An Axis company

Open the door to innovation

2N INTERCOMS, IP ACCESS & SIP AUDIO SYSTEMS

Open the door
to innovation

www.2n.cz

2N is Member of Axis group

Introduction

An Axis company

"For 25 years 2N has been on the forefront of access control and telecommunications. We take care to stay on the leading edge with our products, the R&D behind them, and the way we service our customers. We are proud of our growth on global markets and are now number one in IP Intercoms."

OLDŘICH STEJSKAL
Chief Executive Officer, 2N

"AXIS group including 2N have a common goal to contribute to a smarter and safer world. There is an increased customer demand for integrated solutions with open standards that deliver enhanced security. Together with 2N we can meet that demand."

PETER LINDSTRÖM
Vice President New Business, Axis Communications

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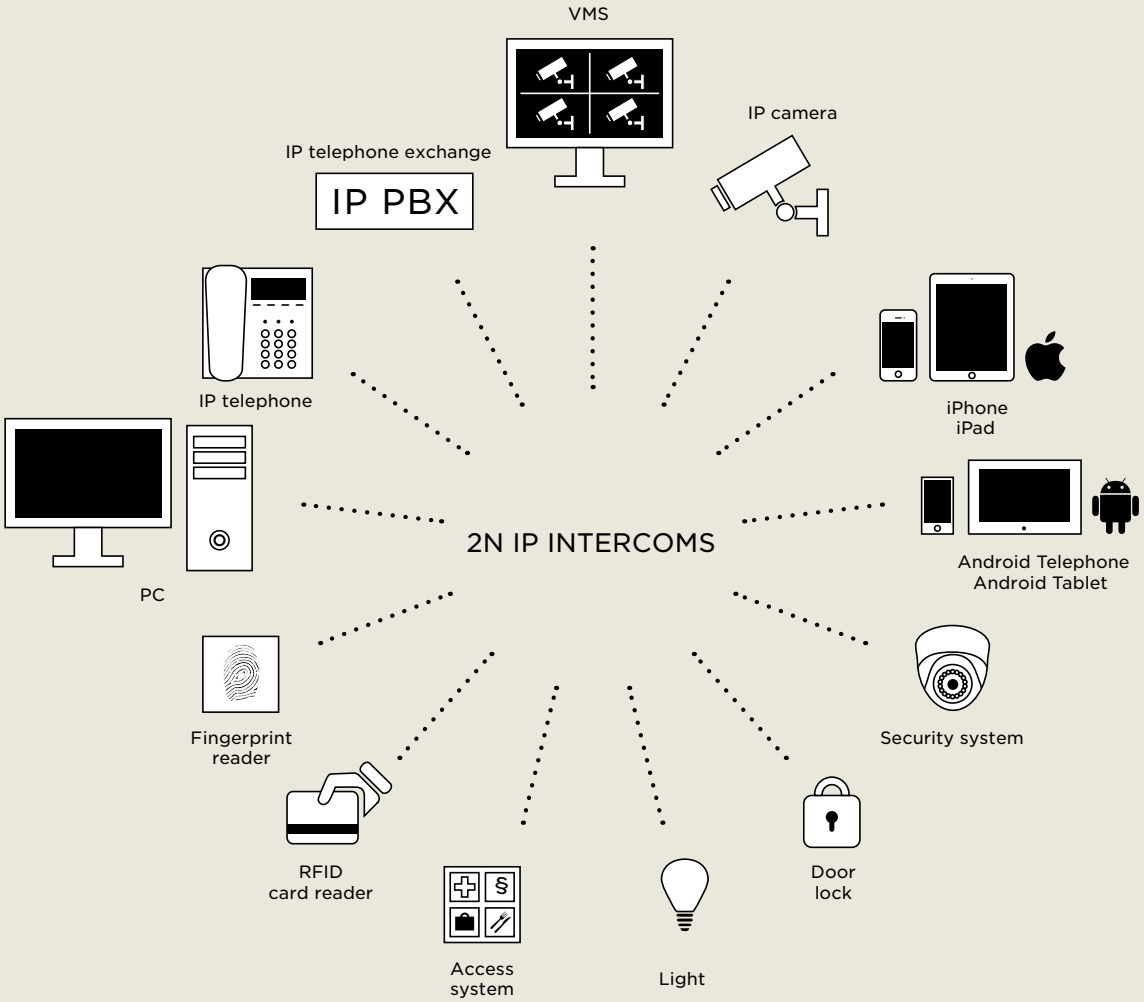
OVERVIEW OF INTERCOMS

Detailed overview of functions and parameters intercoms for your better decision.

Intercoms	2N® IP Verso	2N® IP Solo	2N® IP Force	2N® IP Safety	2N® IP Base	2N® IP Uni	2N® LTE Verso
Integrated camera available	yes	yes	yes	no	yes	no	yes
Integrated electric switch	yes	yes	yes	yes	yes	yes	yes
Numerical keypad available	yes	ne	yes	no	no	no	yes
Internal RFID card reader available	yes	no	yes	no	yes	no	yes
Biometrics available	yes	no	no	no	no	no	yes
Bluetooth available	yes	no	no	no	no	no	yes
Buttons	up to 146	1	1, 2 or 4	1 or 2	1 or 2	1 or 2	up to 146
Audio amplifier output	no	no	no	no	no	no	no
Audio line-in/line-out	line-out	line-out	line-out	line-out	no	line-out	line-out
Display - optional	yes	no	no	no	no	no	yes
Tamper alarm output	yes	yes	yes	yes	yes	yes	yes
Tamper alarm event in automation API	yes	yes	yes	yes	no	no	yes
Suitable for outdoor use	yes	yes	yes	yes	yes	yes	yes
IP/IK coverage	IP54/IK8 (touchscreen IK7)	IP54/IK8	IP69K/IK10	IP69K/IK10	IP65/IK7	IP54/IK10	IP54/IK8 (touchscreen IK7)
Number of users	1999	1999	1999	1999	1999	2	1999
Security Relay support	yes	yes	yes	yes	yes	yes	yes
Dimensions WxHxD (including frame)	107x234x28 mm (2 modules)	107x130x28 mm	109x217x83 mm	109x217x83 mm	109×229x31 mm	115x193x57 mm	107x234x28 mm (2 modules)
Power supply POE 802.3af	yes	yes	yes	yes	yes	yes	no
Power supply 12V DC	yes	yes	yes	yes	yes	yes	yes
LTE connectivity	no	no	no	no	no	no	yes

CONNECTIVITY IN IP ENVIRONMENT

IP intercoms from 2N can be connected with a wide range of external devices thanks to open standards:



For more information about Licencing policy visit please our website.

2N® IP Verso

Only one can be perfect

The 2N® IP Verso security intercom is configurable to your needs thanks to its modularity. It provides reliable access control and allows you to easily interface with other systems, achieving even higher site security.

2N
Reception

IP ENVIRONMENT

2N® IP Verso

KEY FEATURES

- More than 14 different modules
- Discrete HD camera
- Voice communication in HD
- Integration with security systems

reddot design award
winner 2017

RECOMMENDED USE

Residential video door communication

Welcome your visitors in style. Choose the stylish door intercom from 2N. You will see the benefit not only of increased security for your loved ones, but also the modern design, ground-breaking functionality and materials that are resilient to the utmost.

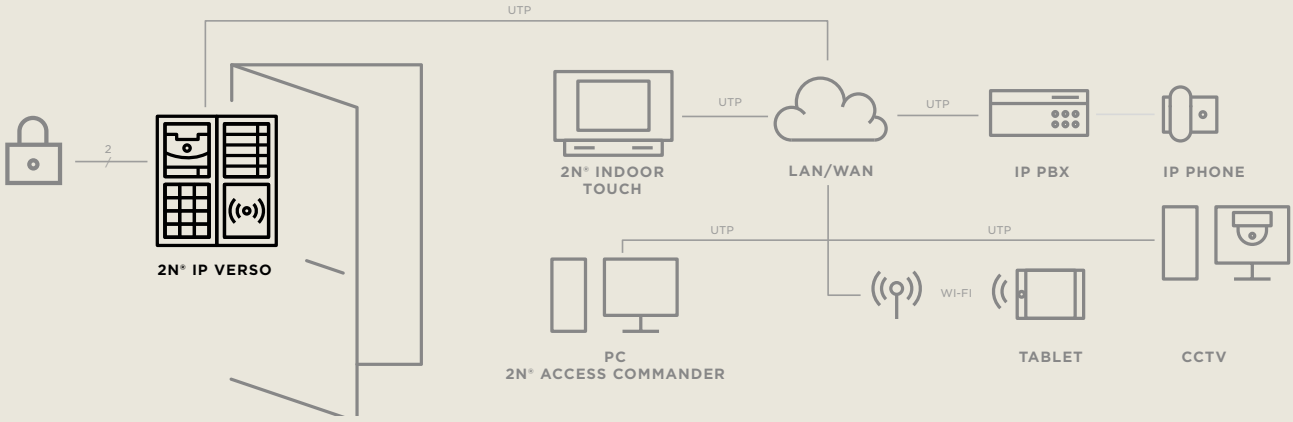
Video door communication

Welcome any visitors to your building in style and save the cost of a reception service. Take advantage of the advanced features of 2N door intercoms. Not only do you get comfortable communication, but thanks to the integrated camera you also reinforce your entrance access security.

Access control

In large buildings like offices, hospitals, hotels, production plants and other large complexes, it is important to have an overview of everyone coming in. With the access control solution from 2N you can greatly improve the security of such exposed places. While employees can use their RFID cards, fobs or PIN codes, visitors are primarily vetted by a receptionist and then opened door remotely.

EXAMPLE OF CONNECTION OF THE 2N® IP VERSO IN AN OFFICE ENVIRONMENT



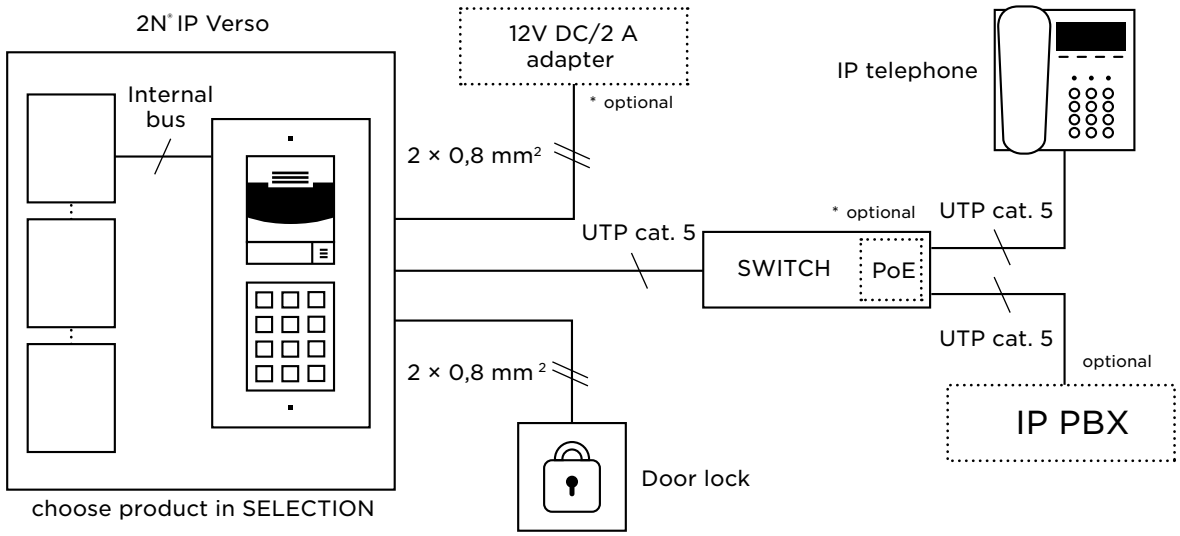
Technical parameters

2N® IP Verso

Signalling protocol	
	SIP (UDP, TCP, TLS)
Buttons	
Button design	White-backlit transparent buttons with replaceable nametag
Button count	1 and increments of 146
Button extenders	Up to 30 modules, limited by power supply
Numeric keypad	optional
Audio	
Microphone	1 integrated microphone
Amplifier	2 W (class D) amplifier
Speaker	2 W/8 Ω
Output LINE OUT	1 VRMS/600 Ω
Volume control	Adjustable with automatic adaptive mode
Full duplex	Yes (AEC)
Audio stream	
Protocols	RTP/RTSP
Codecs	G.711, G.722, G.729
Camera	
Sensor	1/3“ colour CMOS
JPEG resolution	Up to 1280 (H) × 960 (V)
Video resolution	640 (H) × 480 (V)
Frame rate	Up to 30 snapshots/s
Sensitivity	5.6 V/lux-sec (550 nm)
View angle	120° (H), 90° (V), 145° (D)
Infrared light	Yes
Video stream	
Protocols	RTP/RTSP/HTTP
Codecs	H.263, H.263+, H.264, MPEG-4, M-JPEG
IP camera function	Yes, ONVIF v2.2 profile S compatible
Interface	
Power supply	12V ± 15 % / 2 A DC or PoE
PoE	PoE 802.3af (Class 0–12.95 W)
LAN	10/100BASE-TX s Auto-MDIX, RJ-45
Recommended cabling	Cat-5e or higher
Supported protocols	SIP2.0, DHCP opt. 66, SMTP, 802.1x, RTSP, RTP, TFTP, HTTP, HTTPS, Syslog
Passive switch	NO/NC contact, up to 30 V/1 A AC/DC
Active switch output	8 up to 12 V DC depending on power supply (PoE: 10 V; adaptor: power supply voltage minus 2 V), max 400 mA

RFID card reader	
	Optionally 125 kHz or 13.56 MHz
Supported cards	125 kHz – EM4100, EM4102, HID Prox
	13.56 MHz
ISO14443A	Mifare Classic 1k & 4k, DESFire EV1, Mini, Plus S&X, SmartMX, Ultralight
	Ultralight C, SLE44R35, my-d move (SLE66Rxx), PayPass, Legic Advant
ISO14443B	Calypso, CEPAS, Moneo, SRI512, SRT512, SRI4K, SRIX4K, PicoPass, HID iCLASS
Mechanical properties	
Cover	Robust zinc casting with surface finish
Working temperature	-40 °C – 60 °C
Working relative humidity	10% – 95% (non-condensing)
Storing temperature	-40 °C –70 °C
Dimensions	
Surface mounting frame	1 modul: 107 (W) × 130 (H) × 28 (D) mm
	2 moduls: 107 (W) × 234 (H) × 28 (D) mm
	3 moduls: 107 (W) × 339 (H) × 28 (D) mm
Flush mounting frame	1 modul: 130 (W) × 153 (H) × 5 (D) mm
	2 moduls: 130 (W) × 257 (H) × 5 (D) mm
	3 moduls: 130 (W) × 361 (H) × 5 (D) mm
Flush mounting box (minimum hole dimensions)	1 modul: 108 (W) × 131 (H) × 45 (D) mm
	2 moduls: 108 (W) × 238 (H) × 45 (D) mm
	3 moduls: 108 (W) × 343 (H) × 45 (D) mm
Weight	Based on configuration
Covering level	IP54

CONNECTION DIAGRAM



Order numbers

Main unit and modules

Order No.	**9155101C/ 9155101CB**
Name	Main unit with camera zinc / black
Desc.	main unit, 1 button, HD camera

Order No.	**9155101/ 9155101B**
Name	Main unit without camera zinc/ black
Desc.	main unit, 1 button

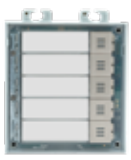
Order No.	**9155036**
Name	Touchscreen module
Desc.	module for 2N® IP Verso, tree-structured phone book, touch keypad

Order No.	**9155046**
Name	Bluetooth module
Desc.	module for 2N® IP Verso, two-factor authentication, highly secure

Order No.	**9155045**
Name	Fingerprint reader module
Desc.	module for 2N® IP Verso, spoof fingerprint detection, optical technology

Order No.	**9155047**
Name	Touch keypad module
Desc.	module for 2N® IP Verso, numeric option for calling, silent alarm activation

Order No.	**9155031/ 9155031B**
Name	Keypad module zinc/black
Desc.	module for 2N® IP Verso, physical keypad, backlit symbols



Order No.	**9155035**
Name	5 buttons module
Desc.	module for 2N® IP Verso, quick dial buttons

Order No.	**9155032/ 9155033**
Name	RFID card reader module 125kHz/13.56MHz
Desc.	module for 2N® IP Verso

Order No.	**9155040/ 9155042**
Name	RFID card reader with NFC 13,56MHz (xx40) / 13,56MHz secured (xx42)
Desc.	module for 2N® IP Verso

Order No.	**9155081**
Name	Touch Keypad & RFID module
Desc.	125kHz, 13.56MHz, NFC ready

Order No.	**9155083**
Name	Touch Keypad & RFID module
Desc.	125kHz, secured 13.56MHz, NFC ready

Order No.	**9155039**
Name	Blind module
Desc.	module for 2N® IP Verso, 1 blind module supplied with the main unit

Order No.	**9155034**
Name	I/O module
Desc.	module for 2N® IP Verso, installed under another module, 2 inputs and 2 relay outputs

Order No.	**9155038**
Name	Tamper switch module
Desc.	module for 2N® IP Verso

Order No.	**9155082**
Name	Bluetooth & RFID module
Desc.	125kHz, 13.56MHz, NFC ready

Order No.	**9155084**
Name	Bluetooth & RFID module
Desc.	125kHz, secured 13.56MHz, NFC ready

Order No.	**9155041**
Name	Induction loop module
Desc.	module for 2N® IP Verso, audio signal directly into a hearing aid

Order No.	**9155030**
Name	Infopanel module
Desc.	module for 2N® IP Verso, backlit

Order No.	**9155037**
Name	Wiegand module
Desc.	module for 2N® IP Verso, installed under another module, for interconnection of systems

Frames

Order No.	**9155011/ 9155011B**
Name	1 module flush frame zinc / black
Desc.	frame for surface installation, 1 module

Order No.	**9155021/ 9155021B**
Name	1 module surface frame zinc / black
Desc.	frame for installation on the surface, 1 module

Order No.	**9155012/ 9155012B**
Name	2 module flush frame zinc / black
Desc.	frame for surface installation, 2 modules

Order No.	**9155022/ 9155022B**
Name	2 module surface frame zinc / black
Desc.	frame for installation on the surface, 2 modules

Order No.	**9155013/ 9155013B**
Name	3 module flush frame zinc / black
Desc.	frame for surface installation, 3 modules

Order No.	**9155023/ 9155023B**
Name	3 module surface frame zinc / black
Desc.	frame for installation on the surface, 3 modules

Backplates and boxes

Order No.	**9155061**
Name	1 module backplate
Desc.	backplate for surface installation, 1 module

Order No.	**9155062**
Name	2 modules backplate
Desc.	backplate for surface installation, 2 modules

Order No.	**9155063**
Name	3 modules backplate
Desc.	backplate for surface installation, 3 modules

Order No.	**9155064**
Name	2 (w) x2 (h) modules backplate
Desc.	backplate for surface installation, 2x2 modules

Order No.	**9155067**
Name	3 (w) x3 (h) modules backplate
Desc.	backplate for surface installation, 3x3 modules

Order No.	**9155066**
Name	2 (w) x3 (h) modules backplate
Desc.	backplate for surface installation, 2x3 modules

Order No.	**9155065**
Name	3 (w) x2 (h) modules backplate
Desc.	backplate for surface installation, 3x2 modules

Order No.	**9155014**
Name	1 module flush box
Desc.	box for installation in the wall, 1 module

Order No.	**9155015**
Name	2 modules flush box
Desc.	box for installation in the wall, 2 modules

Order No.	**9155016**
Name	3 modules flush box
Desc.	box for installation in the wall, 3 modules

Other

Order No.	**9155050**
Name	Extension cable- 1m long
Desc.	connection of modules in greater distance from the main unit

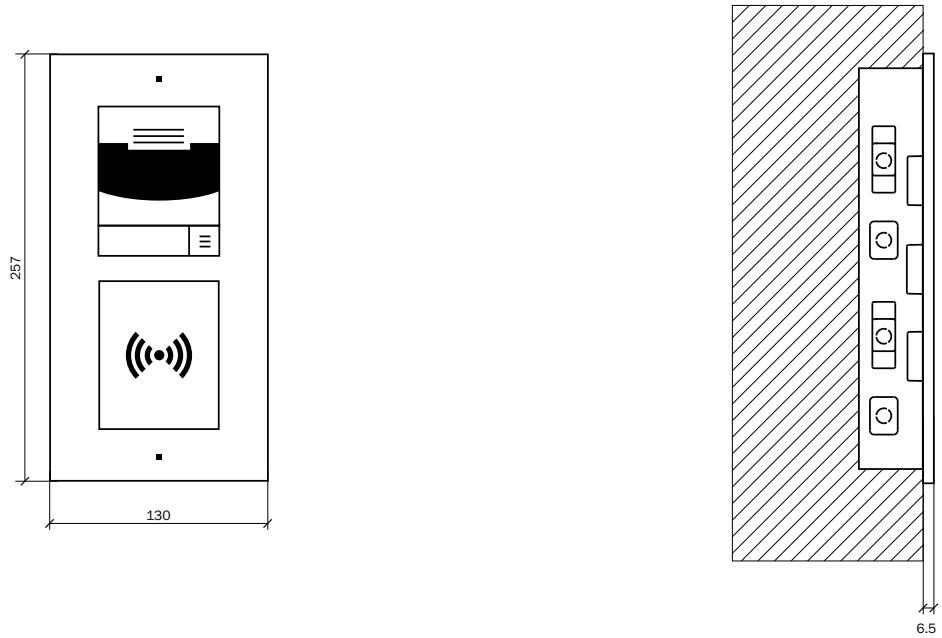
Order No.	**9155054**
Name	Extension cable- 3m long
Desc.	connection of modules in greater distance from the main unit

Order No.	**9155055**
Name	Extension cable- 5m long
Desc.	connection of modules in greater distance from the main unit

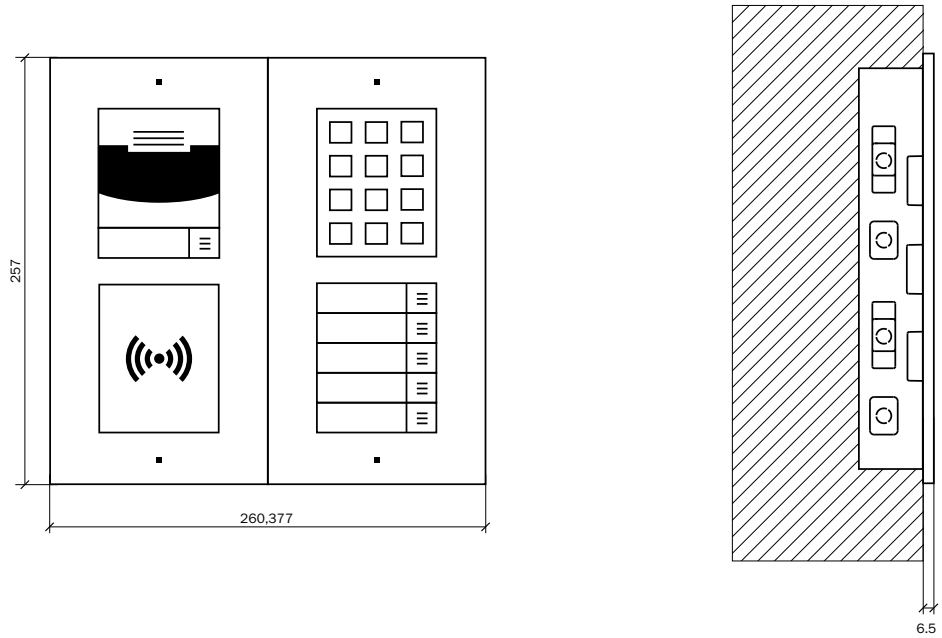
Dimensions and fitting

2N® IP Verso

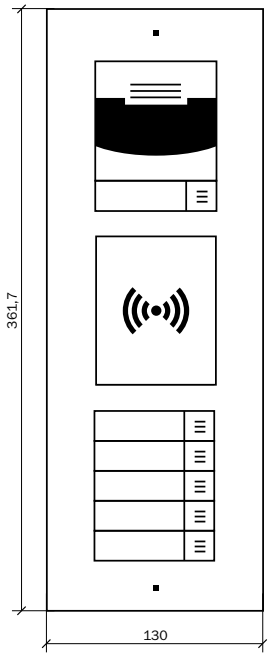
IN-WALL 2 MODULES

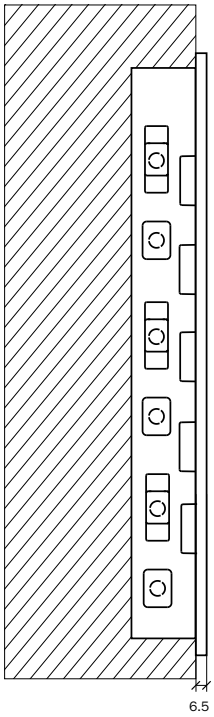


2× IN-WALL 2 MODULES

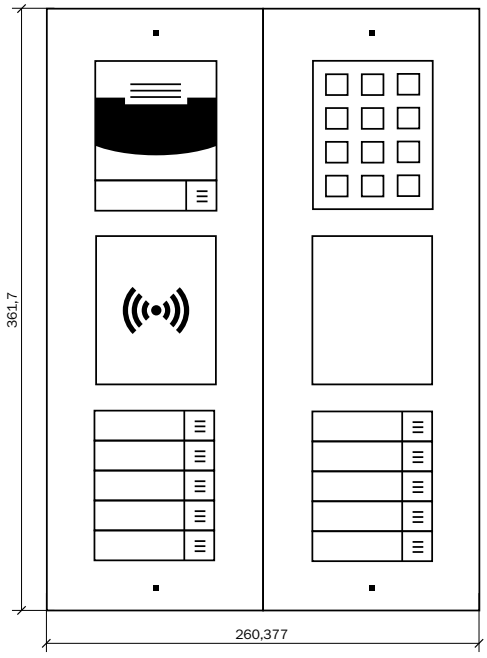


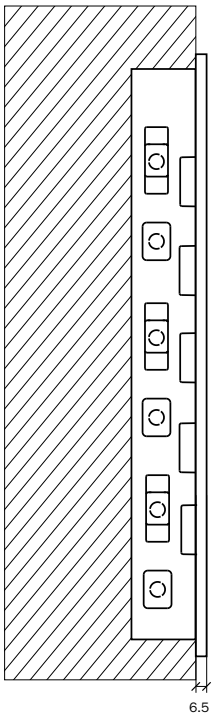
IN-WALL 3 MODULES



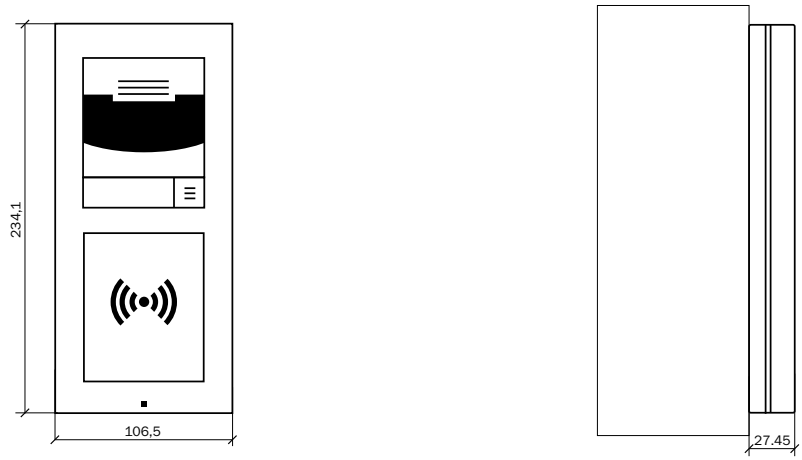


2× IN-WALL 3 MODULES

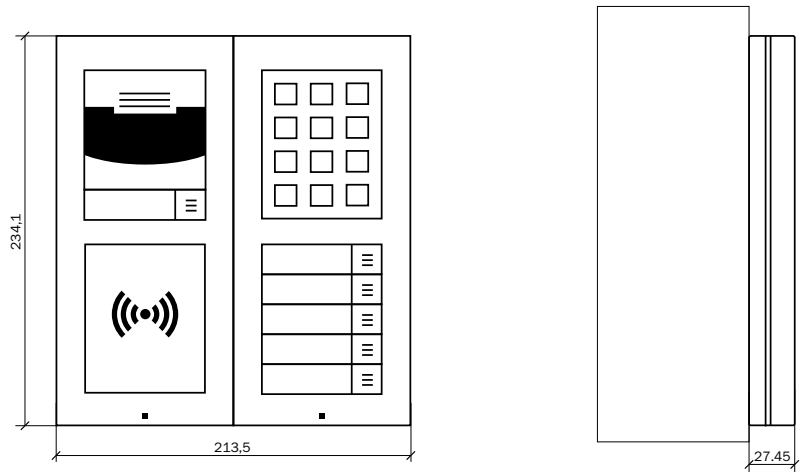




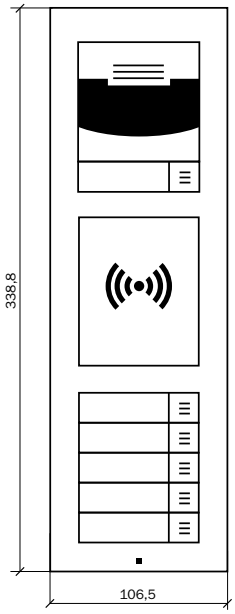
WALL-MOUNTED 2 MODULES

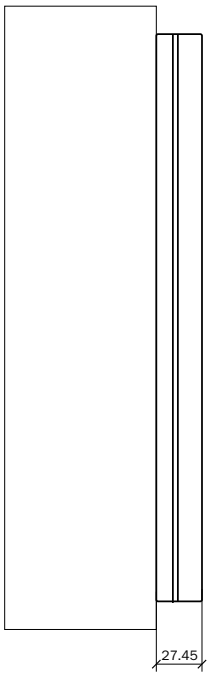


2× WALL-MOUNTED 2 MODULES

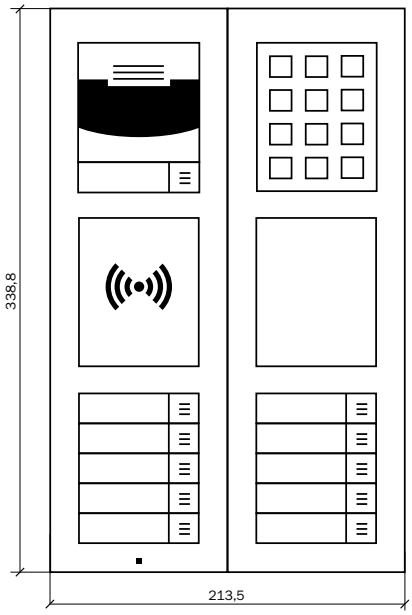


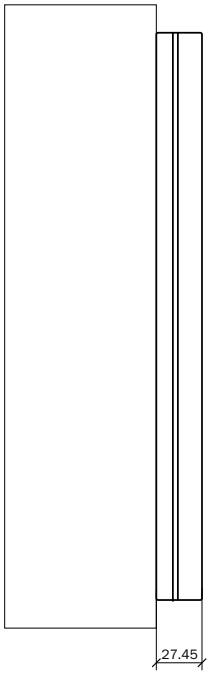
WALL-MOUNTED 3 MODULES



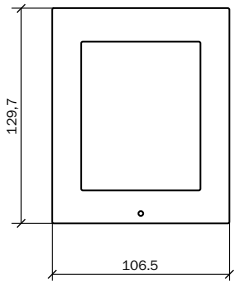


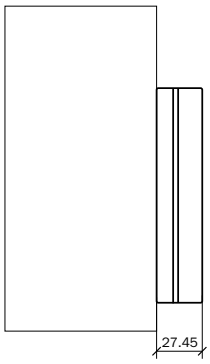
2× WALL-MOUNTED 3 MODULES



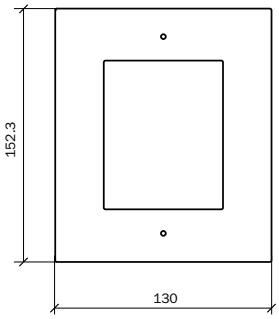


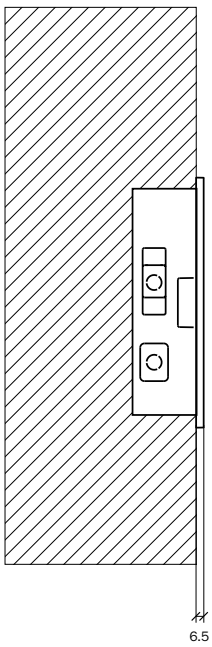
WALL-MOUNTED 1 MODULE





IN-WALL 1 MODULE





2N® IP Force

A door guard for extreme conditions

2N® IP Force is an extremely durable IP intercom that can withstand even the most demanding conditions. It provides for visitor communication monitoring and access control. Take advantage of its superior features for maximum site security.

