010CB/CN: to be used in combination with the flush-mounting box GW24101 or GW24101PM (not included). GW12015CB/CN: to be used in combination with the flush-mounting box GW24102 or GW24102PM (not included).	
CHARACTERISTICS AND FUNCTIONS	
<i>Standard functions</i>	Door/gate opening (only during a call) Display of images from outdoor position (only during a call)
<i>Auxiliary functions (e.g.: opening of gate, switch-on of stair raiser light),</i>	Not supported (Stair riser light could be managed via H&B Automation system)
<i>Intercom</i>	Not supported
<i>Ringer disabled</i>	Not supported
<i>Mute in conversation</i>	Not supported
<i>Max. number per apartment</i>	8 (every 3 Master ICE with a City Vision indoor position function requires a VoIP server GW19357)
<i>Integration with KNX</i>	Refer to the specific documentation for all the panel functions.
COMPATIBILITY	
<i>2-wire system</i>	Not supported
<i>IP/LAN system</i>	Supported when using the VoIP server GW19357
TECHNICAL DATA	
<i>Dimensions (LxHxD) mm</i>	10" audio/video version with speakerphone 320x250 15" audio/video version with speakerphone 430x320
<i>Operating temperature</i>	0°C to +40°C
<i>Display</i>	4.3" colour touch screen TFT
<i>Power supply</i>	Outdoor with GW90802 (not included)
<i>RAM</i>	4GB
<i>HDD solid state</i>	32GB
<i>Operating system</i>	Microsoft® Windows 8® Pro Embedded
<i>Absorption from the upright</i>	It does not absorb from the 2-wire upright because it is connected to the City Vision video entryphone system LAN
<i>Inputs</i>	None
<i>Outputs</i>	None
<i>IP rating</i>	20
ACCESSORIES	
<i>External power supply</i>	GW90802 (not included)
<i>Flush-mounting box for masonry walls</i>	GW24101 for 10" Master ICE GW24102 for 15" Master ICE
<i>Flush-mounting box for plasterboard walls</i>	GW24101PM for 10" Master ICE GW24102PM for 15" Master ICE

SYSTEM DEVICES: to be connected with 2-wire uprights on the BUS branches

GW19306: 2-wire signal distributor

GW19306 - Video distributor	
Device used in the upright for distributing signals in the various apartments and a maximum of 10 can be installed in cascade, to not lose more than 26db, after that the signal must be amplified with a GW19311; in an upright section with two wires, the signal can only be amplified 2 times and therefore in a section, the maximum is: 10 pieces of GW19306 + 1 piece of GW19311 + 10 pieces of GW19306 + 1 piece of GW19311 + 10 pieces of GW19306. A total of 30 pieces of GW19306 and 2 pieces of GW19311	
COMPATIBILITY	
2-wire system	Yes
IP ext. system	Not supported
IP/LAN ext. system	Not supported
TECHNICAL DATA	
Dimensions no. of DIN modules	1
Operating temperature	0°C to +35°C
Power supply	From 2-wire BUS (max absorption 20 mA)
2-wire upright input	Yes
2-wire upright output	-0.6db
Outputs for indoor positions	4 to -20db
IP rating	30

GW19311: 2-wire signal amplifiers

GW19311 - Video amplifier	
Device used in the upright for amplifying the signal, typically it is placed after 10 GW19306 distributors; in an upright section with two wires, the signal can only be amplified 2 times and therefore in a section, the maximum is: 10 pieces of GW19306 + 1 piece of GW19311 + 10 pieces of GW19306 + 1 piece of GW19311 + 10 pieces of GW19306. A total of 30 pieces of GW19306 and 2 pieces of GW19311	
COMPATIBILITY	
2-wire system	Yes
IP ext. system	Not supported
IP/LAN ext. system	Not supported
TECHNICAL DATA	
Dimensions no. of DIN modules	1
Operating temperature	0°C to +35°C
Power supply	From 2-wire BUS (max absorption 20 mA)
2-wire upright input	Yes
2-wire upright output	With 6 db configurable gain if placed after 10 GW19306 or 20db if installed on a -20db output of GW19306
Outputs for indoor positions	none
IP rating	30

GW19307: 2-wire amplified signal distributor

GW19307 - Video amplifier	
Device used to divert a 2-wire upright into 2 or more distinct uprights to serve 2 or more residential blocks.	
COMPATIBILITY	
2-wire system	Yes
IP ext. system	Not supported
IP/LAN ext. system	Not supported
TECHNICAL DATA	
Dimensions no. of DIN modules	6
Operating temperature	0°C to +35°C
Power supply	14-18Vdc, 60mA
2-wire upright input	Yes
2-wire upright output	1 to -0.6db
Outputs for 2-wire blocks	4 to 0db
IP rating	30

GW19304: 2-wire amplified signal repeater (max 2 on the BUS section)

GW19304 - Signal supply/repeater	
Audio and video signal amplification device, used to extend the length of the uprights. Protected against overloads and short-circuiting; used to extend the video entryphone upright in terms of distance and number of indoor positions; a maximum of two can be installed per 2-wire section.	
CHARACTERISTICS AND FUNCTIONS	
Number of apartments	Extends to 108 the limit of 64 apartments managed by GW19301 and GW19351
Distances with externally powered indoor positions	Makes it possible to use 2 devices to reach in the upright distances of up to 650 m with 2-wire systems and 750 m with the IP extension system. The 650 m are calculated from the outdoor position to the last indoor position. The 750 m are calculated from the power supply of the IP extension system to the last indoor position.
Distances with BUS powered indoor positions	Makes it possible to use 2 devices to reach in the upright distances of up to 350 m with 2-wire systems and 300 m with the IP extension system. The 350 m are calculated from the outdoor position to the last indoor position. The 300 m are calculated from the power supply of the IP extension system to the last indoor position.
COMPATIBILITY	
2-wire system	Yes
IP ext. system	Not supported
IP/LAN ext. system	Not supported
TECHNICAL DATA	
Dimensions no. of DIN modules	8
Operating temperature	0°C to +35°C
Power supply	230Vac 50÷60 Hz
2-wire upright supply	20Vdc - 0.8A
IP rating	30

DEVICES FOR ACCESSORY FUNCTIONS: to be connected on 2-wire BUS branches

GW19308: intercom module

GW19308 - Intercom module	
Device that makes it possible to implement the intercom function between the indoor positions connected downstream of it.	
CHARACTERISTICS AND FUNCTIONS	
Max indoor positions in intercom communication at the same time	2
Max indoor positions calling at the same time per apartment	8, this module provides the power supply
Call notice during an intercom conversation	Yes
COMPATIBILITY	
2-wire system	Yes
IP ext. system	Not supported
IP/LAN ext. system	Not supported
TECHNICAL DATA	
Dimensions no. of DIN modules	6
Operating temperature	0°C to +35°C
Power supply	230Vac 50÷60 Hz
2-wire upright supply	20Vdc - 0.8A
Inputs	One for a possible landing call button
IP rating	30