Security
1
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2N

IP ENVIRONMENT

2N® IP Force

KEY FEATURES

- **Built for extreme conditions**
- **Professional night vision**
- **Clear sound in noisy environments**
- **Durable access control solution**

RECOMMENDED USE

School door communication

Schools are not only there to impart knowledge to our children but also to keep the children safe. With this in mind, 2N offers door intercoms that not only secure the school entrance, but allow communication with any visitors.

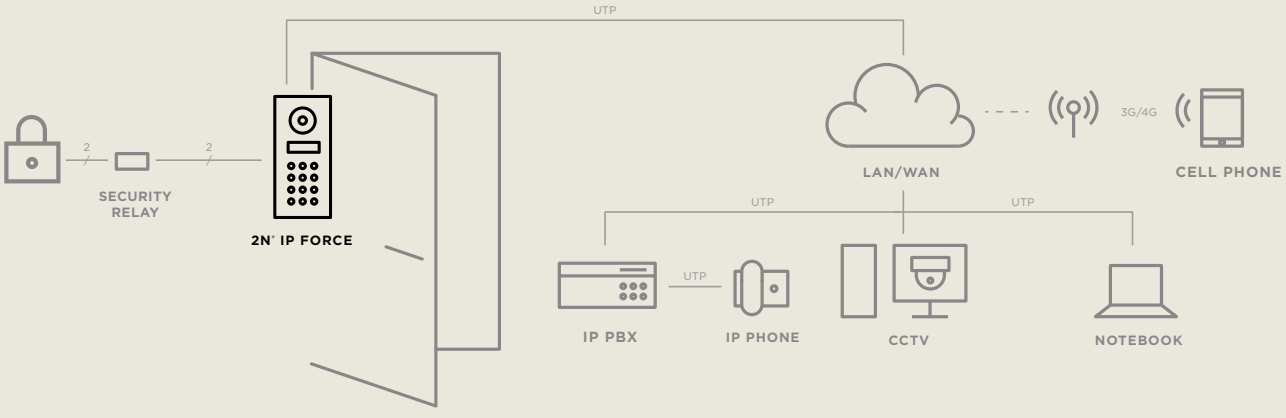
Entrance video monitoring

Securing the entrance to schools, offices or other administrative complexes is no trivial matter. Vandalism is rampant and unauthorized entry or theft is a common occurrence. This has to be prevented.

Parking communication

Do you want to avoid queues when people cannot enter or leave the parking place? 2N parking communication solution allows you to communicate easily from the parking lot or payment machine to the assistance center. You will gain a competitive advantage and provide your customers with the option to ask for advice at the touch of a button.

EXAMPLE OF CONNECTION OF THE 2N® IP FORCE IN AN OFFICE ENVIRONMENT



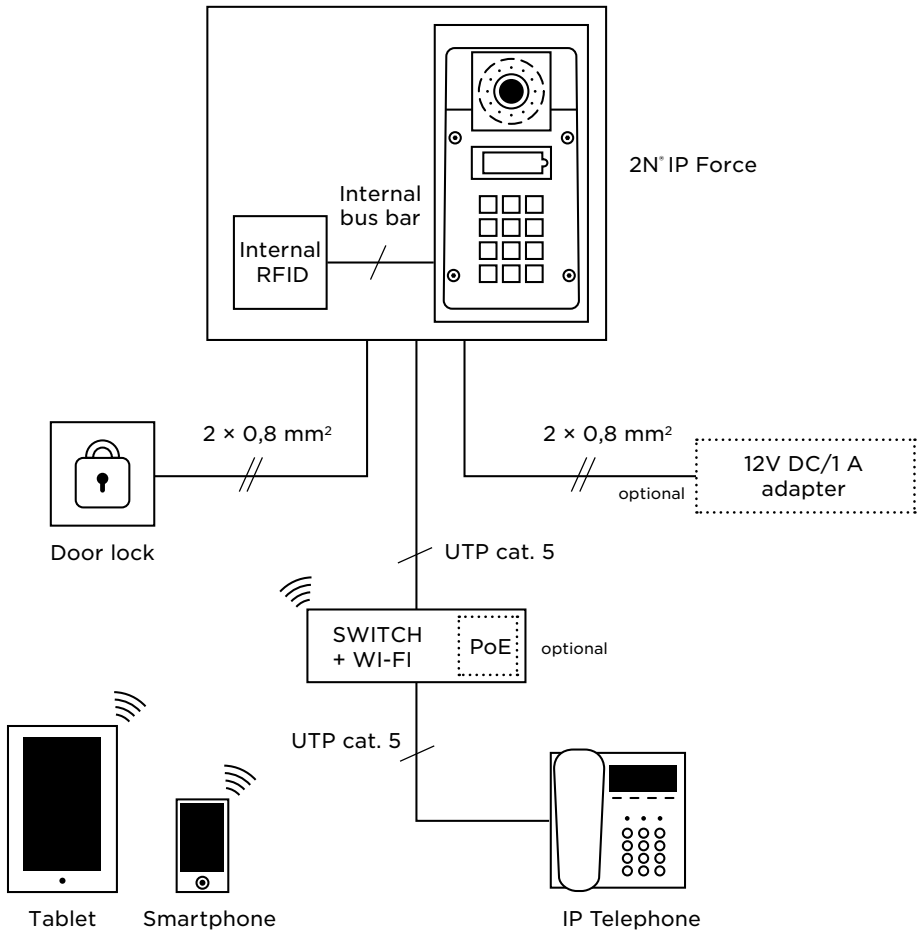
Technical parameters

2N® IP Force

Signalling protocol	
	SIP (UDP)
Buttons	
Button finish	Transparent buttons with white backlighting and nameplate which can be replaced with ease
Number of buttons	1, 2 or 4
Numerical keypad	optional
Audio	
Microphone	2 integrated microphones
Amplifier	10 W (class D) amplifier
Speaker	1 W (10 W optional)
Volume control	adjustable with automatic adaptive mode
Full duplex	yes (AEC)
Audio stream	
Protocols	RTP/RTSP
Codecs	G.711, G.722, G.729
Camera	
Sensor	1/4“ colour CMOS
Definition	1280 (H) × 960 (V) - JPEG format
Frame rate	up to 30 frames/s
Sensitivity	1,9 V/lux-sec (550 nm)
Viewing angle	135° (H), 109° (V)
Infrared illumination	Yes
Video stream	
Protocols	RTP/RTSP/HTTP
Codecs	H.263+, H.264, MPEG-4, M-JPEG
IP camera function	Yes
Interface	
Power supply	12 V ± 15 %/2A DC or PoE
PoE	PoE 802.3af (Class 0 – 12,95 W)
LAN	10/100BASE-TX with Auto-MDIX, RJ-45
Recommended cabling	Cat-5e or better
Passive switch	make and break contact, max. 30 V/1A AC/DC
Active switch output	10 up to 14 V DC depending on power supply, max. 700 mA
RFID card reader	
	optional
Supported cards	EM-40XX (125 Khz)
	HID Proximity (125 kHz, 26 bit)
	iClass DESFire and Mifare (13.56 MHz)

Mechanical properties	
Cover	Robust aluminium casting
Operating temperature	-40 °C – 55 °C
Operating relative humidity	10 % – 95 % (non-condensing)
Storage temperature	-40 °C – 70 °C
Dimensions	217 × 109 × 83 mm
	242 × 136 × 83 mm with frame
Weight	net max. 2 kg / gross max. 2,5 kg
Cover rating	IP65, IP69K (91511xxxW)

CONNECTION DIAGRAM



Order numbers

2N® IP Force

Order No.	**9151101CW/ 9151101CHW**
Name	2N® IP Force, 1 button + SD camera/ HD camera
Desc.	1 button, HD camera

Order No.	**9151101CKW/ 9151101CHKW**
Name	2N® IP Force, 1 button + keypad + SD camera/ HD camera
Desc.	1 button, keypad, HD camera

Order No.	**9151104CW/ 9151104CHW**
Name	2N® IP Force, 4 buttons + SD camera/ HD camera
Desc.	4 buttons, HD camera

Order No.	**9151102CRW/ 9151102CHRW**
Name	2N® IP Force, 2 buttons + card reader ready + SD camera/ HD camera
Desc.	2 buttons, card reader ready, HD camera

Order No.	**9151101CRPW/ 9151101CHRPW**
Name	2N® IP Force, 1 button + pictograms + card reader ready + SD camera/ HD camera
Desc.	1 button, pictograms, card reader ready, HD camera

Order No.	**9151101W**
Name	2N® IP Force, 1 button, without camera
Desc.	1 button

Order No.	**9151101KW**
Name	2N® IP Force, 1 button + keypad, without camera
Desc.	1 button, keypad

Order No.	**9151104W**
Name	2N® IP Force, 4 buttons, without camera
Desc.	4 buttons

Order No.	**9151102RW**
Name	2N® IP Force, 2 buttons + card reader, without camera
Desc.	2 buttons, card reader ready

Order No.	**9151101RPW**
Name	2N® IP Force, 1 button + pictograms + card reader ready, without camera
Desc.	1 button, pictgrams, card reader ready

Card readers

Order No.	**9151011**
Name	2N® IP Force, 125kHz RFID
Desc.	Wiegand interface, 2 logical inputs and 2 output relays, tamper switch

Order No.	**9151017**
Name	2N® IP Force, 13.56MHz RFID
Desc.	NFC ready, Wiegand interface

Order No.	**9151019**
Name	2N® IP Force, 13.56MHz secured RFID
Desc.	NFC ready, Wiegand interface

Order No.	**9151005**
Name	2N® IP Force/Safety - Gooseneck
Desc.	Gooseneck stand, height 120cm/47in

Order No.	**9151007**
Name	2N® IP Force/Safety - Gooseneck stand double
Desc.	Gooseneck stand double, height 115cm/45in and 203cm/80in

Mounting

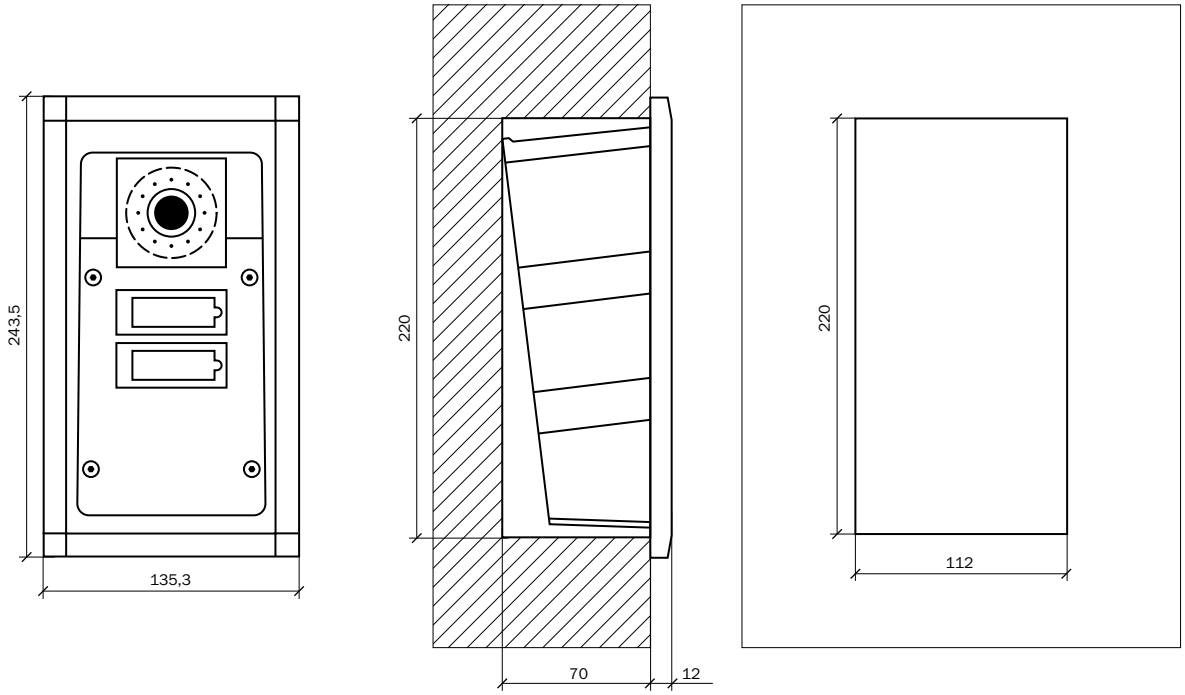
Order No.	**9151001**
Name	2N® IP Force, flush box
Desc.	brick flush mounting box

Order No.	**9151002**
Name	2N® IP Force, plaster box
Desc.	plasterboard flush mounting box

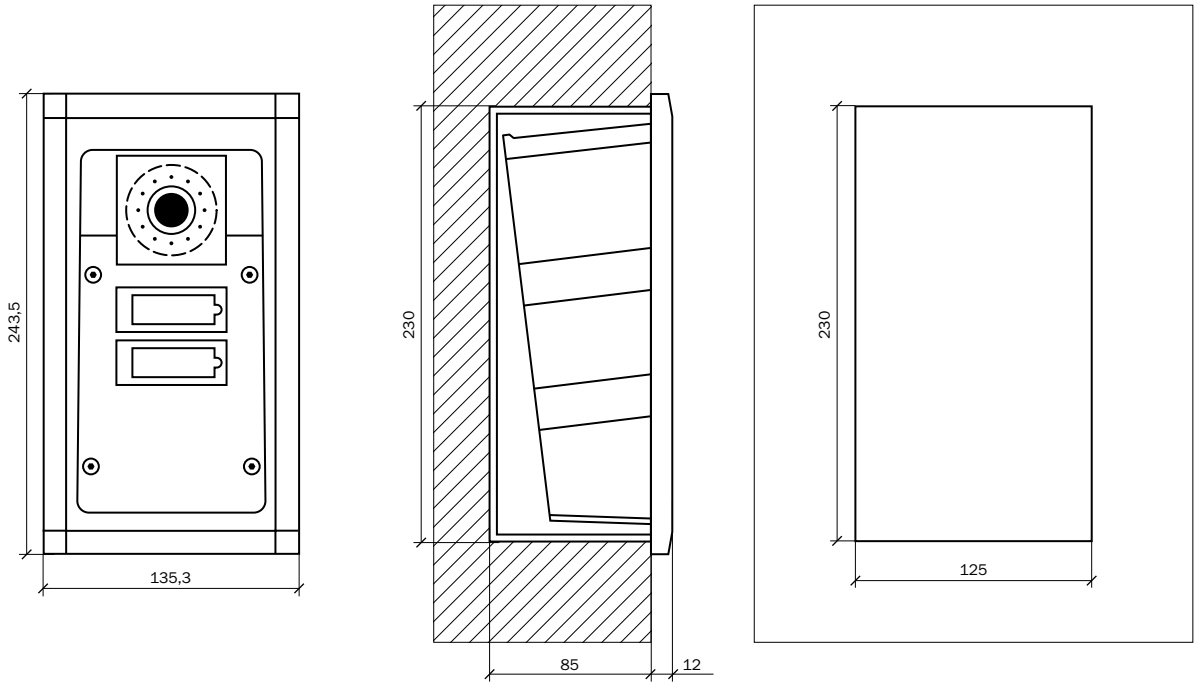
Dimensions and fitting

2N® IP Force

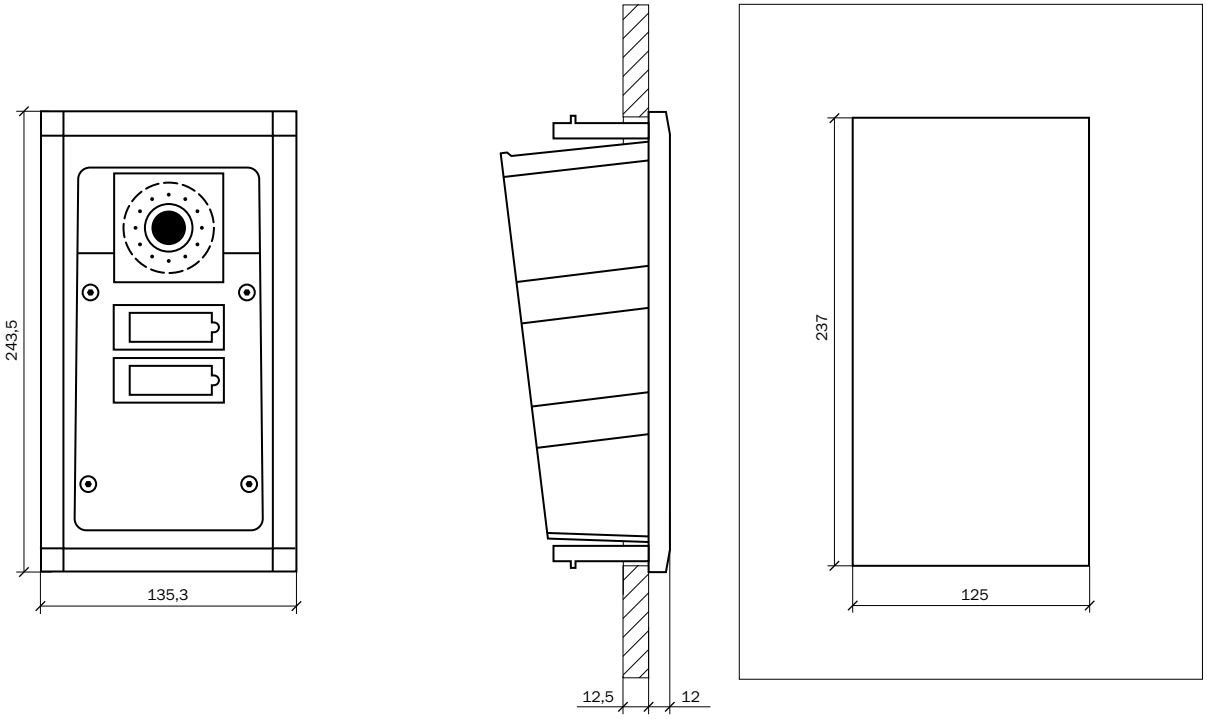
FLUSH-MOUNTED WITHOUT BOX



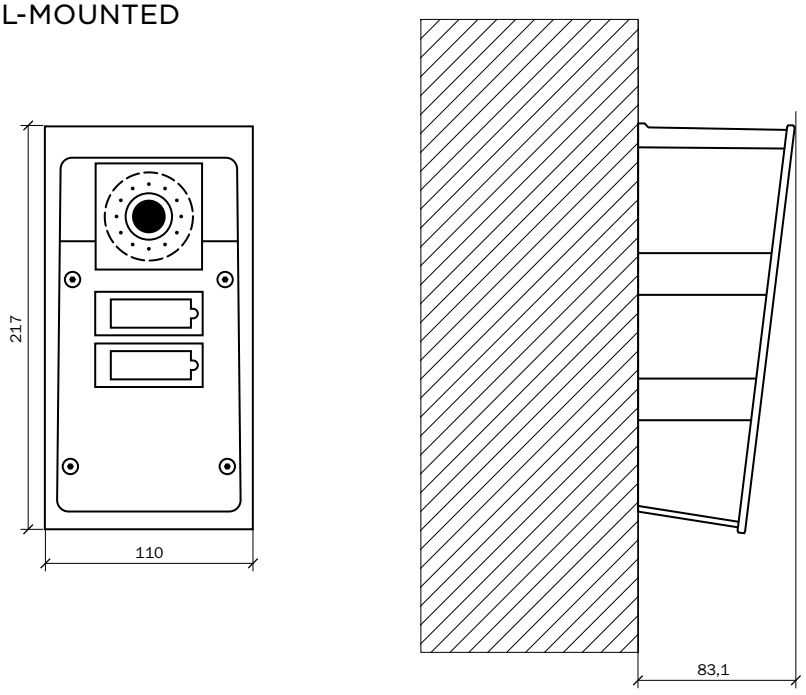
FLUSH-MOUNTED WITH BOX



MOUNTING IN PLASTERBOARD



WALL-MOUNTED



2N® IP Solo

Makes the entrance part of any Smart Home

A compact IP intercom that would be a great addition to your smart home entrance. Despite that it has only one fitted button, it can astonish by hidden HD camera, multiple functionalities including calls to your smart phone, and easy integration into the existing home automation system.

2N
Smith

IP ENVIRONMENT

2N® IP Solo

KEY FEATURES

- **Entrance to your Smart Home**
- **Sharp video day and night**
- **Integration with Home Automation**
- **Tailored for residential market**

RECOMMENDED USE

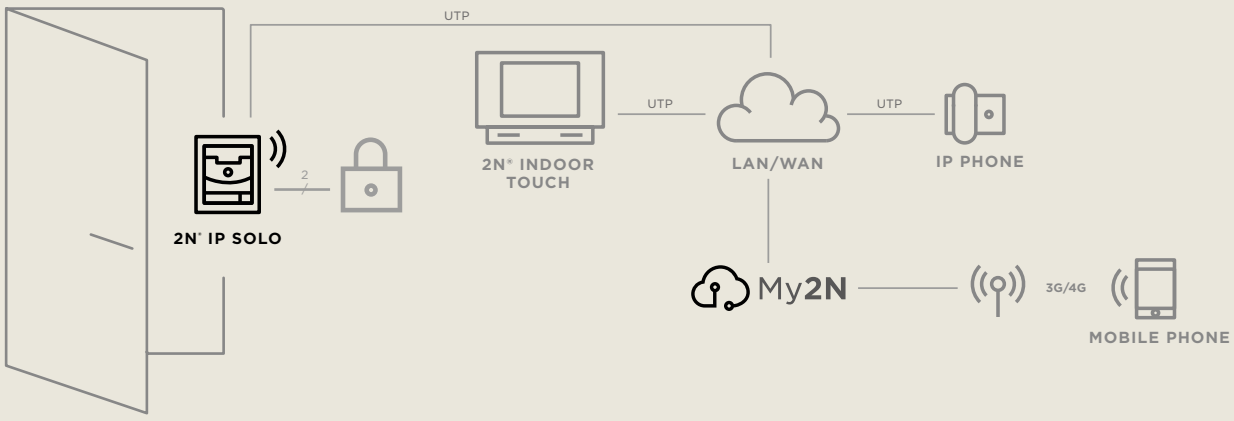
Doorbell for Smart Homes

2N® IP Solo a solution for a single family with higher demands on access control system. Not only is this intercom stylish, but apart from video calls on your smartphone it also offers advanced functionalities such as interconnection with smart home devices, motion detection for trespassers or integration with CCTV systems.

Accessory for the villa entrance

2N® IP Solo arrives in a single small package with all necessary accessories. Pick from wall-mounted or surface installation and colour of your preference. 1button is just enough for a single family.
All components and materials are industrial high-grade so as to ensure excellent performance under any conditions.