DEVICES FOR ACCESSORY FUNCTIONS: to be connected on the 2-wire backbones

GW19309: cyclic TVCC selector to connect to GW19301

GW19309 - Cyclic TVCC selector	
Device for connecting supplementary PAL/NTSC videocameras to the system. Equipped with 4 inputs for the video signal from the B/W or colour telecameras (PAL/NTSC standard); each telecamera must be powered autonomously. This is used to cyclically display on the indoor video entryphone positions the images coming from the telecameras and, based on the type of programming, to make them visible in all the apartments or in only some of them; alternatively, it can be used as an activator for an outdoor telecamera combined with an outdoor audio-only position. The device must be connected exclusively on a 4-wire backbone and therefore to the 2-wire system power supply GW19301. Attention: it cannot be connected to the power supply GW19351.	
COMPATIBILITY	
2-wire system	Yes
IP ext. system	Not supported
IP/LAN ext. system	Not supported
TECHNICAL DATA	
Dimensions no. of DIN modules	1
Operating temperature	0°C to +35°C
Power supply	12-18Vdc, 30mA in stand-by and 100mA max
Inputs for PAL/NTSC telecameras	4 (the telecameras are powered separately)
Input for telecamera enabling as an alternative to the one mounted on the outdoor position	Yes
IP rating	30

GW19310: remote relay unit for auxiliary services

GW19310 - Auxiliary actuator for 2-wire systems	
Device used to add contacts to the system for controlling auxiliary loads (lights, gates, etc.) directly from the indoor positions. Equipped with 2 relays with NO/NC contacts and a potentiometer for regulating the activation time (1-16 sec.). It is used to activate up to 2 loads that can be associated with door opener commands or auxiliary commands of the indoor positions (e.g. gate opening, turning on the stair raiser lights, etc.); to be used in 2-wire systems.	
COMPATIBILITY	
2-wire system	Yes
IP ext. system	Not supported
IP/LAN ext. system	Not supported
TECHNICAL DATA	
Dimensions no. of DIN modules	4
Operating temperature	0°C to +35°C
Power supply	14-18Vdc / 12-14Vac, 50mA max
2-wire upright input	Yes
Relay outputs	2 at 250Vac with 2A (AC1) and 1A (AC15)
IP rating	30

DEVICES FOR ACCESSORY FUNCTIONS to be connected on the IP extension backbone

GW19359: cyclic TVCC selector to connect to GW19351

GW19359 - Cyclic TVCC selector	
Device for connecting supplementary PAL/NTSC videocameras to the system. Equipped with 4 inputs for the video signal from the B/W or colour telecameras (PAL/NTSC standard); each telecamera must be powered autonomously. This is used to cyclically display on the indoor video entryphone positions the images coming from the telecameras and, based on the type of programming, to make them visible in all the apartments or in only some of them; alternatively, it can be used as an activator for an outdoor telecamera combined with an outdoor audio-only position. The device must be connected exclusively on an IP extension backbone and therefore to the power supply GW19351. Attention: it cannot be connected to the power supply GW19301.	
COMPATIBILITY	
2-wire system	Not supported
IP ext. system	Yes
IP/LAN ext. system	Not supported
TECHNICAL DATA	
Dimensions no. of DIN modules	1
Operating temperature	0°C to +35°C
Power supply	12-18Vdc, 45mA in stand-by and 90mA max
Inputs for PAL/NTSC telecameras	4 (the telecameras are powered separately)
Input for telecamera enabling as an alternative to the one mounted on the outdoor position	Yes
IP rating	30

GW19360: relay unit for auxiliary services

GW19360 - Auxiliary actuator for IP extension systems	
Device used to add contacts to the system for controlling auxiliary loads (lights, gates, etc.) directly from the indoor positions. Equipped with 3 relays with NO/NC contacts, it can be configured via software in stepping or pulse operation (1sec-1h). It is used to activate up to 3 loads that can be associated with door opener commands or auxiliary commands of the indoor positions (e.g. gate opening, turning on the stair raiser lights, etc.); to be used in IP extension systems and a max of 4 actuators can be connected for each GW19351.	
COMPATIBILITY	
2-wire system	Not supported
IP ext. system	Yes
IP/LAN ext. system	Not supported
TECHNICAL DATA	
Dimensions no. of DIN modules	4
Operating temperature	0°C to +50°C
Power supply	11-18Vdc, 200mA max
Relay outputs	3 at 250Vac with 10A (AC1) and 2A (AC15)
IP rating	30

DEVICES FOR EXTENDING THE SYSTEM ON IP/LAN:

GW19356: LAN network interface

GW19356 - LAN network interface	
Device that permits extending the video entryphone system to 2-wires on the LAN network. Equipped with 2 Ethernet ports 10/100 Mb, 1 connector for connecting to the power supply GW19351 and one input for managing a max of 1 outdoor position. Used for creating LAN backbones to extend the video entryphone system to residential complexes or to take advantage of the IP network, for example to cover larger distances.	
CHARACTERISTICS AND FUNCTIONS	
Max. number of outdoor positions	1
Maximum distance from each outdoor position	250 m
Integrated intercom	No
Access control	Supported
COMPATIBILITY	
2-wire system	Not supported
IP ext. system	Yes
IP/LAN ext. system	Yes
TECHNICAL DATA	
Dimensions no. of DIN modules	8
Operating temperature	0°C to +35°C
Power supply	14-18Vdc, max 390mA (if an outdoor position is not connected, the device does not need to be powered because it takes the power from the GW19351)
IP rating	30

GW19357: VoIP server to support the Master ICE

GW19357 - VoIP server		
Enables the Master Ice panels to be used in the City Vision system as indoor video entryphone positions via the SIP protocol. To be used in an IP/LAN system.		
CHARACTERISTICS AND FUNCTIONS		
Max. number of indoor positions	3 Master ICE for each VoIP server	
Maximum distance of the LAN line	100 m	
COMPATIBILITY		
2-wire system	Not supported	
IP ext. system	Not supported	
IP/LAN ext. system	Yes	
TECHNICAL DATA		
Dimensions no. of DIN modules	6	
Number of LAN RJ45 connectors	1	
Operating temperature	0°C to +35°C	
Power supply	230V AC	
Draw	600mA	
IP rating	30	

CABLES:

- **GW19391:** 100 m of 1 mm² twisted duplex cable
- **GW19392:** 500 m of 1 mm² twisted duplex cable
- **GW19393:** 100 m of 0.28 mm² twisted duplex cable and two 1 mm² wires
- **GW19394:** 500 m of 0.28 mm² twisted duplex cable and two 1 mm² wires
- **GW19395:** 100 m of three 0.28 mm² twisted duplex cable and two 1.5 mm² section wires
- **GW19396:** 500 m of three 0.28 mm² twisted duplex cable and two 1.5 mm² section wires

SOFTWARE:

- **GW19373:** USB key containing programming software for Windows 8 systems
- **COST ESTIMATE SOFTWARE:** can be downloaded free of charge from the Gewiss site

ABSORPTION

This chapter summarises the device absorption with a backbone and an upright connection.

Current supplied by City Vision power supplies

The following table shows the current supplied by different power supplies in the catalogue.

Current supplied		
Article	Rated current	Peak current
GW19301 - 2-wire power supply	0.6A - in the backbone 0.2A - in the upright	1.1A - in the backbone for 15" 0.8A - in the upright for 1"
GW19351 - IP extension power supply	0.6A - in the backbone 0.2A - in the upright	1.1A - in the backbone for 15" 0.8A - in the upright for 1"
GW19302 - Supplementary power supply	0.5A	1A - for 1'
GW19303 - Supplementary power supply	1.7A	
GW19304 - Signal regenerator power supply	0.8A - in the upright	
GW19305 - Power supply for Naxos	0.35A	0.5A
GW19308 - Intercom power supply module	0.8A - in the upright	

Current absorbed in a 2-wire upright

The following table shows the current absorbed by different devices in the catalogue.

Absorbed current			
Article	Stand-by	For calling as Master	For calling as Slave
GW19221 - Sena	1mA	250mA	30mA
GW19211 - Velia video	1mA	200mA	30mA
GW19216 - Velia audio	1mA	80mA	30mA
GW19306 - Video distributor	0mA		
GW19311 - Video amplifier	20mA		

The Naxos indoor positions always have an external power supply and do not absorb from the 2-wire upright.

Current absorbed in the backbone for 2-wire system devices

The following table shows the current absorbed by different devices in the catalogue.

Absorbed current			
2-wire item	Stand-by	During a call	In electro-lock cmd
GW19016 - Karalis audio	130mA	130mA	630mA
GW19011 - Karalis video	130mA	320mA	820mA
GW19309 - Telecamera selector	30mA	30mA	150mA (during video scanning)
GW19001 - Aesis video	100mA	250 mA	750mA
GW19006 - Aesis audio	75mA	120mA	620mA
GW19091 - Additional push-button panel for Karalis	35mA		
GW19137 - DNA keyboard	25mA (be careful if multiple OP are connected to the power supply, you must consider 500mA of electro-lock + its 25mA)		
GW19141 - RFID module	10mA (be careful if multiple OP are connected to the power supply, you must consider 500mA of electro-lock + its 10mA)		
GW19307 - Amplified video distributor	60mA		
GW19310 - 2 relay remote actuator	50mA		

Current absorbed in the backbone for IP extension system devices

The following table shows the current absorbed by different devices in the catalogue.

Absorbed current			
IP extension item	Stand-by	During a call	In electro-lock cmd
GW19056 - Karalis audio	100mA	100mA	600mA
GW19051 - Karalis video	100mA	200mA	700mA
GW19061 - Antas	150mA	220mA	720mA
GW19359 - Telecamera selector	45mA	45mA	90mA (during video scanning)
GW19091 - Additional push-button panel for Karalis	35mA		
GW19137 - DNA keyboard	25mA (be careful if multiple OP are connected to the power supply, you must consider 500mA of electro-lock + its 25mA)		
GW19141 - RFID module	10mA (be careful if multiple OP are connected to the power supply, you must consider 500mA of electro-lock + its 10mA)		
GW19316 - 3 relay remote actuator	200mA		
GW19356 - LAN interface	300mA at 18Vdc 390mA at 14Vdc		
GW19307 - Amplified video distributor	60mA		

EXAMPLES

Examples are provided below, and 3 of them show systems that can be implemented using available kits.

Standard type of system: single family with AESIS outdoor position - Kit GW19401WH/BK

The Kit GW19401WH/BK is composed of:

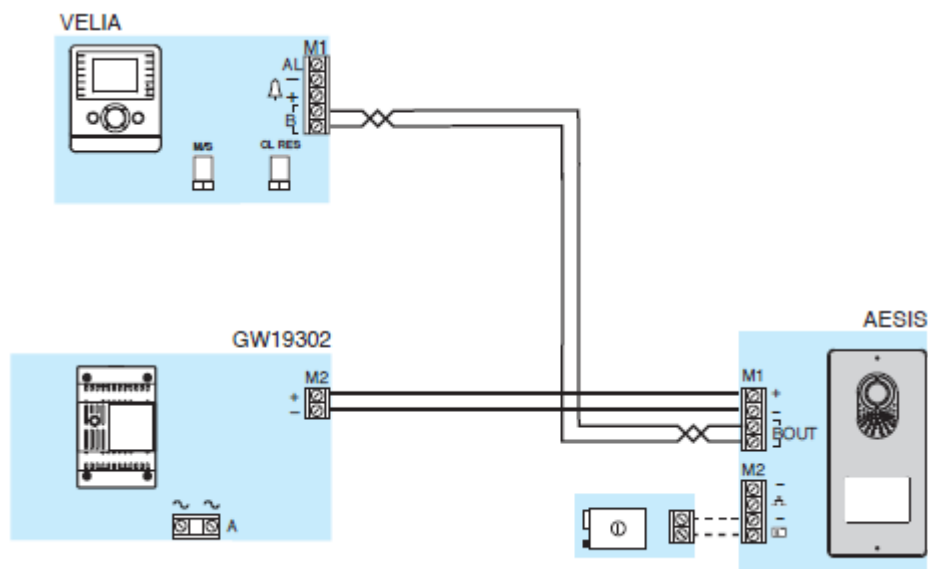
- 1 VELIA indoor position GW19211WH/BK
- 1 AESIS outdoor video position GW19001
- 1 dual-height push-button GW19132
- 1 power supply GW19302

The power supply GW19302 is not able to generate the BUS line (audio-video signal), which must be emitted by the outdoor position, in this case by the AESIS, which also provides the general intercom function.

In this case there is not a real backbone, as the GW19302 powers the outdoor position via 2 wires, but it is the outdoor position that creates the 2-wire BUS upright.

This type of system is only programmed manually and not with the PC.

Connection diagram:



Expandability and limits:

It is possible to summarises the following limits for a home that can be extended up to a four-family home by adding indoor positions and push-buttons:

- Max distance of 60 m between the OP and power supply GW19302 (with 2x2.5mm² wire)
- Max distance of 100 m between the OP and the last receiver
- Max 500 m of cable extended between outdoor positions and VELIA indoor positions
- Max 600 m of cable extended outdoor positions and NAXOS and SENA indoor positions (powered externally and not by the BUS)
- Max. no of apartments: 4 of which
 - o For VELIA indoor video entryphone positions (powered by the BUS):
 - Max 8 indoor positions per apartment (1 Master and 7 Slaves)
 - Max 5 indoor positions per apartment (2 Masters and 3 Slaves)
 - o For SENA indoor positions (powered by the BUS):
 - Max 8 indoor positions per apartment (1 Master and 7 Slaves)
 - Max 2 indoor positions per apartment (2 Masters and 0 Slaves)
- Max. no of OP: 1

Standard type of system: single family with KARALIS outdoor position - Kit GW19410WH/BK

The Kit GW19410WH/BK is composed of:

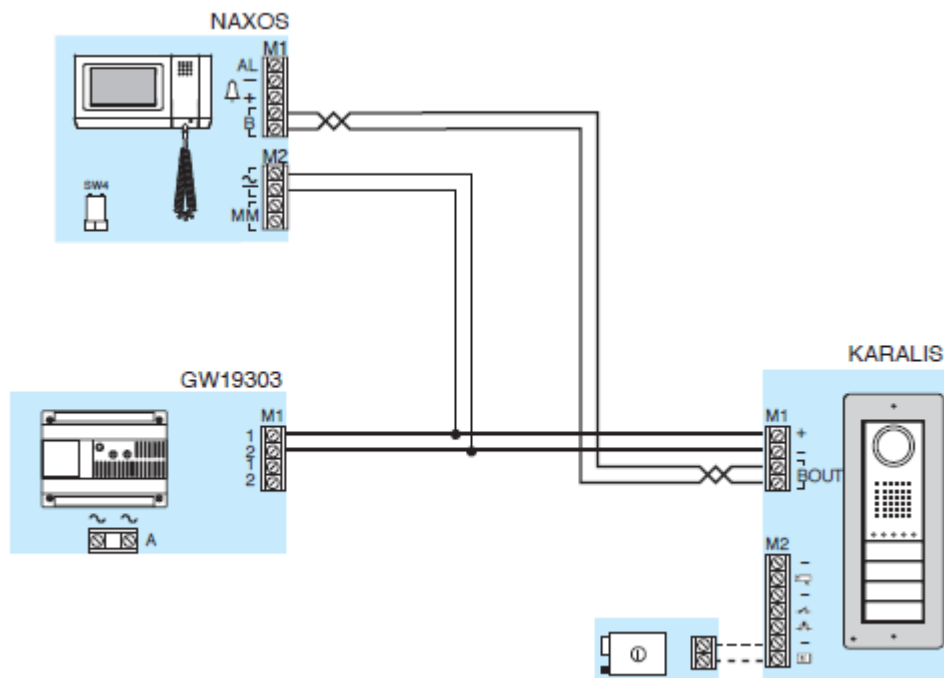
- 1 NAXOS indoor position GW19201WH/BK
- 1 KARALIS outdoor video position GW19011ME
- 1 dual-height push-button GW19132
- 1 dual-height cap GW19135ME
- 1 front plate GW19116MB (black)
- 1 power supply GW19303

The power supply GW19302 is not able to generate the BUS line (audio-video signal), which must be emitted by the outdoor position, in this case by the KARALIS.

In this case there is not a real backbone, as the GW19303 powers the outdoor position via 2 wires, but it is the outdoor position that creates the 2-wire BUS upright.

Unlike the AESIS, KARALIS is not able to power the indoor positions from the 2-wire BUS and therefore for this type of system, internal positions must be provided that are externally powered (NAXOS and SENA).

This type of system is only programmed manually and not with the PC.

Connection diagram:Expandability and limits:

It is possible to summarise the following limits for a building that can be extended to up to 108 apartments with the addition of indoor positions and power supplies, additional push-button panels, push-buttons, video distributors and signal repeaters:

- Max distance of 60 m between the OP and power supply GW19303 (with 2x2.5mm² wire)
- Max distance of 100 m between the OP and the last receiver
- Max 600 m of cable extended outdoor positions and NAXOS and SENA indoor positions (powered externally and not by the BUS)
- Max. no of apartments: 8 of which only NAXOS and SENA indoor positions (powered externally and not by the BUS)
- Max. no of OP: 1

Standard type of system: building with power supply GW19301 and KARALIS flush-mounting outdoor position - Kit EVO GW19411/GW19412WH/BK

To implement the 2-wire system for a building, it is possible to use one of the two kits GW19411 or GW19412; these kits also include one indoor position and the difference between the two kits consists in the indoor position: VELIA for GW19411 and SENA for the GW19412.

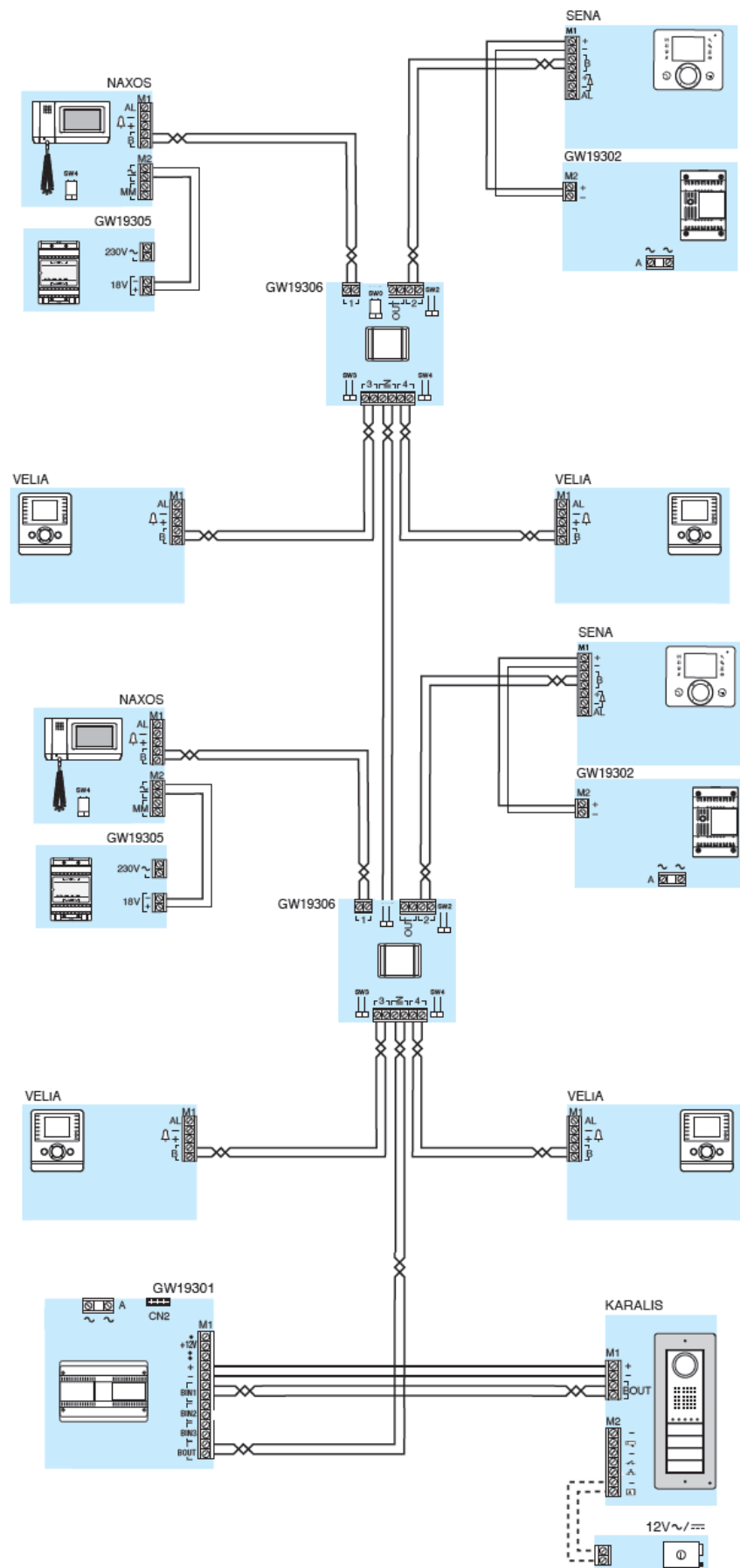
The rest of the kit consists of:

- 1 KARALIS outdoor video position GW19011ME
- 1 single push-button GW19131
- 3 single caps GW19134ME
- 1 front plate GW19116MB (black)
- 1 flush-mounting box for KARALIS GW19111
- 1 flush-mounting frame for KARALIS GW19112ME
- 1 power supply for 2-wire GW19301

The power supply GW19301 is able to generate the BUS line, or the 2-wire upright and makes it possible to connect the KARALIS outdoor position via a 4-wire backbone.