EXAMPLE OF CONNECTION OF THE 2N® IP SOLO IN RESIDENTIAL ENVIRONMENT



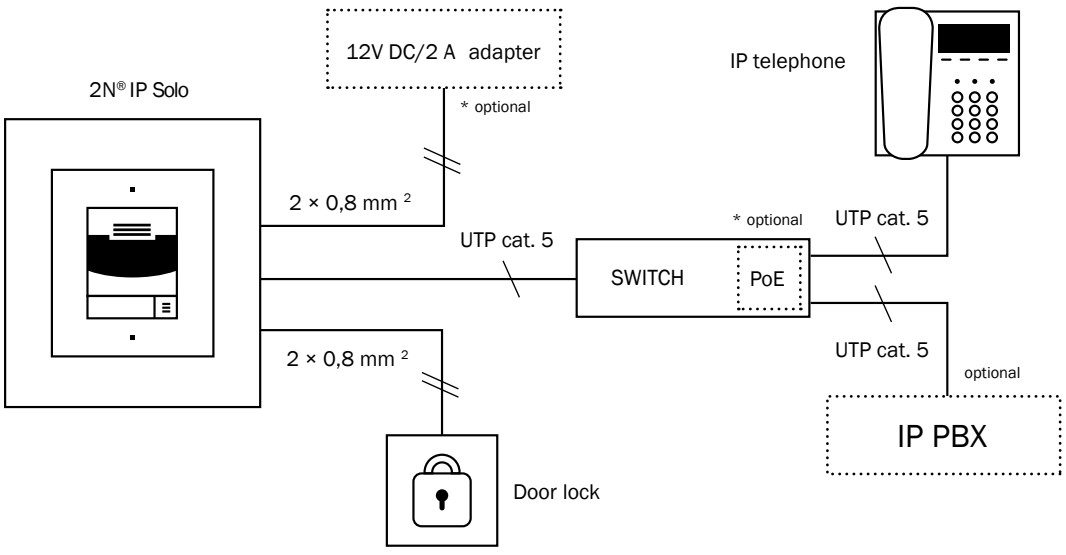
Technical parameters

2N® IP Solo

Signalling protocol	
	SIP (UDP, TCP, TLS)
Buttons	
Button design	White-backlit transparent buttons with replaceable nametag
Button count	1 and increments of 146
Button extenders	Up to 30 modules, limited by power supply
Numeric keypad	optional
Audio	
Microphone	1 integrated microphone
Amplifier	2 W (class D) amplifier
Speaker	2 W/8 Ω
Output LINE OUT	1 VRMS/600 Ω
Volume control	Adjustable with automatic adaptive mode
Full duplex	Yes (AEC)
Audio stream	
Protocols	RTP/RTSP
Codecs	G.711, G.722, G.729
Camera	
Sensor	1/3“ colour CMOS
JPEG resolution	1280 (H) × 960 (V)
Video resolution	640 (H) × 480 (V)
Frame rate	Up to 30 snapshots/s
Sensitivity	5.6 V/lux-sec (550 nm)
View angle	120° (H), 90° (V), 145° (D)
Infrared light	Yes
Video stream	
Protocols	RTP/RTSP/HTTP
Codecs	H.263, H.263+, H.264, MPEG-4, M-JPEG
IP camera function	Yes, ONVIF v2.2 profile S compatible
Interface	
Power supply	12V ± 15 % / 2 A DC or PoE
PoE	PoE 802.3af (Class 0–12.95 W)
LAN	10/100BASE-TX s Auto-MDIX, RJ-45
Recommended cabling	Cat-5e or higher
Supported protocols	SIP2.0, DHCP opt. 66, SMTP, 802.1x, RTSP, RTP, TFTP, HTTP, HTTPS, Syslog
Passive switch	NO/NC contact, up to 30 V/1 A AC/DC
Active switch output	8 up to 12 V DC depending on power supply (PoE: 10 V; adaptor: power supply voltage minus 2 V), max 400 mA

Mechanical properties	
Cover	Robust zinc casting with surface finish
Working temperature	-40 °C – 60 °C
Working relative humidity	10% – 95% (non-condensing)
Storing temperature	-40 °C –70 °C
Dimensions	
Surface mounting frame	1 modul: 107 (W) × 130 (H) × 28 (D) mm
Flush mounting frame	1 modul: 130 (W) × 153 (H) × 5 (D) mm
Flush mounting box (minimum hole dimensions)	1 modul: 108 (W) × 131 (H) × 45 (D) mm
Weight	Based on configuration
Covering level	IP54

CONNECTION DIAGRAM



Order numbers

2N® IP Solo

Order No.	**9155301CF/ 9155301CBF**
Name	2N® IP Solo, flush mount, zinc/ black
Desc.	unit for flush installation, in zinc and black colour

Order No.	**9155301CS/ 9155301CBS**
Name	2N® IP Solo, surface mount, zinc/ black
Desc.	unit for surface installation, in zinc and black colour

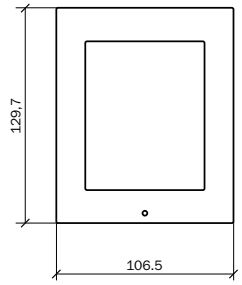
Order No.	**9155017**
Name	2N® IP Solo, flush mounting box
Desc.	backbox for flush installation

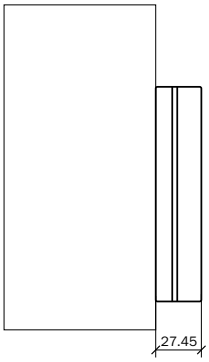
Order No.	**9155068**
Name	2N® IP Solo, backplate
Desc.	backplate for easier surface installation

Dimensions and fitting

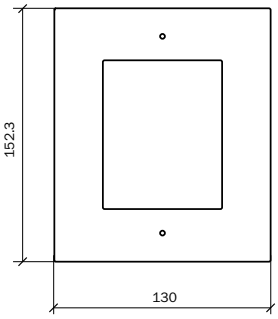
2N® IP Solo

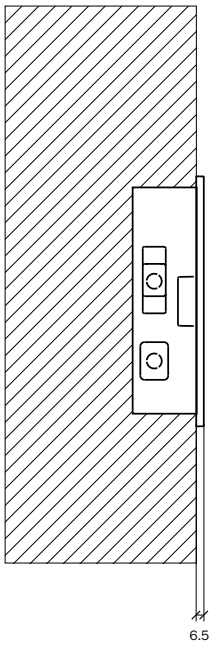
WALL-MOUNTED 1 MODULE

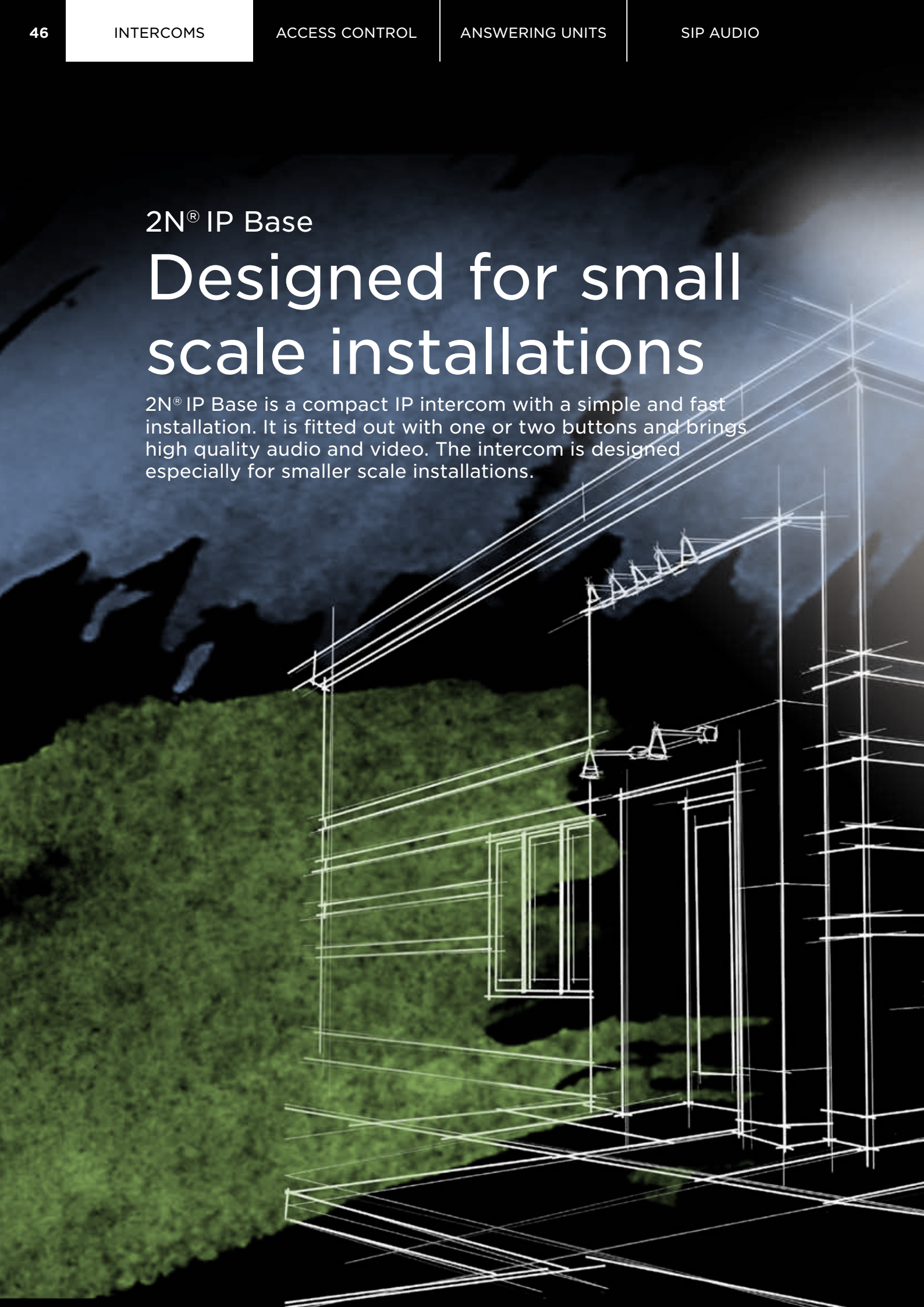




IN-WALL 1 MODULE







2N® IP Base

Designed for small scale installations

2N® IP Base is a compact IP intercom with a simple and fast installation. It is fitted out with one or two buttons and brings high quality audio and video. The intercom is designed especially for smaller scale installations.

Reception
Storage
2N

IP ENVIRONMENT

2N® IP Base

KEY FEATURES

- Ready for outdoor challenges
- Wide-angle HD camera
- 10min installation
- RFID access control

RECOMMENDED USE

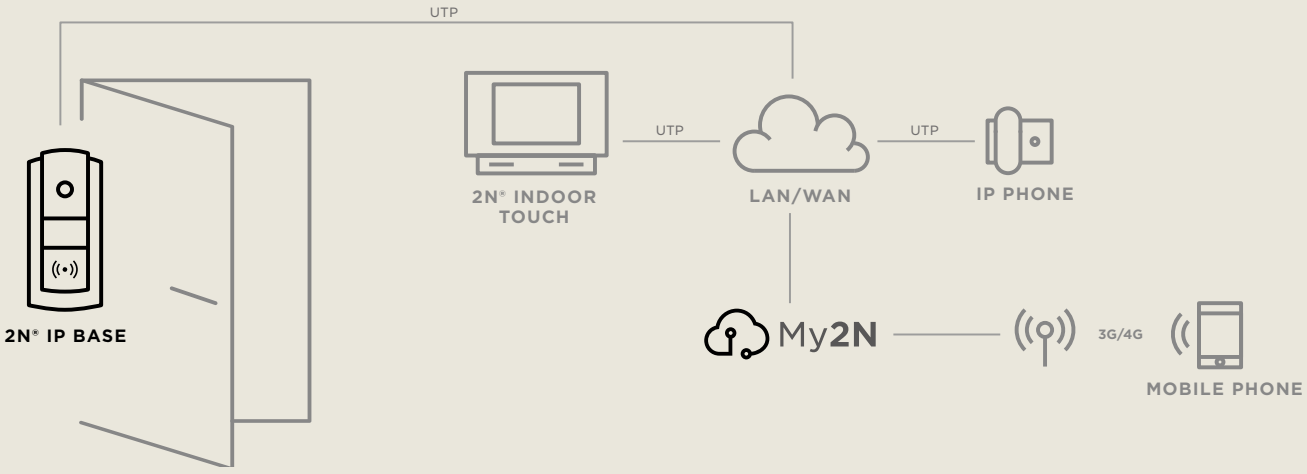
Door communication for small offices

The intercom will secure the entrance for any small office. Its HD camera with wide viewing angle let employees vet visitors or check the company's surrounding in no time. A combination with an RFID card reader allows to get in only the authorized people. Despite its simplicity and easy mounting, it offers an efficient access control solution.

Entry level intercom for residential market

Easy installation using the quick mounting frame, high durability in outdoor and basic functionalities are key benefits of 2N® IP Base. 1 or 2 button are included in the basic package solving a problem of shared entrance for 2 families. Video calls with their visitors is a pleasant benefit.

EXAMPLE OF CONNECTION OF 2N® IP BASE IN RESIDENTIAL ENVIRONMENT



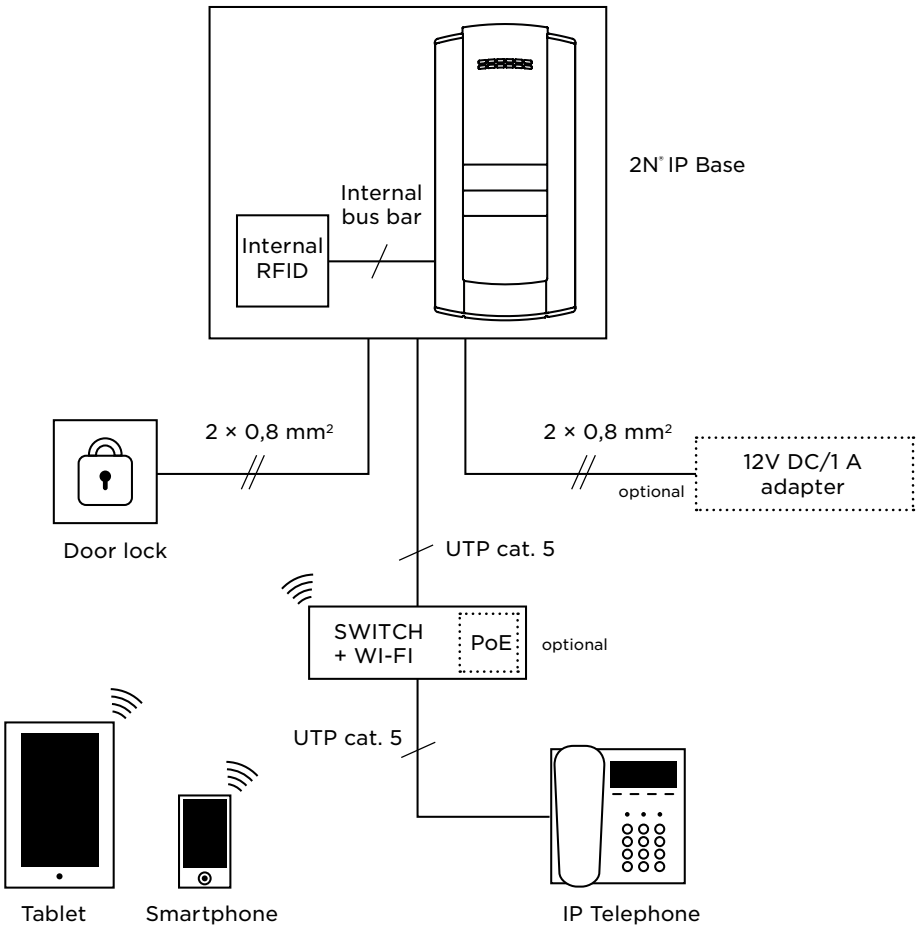
Technical parameters

2N® IP Base

Signalling protocol	
	SIP 2.0 (RFC - 3261)
Buttons	
Button type	transparent plastic
Number of buttons	1 or 2 (the pack holds plastic buttons for both 1 or 2-button options)
Numeric keypad	no
Audio	
Microphone	built-in microphone
Speaker	2W
Sound pressure at 1 kHz at 1 m distance	78 dB
Audio stream	
Codecs	G.711, G.722, G.729
Camera	
HD camera	resolution 1280×960
Viewing angle	135°horizontal 109° vertical
Night vision	no
Video stream	
Codecs	H.263+, H.263, H.264 only for VoIP calls
Interface	
Power supply	PoE
PoE	PoE 802.3af LAN connector
Connector for expansion module (RFID reader)	
Internal tamper	
IN1 input terminal passive/active mode (-30 V to +30 V DC)	
	OFF = open contact or UIN > 1.5 V
	ON = closed contact or UIN < 1.5 V
Relay output	30 V/1 A AC/DC, output NO/NC
Active switch output	8 to 12 V DC depending on Power supply (PoE: 10 V; adapter: source voltage minus 2 V), max 400 mA
Input for external power supply	12 V/2 A DC
RFID card reader	
	Optionally 125 kHz or 13.56 MHz
Supported cards	125 kHz – EM4100, EM4102, HID Prox
	13.56 MHz
ISO14443A	Mifare Classic 1k & 4k, DESFire EV1, Mini, Plus S&X, SmartMX, Ultralight
	Ultralight C, SLE44R35, my-d move (SLE66Rxx), PayPass, Legic Advant
ISO14443B	Calypso, CEPAS, Moneo, SRI512, SRT512, SRI4K, SRIX4K, PicoPass, HID iCLASS

Mechanical properties	
Weight	max. 1000 g
Operating temperature	-40 °C – 60 °C
Storing temperature	-40 °C –70 °C
Operating relative humidity	10%-95% (non-condensing)
Dimensions	229×109×31 mm
Ingress Protection	IP65, IK7

CONNECTION DIAGRAM



Order numbers

2N® IP Base

Order No.	**9156111CB**
Name	2N® IP Base, camera
Desc.	HD camera, black frame, very easy to install

Order No.	**9156030**
Name	2N® IP Base, 125kHz card reader
Desc.	125kHz RFID card reader

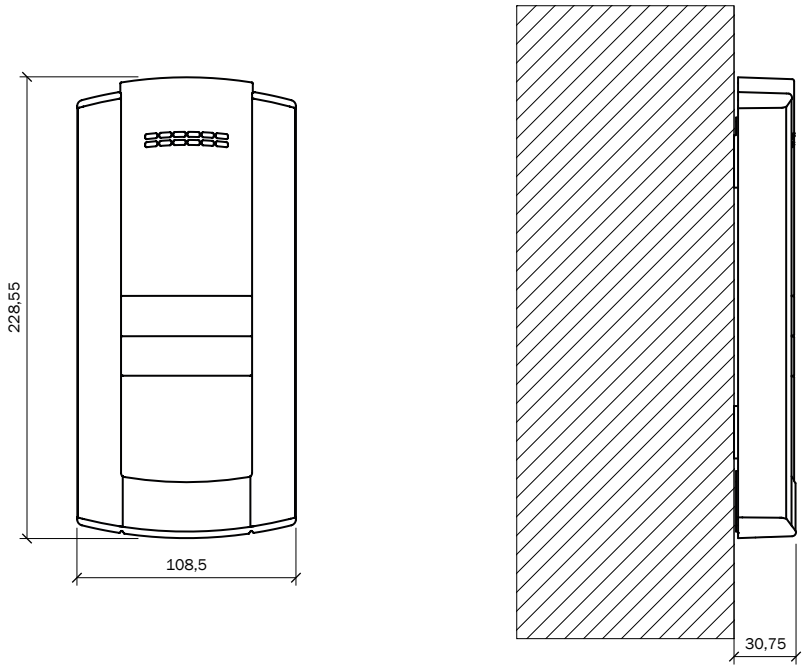
Order No.	**9156031**
Name	2N® IP Base, 13.56MHz card reader
Desc.	13.56MHz RFID card reader, reads UID

Order No.	**9156020**
Name	2N® IP Base, backplate
Desc.	backplate for easier surface installation

Dimensions and fitting

2N® IP Base

1 MODULE, WALL-MOUNTED



2N® IP Safety

A highly visible aid when you’re in distress

2N® IP Safety is a first-class security intercom designed for emergency communications. Whether drenched by rain or exposed to −40°C frost, it remains fully functional and allows you to reach for help at once. Moreover, its bright orange colour makes it easy to be located in a poor visibility.

INFO
SOS
2N

IP ENVIRONMENT

2N® IP Safety

KEY FEATURES

- **Robust metal body**
- **Fast help in case of emergency**
- **High intelligibility**
- **Automatic audio loop test**

RECOMMENDED USE

Help point

A school playing field, city park, underground parking garage or motorway – all places where one may get into trouble, have an accident or be a witness to an attack. Just the place to get some help from 2N® IP Safety, which puts you through to some assistance immediately.

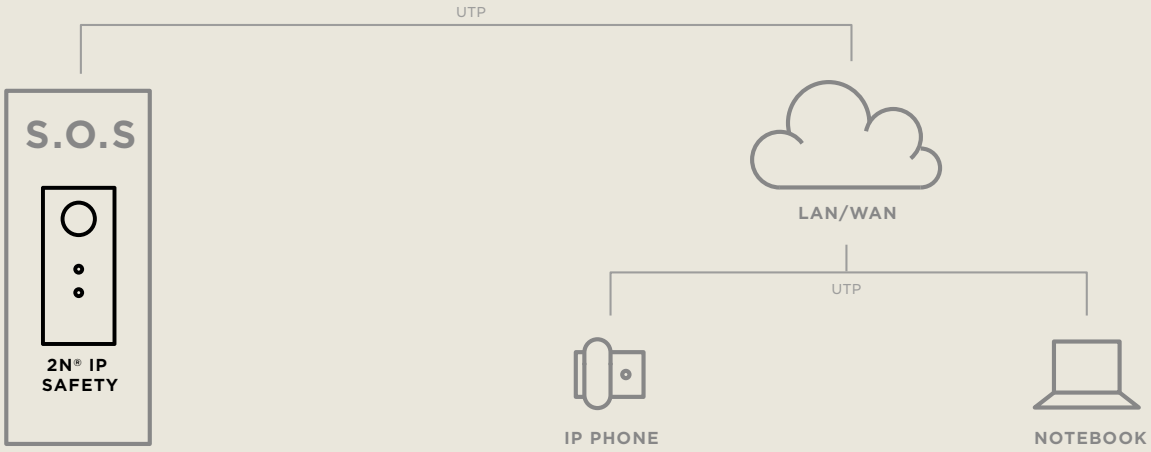
Critical communication

In critical situations, 100% reliability and simple operation are a must. And this is just where 2N® IP Safety comes in. For instance, it can be used to call help after an industrial accident or even halt the entire production line.

Transportation

In metro stations or at a railway platform, accidents can easily happen, in the worst case, a person falling onto the track. In such emergencies the speed of response is critical. And this is just where 2N® IP Safety comes into its own.

EXAMPLE OF CONNECTION OF 2N® IP SAFETY ON MOTORWAY

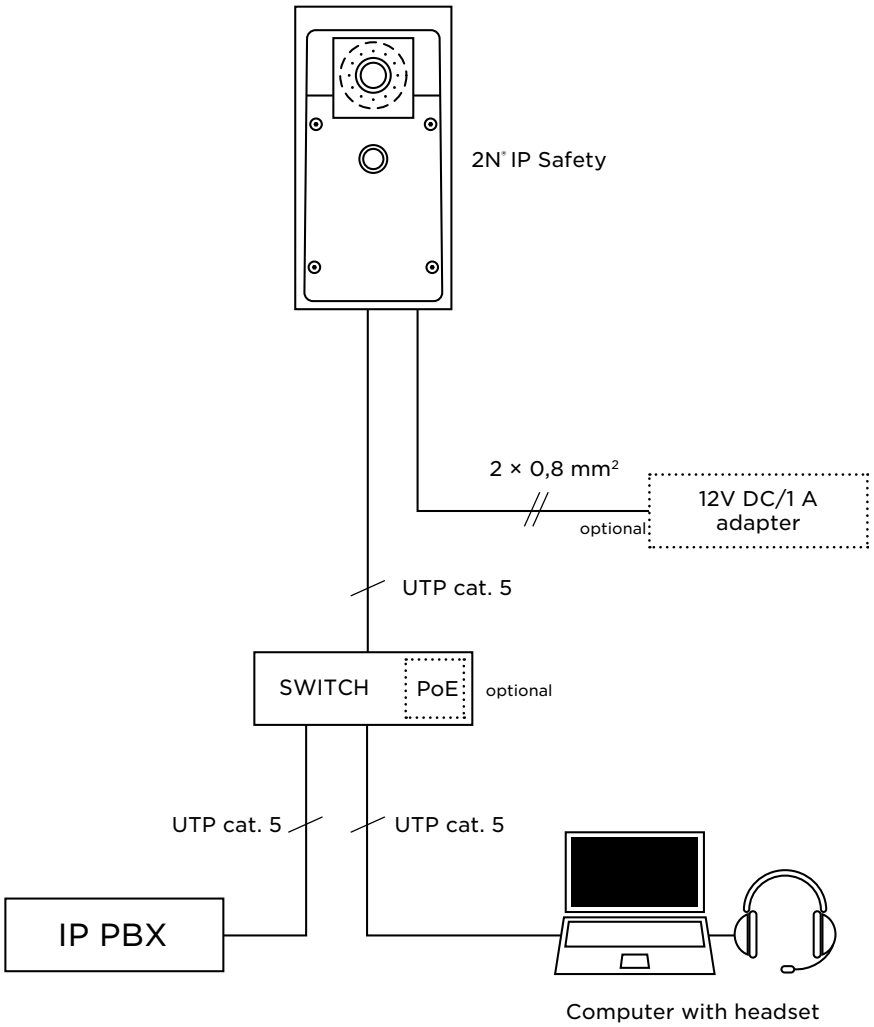


Technical parameters

2N® IP Safety

Signalling protocol	
	SIP (UDP)
Buttons	
Button finish	Industrial waterproof buttons, vandal-proof, stainless steel, blue backlit
Number of buttons	1
Audio	
Microphone	2 integrated microphones
Amplifier	10 W (class D) amplifier
Speaker	1 W (10 W optional)
Volume control	adjustable with automatic adaptive mode
Full duplex	yes (AEC)
Audio stream	
Protocols	RTP/RTSP
Codecs	G.711, G.722, G.729
Interface	
Power supply	12 V ± 15 %/2A DC or PoE
PoE	PoE 802.3af (Class 0 – 12,95 W)
LAN	10/100BASE-TX with Auto-MDIX, RJ-45
Recommended cabling	Cat-5e or better
Passive switch	make and break contact, max. 30 V/1A AC/DC
Active switch output	9–13 V DC/700 mA
Mechanical properties	
Cover	Robust aluminium casting
Colour	RAL 2004 (orange)
Operating temperature	-40 °C – 55 °C
Operating relative humidity	10 % – 95 % (non-condensing)
Storage temperature	-40 °C – 70 °C
Dimensions	217 × 109 × 83 mm
Weight	net max. 2 kg / gross max. 2,5 kg
Cover rate	IP65, IP69K (91511xxxW)

CONNECTION DIAGRAM



* Power from external 12V adapter or POE

Order numbers

2N® IP Safety

Order No.	**9152101W**
Name	2N® IP Safety, 1 button
Desc.	1 button, 10W speaker

Order No.	**9152102W**
Name	2N® IP Safety, 2 button
Desc.	INFO button and SOS button, blue backlight

Order No.	**9152101MW**
Name	2N® IP Safety, red button
Desc.	red emergency button

Mounting

Order No.	**9151001**
Name	2N® IP Safety, flush box
Desc.	brick flush mounting box

Order No.	**9151002**
Name	2N® IP Safety, plaster box
Desc.	plasterboard flush mounting box

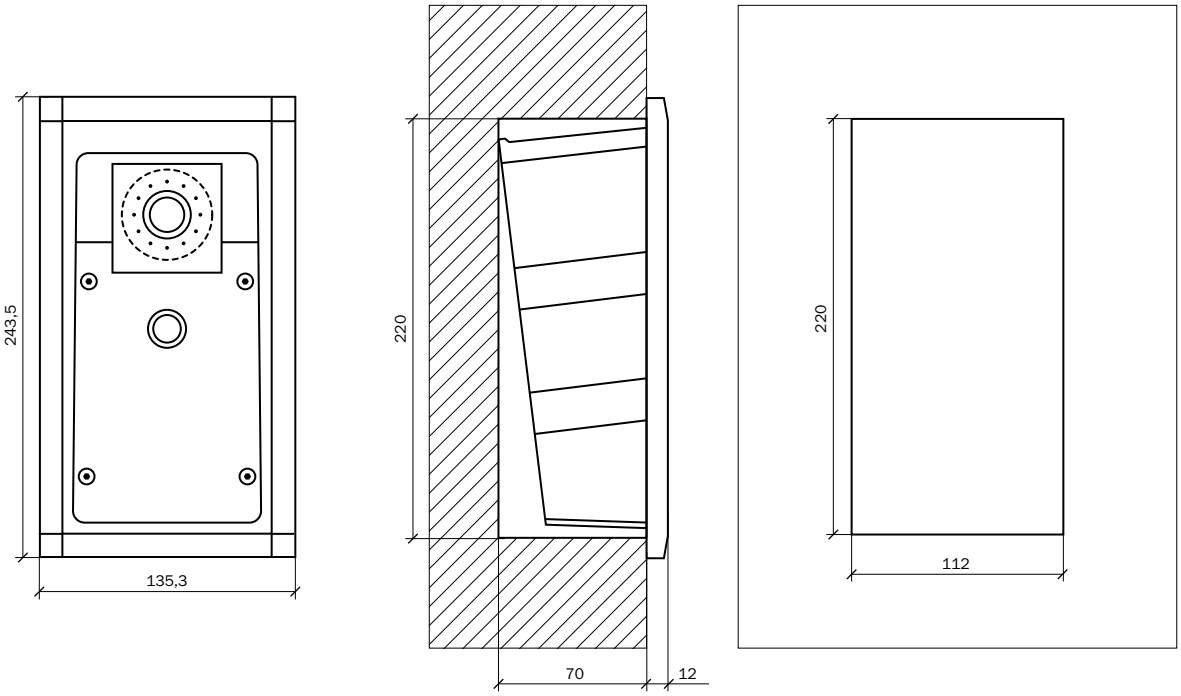
Order No.	**9151005**
Name	2N® IP Force/Safety - Gooseneck
Desc.	Gooseneck stand, height 120cm/47in

Order No.	**9151007**
Name	2N® IP Force/Safety - Gooseneck stand double
Desc.	Gooseneck stand double, height 115cm/45in and 203cm/80in