This type of system is programmed manually or with the PC.

Connection example with 8 apartments (1 indoor position per apartment) :



Expandability and limits:

To be able to extend the 2-wire upright line generated by GW19301 as much as possible, the signal must be regenerated via the GW19304, and a maximum of 2 can be added; as a result, three lines are created for a maximum of 108 apartments.

It is possible to summarise the following limits using the enclosure GW19301 with two power supply repeaters GW19304 and KARALIS outdoor positions:

First line:

- Max distance of 150 m between the OP and the last receiver on the first line (this refers to the last indoor position before connecting the first GW19304), of which:
 - o Max. distance of 100 m between each OP and GW19301
 - o Max. distance of 100 m between GW19301 and the last receiver
- Max 500 m of cable extended between outdoor positions and VELIA indoor positions
- Max 600 m of cable extended outdoor positions and NAXOS and SENA indoor positions (powered externally and not by the BUS)
- Max. of 30 signal distributors on the upright
- Max. no. of indoor positions powered by the BUS: 64 (the limit is due to BUS absorption: indoor positions + distributors) of which:
 - o For VELIA indoor video entryphone positions (powered by the BUS):
 - Max. of 8 indoor positions per apartment:
 - 1 Master and 7 Slaves
 - 2 Masters and 6 Slaves
 - 3 Masters and 5 Slaves
 - o For SENA indoor positions (powered by the BUS):
 - Max. of 8 indoor positions per apartment:
 - 2 Masters and 6 Slaves
 - 1 Master and 7 Slaves
 - Max 3 indoor positions per apartment (3 Masters and 0 Slaves)
- Max. no of OP: 3 of which 1 main (shared by all)
- Intercom: yes, supported by GW19301

Second and third line:

- Max distance of 650 m between the OP and the last receiver on the third line, of which:
- Max. distance of 250 m between GW19304 and the last receiver on the line
- Max 500 m of cable extended for each line with VELIA outdoor positions
- Max 1000 m of cable extended for each line with NAXOS and SENA indoor positions (powered externally and not by the BUS)
- Max. of 30 signal distributors per line.
- Max. no. of indoor positions powered by the BUS: up to 108 of which:
 - o For VELIA indoor video entryphone positions (powered by the BUS):
 - Max. of 8 indoor positions per apartment:

- 1 Master and 7 Slaves
 - 2 Masters and 6 Slaves
 - 3 Masters and 5 Slaves
- o For SENA indoor positions (powered by the BUS):
 - Max. of 8 indoor positions per apartment:
 - 2 Masters and 6 Slaves
 - 1 Master and 7 Slaves
 - Max 3 indoor positions per apartment (3 Masters and 0 Slaves)

Standard type of system: building with power supply GW19301, KARALIS outdoor entryphone position and video selector for an outdoor telecamera

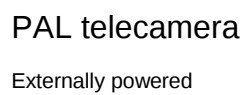
This example shows a video entryphone system where the telecamera is not the one for the outdoor position, but any PAL telecamera connected to the video selector.

The PAL telecamera is connected to the video selector, which is connected to the outdoor entryphone position with 5 wires, respectively for: power supply, 2-wire BUS and telecamera enabling.

As in the previous examples, the power supply GW19301 is able to generate the BUS line, or the 2-wire upright and makes it possible to connect the KARALIS outdoor position via a 4-wire backbone.

This type of system is programmed manually or with the PC.

Connection example with the first 4 apartments (1 indoor position per apartment) :



Expandability and limits:

To be able to extend the 2-wire upright line generated by GW19301 as much as possible, the signal must be regenerated via the GW19304, and a maximum of 2 can be added; as a result, three lines are created for a maximum of 108 apartments, with the limits shown in the example in the previous paragraph.

The video selector GW19309 configured in this manner does not permit the connection of other telecameras and therefore if you need other telecameras for video control, they must be connected to other video selectors (max 2 selector and therefore a max. of 8 telecameras).

Multi-block residential system with KARALIS outdoor positions and porter's desk enclosure

In the IP extension system, the backbone is implemented with a four pair cable (power supply and signals), whereas the uprights always have a 2-wire cable.

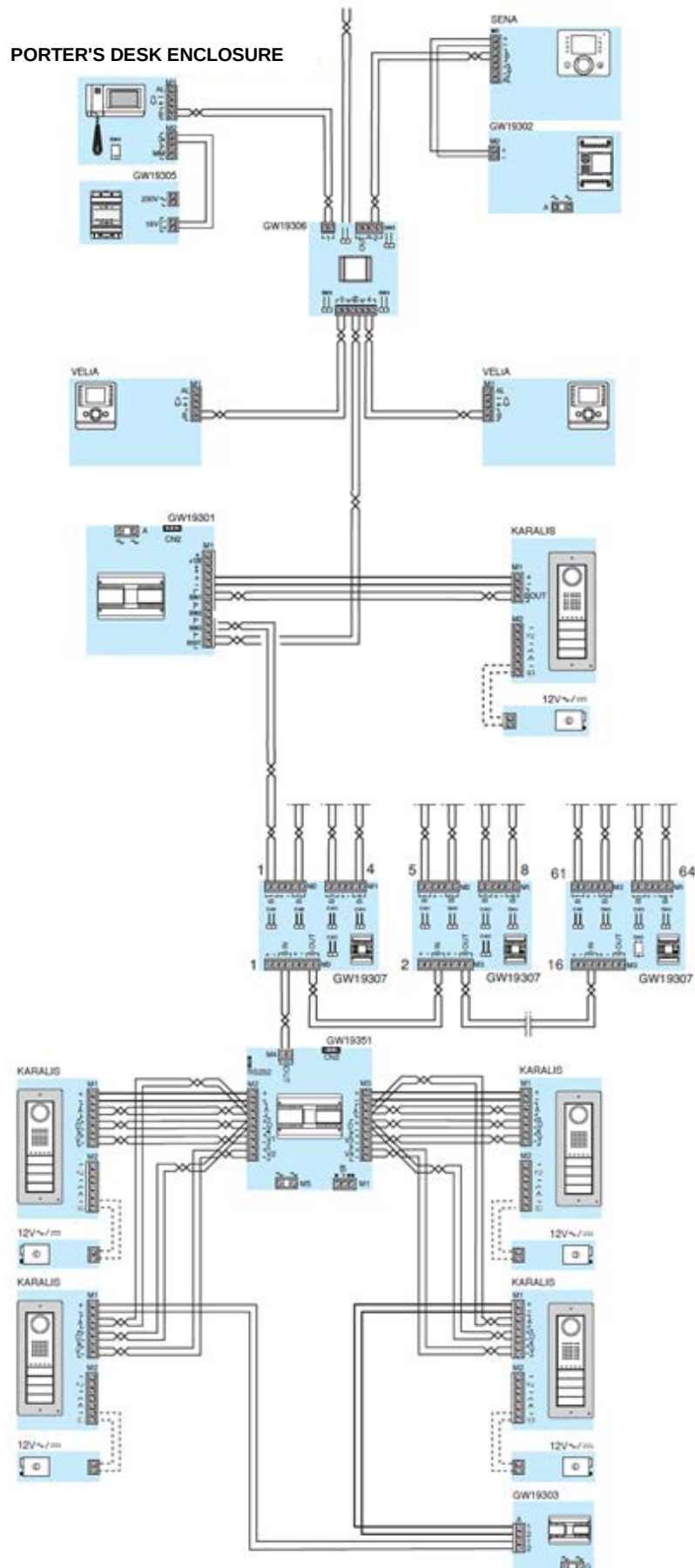
With the IP extension system, the backbone is implemented with enclosures GW19351.