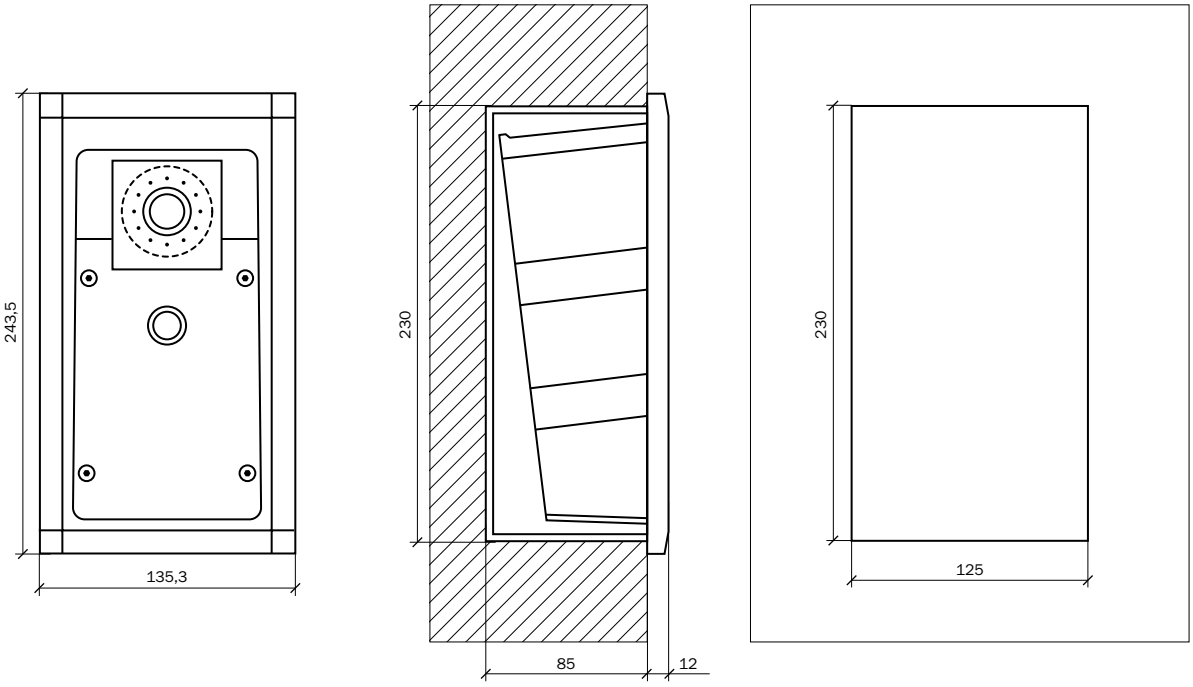
Dimensions and fitting

2N® IP Safety

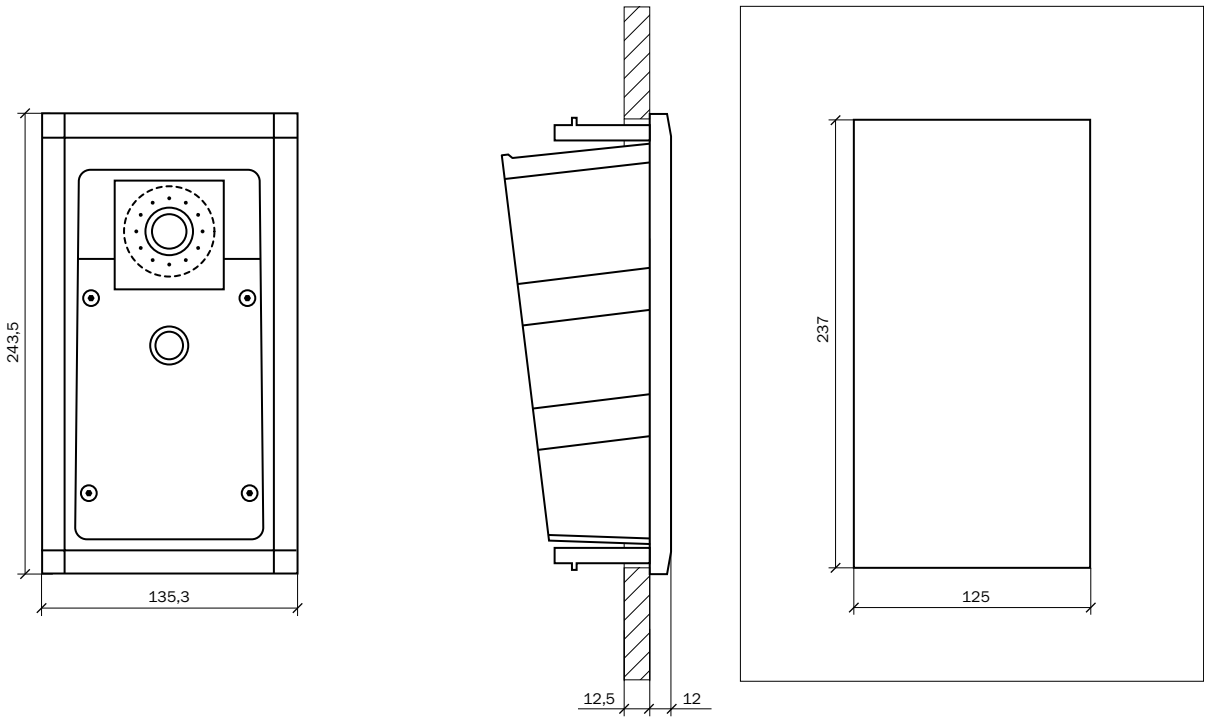
FLUSH-MOUNTED WITHOUT BOX



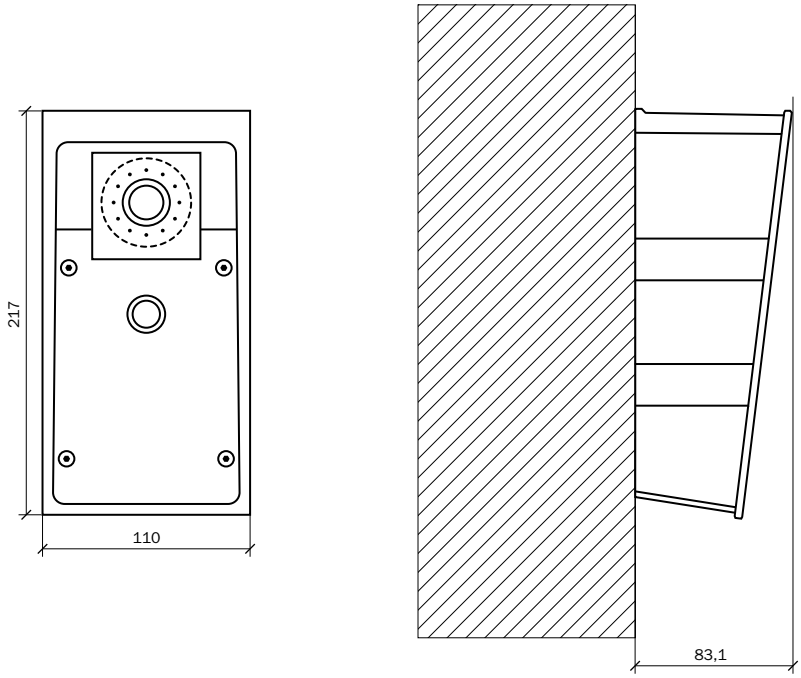
FLUSH-MOUNTED WITH BOX

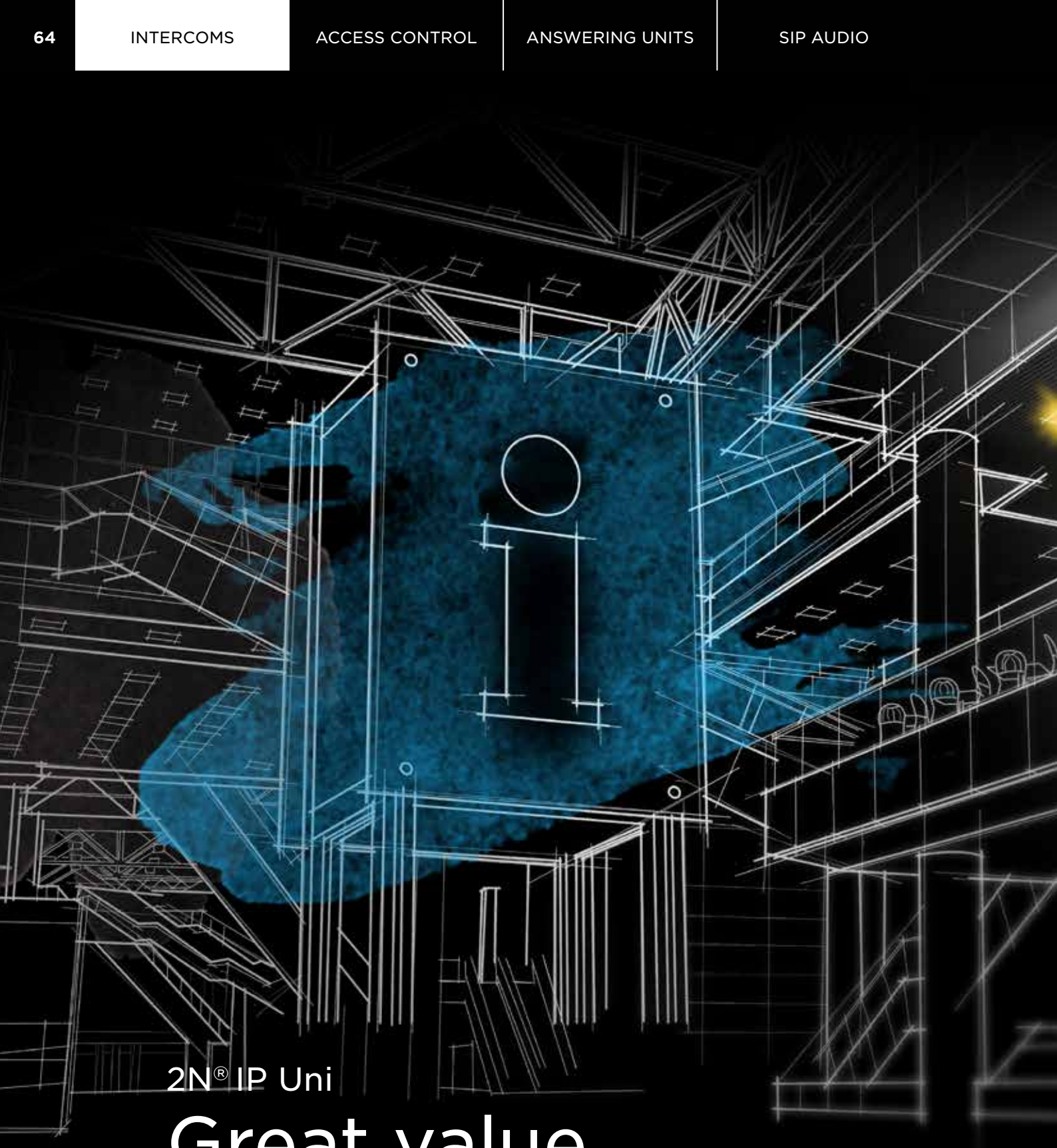


MOUNTING IN PLASTERBOARD



WALL-MOUNTED

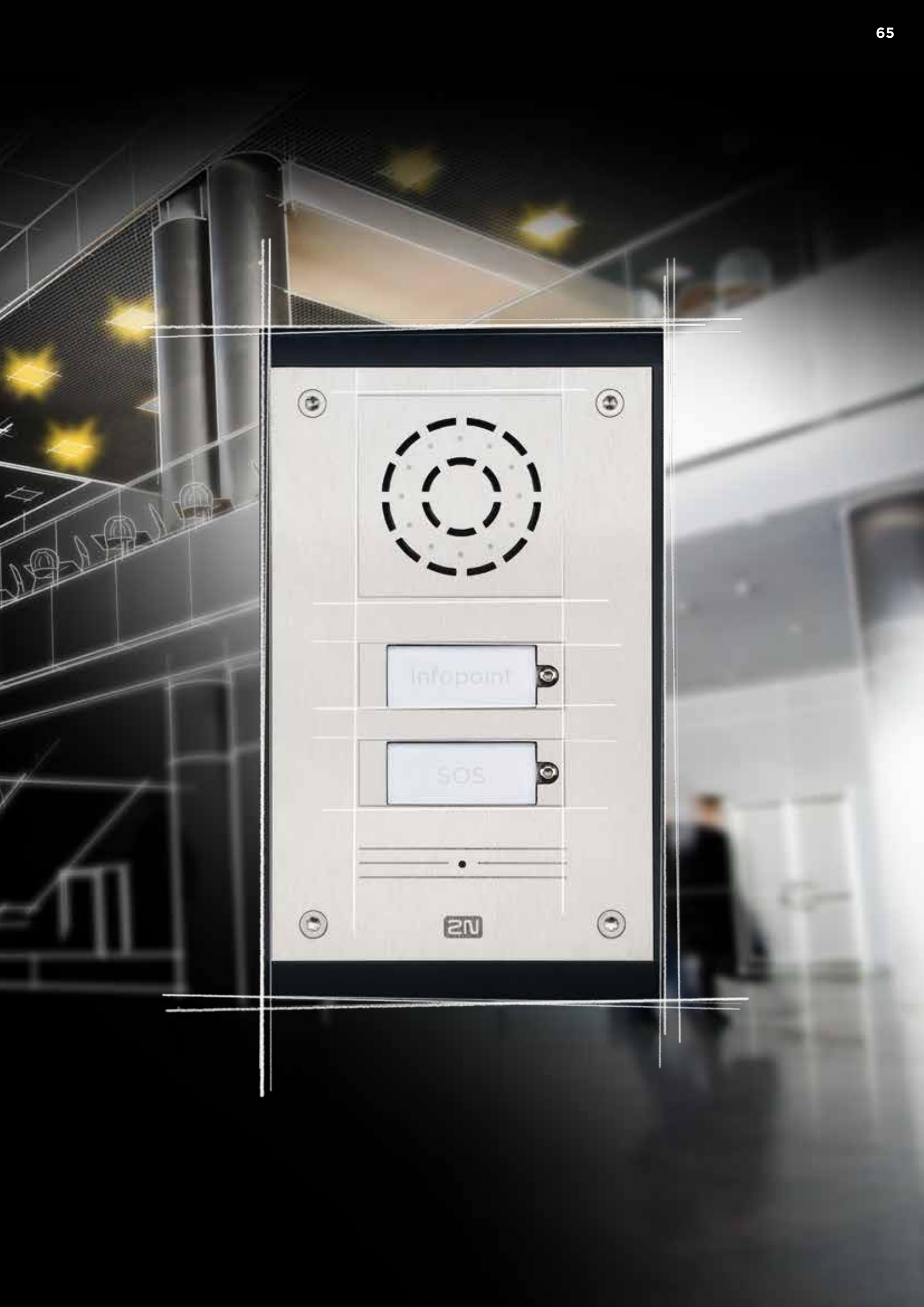




2N® IP Uni

Great value for the money

2N® IP Uni is an intercom, which is very easy to install and is suitable for communication in general. A simple operation and connection with the IP world ensures that you won‘t get lost on the premises. It can promptly connect you with a receptionist or a security guard and provide you a professional assistance.


Infopoint
SOS
2N

IP ENVIRONMENT

2N® IP Uni

Alcatel·Lucent broadsoft Cisco Compatible nedap HID Skype for Business

KEY FEATURES

- **Stainless steel front plate**
- **Visual status signalling**
- **Built-in tamper switch**
- **Easy installation**

RECOMMENDED USE

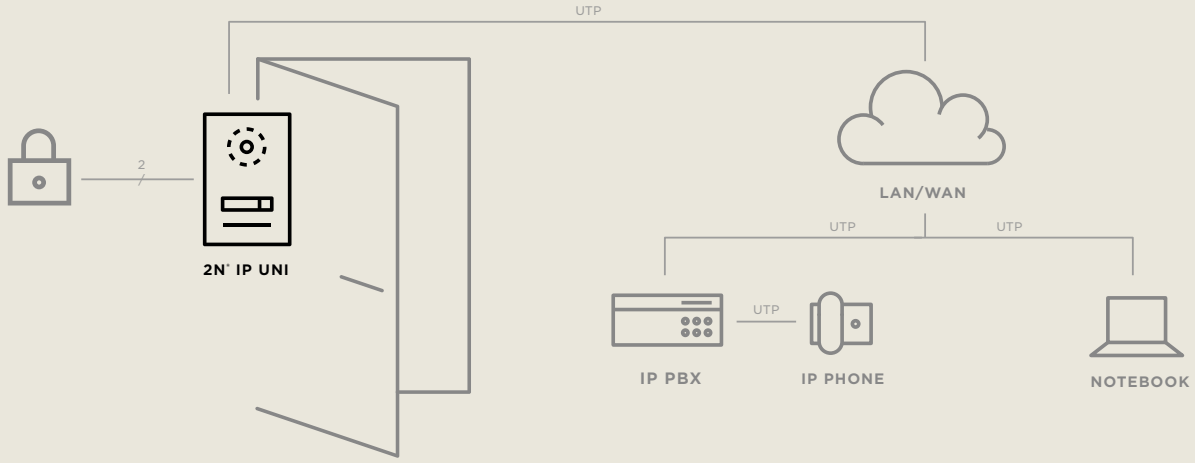
Public info point

Have you ever got lost in a a large building like hospital, office building or in a foreign city, been looking for a landmark or need any other information? The 2N® IP Uni will help you. At the press of one button you connect with the information centre and the problem is soon resolved.

Info point for retail

It often happens that a customer needs help or advice about a particular product while shopping, or just wants some guidance around the department store they're in. Thanks to the info point button, they are no longer kept waiting for a specific employee, but are immediately put through to the assistance desk.

EXAMPLE OF CONNECTION OF 2N® IP UNI IN SHOPPING CENTRE

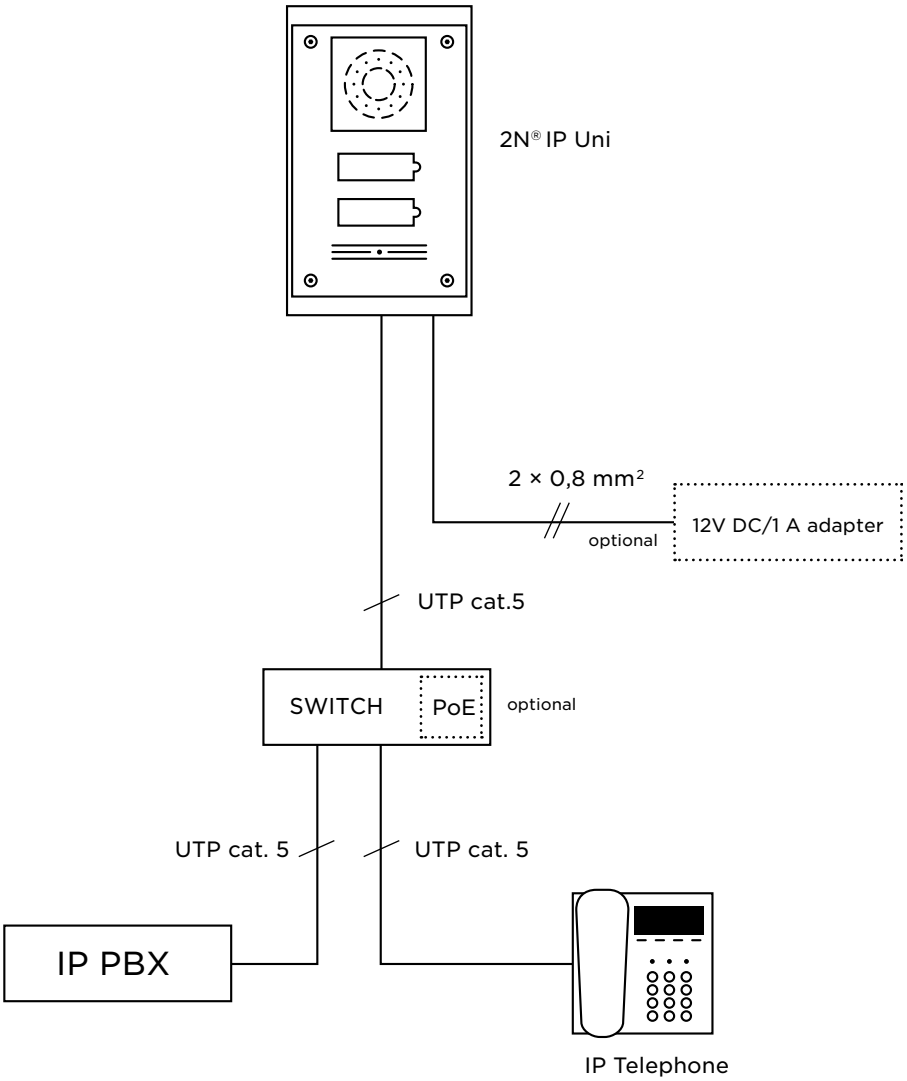


Technical parameters

2N® IP Uni

Signalling protocol	
	SIP (UDP)
Buttons	
Button finish	Transparent buttons with white backlighting and nameplate which can be replaced with ease
Number of buttons	1 or 2
Audio	
Microphone	1 integrated microphone
Amplifier	1 W (class D) amplifier
Speaker	1 W
Volume control	adjustable with automatic adaptive mode
Full duplex	yes (AEC)
Audio stream	
Protocols	RTP/RTSP
Codecs	G.711, G.722
Interface	
Power supply	12 V ± 15 %/2A DC or PoE
PoE	PoE 802.3af (Class 0 – 12,95 W)
LAN	10/100BASE-TX with Auto-MDIX, RJ-45
Recommended cabling	Cat-5e or better
Passive switch	make and break contact, max. 30 V/1A AC/DC
Active switch output	8–12 V DC/500 mA
Mechanical properties	
Cover	ABS plastic, high-quality stainless steel
Operating temperature	-40 °C – 55 °C
Operating relative humidity	10 % – 95 % (non-condensing)
Storage temperature	-40 °C – 70 °C
Dimensions	193 × 115 × 39 mm
	197 × 119 × 47 mm flush fitting box
	193 × 115 × 57 mm when fitted on surface
Weight	product net: 500 g
	wiring box: 135 g
	total including container: 800
Cover rate	IP54

CONNECTION DIAGRAM



Order numbers

2N® IP Uni

Order No.	**9153101**
Name	2N® IP Uni, 1 button
Desc.	1 quick dial button

Order No.	**9153102**
Name	2N® IP Uni, 2 button
Desc.	2 quick dial buttons

Order No.	**9153101P**
Name	2N® IP Uni, 1 button, pictograms
Desc.	1 button, visual status signalling

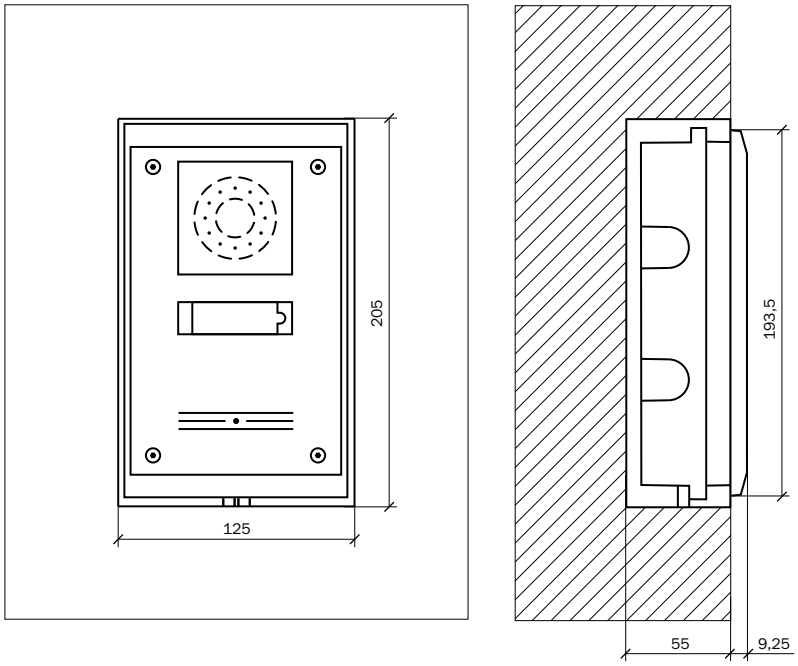
Mounting

Order No.	**9153003**
Name	2N® IP Uni, surface mount box
Desc.	box for wall mounting

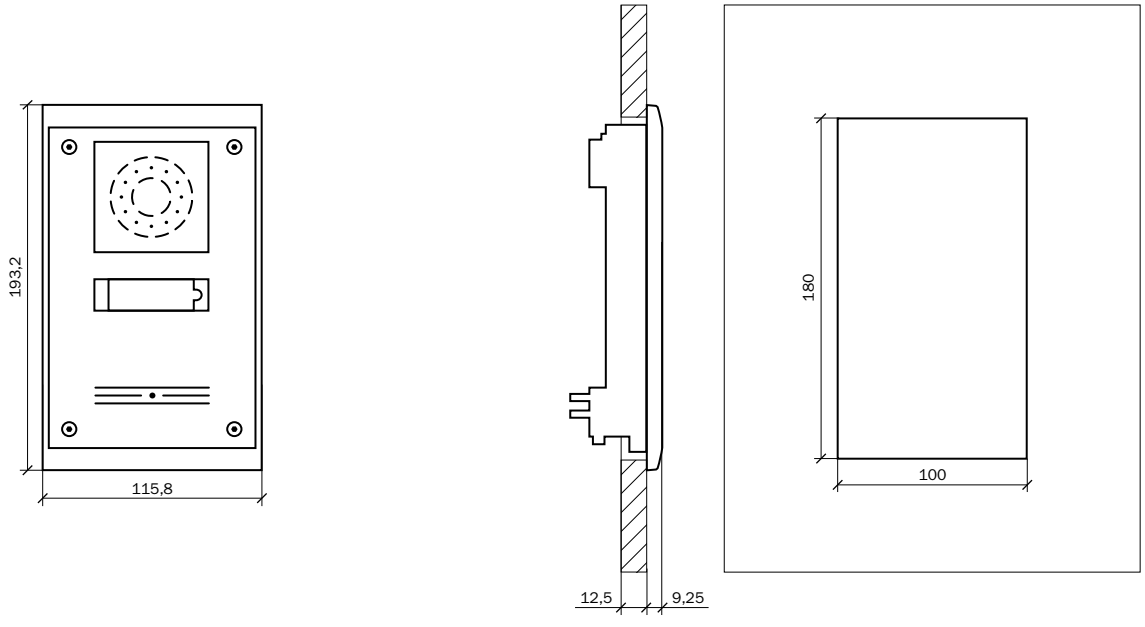
Dimensions and fitting

2N® IP Uni

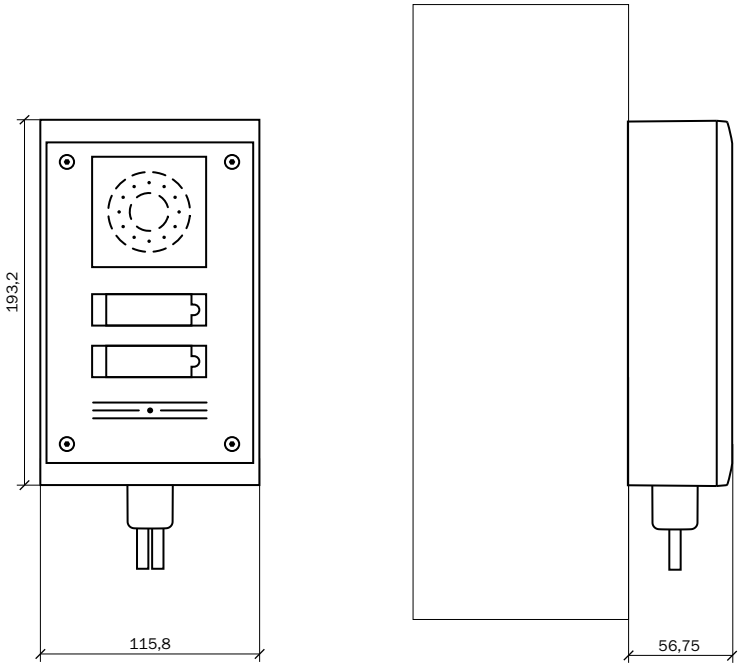
FLUSH-MOUNTED

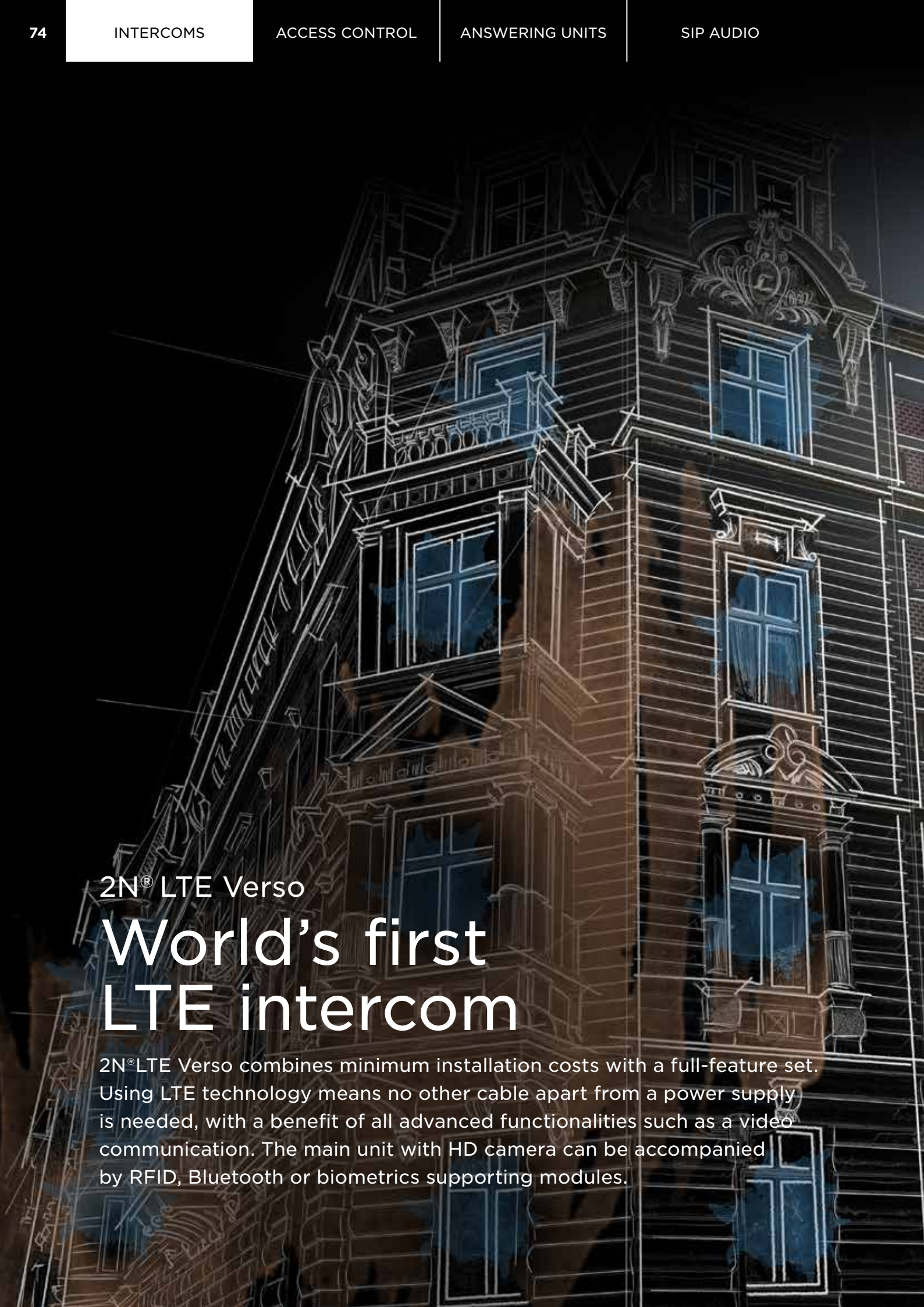


MOUNTING IN PLASTERBOARD



WALL-MOUNTED





2N® LTE Verso

World's first LTE intercom

2N®LTE Verso combines minimum installation costs with a full-feature set. Using LTE technology means no other cable apart from a power supply is needed, with a benefit of all advanced functionalities such as a video communication. The main unit with HD camera can be accompanied by RFID, Bluetooth or biometrics supporting modules.

2N
Reception

2N® LTE Verso

KEY FEATURES

- **Ideal retrofit solution**
- **Secure configuration via cloud**
- **Pick any of the 14 modules available**
- **Effective upgrade to video intercom**

RECOMMENDED USE

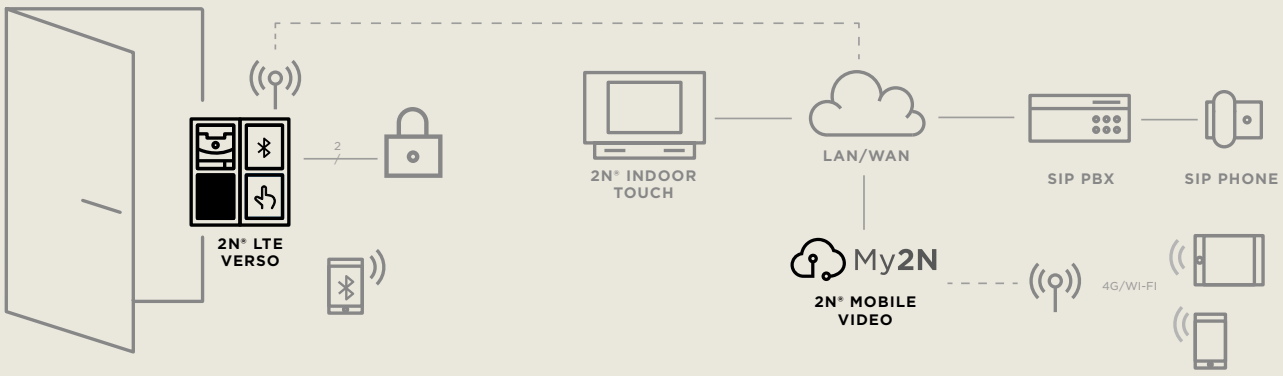
Upgrade to video intercom effectively

State protected historical buildings, older terraced houses, all these places might face a problem of installing a PoE cable to the entrance, especially if they already have a basic door station in place. Using LTE technology means no other cable apart from a power supply is needed, with a benefit of all advanced functionalities such as a video communication.

Communication for remote sites

Imagine a farm with a gate 3km far away. The only thing one has to do is to install 2N® LTE Verso, ensure its power supply and register it into My2N. The 2N® Mobile Video service then establishes a video communication with visitors via your smartphone leaving the installation costs at their minimum.

EXAMPLE OF CONNECTION OF THE 2N® LTE VERSO



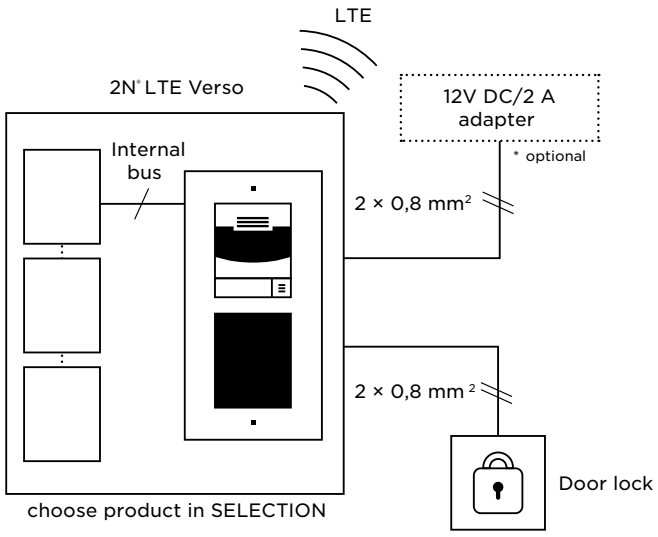
Technical parameters

2N® LTE Verso

Signalling protocol	SIP 2.0 (RFC - 3261)
Buttons	
Buttons	transparent buttons with white backlight and easily removable label
Number of buttons	1 to 146
Numeric keypad	Optional
Audio	
Microphone	1 built-in microphone
Speaker	2W
Sound pressure at 1 kHz at 1 m distance	78 dB
Audio stream	
Codecs	G.711, G.729, G.722, L16/16kHz
Camera (optional)	
Resolution – JPEG	1280 x 960 px
Resolution – video call	640 x 480 px
Viewing angle	120° (H), 90° (V), 145° (D)
Night vision	Yes
Video stream	
Codecs	H.263+, H.263, H.264, MJPEG, MPEG-4
Touchscreen (optional)	
Buttons and keyboard functions	
Bluetooth module (optional)	
Bluetooth Smart technology	
Security	RSA-1024 and AES-128
RFID card reader	
Supported frequencies	13.56MHz & 125 kHz
Support for NFC	yes, HCE and the 2N® Mobile Key application needed
Fingerprint reader	
Sensor	optical sensor protected by resistant glass
Reliability	algorithm for fake fingerprint detection
Resistance	resistant to water and dust
Ambient light suppression	also works in direct sunlight
Status signalisation	acoustic and with the aid of multicoloured LEDs
Sensing area	large with dimensions of 15.24 x 20.32 mm
Operating temperature	-20°C to 55°C
Certification	FBI PIV

Interface	
Power supply	12V ± 15%/ 2A DC
Network connection	LTE FDD Cat.1, 3GPP release 9 compliant 4G Bands (MHz): B1(2100), B3(1800), B7(2600), B8(900), B20(800) Output power - Class 3 (0.2 W, 23 dBm) @ LTE
Connection speed	Uplink up to 5 Mbps Downlink up to 10 Mbps
Switch output	NC/NO contacts, max 30 V/1 A AC/DC
Active switch output	8 to 12 V DC depending on power supply (source voltage minus 2 V), max 400mA
Supported protocols	SIP2.0, DHCP opt. 66, ONVIF, SMTP, 802.1x, RTSP, RTP, TFTP, HTTP, HTTPS, Syslog
Mechanical properties	
Operating temperature	-40°C – 60°C, touchscreen -30°C – 60°C, fingerprint reader -20°C – 55°C
Storage temperature	-40°C – 70°C
Operating relative humidity	10%-95% (non-condensing)
Officially certified outdoor coverage level	IP54, IK08, touchscreen IK07
Surface mounting frame - dimensions	
1 modul:	107 (W) x 130 (H) x 28 (D) mm
2 moduls:	107 (W) x 234 (H) x 28 (D) mm
3 moduls:	107 (W) x 339 (H) x 28 (D) mm
Flush mounting frame - dimensions	
1 modul:	130 (W) x 153 (H) x 5 (D) mm
2 moduls:	130 (W) x 257 (H) x 5 (D) mm
3 moduls:	130 (W) x 361 (H) x 5 (D) mm
Flush mounting frame - dimensions	
1 modul:	108 (W) x 131 (H) x 45 (D) mm
2 moduls:	108 (W) x 238 (H) x 45 (D) mm
3 moduls:	108 (W) x 343 (H) x 45 (D) mm

CONNECTION DIAGRAM



Order numbers

Main unit and modules

Order No.	**9155401C-E/ 9155401CB-E**
Name	Main unit with camera zinc/ black
Desc.	internal LTE antenna, 1 button, HD camera

Order No.	**9155036**
Name	Touchscreen module
Desc.	module for 2N® LTE Verso, tree-structured phone book, touch keypad

Order No.	**9155046**
Name	Bluetooth module
Desc.	module for 2N® LTE Verso, two-factor authentication, highly secure

Order No.	**9155045**
Name	Fingerprint reader module
Desc.	module for 2N® LTE Verso, spoof fingerprint detection, optical technology

Order No.	**9155047**
Name	Touch keypad module
Desc.	module for 2N® LTE Verso, numeric option for calling, silent alarm activation

Order No.	**9155031/ 9155031B**
Name	Keypad module zinc/black
Desc.	module for 2N® LTE Verso, physical keypad, backlit symbols

Order No.	**9155035**
Name	5 buttons module
Desc.	module for 2N® LTE Verso, quick dial buttons

Order No.	**9155032/ 9155033**
Name	RFID card reader module 125kHz/13.56MHz
Desc.	module for 2N® IP Verso

Order No.	**9155040/ 9155042**
Name	RFID card reader with NFC 13,56MHz (xx40) / 13,56MHz secured (xx42)
Desc.	module for 2N® IP Verso

Order No.	**9155081**
Name	Touch Keypad & RFID module
Desc.	125kHz, 13.56MHz, NFC ready

Order No.	**9155083**
Name	Touch Keypad & RFID module
Desc.	125kHz, secured 13.56MHz, NFC ready

Order No.	**9155039**
Name	Blind module
Desc.	module for 2N® IP Verso, 1 blind module supplied with the main unit

Order No.	**9155034**
Name	I/O module
Desc.	module for 2N® IP Verso, installed under another module, 2 inputs and 2 relay outputs

Order No.	**9155038**
Name	Tamper switch module
Desc.	module for 2N® IP Verso

Order No.	**9155082**
Name	Bluetooth & RFID module
Desc.	125kHz, 13.56MHz, NFC ready

Order No.	**9155084**
Name	Bluetooth & RFID module
Desc.	125kHz, secured 13.56MHz, NFC ready

Order No.	**9155041**
Name	Induction loop module
Desc.	module for 2N® IP Verso, audio signal directly into a hearing aid

Order No.	**9155030**
Name	Infopanel module
Desc.	module for 2N® IP Verso, backlit

Order No.	**9155037**
Name	Wiegand module
Desc.	module for 2N® IP Verso, installed under another module, for interconnection of systems

Frames

Order No.	**9155011/ 9155011B**
Name	1 module flush frame zinc / black
Desc.	frame for surface installation, 1 module

Order No.	**9155021/ 9155021B**
Name	1 module surface frame zinc / black
Desc.	frame for installation on the surface, 1 module

Order No.	**9155012/ 9155012B**
Name	2 module flush frame zinc / black
Desc.	frame for surface installation, 2 modules

Order No.	**9155022/ 9155022B**
Name	2 module surface frame zinc / black
Desc.	frame for installation on the surface, 2 modules

Order No.	**9155013/ 9155013B**
Name	3 module flush frame zinc / black
Desc.	frame for surface installation, 3 modules

Order No.	**9155023/ 9155023B**
Name	3 module surface frame zinc / black
Desc.	frame for installation on the surface, 3 modules

Backplates and boxes

Order No.	**9155061**
Name	1 module backplate
Desc.	backplate for surface installation, 1 module

Order No.	**9155062**
Name	2 modules backplate
Desc.	backplate for surface installation, 2 modules

Order No.	**9155063**
Name	3 modules backplate
Desc.	backplate for surface installation, 3 modules

Order No.	**9155064**
Name	2 (w) x2 (h) modules backplate
Desc.	backplate for surface installation, 2x2 modules

Order No.	**9155067**
Name	3 (w) x3 (h) modules backplate
Desc.	backplate for surface installation, 3x3 modules

Order No.	**9155066**
Name	2 (w) x3 (h) modules backplate
Desc.	backplate for surface installation, 2x3 modules

Order No.	**9155065**
Name	3 (w) x2 (h) modules backplate
Desc.	backplate for surface installation, 3x2 modules

Order No.	**9155014**
Name	1 module flush box
Desc.	box for installation in the wall, 1 module

Order No.	**9155015**
Name	2 modules flush box
Desc.	box for installation in the wall, 2 modules

Order No.	**9155016**
Name	3 modules flush box
Desc.	box for installation in the wall, 3 modules

Other

Order No.	**9155050**
Name	Extension cable- 1m long
Desc.	connection of modules in greater distance from the main unit

Order No.	**9155054**
Name	Extension cable- 3m long
Desc.	connection of modules in greater distance from the main unit

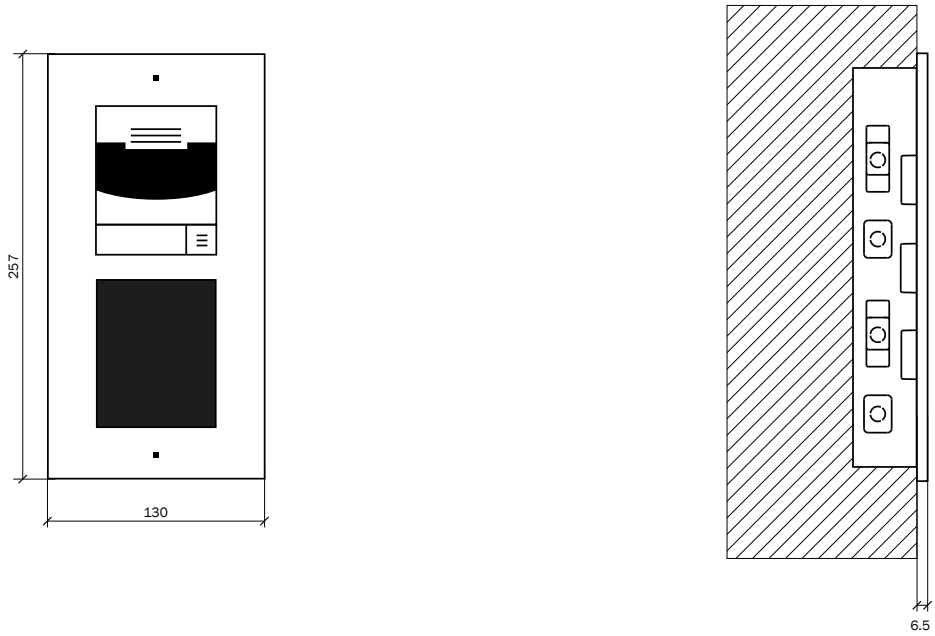
Order No.	**9155055**
Name	Extension cable- 5m long
Desc.	connection of modules in greater distance from the main unit

Order No.	**9155048**
Name	External LTE antenna
Desc.	2m long cable

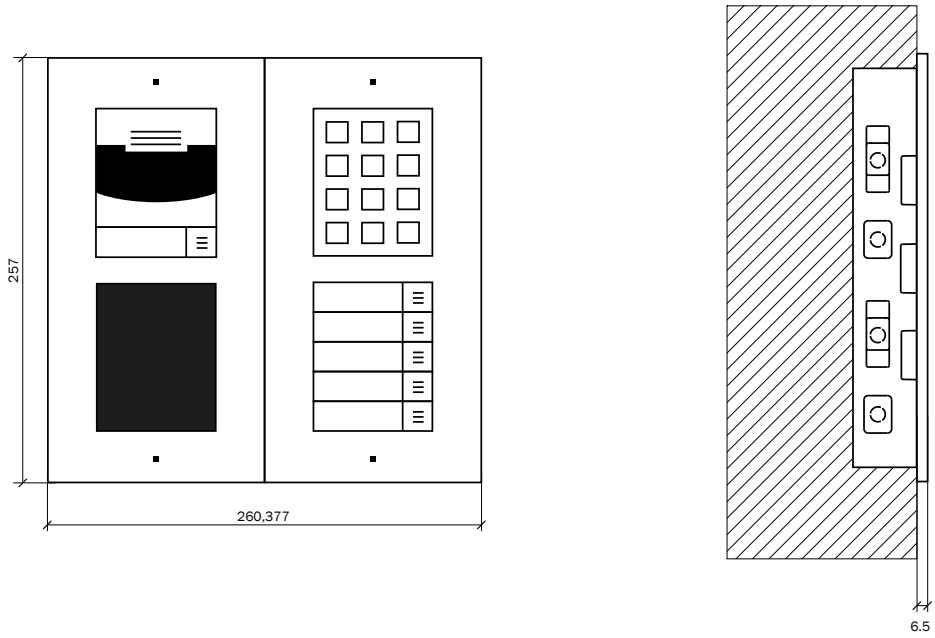
Dimensions and fitting

2N® LTE Verso

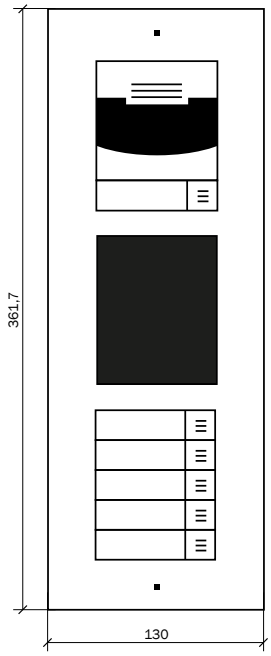
IN-WALL 2 MODULES

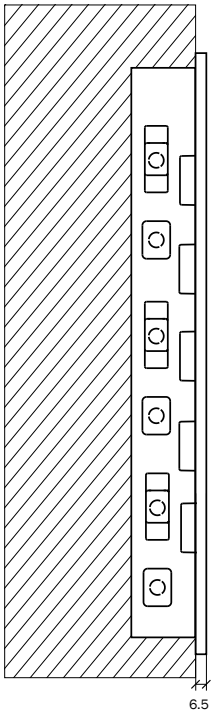


2× IN-WALL 2 MODULES

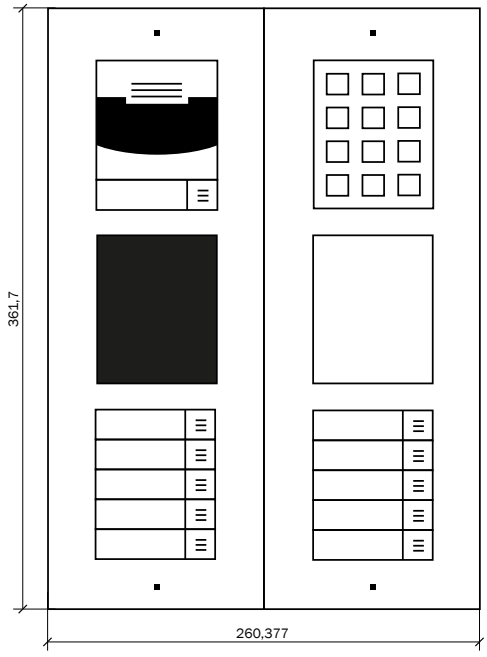


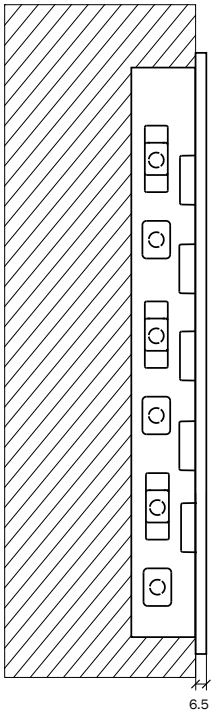
IN-WALL 3 MODULES



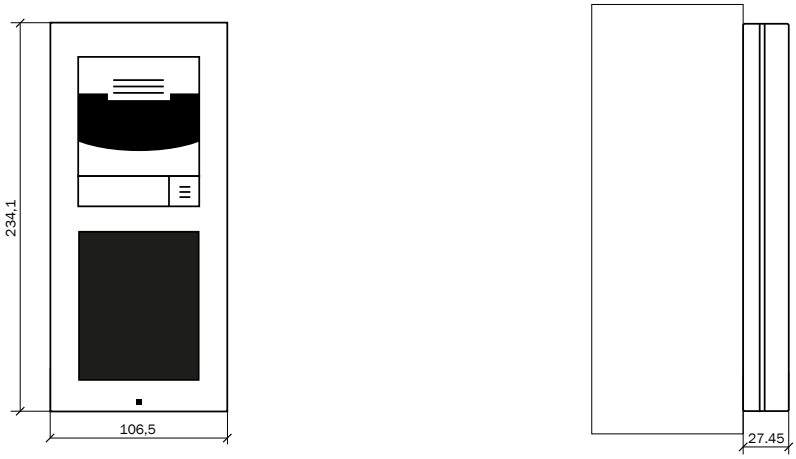


2× IN-WALL 3 MODULES

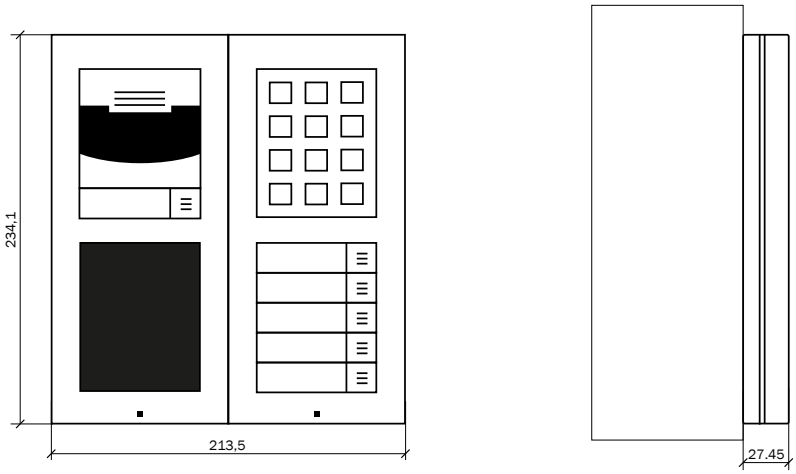




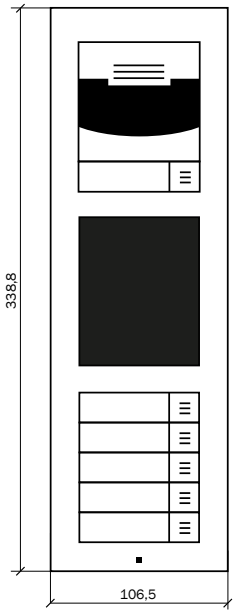
WALL-MOUNTED 2 MODULES

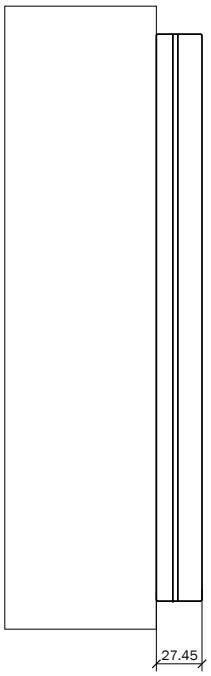


2× WALL-MOUNTED 2 MODULES

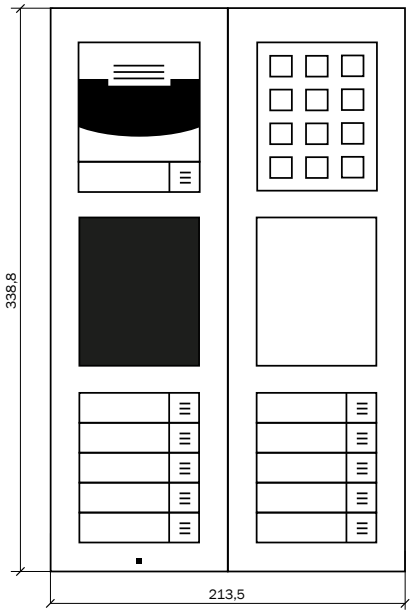


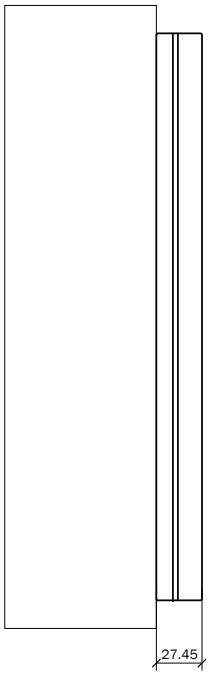
WALL-MOUNTED 3 MODULES



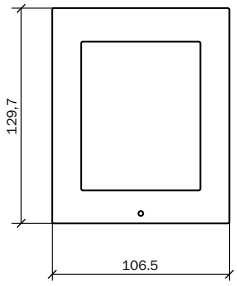


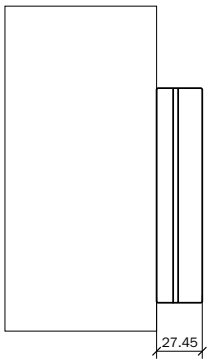
2× WALL-MOUNTED 3 MODULES



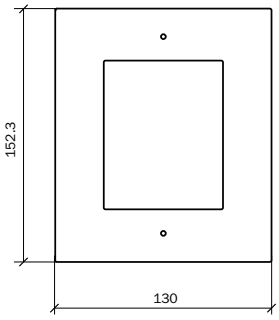


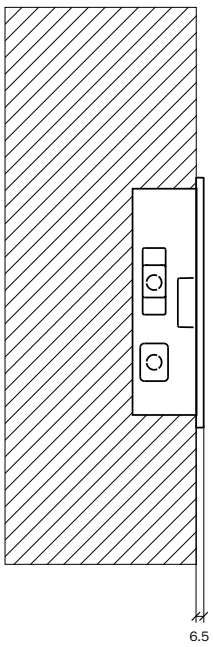
1 MODULE, WALL-MOUNTED





IN-WALL 1 MODULE

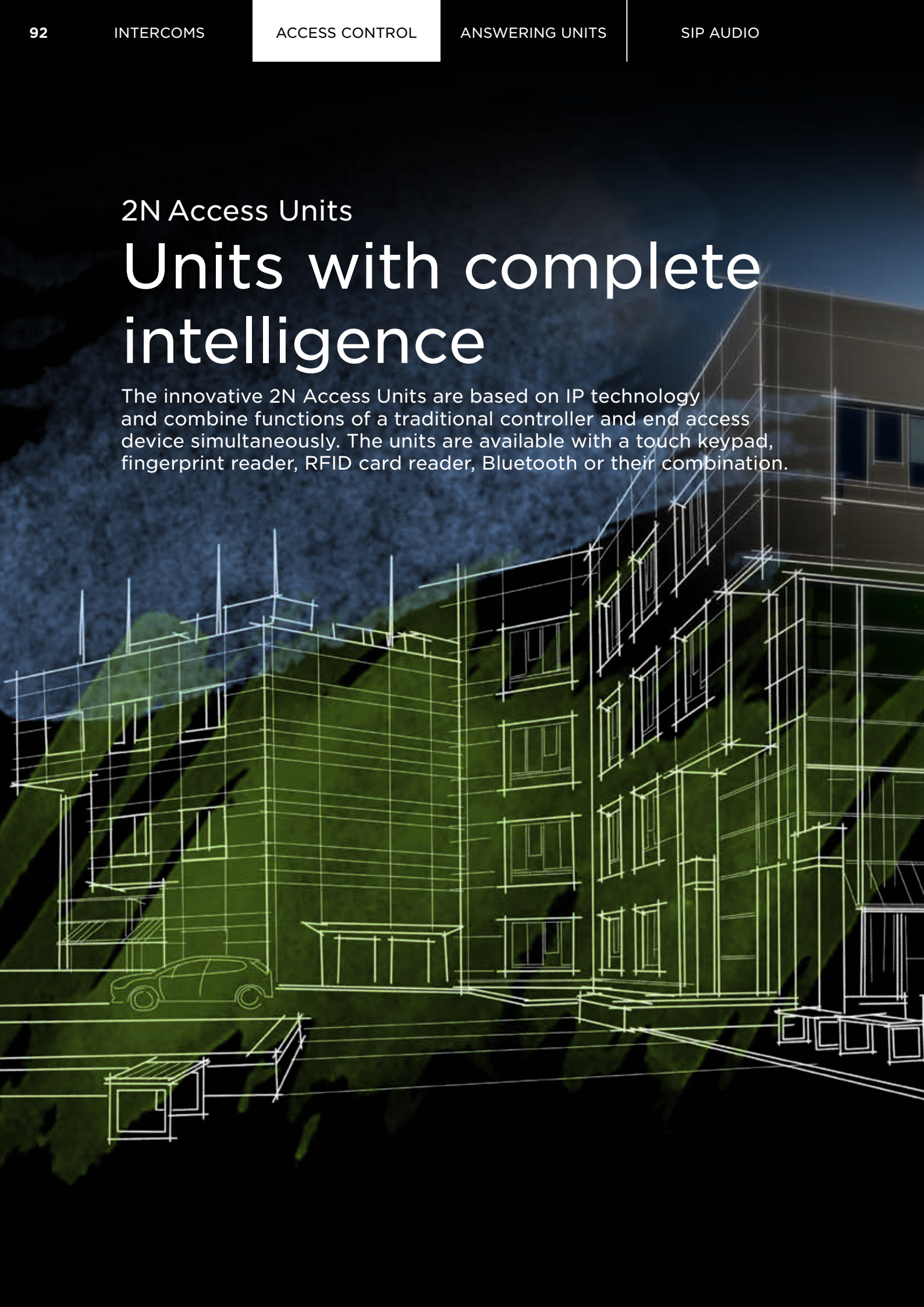




2N Access Units

Units with complete intelligence

The innovative 2N Access Units are based on IP technology and combine functions of a traditional controller and end access device simultaneously. The units are available with a touch keypad, fingerprint reader, RFID card reader, Bluetooth or their combination.