To be able to extend the 2-wire upright line generated in the single blocks with GW19301 as much as possible, the signal must be regenerated via the GW19304, and a maximum of 2 can be added; as a result, three lines are created for a maximum of 108 apartments, similar to the previously demonstrated expandability and limits.

The porter's desk enclosure GW19202WH is connected like a normal NAXOS indoor position on the main two-wire upright or of the single building (block) as shown in the following example.

The following connection example shows the maximum expandability of the IP - multi-block extension system, although it is not very applicable in medium to large sized systems, as indicated in the paragraph *System characteristics*.

The wire diagram only shows 3 apartments (1 IP per apartment) + porter NAXOS IP:



System expandability and limits of the IP extension backbone:

- Up to 4 main outdoor positions (KARALIS permits a maximum of 108 calls)
- Up to 128 secondary outdoor positions
- Up to 2 porter's desk enclosures for each building (connected on the 2-wire upright of the GW19301)
- Up to 2 main porter's desk enclosures (connected on the 2-wire upright of the GW19351)
- 250 m distance between each main OP and power supply for the IP extension system GW19351
- 100 m distance between GW19351 and the last indoor position (if the indoor positions are powered by the BUS)
- 250 m distance between GW19351 and the last indoor position (if the indoor positions are powered externally and not by the BUS)

Multi-block residential system with IP/LAN extension and KARALIS and ANTAS outdoor positions

In the IP/LAN extension system, the backbone is implemented via a LAN network, using all the relative advantages.

The LAN network interfaces GW19356 are connected to the LAN as well as to the IP extension system power supply GW19351.

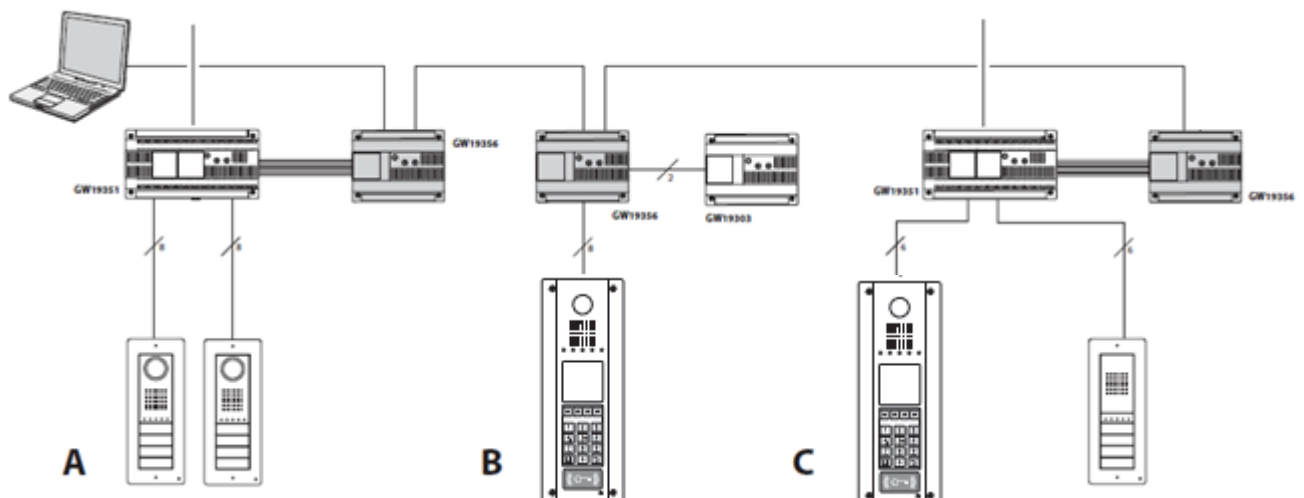
As seen previously, to be able to extend the 2-wire upright line generated in the single blocks with GW19351 as much as possible, the signal must be regenerated via the GW19304, and a maximum of 2 can be added; as a result, three lines are created for a maximum of 108 apartments, similar to the previously demonstrated expandability and limits.

This type of system is programmed only with the PC.

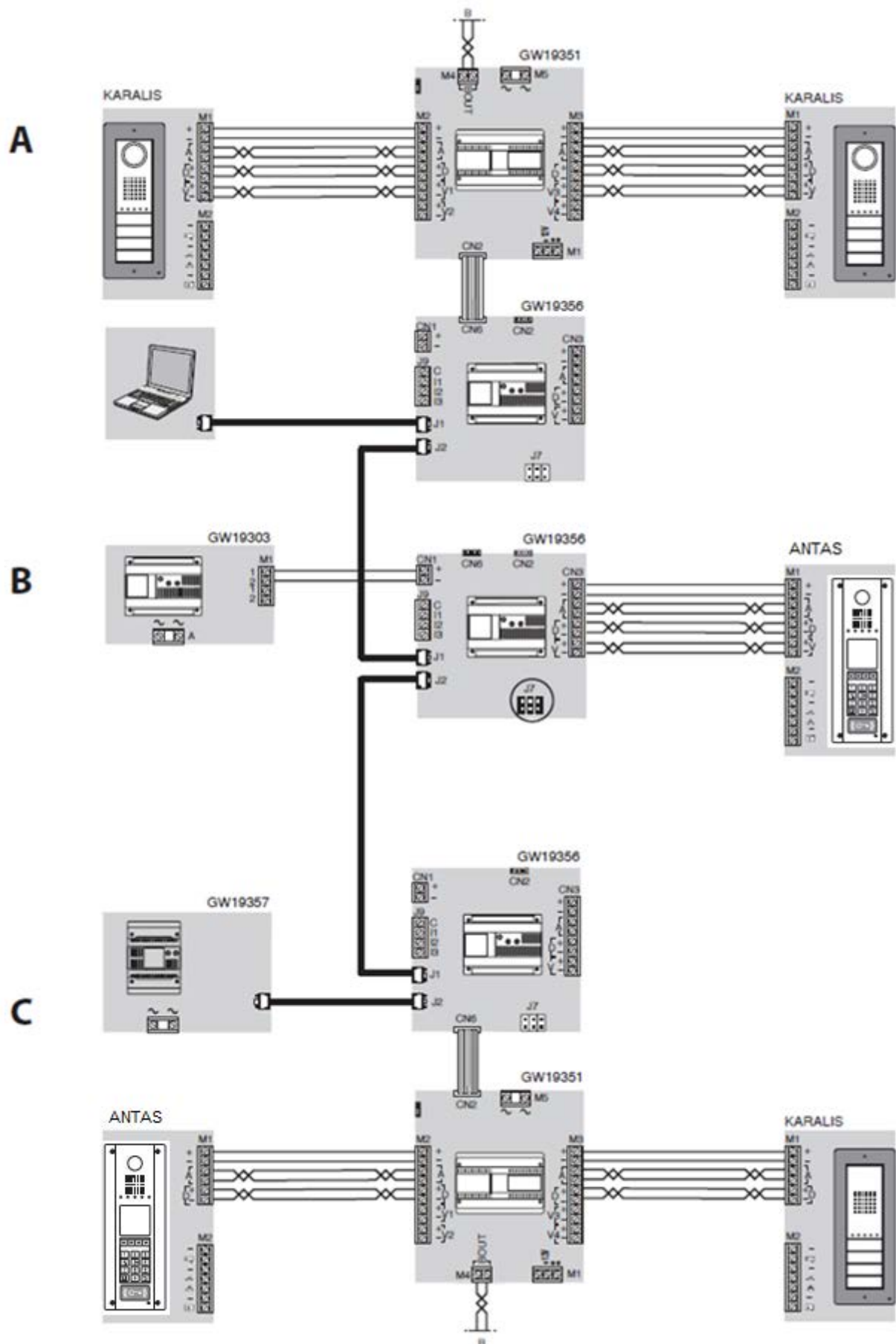
The following example is for a residential system, with the following single blocks:

- **B:** main outdoor position with the electronic index connected directly to the LAN interface GW19356
- **A:** single building with:
 - o Connection to the LAN via GW19356
 - o Two outdoor video entryphone positions connected to GW19351
 - o 2-wire upright generated by GW19351
- **C:** single building with:
 - o Connection to the LAN via GW19356
 - o Two outdoor positions: one entryphone and one with an electronic index connected to GW19351
 - o 2-wire upright generated by GW19351

Single-wire connection diagram:



Multi-wire connection diagram for the IP/LAN extension backbone:



System with IP/LAN extension with MASTER ICE and NAXOS COMBI indoor positions and domotics integration

The use of the Master ICE as the indoor video entryphone position requires a IP/LAN network structure (GW19351+GW19356) and a server (GW19357) to support the City Vision video entryphone functions.

NB: the server (GW19357) can manage a maximum of 3 Master ICE. Therefore if the system has more than 3 Master ICE, additional servers are required.

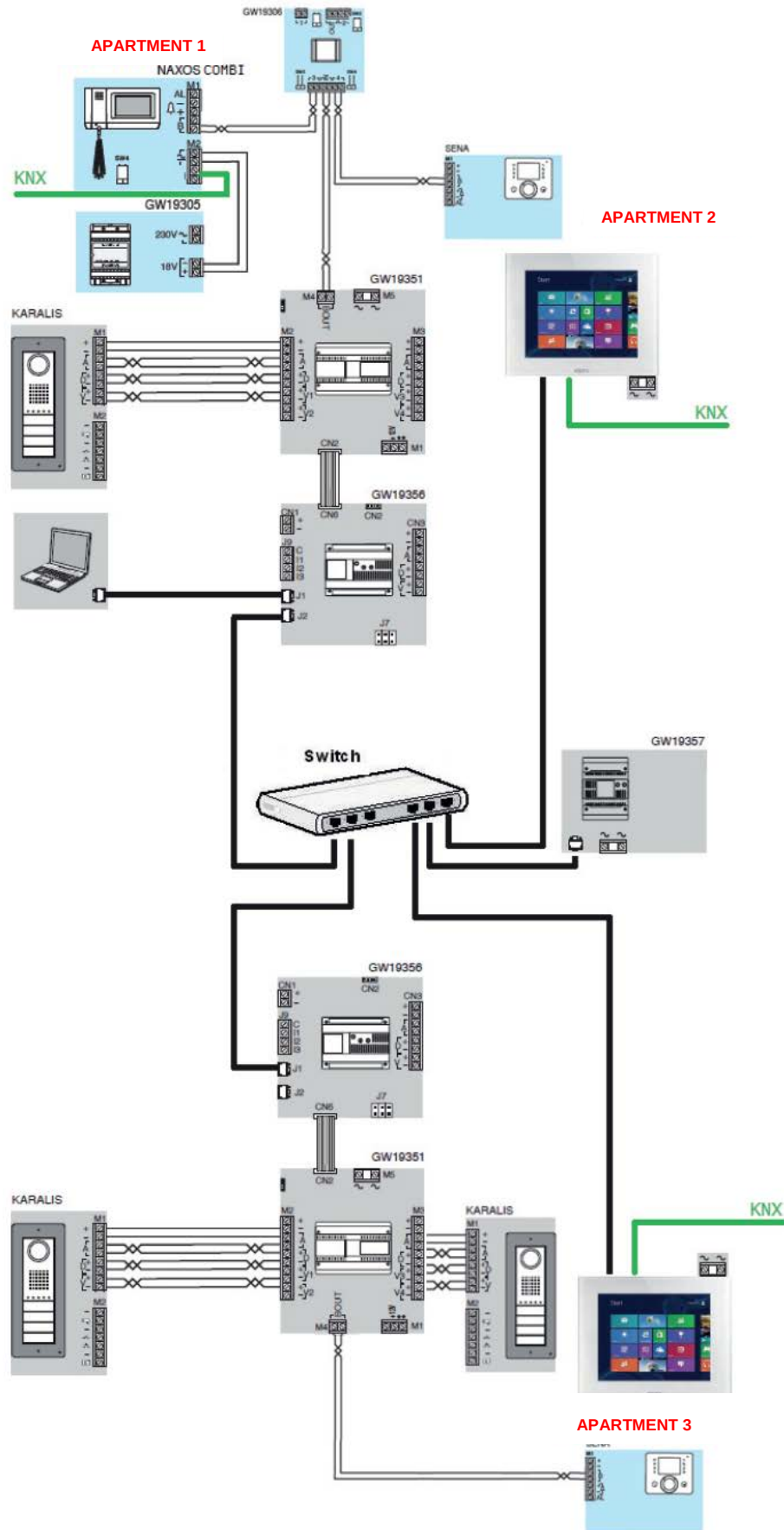
This type of system is programmed only with the PC.

The following example is for two single family homes, one two-family home and a single family one, each with one outdoor positions; in addition, the two single family homes share one main outdoor position.

The description of the apartments is as follows:

- **APARTMENT 1:** consisting of one combined KNX indoor video entryphone position:
 - o NAXOS COMBI connected to the 2-wire upright and the KNX BUS
- **APARTMENT 2:** consisting of two indoor video entryphone positions:
 - o MASTER ICE connected to the LAN network and the KNX BUS
 - o SENA connected to the 2-wire upright
- **APARTMENT 3:** consisting of two indoor video entryphone positions:
 - o MASTER ICE connected to the LAN network and the KNX BUS
 - o SENA connected to the 2-wire upright

Multi-wire connection diagram



SUMMARY TABLE - CHARACTERISTICS AND FUNCTIONS

The following table summarises the technical characteristics and functions both of the available systems as well as of the main devices (indoor and outdoor positions).