2N

IP ENVIRONMENT

2N® Access Unit RFID

KEY FEATURES

- **Controller and RFID reader in one**
- **Advanced event reporting**
- **Single cable installation**
- **NFC for door opening**

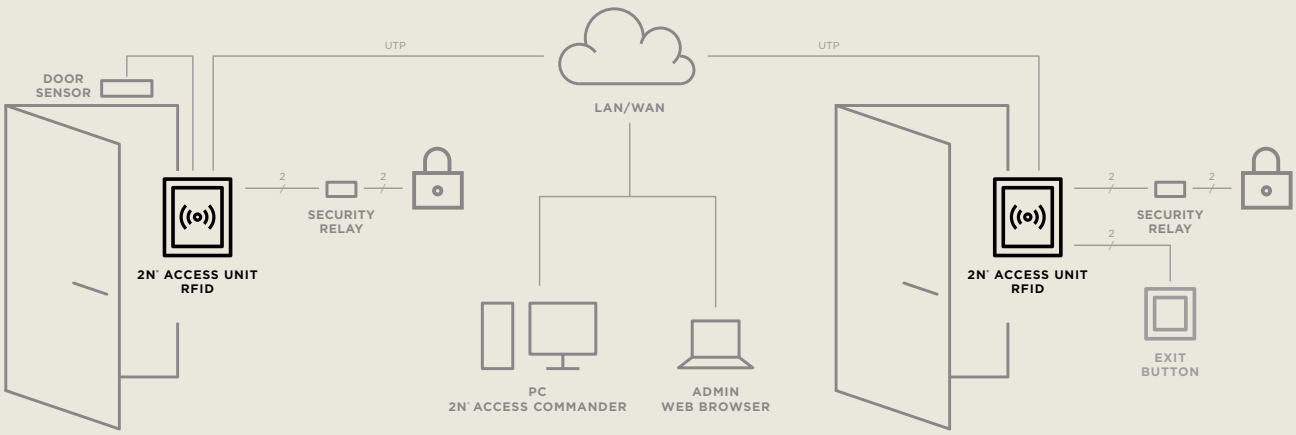
RECOMMENDED USE

Secure your offices

The 2N® Access Unit RFID is an ideal choice if you need to easily secure your office space. RFID cards are a typical method for employees identification in offices, but they are often accompanied with a request for employees attendance system and door security monitoring.

All such requirements could simply be met by the 2N® Access Unit RFID, which is able to read various types of RFID cards (125kHz as well as 13.56MHz) and communicate with mobile phones via NFC technology. To install this unit, you need only an Ethernet cable at the door, which both provides the power supply (PoE) and data transmission. The unit is then connected to the lock or, optionally, also a door contact or exit button for quick door opening when leaving the office. Should the door remain open too long or be opened forcefully, the unit immediately sends a notification regarding this activity, either in the form of an e-mail or through a special HTTP command.

EXAMPLE OF CONNECTION OF THE 2N® ACCESS UNIT RFID IN AN OFFICE ENVIRONMENT



Technical parameters

2N® Access Unit RFID

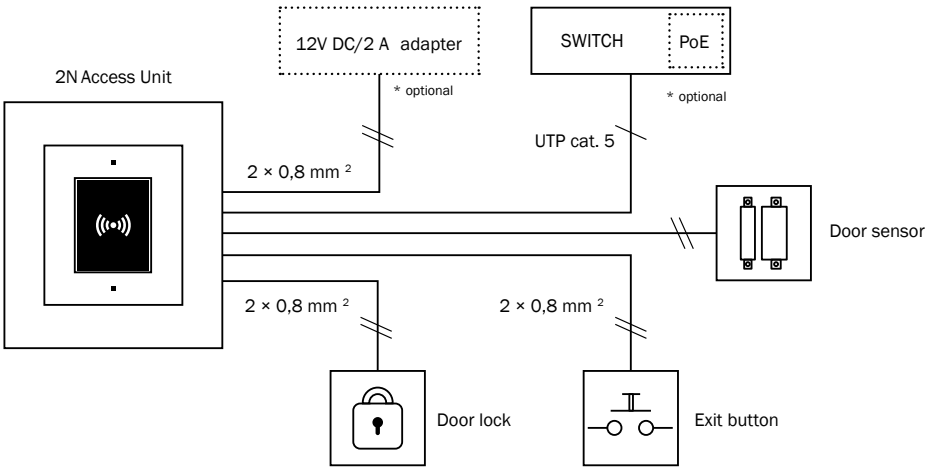
Interfaces	
Power supply	12V ±15% / 2A DC or PoE
PoE	per standard 802.3af (Class 0 - 12.95W)
LAN	10/100BASE-TX with Auto-MDIX, RJ-45, terminal block or pigtail RJ-45
Recommended wiring	Cat5e or better
Passive switch	NC/NO contacts, max 30 V 1 A AC/DC
Active switch output	8 to 12 V DC / max 550 mA
Inputs	3 inputs – can be used in passive or active mode (-30 V to + 30 V DC)
Speaker	0.8 W / 8 Ω
Tamper switch	native part of the 2N Access Unit
Expansion modules	
Supports modules from the 2N® IP Verso intercom: RFID card reader, keypad, fingerprint, I/O module, Wiegand, etc.	
Mobile Application Support	
Android 4.4 and higher	
Mechanical properties	
Cover	Robust zinc cast frame with surface finish (nickel and black color)
Operating temperature	-40°C – 60°C
Operating relative humidity	10%-95% (non-condensing)
Storage temperature	-40°C – 60°C
Coverage level	IP54, IK08
Dimensions	
Frame for surface mounting	
1 module	107 (w) x 130 (h) x 28 (d) mm
Frame for in-wall mounting	
1 module	130 (w) x 153 (h) x 5 (d) mm
Case for in-wall mounting (minimum size of hole in wall)	
1 module	108 (w) x 131 (h) x 45 (d) mm
Weight	Max. weight 0.8kg

2N® Access Unit RFID – 125 KHz or 13.56 MHz with NFC	
Supported 13.56 MHz cards (only the serial number of the card is read)	
ISO14443A	Mifare Classic 1k & 4k, DESFire EV1, Mini, Plus S&X, SmartMX, Ultralight, Ultralight C, SLE44R35, my-d move (SLE66Rxx), PayPass, Legic Advant
ISO14443B	Calypso, CEPAS, Moneo, SRI512, SRT512, SRI4K, SRIX4K, PicoPass, HID iCLASS

Supported NFC devices
Smart-phones with NFC and support for HCE (Host Card Emulation), Android version 4.4 and above

Supported 125 kHz cards	
	EM4100, EM4102, HID Prox

CONNECTION DIAGRAM



Order numbers

2N® Access Unit RFID

Order No.	**916009**
Name	RFID 125kHz
Desc.	door controller and RFID reader, outdoor and indoor use

Order No.	**916010**
Name	RFID 13.56MHz NFC ready
Desc.	door controller and RFID reader, NFC technology support

Order No.	**9155011/ 9155011B**
Name	1 module flush frame zinc/ black
Desc.	frame for surface installation, in zinc or black colour

Order No.	**9155021/ 9155021B**
Name	1 module surface frame zinc/ black
Desc.	frame for installation on the surface, in zinc or black colour

Order No.	**9155014**
Name	1 module flush box
Desc.	box for installation in the wall

Order No.	**916020**
Name	RJ45 connector cable
Desc.	cable for interconnecting the Access Units

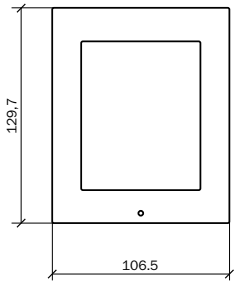
Order No.	**916012**
Name	NFC license
Desc.	NFC license for 13.56MHz card reader

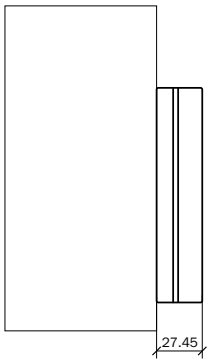
Order No.	**9155061**
Name	1 module backplate
Desc.	backplate for surface installation, 1 module

Dimensions and fitting

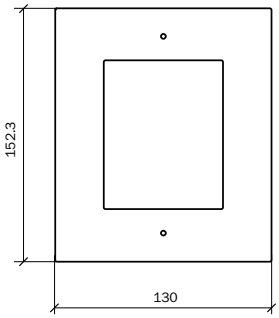
2N® Access Unit RFID

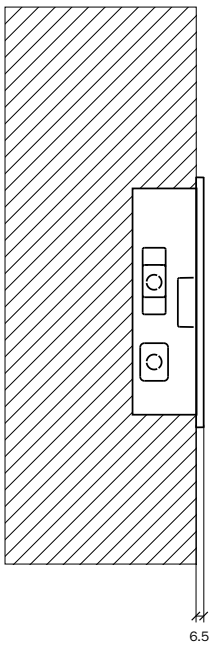
WALL-MOUNTED 1 MODULE





IN-WALL 1 MODULE





IP ENVIRONMENT

2N® Access Unit Bluetooth

KEY FEATURES

- **Configurable reading distances and modes**
- **Internet banking level of security**
- **Simple pairing process**
- **Two-factor authentication**

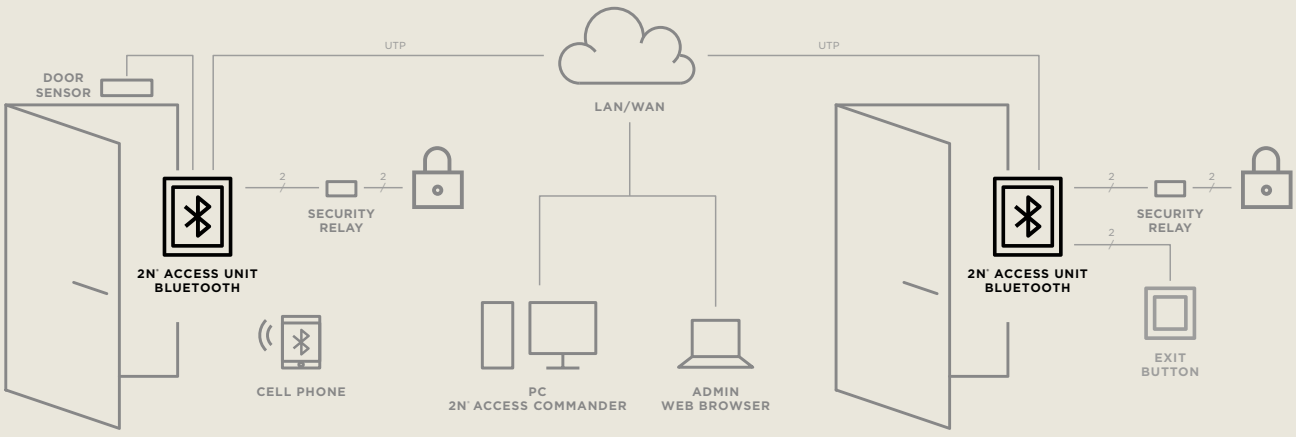
RECOMMENDED USE

Open the garage from a comfort of your car

When residents of an apartment building seek solutions to entering their garages, their security level is crucial because a thief shouldn't be able to enter the garage. Yet the comfort of opening the gate is also important, because they shouldn't have to leave the car, for example, in bad weather.

The 2N Access Unit, communicating with mobile devices over Bluetooth technology, provides the optimal solution. Bluetooth v4 (known as BLE) uses encrypted communication between the phone and the actual unit. It additionally offers the option to set up communication distances and user mode presets. In the first case, the user can stop in front of the garage, take their mobile phone and push the button to open the gate. In the second case, when the unit is installed on an external post, the user simple activates the unit with a hand movement and as long as their phone is anywhere in the car, the gate automatically opens. For further comfort, the 2N® Access Unit Bluetooth may also be connected to automatic light switches inside the garage.

EXAMPLE OF CONNECTION OF THE 2N® ACCESS UNIT BLUETOOTH



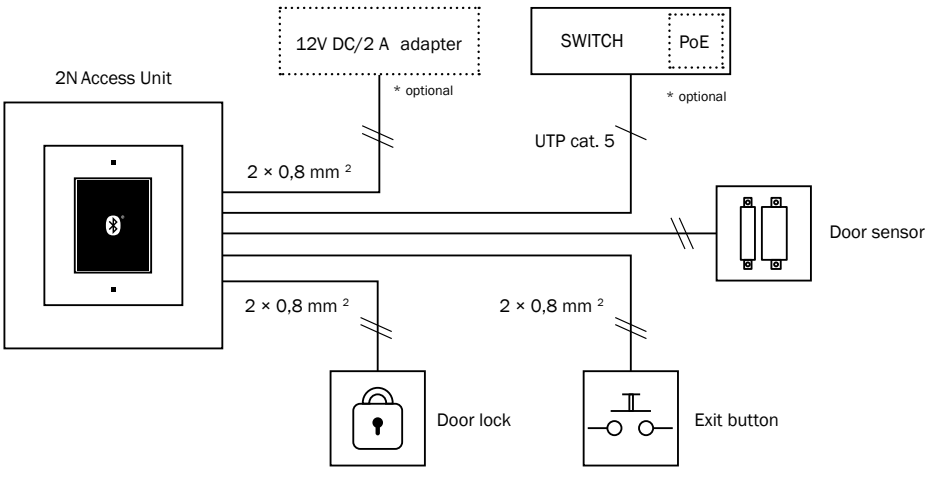
Technical parameters

2N® Access Unit Bluetooth

Interfaces	
Power supply	12V ±15% / 2A DC or PoE
PoE	per standard 802.3af (Class 0 - 12.95W)
LAN	10/100BASE-TX with Auto-MDIX, RJ-45, terminal block or pigtail RJ-45
Recommended wiring	Cat5e or better
Passive switch	NC/NO contacts, max 30 V 1 A AC/DC
Active switch output	8 to 12 V DC / max 550 mA
Inputs	3 inputs – can be used in passive or active mode (-30 V to + 30 V DC)
Speaker	0.8 W / 8 Ω
Tamper switch	native part of the 2N Access Unit
Expansion modules	
Supports modules from the 2N® IP Verso intercom: RFID card reader, keypad, fingerprint, I/O module, Wiegand, etc.	
Mobile Application Support	
Android 5.0 and higher, iOS 11.0 and higher	
Mechanical properties	
Cover	Robust zinc cast frame with surface finish (nickel and black color)
Operating temperature	-40°C – 60°C
Operating relative humidity	10%-95% (non-condensing)
Storage temperature	-40°C – 60°C
Coverage level	IP54, IK08
Dimensions	
Frame for surface mounting	
1 module	107 (w) x 130 (h) x 28 (d) mm
Frame for in-wall mounting	
1 module	130 (w) x 153 (h) x 5 (d) mm
Case for in-wall mounting (minimum size of hole in wall)	
1 module	108 (w) x 131 (h) x 45 (d) mm
Weight	Max. weight 0.8kg

2N® Access Unit Bluetooth	
Compatible with Bluetooth 4.0 or higher (BLE)	
RX sensitivity	up to -93 dBm
Range	adjustable (short ~ 0.5m, medium ~ 2m, long ~ up to 10 m)
Security	RSA-1024 and AES-128 encryption

CONNECTION DIAGRAM



Order numbers

2N® Access Unit Bluetooth

Order No.	**916013**
Name	Bluetooth
Desc.	adjustable communication distance, two-factor authentication, simple pairing process

Order No.	**9155011/ 9155011B**
Name	1 module flush frame zinc/ black
Desc.	frame for surface installation, in zinc or black colour

Order No.	**9155021/ 9155021B**
Name	1 module surface frame zinc/ black
Desc.	frame for installation on the surface, in zinc or black colour

Order No.	**9155014**
Name	1 module flush box
Desc.	box for installation in the wall

Order No.	**916020**
Name	RJ45 connector cable
Desc.	cable for interconnecting the Access Units

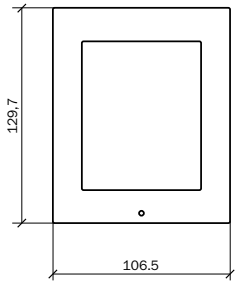
Order No.	**9155061**
Name	1 module backplate
Desc.	backplate for surface installation, 1 module

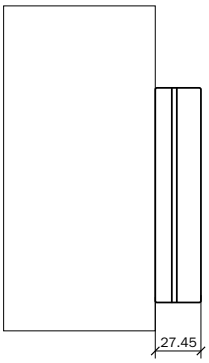
Order No.	
Name	2N® Mobile Key
Desc.	a free application that turns your mobile phone into an access card

Dimensions and fitting

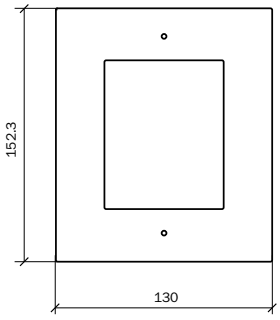
2N® Access Unit Bluetooth

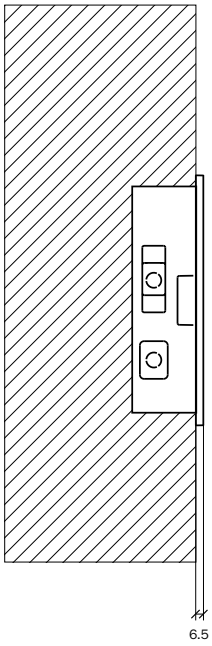
WALL-MOUNTED 1 MODULE





IN-WALL 1 MODULE





IP ENVIRONMENT

2N® Access Unit Fingerprint Reader

KEY FEATURES

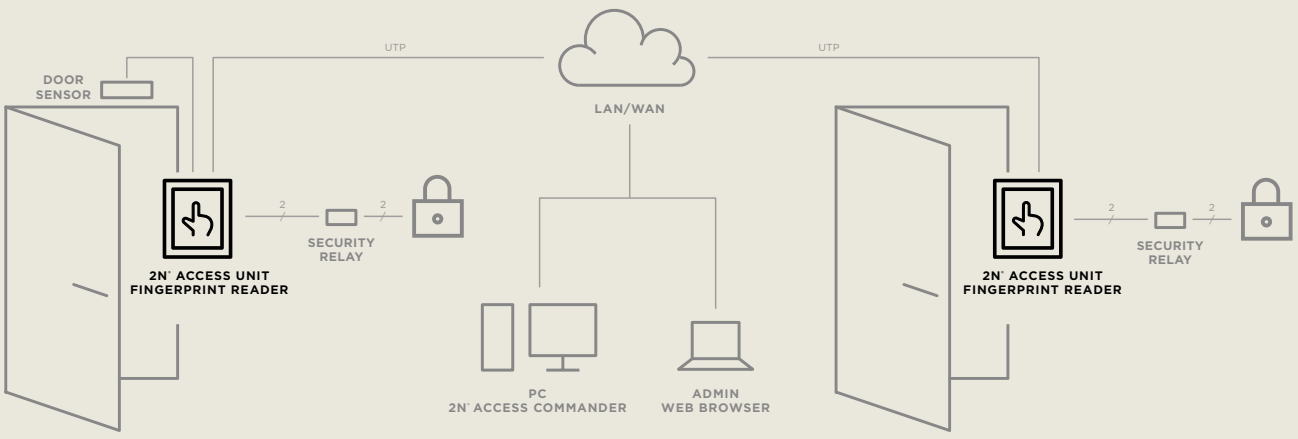
- **Reliable optical technology**
- **Innovative functional design**
- **Weather resistant sensor**
- **Spoof fingerprint detection**

RECOMMENDED USE

Secure the access to a luxury villa

When the owner of a luxury villa seeks a solution for securing access to their house, the use of RFID cards in a residential context is unthinkable. Using an optical sensor, the unit provides maximum security, reliable fingerprint recognition, as well as a fast response with acoustic signaling. While RFID chip or house key can ultimately be copied, this 2N® Access Unit Fingerprint Reader implements an algorithm for recognizing fake fingerprints and the possible thief won't trick it. Naturally, the unit has the option of outdoor installation, with reliable function in direct sunlight, rain or frost conditions.

EXAMPLE OF CONNECTION OF THE 2N® ACCESS UNIT FINGERPRINT READER IN AN OFFICE ENVIRONMENT



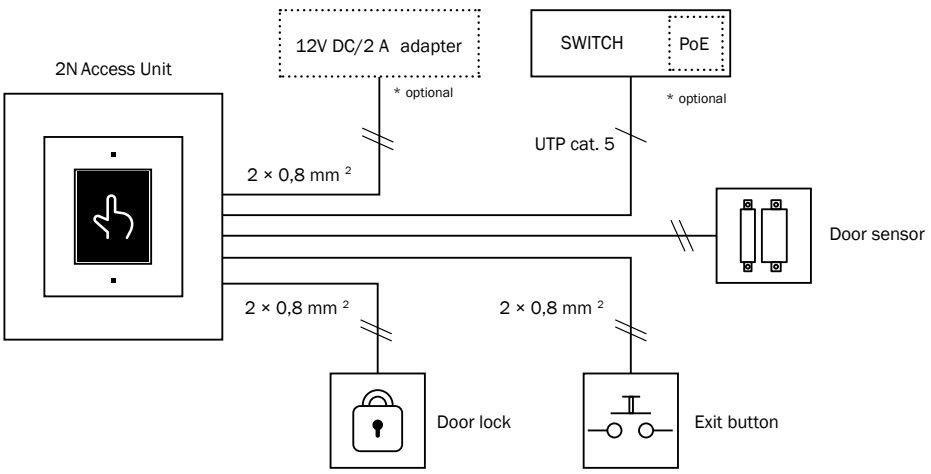
Technical parameters

2N® Access Unit Fingerprint Reader

Interfaces	
Power supply	12V ±15% / 2A DC or PoE
PoE	per standard 802.3af (Class 0 - 12.95W)
LAN	10/100BASE-TX with Auto-MDIX, RJ-45, terminal block or pigtail RJ-45
Recommended wiring	Cat5e or better
Passive switch	NC/NO contacts, max 30 V 1 A AC/DC
Active switch output	8 to 12 V DC / max 550 mA
Inputs	3 inputs – can be used in passive or active mode (-30 V to + 30 V DC)
Speaker	0.8 W / 8 Ω
Tamper switch	native part of the 2N Access Unit
Expansion modules	
Supports modules from the 2N® IP Verso intercom: RFID card reader, keypad, fingerprint, I/O module, Wiegand, etc.	
Mechanical properties	
Cover	Robust zinc cast frame with surface finish (nickel and black color)
Operating temperature	-20 °C – 55 °C
Operating relative humidity	10%-95% (non-condensing)
Storage temperature	-20 °C – 60 °C
Coverage level	IP54, IK08
Dimensions	
Frame for surface mounting	
1 module	107 (w) x 130 (h) x 28 (d) mm
Frame for in-wall mounting	
1 module	130 (w) x 153 (h) x 5 (d) mm
Case for in-wall mounting (minimum size of hole in wall)	
1 module	108 (w) x 131 (h) x 45 (d) mm
Weight	Max. weight 0.8kg

2N® Access Unit Fingerprint Reader	
Sensor	Optical sensor protected by resistant glass
Reliability	Algorithm for fake fingerprint detection
Resistance	Resistant to water and dust
Ambient light suppression	Also works in direct sunlight
Status signalisation	Acoustic and with the aid of multicoloured LEDs
Sensing area	Large with dimensions of 15.24 x 20.32 m
Operating temperature	-20°C to 55°C
Certification	FBI PIV

CONNECTION DIAGRAM



Order numbers

2N® Access Unit Fingerprint reader

Order No.	**916019**
Name	Fingerprint reader
Desc.	optical technology, acoustic and visual signalling, weatherproof

Order No.	**9155011/ 9155011B**
Name	1 module flush frame zinc/ black
Desc.	frame for surface installation, in zinc or black colour

Order No.	**9155021/ 9155021B**
Name	1 module surface frame zinc/ black
Desc.	frame for installation on the surface, in zinc or black colour

Order No.	**9155014**
Name	1 module flush box
Desc.	box for installation in the wall

Order No.	**916020**
Name	RJ45 connector cable
Desc.	cable for interconnecting the Access Units

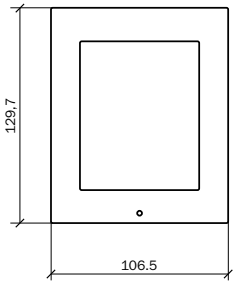
Order No.	**9155061**
Name	1 module backplate
Desc.	backplate for surface installation, 1 module

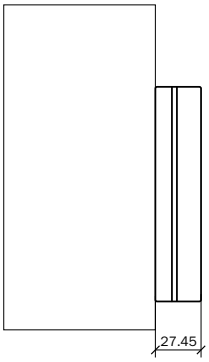
Order No.	**9137423E**
Name	External Fingerprint reader
Desc.	Connected via USB interface to computer; can be used for fingerprint enrollment

Dimensions and fitting

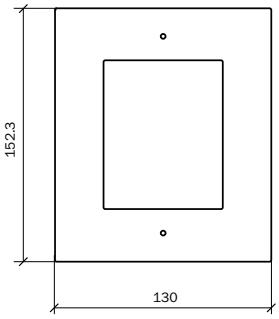
2N® Access Unit Fingerprint reader

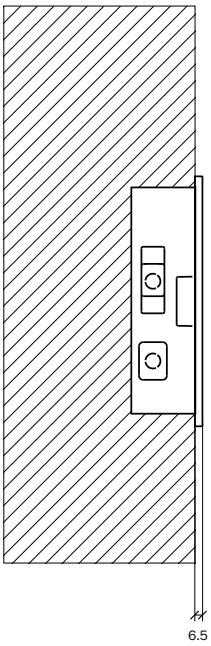
WALL-MOUNTED 1 MODULE





IN-WALL 1 MODULE





IP ENVIRONMENT

2N® Access Unit Touch Keypad

KEY FEATURES

- **Reliable touch technology**
- **Smart automatic calibration**
- **Adjustable backlighting intensity**
- **Silent alarm activation**

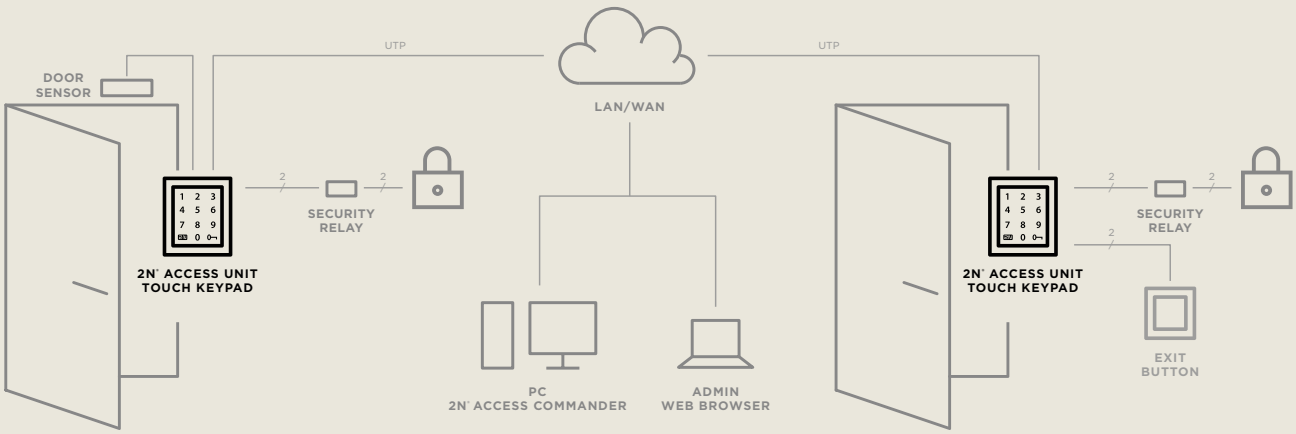
RECOMMENDED USE

Secure the entry to a storage space in your store

Smaller shops have storages or back offices that are a part of their premises and may become targets for thieves. Therefore they must be secured, with only authorized personnel having access. This access unit equipped with a touch keypad enables access using a PIN code, a particularly ideal solution thanks to IP technology.

The unit may be remotely controlled by an administrator in charge of all IT equipment in the store (cameras, security system). It also enables a use of a silent-alarm function, where an additional PIN code is generated for each user with the last digit one higher in value than their regular PIN. This emergency code may be used by an employee forced to open the door under duress from a thief. Rather than using their personal PIN code (for example 1234), they enter the silent alarm code (1235), which does open the door, but immediately sends an HTTP command (or connects to a specified contact) to a security center, in order for guards to respond and come to the employee's aid.

EXAMPLE OF CONNECTION OF THE 2N® ACCESS UNIT TOUCH KEYPAD IN AN OFFICE ENVIRONMENT



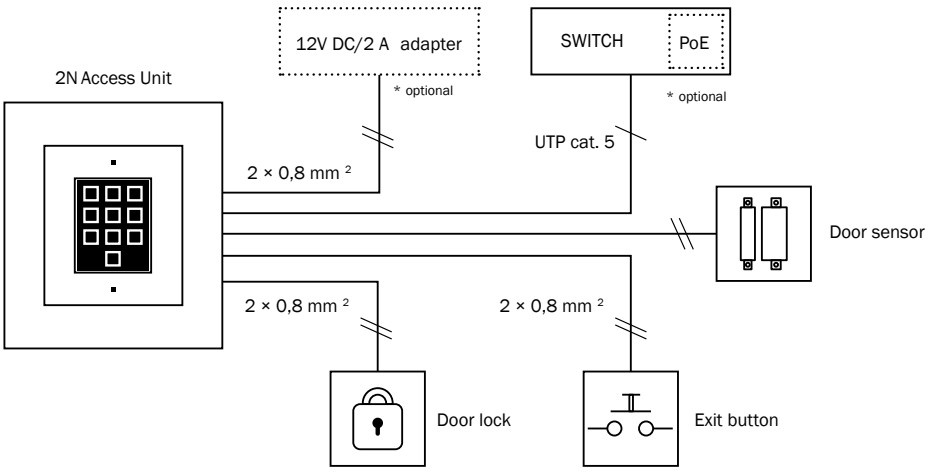
Technical parameters

2N® Access Unit Touch Keypad

Interfaces	
Power supply	12V ±15% / 2A DC or PoE
PoE	per standard 802.3af (Class 0 - 12.95W)
LAN	10/100BASE-TX with Auto-MDIX, RJ-45, terminal block or pigtail RJ-45
Recommended wiring	Cat5e or better
Passive switch	NC/NO contacts, max 30 V 1 A AC/DC
Active switch output	8 to 12 V DC / max 550 mA
Inputs	3 inputs – can be used in passive or active mode (-30 V to + 30 V DC)
Speaker	0.8 W / 8 Ω
Tamper switch	native part of the 2N Access Unit
Expansion modules	
Supports modules from the 2N® IP Verso intercom: RFID card reader, keypad, fingerprint, I/O module, Wiegand, etc.	
Mechanical properties	
Cover	Robust zinc cast frame with surface finish (nickel and black color)
Operating temperature	-20 °C – 55 °C
Operating relative humidity	10%-95% (non-condensing)
Storage temperature	-20 °C – 60 °C
Coverage level	IP54, IK08
Dimensions	
Frame for surface mounting	
1 module	107 (w) x 130 (h) x 28 (d) mm
Frame for in-wall mounting	
1 module	130 (w) x 153 (h) x 5 (d) mm
Case for in-wall mounting (minimum size of hole in wall)	
1 module	108 (w) x 131 (h) x 45 (d) mm
Weight	Max. weight 0.8kg

2N® Access Unit Touch Keypad
Capacitive technology
High touch layer sensitivity (0.1pF)
Regular automatic calibration (SmartSence)
Does not detect false touches on wet surface
Configurable backlighting intensity
Indication using multicoloured LEDs
Acoustic response for every keypad touch

CONNECTION DIAGRAM



Order numbers

2N® Access Unit Touch Keypad

Order No.	**916016**
Name	Touch Keypad
Desc.	capacitive touch technology, regular automatic calibration, backlit symbols

Order No.	**9155011/ 9155011B**
Name	1 module flush frame zinc/ black
Desc.	frame for surface installation, in zinc or black colour

Order No.	**9155021/ 9155021B**
Name	1 module surface frame zinc/ black
Desc.	frame for installation on the surface, in zinc or black colour

Order No.	**9155014**
Name	1 module flush box
Desc.	box for installation in the wall

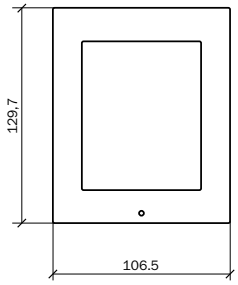
Order No.	**916020**
Name	RJ45 connector cable
Desc.	cable for interconnecting the Access Units

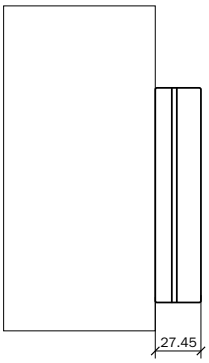
Order No.	**9155061**
Name	1 module backplate
Desc.	backplate for surface installation, 1 module

Dimensions and fitting

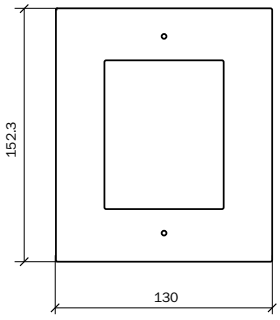
2N® Access Unit Touch Keypad

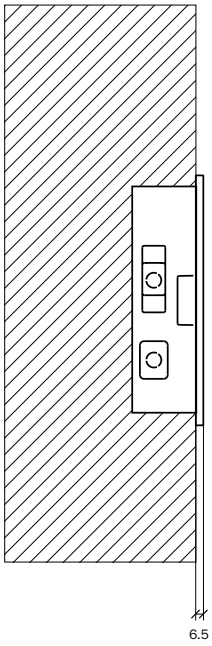
WALL-MOUNTED 1 MODULE





IN-WALL 1 MODULE





IP ENVIRONMENT

2N® Access Unit Bluetooth & RFID

KEY FEATURES

- **Convenience of mobile credentials**
- **Mobile credentials for free**
- **Multi-frequency RFID card reader**
- **Different modes of user‘s authentication**

RECOMMENDED USE

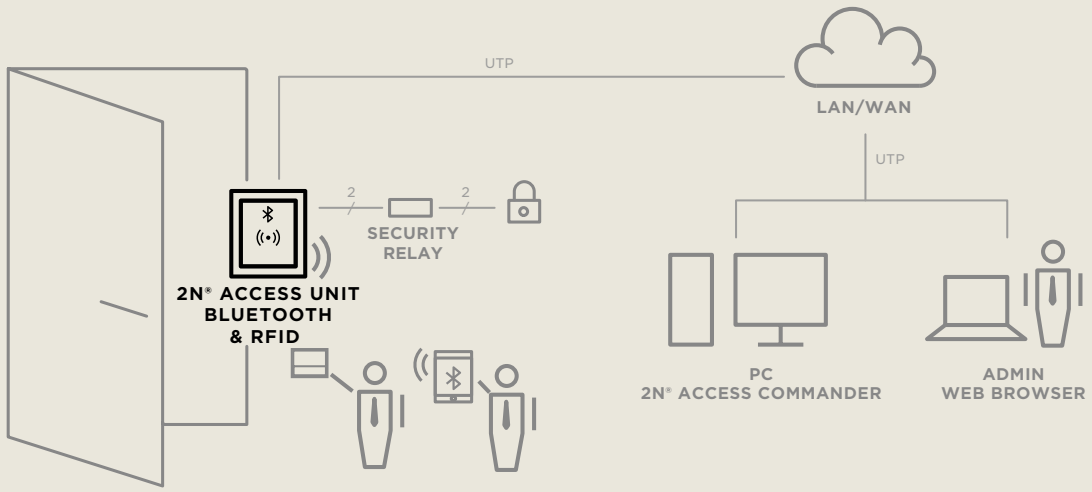
Modern and traditional access control

In modern residential building people use their mobile phone typically for home automation application such as heat and lights control or air condition. Now these people can use the mobile phone also for the access control once they want to enter common areas. For the rest, there are traditional RFID cards.

Convenient way of access control in an office building

Usually, the employees do not want to look for RFID cards any time they want to enter the office space. This request can be easily solved by 2N® Access Unit Bluetooth & RFID, which offers a convenient way to open a door – just touch the unit and door will be opened.

EXAMPLE OF CONNECTION OF THE 2N® ACCESS UNIT BLUETOOTH & RFID



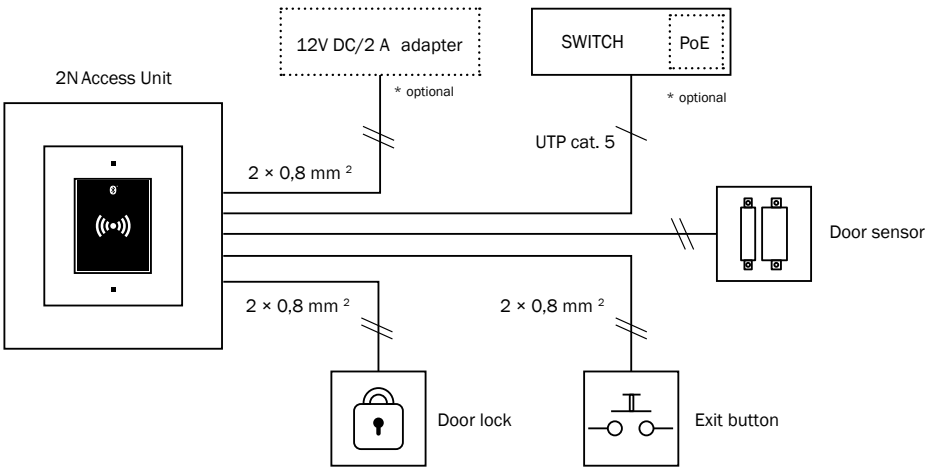
Technical parameters

2N® Access Unit Bluetooth & RFID

Interfaces	
Power supply	12V ±15% / 2A DC or PoE
PoE	per standard 802.3af (Class 0 - 12.95W)
LAN	10/100BASE-TX with Auto-MDIX, RJ-45, terminal block or pigtail RJ-45
Recommended wiring	Cat5e or better
Passive switch	NC/NO contacts, max 30 V 1 A AC/DC
Supported protocols	DHCP opt. 66, SMTP, 802.1x, TFTP, HTTP, HTTPS, Syslog
Active switch output	8 to 12 V DC / max 550 mA
Inputs	2 inputs – used in passive or active mode (-48V to + 48V DC)
Speaker	0.8 W / 8 Ω
Tamper switch	native part of the 2N Access Unit
Expansion modules	
Supports modules from the 2N® IP Verso intercom: RFID card reader, keypad, fingerprint, I/O module, Wiegand, etc.	
Mobile Application Support	
Android 5.0 and higher, iOS 11.0 and higher	
Mechanical properties	
Cover	Robust zinc cast frame with surface finish (nickel and black color)
Operating temperature	-40°C – 60°C
Operating relative humidity	10%-95% (non-condensing)
Storage temperature	-40°C – 60°C
Coverage level	IP54, IK08
Dimensions	
Frame for surface mounting	
1 module	107 (w) x 130 (h) x 28 (d) mm
Frame for in-wall mounting	
1 module	130 (w) x 153 (h) x 5 (d) mm
Case for in-wall mounting (minimum size of hole in wall)	
1 module	108 (w) x 131 (h) x 45 (d) mm
Weight	Max. weight 0.8kg

2N® Access Unit Bluetooth	
Compatible with Bluetooth 4.0 or higher (BLE)	
RX sensitivity	up to -93 dBm
Range	adjustable (short ~ 0.5m, medium ~ 2m, long ~ up to 10 m)
Security	RSA-1024 and AES-128 encryption
RFID card reader	
125kHz reader (EM4100, EM4102, Prox)	
13.56MHz (ISO14443A, ISO14443B, NFC support)	
	read UID
	read PACs ID (iCLASS Seos from HID)

CONNECTION DIAGRAM



Order numbers

2N® Access Unit Bluetooth & RFID

Order No.	**916015**
Name	2N® Access Unit Bluetooth & RFID
Desc.	125kHz, 13.56MHz, NFC ready

Order No.	**916015-S**
Name	2N® Access Unit Bluetooth & RFID
Desc.	125kHz, secured 13.56MHz, NFC ready

Order No.	**9155011/ 9155011B**
Name	1 module flush frame zinc/ black
Desc.	frame for surface installation, in zinc or black colour

Order No.	**9155021/ 9155021B**
Name	1 module surface frame zinc/ black
Desc.	frame for installation on the surface, in zinc or black colour

Order No.	**9155014**
Name	1 module flush box
Desc.	box for installation in the wall

Order No.	**916020**
Name	RJ45 connector cable
Desc.	cable for interconnecting the Access Units

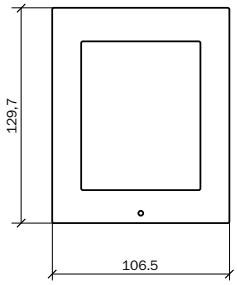
Order No.	**9155061**
Name	1 module backplate
Desc.	backplate for surface installation, 1 module

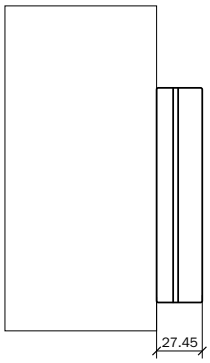
Order No.	
Name	2N® Mobile Key
Desc.	a free application that turns your mobile phone into an access card

Dimensions and fitting

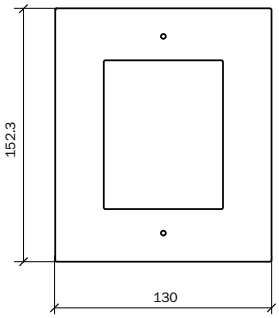
2N® Access Unit Bluetooth & RFID

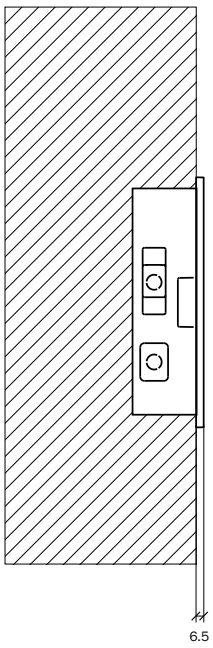
WALL-MOUNTED 1 MODULE





IN-WALL 1 MODULE





IP ENVIRONMENT

2N® Access Unit Touch Keypad & RFID

KEY FEATURES

- **Transition to smart and secured cards**
- **Regular automatic calibration**
- **Two-factor authentication**
- **Silent alarm activation**

RECOMMENDED USE

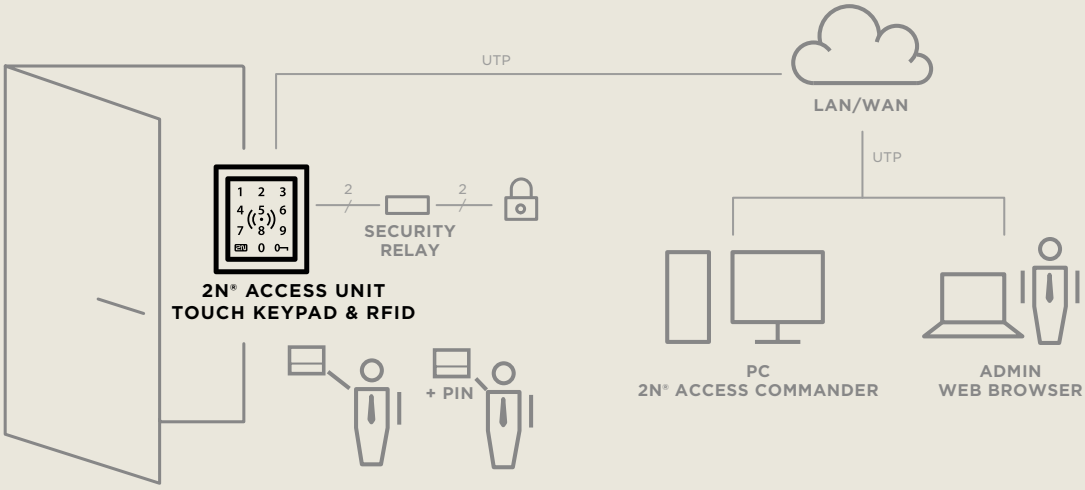
Highly protected areas

Users must prove their identity by swiping their RFID cards and using a PIN code to enter a higher security area such as a bank, lab or warehouse in a store. This can be easily done thanks to the 2N access unit combining a card reader and keypad in one compact unit supporting the dual-factor authentication.

Transition to smart and secure cards

Majority of companies are still using the old, unsecure proximity technology that can be easily compromised. 2N Access unit is a multi-frequency reader supporting 125kHz as well as 13.56MHz credentials, which allows a transition to modern access control in a very smooth way, minimizing one-off costs.

EXAMPLE OF CONNECTION OF THE 2N® ACCESS UNIT TOUCH KEYPAD & RFID



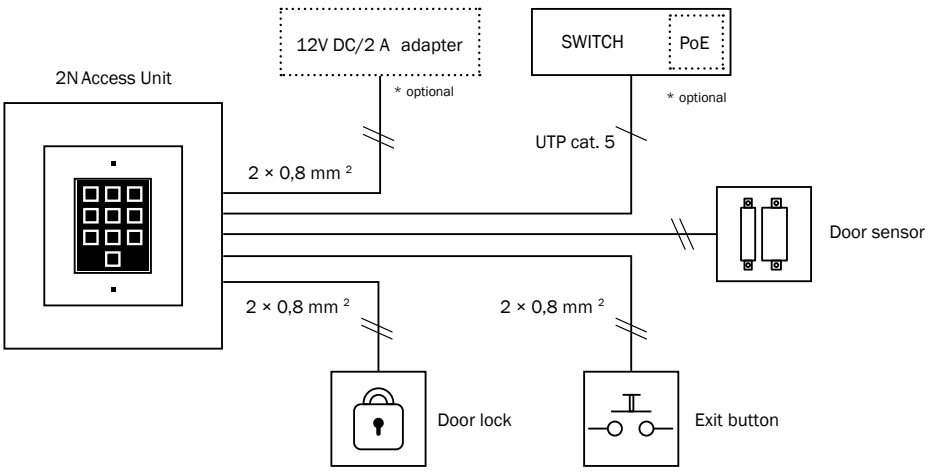
Technical parameters

2N® Access Unit Touch Keypad & RFID

Interfaces	
Power supply	12V ±15% / 2A DC or PoE
PoE	per standard 802.3af (Class 0 - 12.95W)
LAN	10/100BASE-TX with Auto-MDIX, RJ-45, terminal block or pigtail RJ-45
Recommended wiring	Cat5e or better
Passive switch	NC/NO contacts, max 30 V 1 A AC/DC
Supported protocols	DHCP opt. 66, SMTP, 802.1x, TFTP, HTTP, HTTPS, Syslog
Active switch output	8 to 12 V DC / max 550 mA
Inputs	2 inputs – used in passive or active mode (-48V to + 48V DC)
Speaker	0.8 W / 8 Ω
Tamper switch	native part of the 2N Access Unit
Expansion modules	
Supports modules from the 2N® IP Verso intercom: RFID card reader, keypad, fingerprint, I/O module, Wiegand, etc.	
Mechanical properties	
Cover	Robust zinc cast frame with surface finish (nickel and black color)
Operating temperature	-20 °C to 55 °C
Operating relative humidity	10%-95% (non-condensing)
Storage temperature	-40°C – 60°C
Coverage level	IP54, IK08
Dimensions	
Frame for surface mounting	
1 module	107 (w) x 130 (h) x 28 (d) mm
Frame for in-wall mounting	
1 module	130 (w) x 153 (h) x 5 (d) mm
Case for in-wall mounting (minimum size of hole in wall)	
1 module	108 (w) x 131 (h) x 45 (d) mm
Weight	Max. weight 0.8kg

RFID card reader	
125kHz reader (EM4100, EM4102, Prox)	
13.56MHz (ISO14443A, ISO14443B, NFC support)	
	read UID
	read PACs ID (iClass SEOS HID)
Touch Keypad	
Technology	capacitive touch technology
	high touch layer sensitivity (0.1pF)
Reliability	regular automatic calibration (SmartSence Auto-tuning)
	does not detect false touches on wet surface
Signalling	configurable backlighting intensity
	indication using multicoloured LEDs
	acoustic response for every keypad touch

CONNECTION DIAGRAM



Order numbers

2N® Access Unit Touch Keypad & RFID

Order No.	**916017**
Name	2N® Access Unit Touch Keypad & RFID
Desc.	125kHz, 13.56MHz, NFC ready

Order No.	**916017-S**
Name	2N® Access Unit Touch Keypad & RFID
Desc.	125kHz, secured 13.56MHz, NFC ready

Order No.	**9155011/ 9155011B**
Name	1 module flush frame zinc/ black
Desc.	frame for surface installation, in zinc or black colour

Order No.	**9155021/ 9155021B**
Name	1 module surface frame zinc/ black
Desc.	frame for installation on the surface, in zinc or black colour

Order No.	**9155014**
Name	1 module flush box
Desc.	box for installation in the wall

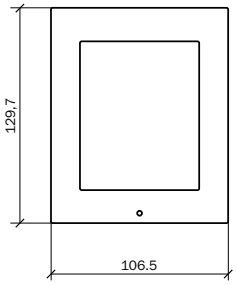
Order No.	**916020**
Name	RJ45 connector cable
Desc.	cable for interconnecting the Access Units

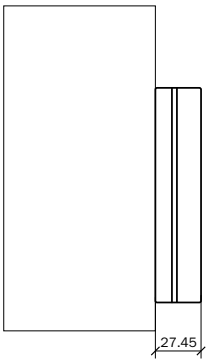
Order No.	**9155061**
Name	1 module backplate
Desc.	backplate for surface installation, 1 module

Dimensions and fitting

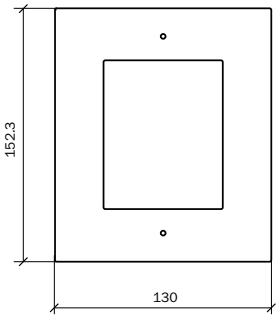
2N® Access Unit Touch Keypad & RFID

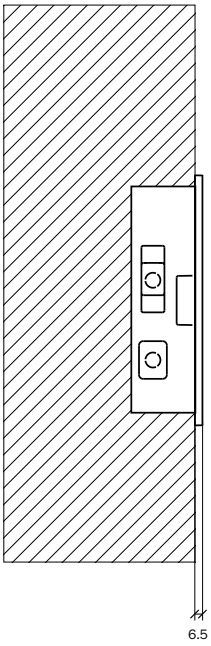
WALL-MOUNTED 1 MODULE





IN-WALL 1 MODULE





2N® Acccess Commander

Software for access control and bulk management

Prevent the entry of unauthorized persons to your building with the 2N IP access control system. The nerve centre of the whole system is 2N® Access Commander with its simple and intuitive user interface. Use it not only for managing access to the building, but also for monitoring the status of access units in real time.

2N Access Commander
2N Access Commander Introduction
LAUNCH TUTORIAL
Companies
1
Groups
3
Users
21
License
50/200
Devices
4
Zones
3
Time Profiles
3
Access Rules
3

IP ENVIRONMENT

2N® Access Commander

KEY FEATURES

- **Software for access control and bulk management**

  With this Access Control system you can bulk manage all 2N Intercoms and access units made by 2N, which you will appreciate especially when it comes to larger installations.

- **Easy to install solution**

  2N® Access Commander can be got up and running easily by people without any installation experience. All without even having to go through intensive training or to pore over cryptic manuals.

- **Visitor management**

  Fully solved visitor management ensures that the system can be comfortably used by the receptionist. She can quickly add the visitor to the system (Access Commander) with all important information, e.g. visitor's name, reason of the visit, time validation of the card, group assignment.

- **Multiple site control**

  Multiple sites control from a single location is a huge benefit for companies having branch offices in different locations that are interconnected via VPN. Admin sits in one city and oversees the access control system in other cities through the LAN. With serial cable systems it would be impossible.

- **Open for integration**

  The Access Control system integrates easily into third-party systems such as Time & Attendance or CRM using the REST API web interface.

TECHNICAL PARAMETERS

General

2N® Access Commander is delivered either pre-installed on mini-PC, or in the .OVA format intended for importing into the Oracle VM VirtualBox or VMware (version 5) virtual systems.

Minimum HW requirements for the PC/server	
	The specifications below allow for 50 devices (2N Intercoms or 2N Access Units) connected to 2N® Access Commander.
Operating system	Any 64-bit system (Windows, Linux, OS X, Solaris)
CPU	2GHz; 2 core (x86 – 64)
RAM	4GB
Internet connectivity	To upgrade the system, an Internet connection is required with a minimum throughput of 512kbit/s
Communication security	
	https protocol
Supported browsers	
Optimised for the browser	Google Chrome (version 40 or higher)
Other supported browsers are	Mozilla Firefox (version 35 or higher) Internet Explorer (version 11 or higher)

As other browsers have not been tested, their full functionality cannot be guaranteed.

Number of log events	
2N® Access Unit and 2N IP intercom	up to 10 000 events in RAM memory
2N® Access Commander	unlimited

2N® Access Commander Box	
	Ultra compact PC design (56.1 x 107.6 x 114.4mm)
	Intel® Celeron® Processor J3160 – 4 cores
	2.5” SSD SATA III Hard Drive – 32GB
	DDR3 SODIMM memory – 4GB
	Gigabit LAN port for Ethernet connection
	2N® Access Commander Box is intended and optimized for SME installations (80 devices, 1000 users)

Order numbers

2N® Access Commander

Order No.	**91379030**
Name	2N® Access Commander Box
Desc.	Access Control software pre-installed on mini-PC (56.1 x 107.6 x 114.4mm)

Order No.	**91379040**
Name	2N® Access Commander, Licence +5 devices
Desc.	license for adding devices

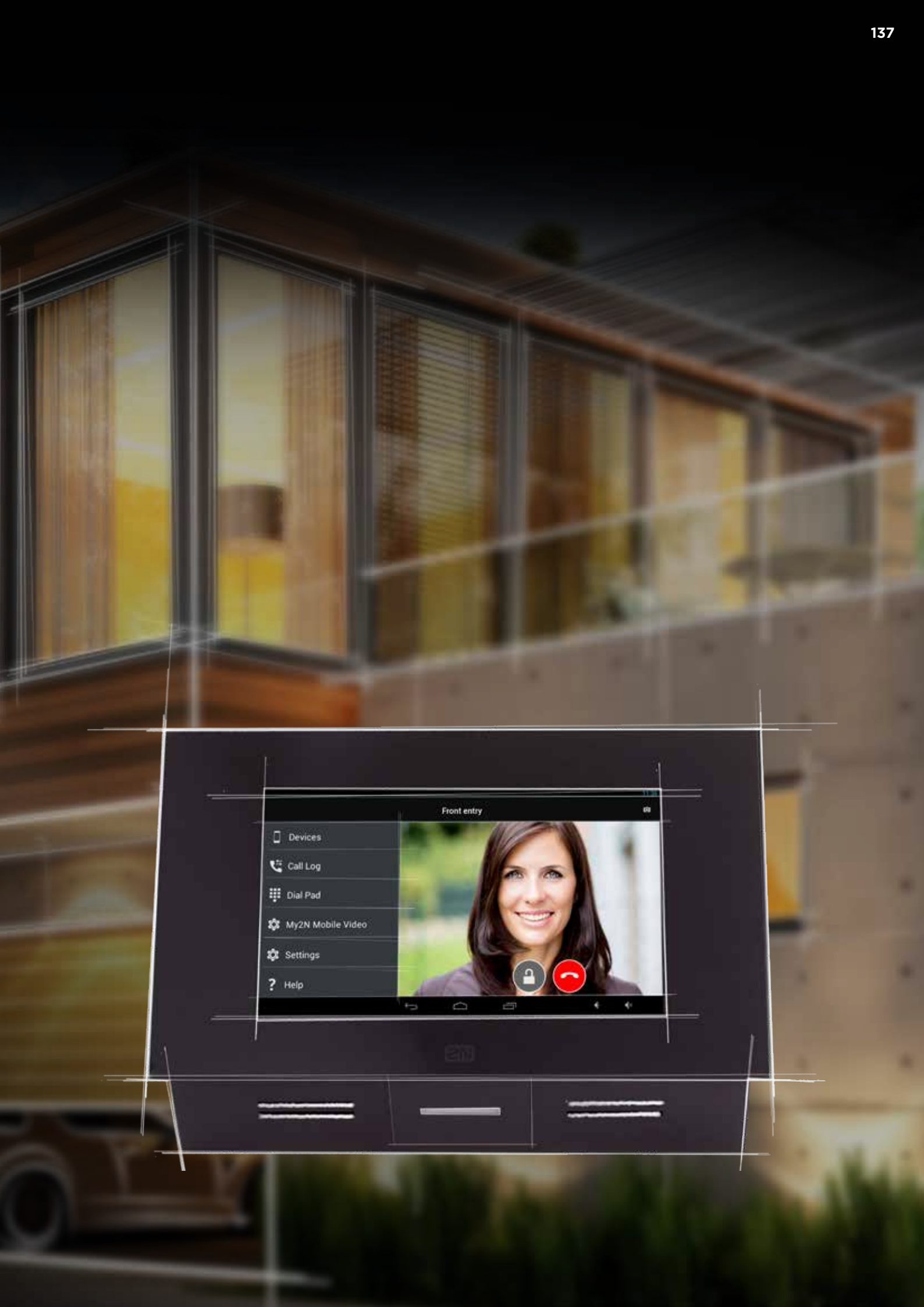
Order No.	**91379041**
Name	License +25 users for T&A
Desc.	license for adding users - used only for attendance tracking!

Order No.	**91379042**
Name	2N® Access Commander, Integration License
Desc.	license for data synchronization with data stored in third-party databases. Active Directory and CSV import

2N® Indoor Touch

Luxury designed for your interior

The stylish multifunctional communicator 2N® Indoor Touch fits elegantly into any interior. One glance at the display panel will let you know who is standing outside your door, start a dialogue or open the door lock.