Table key:

*: 3 MASTER ICE are supported for each VoIP server GW19357; the max. number of MASTER ICE per apartment is always 8 indoor positions

***: the 10 push-buttons can be programmed for intercom functions or auxiliary commands

****: available only in the NAXOS Combi version

Technical details		Systems			Indoor positions						Outdoor positions		
		2-wire	IP extension	IP / LAN extension	Nora	Velia cito	Velia	Sena	Naxos	Master ICE	Aesis	Karalis	Antas
System characteristics	No. of users	108	2000	∞									
	No. of main/secondary outdoor positions	3	4p/128s	∞									
	Distances between outdoor video entryphone position/power supply (m)	100	250	250									
	Distance between power supply/indoor positions (m) [upright not regenerated and indoor positions powered by the BUS]	100	100	-									
	Distance between power supply/indoor positions (m) [upright regenerated twice and indoor positions powered locally]	600	750	750									
	Distance between the outdoor positions/last indoor position (m)	150	-	-									
	No. of wires per upright connection	2	2	2									
	No. of wires per outdoor position connection	4	8	8									
	Porter's desk enclosure	•	•	NO on LAN									
	Access control functionality	•	•	•									
	Integration with KNX and KNX Easy domotics	•	•	•									
	Integration with Gewiss burglar alarm	•	•	•									
	Integration with TVCC	•	•	NO on LAN									
System functions	Simultaneous call	•	•	•									
	Call from the landing connected to the indoor position	•	•	•									
	Panic and emergency alarm	•	•	•									
	Intercom between indoor positions	•	•	•									
	Call notice during a conversation	•	•	•									
	Call transfer	•	•	•									
Indoor position characteristics and functions	Available also in a flush-mounting version				-	-	-	•	-	•			
	Free-standing/desk support				-	-	-	-	•	-			
	LCD display (measurement in inches - image format)				-	-	3,5 – 4:3	3,5 – 4:3	4,3 – 16:9	10/15-4:3			
	Audio also with handset (not only speakerphone)				•	-	-	-	•	-			
	Touch-screen interface				-	-	-	-	•	•			
	Cyclic telecamera selection				-	-	•	•	•	•			
	No. of auxiliary commands				2	2	2	9	2	-			
	Different ringtones				•	•	•	•	•	-			
	No. of intercom calls				8	2	8	8	10	-			
	Video mail				-	-	-	-	•	•			
	Power supply from the BUS and/or external				BUS	BUS	BUS	BUS/ext	ext	ext			
	Integration with KNX and KXN Easy				-	-	-	-	****	• (with ETS)			
	Ringer exclusion				•	•	•	•	•	-			
	Max. number of positions per apartment				8	8	8	8	8	3*			
	Max. number of in-out connections				64	64	5	5	5	-			
Outdoor position characteristics and functions	Integration with IP extension system										-	•	•
	IP54 degree of protection										•	•	•
	Max no. of calls										4	108	2000
	Min. protrusion from the wall (flush-mounting version)										2mm	2mm	2mm
	Protrusion from the wall (in the surface-mounting version)										30mm	25mm	42mm
	Electro-lock connection and control										•	•	•
	Button key backlighting (blue LEDs)										•	•	•
	Access control function										-	•	•
	Main intercom function already included										•	-	-

FAQ

Frequently asked questions, divided by category.

GENERAL

- *How many indoor positions can an apartment have?*
 - o Max 8
- *How many indoor video entryphone positions can there be with an in-out connection?*
 - o Max 5
- *With 2-wire uprights, how many video distributors and amplifiers can be added to the first line before regenerating the signal with GW19304?*
 - o 30 GW19306 and 2 GW19311
- *How many call button keys from outdoor positions can be associated to an indoor position?*
 - o Max 3

OUTDOOR POSITIONS

- *Can the AESIS and KARALIS rainproof roof always be installed?*
 - o NO, only for surface-mounting outdoor positions
- *Does the AESIS outdoor position support the numeric keyboard module and the RFID reader?*
 - o No, they are only supported by KARALIS
- *Can the numeric keyboard GW19137TG/ME open the gate and also make calls?*
 - o Yes, but it is preferable to only use the numerical keyboard only to open the gate, as the numerical keyboard does not have a display like the ANTAS OP.
- *If there is not a system power supply GW19301 or a specific intercom module GW19308, do the outdoor positions support the main intercom function?*
 - o AESIS yes, KARALIS no.
- *Does the ANTAS OP with electronic index support both the transponder reader as well as the numeric keyboard to open the passage?*
 - o Yes, both are already in the outdoor position.

INDOOR POSITIONS

- *Can VELIA be powered externally?*
 - o No, it only takes its power supply from the 2-wire BUS
- *Can SENA be powered externally?*
 - o Yes
- *Can NAXOS only be powered by a 2-wire BUS?*
 - o No, it always requires an external power supply
- *Can the PORTER'S DESK ENCLOSURE only be powered by a 2-wire BUS?*
 - o No, it always requires an external power supply like the NAXOS

STANDARD or SINGLE BLOCK SYSTEMS

- *In simple systems, it is possible to avoid using system power supplies GW19301/GW19351?*
 - o Yes, in that case an additional power supply GW19302/GW19303 is used and the distribution of the audio/video signal to the indoor positions is managed directly by the outdoor positions. Remember that in this configuration, there can be only one outdoor position.
- *How many outdoor positions does a 2-wire system power supply GW19301 support?*
 - o Max 3
- *What is the maximum distance between outdoor positions and the system power supply GW19301?*
 - o 100 metres
- *Does the 2-wire system power supply GW19301 permit the main intercom function?*
 - o Yes
- *Does the 2-wire system power supply GW19301 support the ANTAS electronic index?*
 - o No, the ANTAS OP also requires an 8-wire connection and therefore only with GW19351 and GW19356.

RESIDENTIAL or MULTI-BLOCK SYSTEMS

- *How many outdoor positions does an IP extension system power supply GW19351 support?*
 - o Max 4
- *Does the IP extension system power supply GW19351 support a LAN backbone?*
 - o Not directly, to implement a LAN backbone in addition to using the GW19351 also the interface GW19356 must be used.
- *Does the IP extension system power supply GW19351 permit the main intercom function?*
 - o NO, this requires a specific intercom device GW19308
- *Does a system with the IP extension system power supply GW19351, support both AESIS and KARALIS outdoor positions?*
 - o AESIS is not supported, whereas KARALIS is only supported in the IP extension version.
- *Is it possible to manually program a system with the IP extension system power supply GW19351?*
 - o NO, it must be programmed with software for the PC

RESIDENTIAL or MULTI-BLOCK SYSTEMS WITH THE IP/LAN extension

- *How many outdoor position does the single LAN interface GW19356 support?*
 - o Max 1
- *Does the IP extension system power supply GW19351 connected to the LAN interface GW19356 permit the main intercom function?*
 - o NO, this requires a specific intercom device GW19308
- *Is it possible to implement the intercom between different IP/LAN extension blocks?*
 - o NO, the intercom can only be used between apartments with the same 2-wire upright

Ai sensi dell'articolo 9 comma 2 della Direttiva Europea 2004/108/CE si informa che responsabile dell'immissione del prodotto sul mercato Comunitario è:
According to article 9 paragraph 2 of the European Directive 2004/108/EC, the responsible for placing the apparatus on the Community market is:
GEWISS S.p.A Via A. Volta, 1 - 24069 Cenate Sotto (BG) Italy Tel: +39 035 946 111 Fax: +39 035 945 270 E-mail: qualitymarks@gewiss.com



+39 035 946 111
 8.30 - 12.30 / 14.00 - 18.00
 lunedì ÷ venerdì - monday ÷ friday



+39 035 946 260



sat@gewiss.com
www.gewiss.com