Front entry
Devices
Call Log
Dial Pad
My2N Mobile Video
Settings
Help

IP ENVIRONMENT

2N® Indoor Touch

KEY FEATURES

- Have your door under control
- Do-not-Disturbe mode
- 4mm glass with capacitive touch
- Integrate to your home automation

reddot design award
winner 2017

RECOMMENDED USE

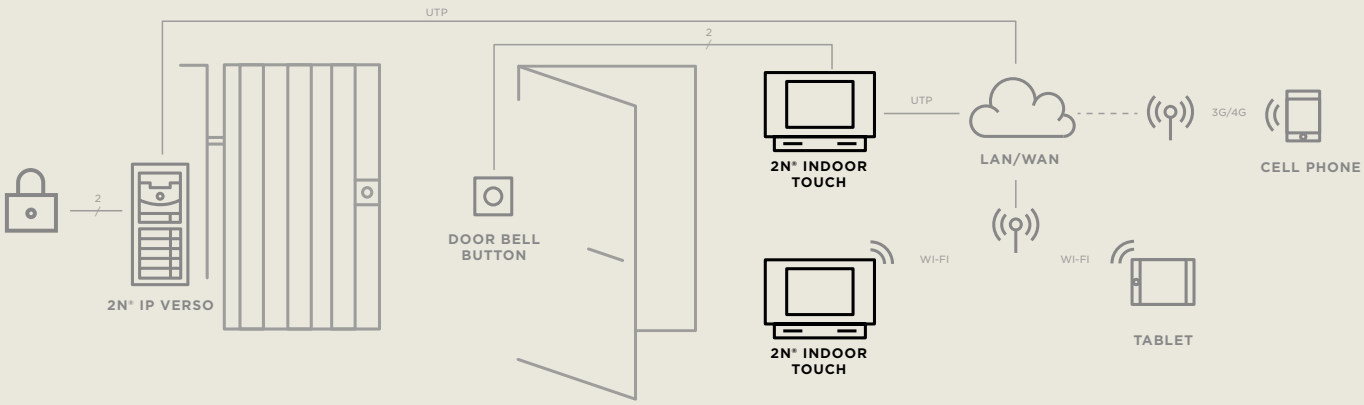
Home entrance monitoring

Keep track of what is happening outside your front door. Thanks to the 2N® Indoor Touch you can comfortly communicate with your visitor via the 2N Intercom installed at your door. With its non-stop video monitoring of your building entrance you are always an attentive host to your guests.

Handsfree video communication

In all residential complexes and family houses the residents want to see and hear who and why is ringing at their door. Nobody wants to take the lift down 20 floors or go right up to the entrance every time there's a ring at the door. A video intercom with a hands-free answering unit is the perfect solution.

EXAMPLE OF CONNECTION OF THE 2N® INDOOR TOUCH

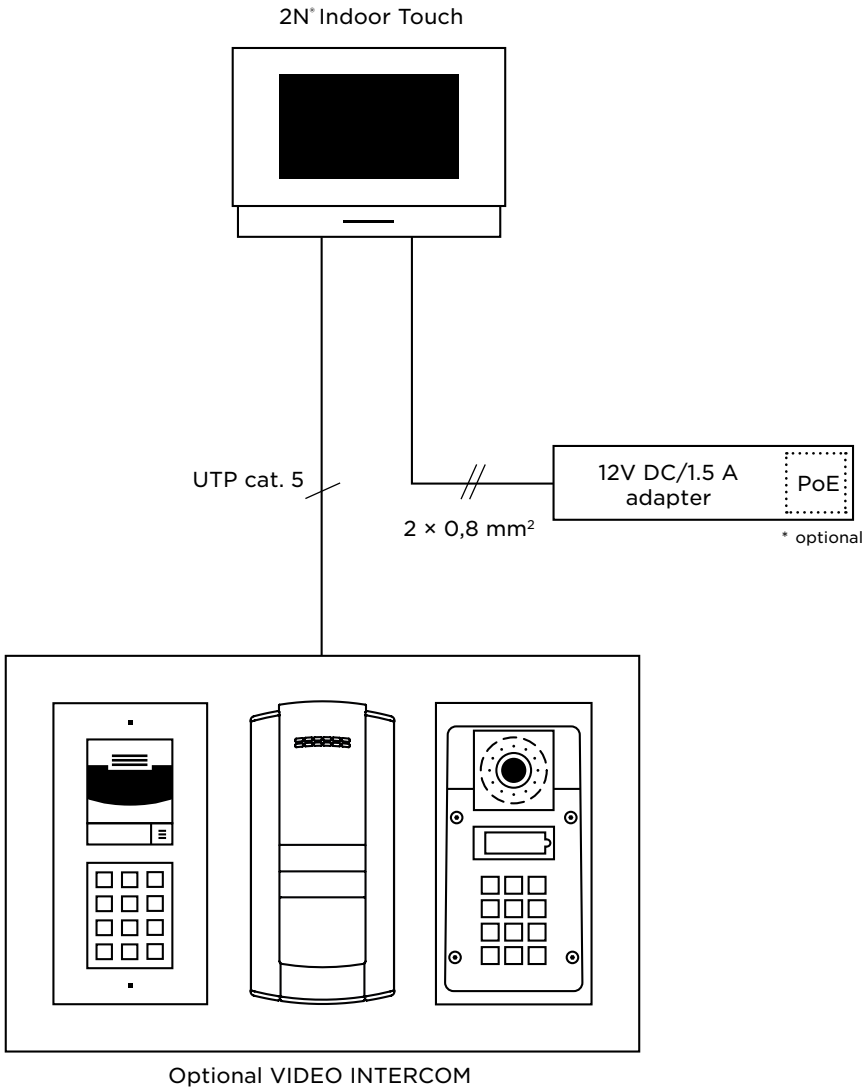


Technical parameters

2N® Indoor Touch

Signalling protocol	
	SIP
User interface	
Display	High-capacity touchscreen 16:9, 7” display, resolution 1024 × 600 px 24 bpp (16.7 million colours), backlit LED with power saving mode, 1× RGB LED status indicator (missed calls, power saving mode, etc.)
Audio	
Microphone	Integrated microphone
Speaker	Integrated 2W
Video	
Protocols	RTSP, MJPEG/HTTP
Supervision and control of intercom	Yes
IP camera surveillance	Yes
Operating system	
OS version	Android 4.4.4
Interface	
LAN	Ethernet 10/100BaseT, RJ-45
Recommended cabling	Cat-5e or better
Memory card	SD type (up to 16 GB)
Power supply	External power adapter 12 V DC 2 A / PoE 802.3af, Power comsumtion 10 W, GPIOs
Mechanical properties	
General	On-wall instalation
Operating temperature	0 °C – 60 °C
Operating relative humidity	10 % – 90 % (non-condensing)
Storage temperature	-20 °C – 70 °C
Dimensions	235 × 165 × 40 mm
Weight	850 g

CONNECTION DIAGRAM



Order numbers

2N® Indoor Touch

Order No.	**91378365**
Name	2N® Indoor Touch, PoE, black
Desc.	7“ touchscreen, 4mm glass, capacitive touch

Order No.	**91378365WH**
Name	2N® Indoor Touch, PoE, white
Desc.	7“ touchscreen, 4mm glass, capacitive touch

Order No.	**91378366**
Name	2N® Indoor Touch, PoE, WiFi, black
Desc.	7“ touchscreen, capacitive touch, Wi-Fi

Order No.	**91378366WH**
Name	2N® Indoor Touch, PoE, WiFi, white
Desc.	7“ touchscreen, capacitive touch, Wi-Fi

Order No.	**91378390**
Name	2N® Indoor Touch, unlocking license
Desc.	license for installation of 3rd party applications for Android

Order No.	**91378380**
Name	2N® Indoor Touch, power supply flush
Desc.	power supply for installation in the wall

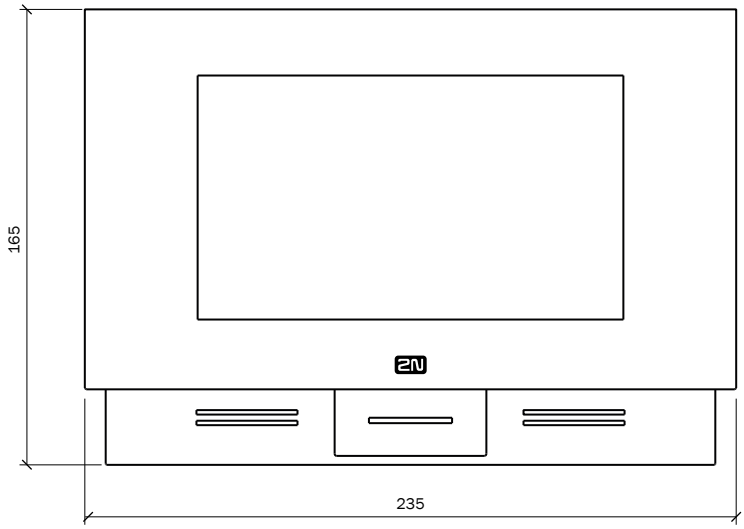
Order No.	**91378382**
Name	2N® Indoor Touch - desk stand black
Desc.	Desk stand black

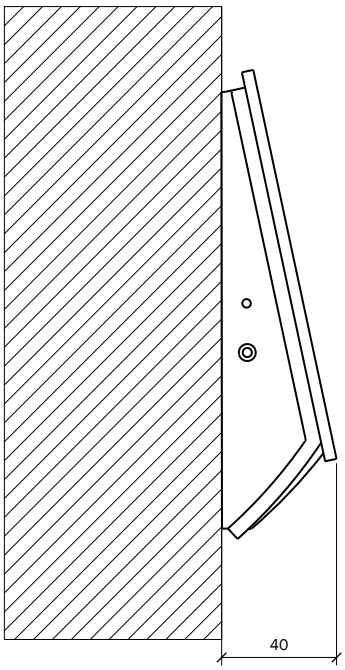
Order No.	**91378382W**
Name	2N® Indoor Touch - Desk stand white
Desc.	Desk stand white

Dimensions and fitting

2N® Indoor Touch

WALL-MOUNTED

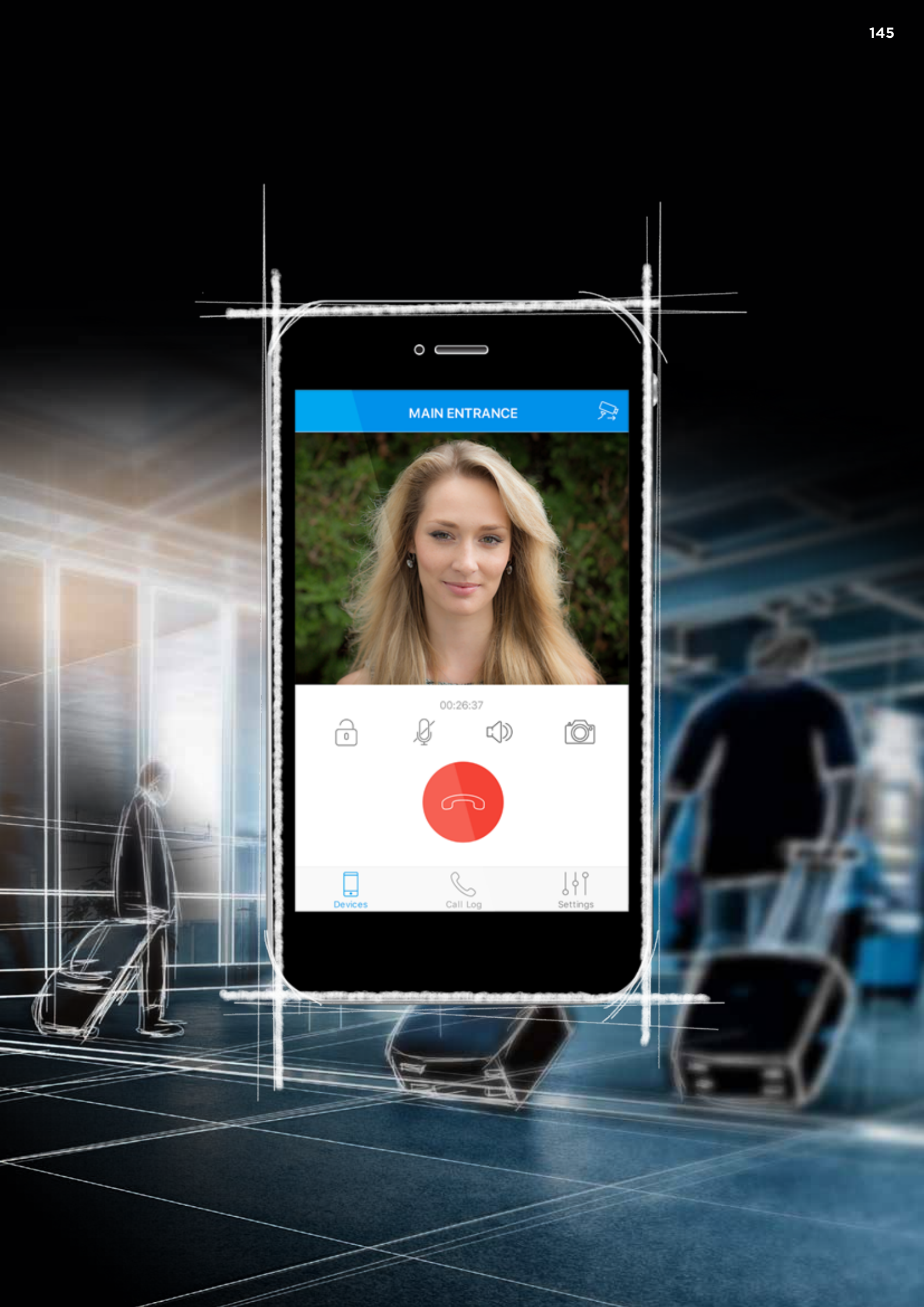




2N® Mobile Video

See who's ringing at your door

Stay informed about everything happening outside your entrance. The 2N® Mobile Video service lets you communicate with your visitors via your mobile phone and the 2N Intercom installed at your door.


MAIN ENTRANCE
00:26:37
Devices
Call Log
Settings

2N® Mobile Video

KEY FEATURES

- **See who's ringing at your door**

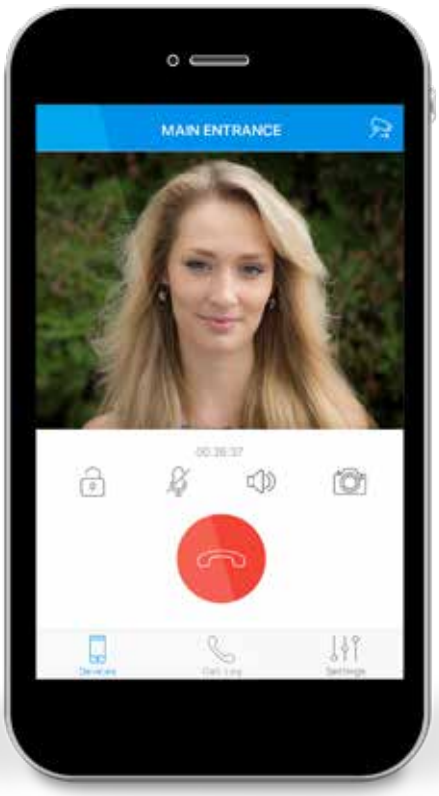
  Receive video calls from the 2N intercom on your smartphone over the internet using the 2N® Mobile Video application or just check the camera of your intercom to see what is happening at your front door.

- **Open the door remotely with one touch**

  Open the door for your visitors with a single press of a button on your smartphone. The application is easily accessible on your mobile device or tablet with the iOS or Android operating system.

- **Tailored for multi-tentant building needs**

  Integrate intercom with your home automation system to control lights, alarm or start a any custom action using 2N® Mobile Video app.
  In combination with the 2N Intercom that can call to more flat via IP, a tenant can accept a call even when they are not at home.



My2N

TECHNICAL PARAMETERS

General	
2N® Mobile Video is a cloud service located on the My2N portal. You need to create an account at www.my2n.com to activate this service.	
At least one 2N IP intercom with a camera and firmware version 2.18 or newer connected to the internet.	
A mobile phone with the Android operating system version 4.4 or newer or iOS version 10.x or newer, and the 2N® Mobile Video application installed.	
The mobile phone must be connected to the internet via Wi-Fi or a 3G or 4G mobile data connection. (The service may not function correctly with slower mobile data connections.)	
Supported browsers	
	Optimized for the Google Chrome browser (version 4.0 and higher).
Additional supported browsers are:	Mozilla Firefox (version 3.5 and higher), Internet Explorer (version 11 and higher). On other browsers not tested, we cannot guarantee full functionality.

Order numbers

2N® Mobile Video

Order No.	
Name	2N® Mobile Video 30-day subscription
Desc.	available online on www.my2n.com

Order No.	
Name	2N® Mobile Video 365-day subscription
Desc.	available online on www.my2n.com

2N® SIP Speaker Horn

Loudest sound on the market

2N® SIP Speaker Horn is an outdoor speaker with exceptionally loud and clear sound. Use the speaker as a practical tool for broadcasting live announcements across large areas and actively protect your property.

2N

IP ENVIRONMENT

2N® SIP Speaker Horn

Cisco Compatible AVAYA Lync BROADSOFT SIEMENS Alcatel·Lucent

KEY FEATURES

- Automatic noise detection
- Highest SPL on the market
- ONVIF for integration with VMS
- Built-in audio self-diagnostics

RECOMMENDED USE

Warning for unwelcomed visitors

If an unwelcome visitor enters your premises, you can respond immediately with a live or preset announcement to promptly deter the trespasser. Especially, when in integration with VMS, the intruder can be addressed specifically by using visual information.

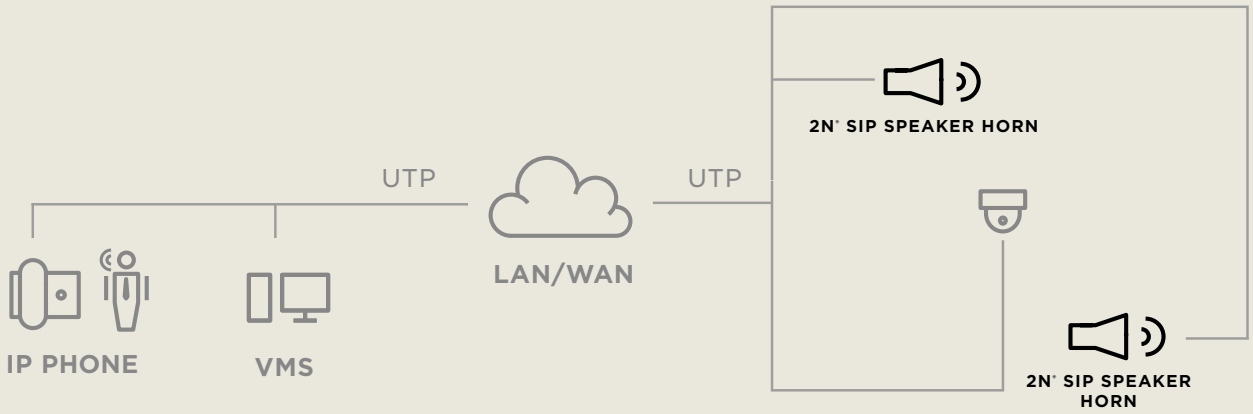
Public address in town

Public announcements have to be loud enough to be heard through closed windows to catch an attention of town residents. Replacing an old analogue solution, 2N® SIP Speaker Horn allows authorized town representatives to make announcements even via their mobile phones.

Assembly line emergency communication

Working in a noisy environment, such as an assembly line, requires wearing earplugs. However, in case of emergency an announcement, let alone an evacuation notice, must be clearly audible despite the earplugs. 2N® SIP Speaker Horn, the loudest speaker on the market, is indeed the best solution.

EXAMPLE OF CONNECTION OF THE 2N® SIP SPEAKER HORN



Order numbers

2N® SIP Speaker Horn

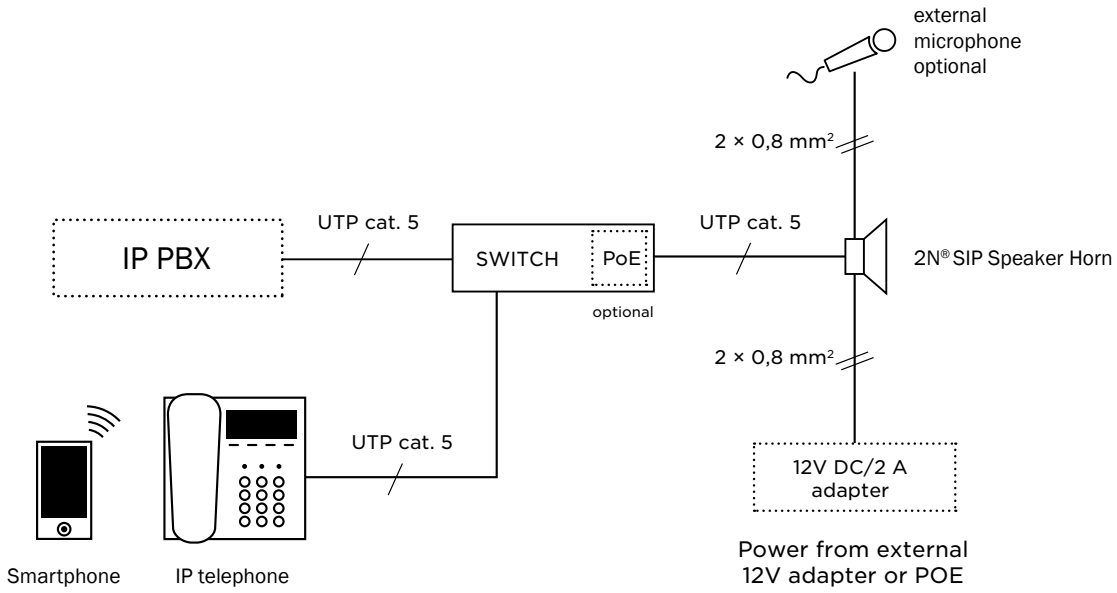
Order No.	**914422E**
Name	2N® SIP Speaker Horn
Desc.	SPLmax 124dB, outdoor and indoor use, noise detection

Technical parameters

2N® SIP Speaker Horn

Audio parameters	
Output	8W (PoE) / 25W (24V)
Acoustic pressure	110dB SPL(1W/1m) / 124dB(SPLmax)
Impedance	8 Ohm
Range of frequencies	400Hz ~ 7,5kHz (-10dB) 275 Hz ~ 12kHz (-20dB)
Audio codecs	G.711 (PCMA, PCMU), G.722, L16/16Hz
Mechanical properties	
Dimensions (h/w/d)	232.7 (diameter) x 309.6 (length) mm
Weight	2,3kg
Color	Grey (RAL 7035)
Operating temperature	-30°C ~ +60°C
Protection rating	IP67
Installation	Stainless steel holder (U type)
Power supply	
Power supply from external source	24V DC / 2A
Power supply from LAN	PoE IEEE 802.3af
LAN connection	
RJ-45 connector on the rear panel	10/100BASE-TX s Auto-MDIX

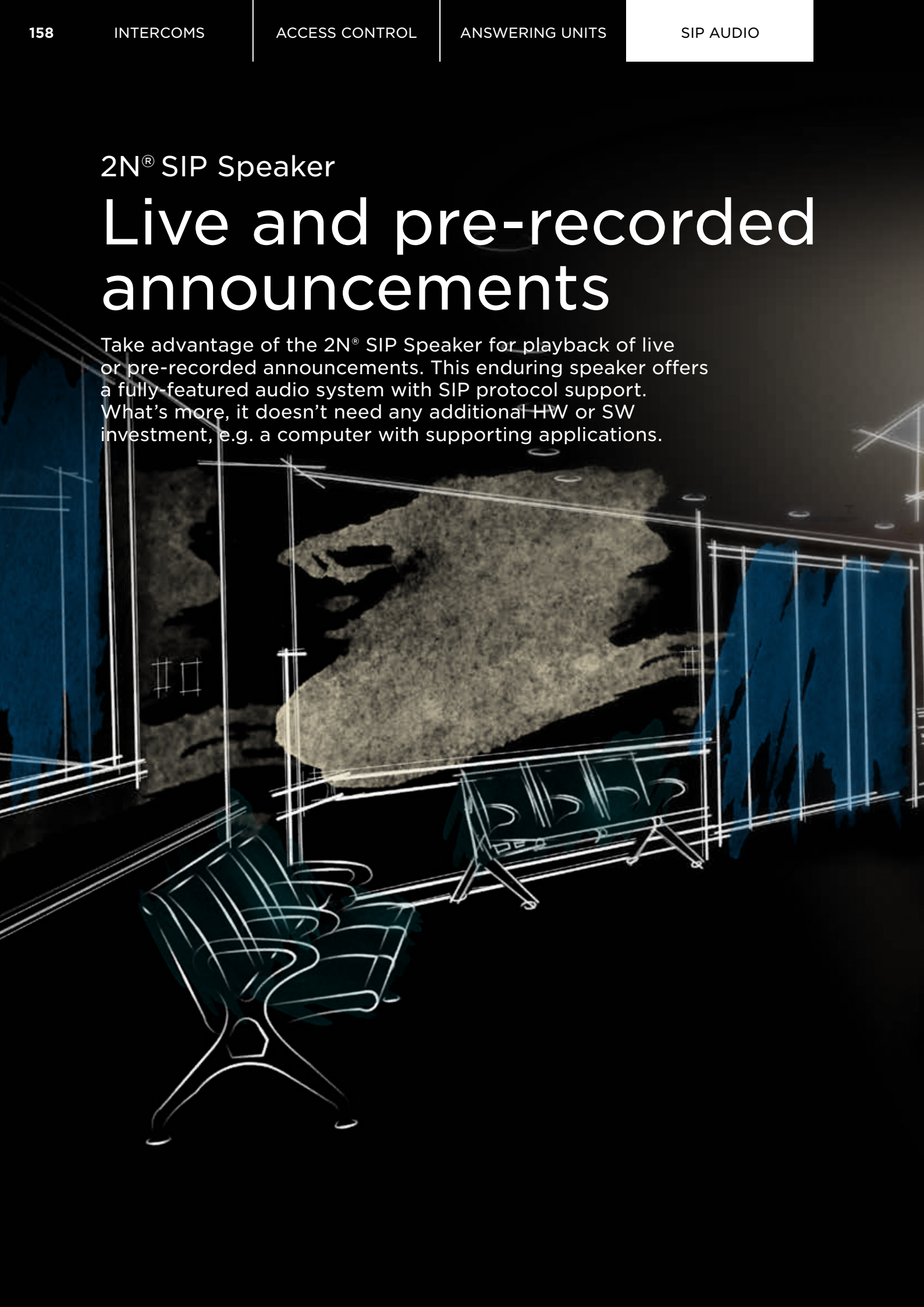
CONNECTION DIAGRAM



2N® SIP Speaker

Live and pre-recorded announcements

Take advantage of the 2N® SIP Speaker for playback of live or pre-recorded announcements. This enduring speaker offers a fully-featured audio system with SIP protocol support. What's more, it doesn't need any additional HW or SW investment, e.g. a computer with supporting applications.



2N

IP ENVIRONMENT

2N® SIP Speaker

Cisco Compatible · AVAYA · Lync · BROADSOFT · SIEMENS · Alcatel·Lucent

KEY FEATURES

- A wide range of connectors
- Active IP loudspeaker with PoE support
- Possibility to connect 2nd passive speaker
- Simple integration into VMS systems for voice reaction

RECOMMENDED USE

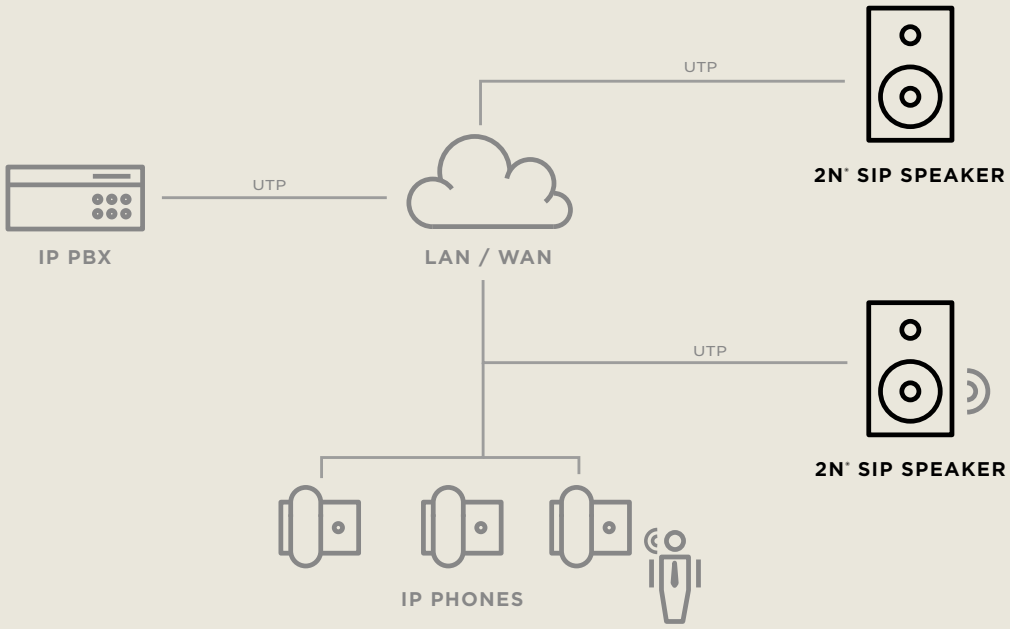
School classroom

2N® SIP Speaker meets the requirements of every School Classroom, where the students and teachers needs to be informed about every lesson start/end by a school bell or by a sound of their own choice. Also the Headmaster's directions and information will be distributed throughout the schools LAN to every Classroom equipped with 2N® SIP Speakers.

Warehouses, waiting rooms, remote sites

In warehouses or waiting rooms there is a need to make loud announcements- typically to report a new order or call another patient. Remote sites, although being monitored, face unwelcome. Experience has shown that in such a case, a verbal warning is very effective. 2N® SIP Speaker allows remote announcements to be made to any places with a data network.

EXAMPLE OF CONNECTION OF THE 2N® SIP SPEAKER



Order numbers

2N® SIP Speaker

Order No.	**914421B**
Name	2N® SIP Speaker, wall mounted, black
Desc.	loudspeaker set, wall mounted, SIP based active speaker

Order No.	**914421W**
Name	2N® SIP Speaker, wall mounted, white
Desc.	loudspeaker set, wall mounted, SIP based active speaker

Order No.	**914034B**
Name	2N® Loudspeaker, wall mounted, black
Desc.	wall mounted, SIP based passive speaker

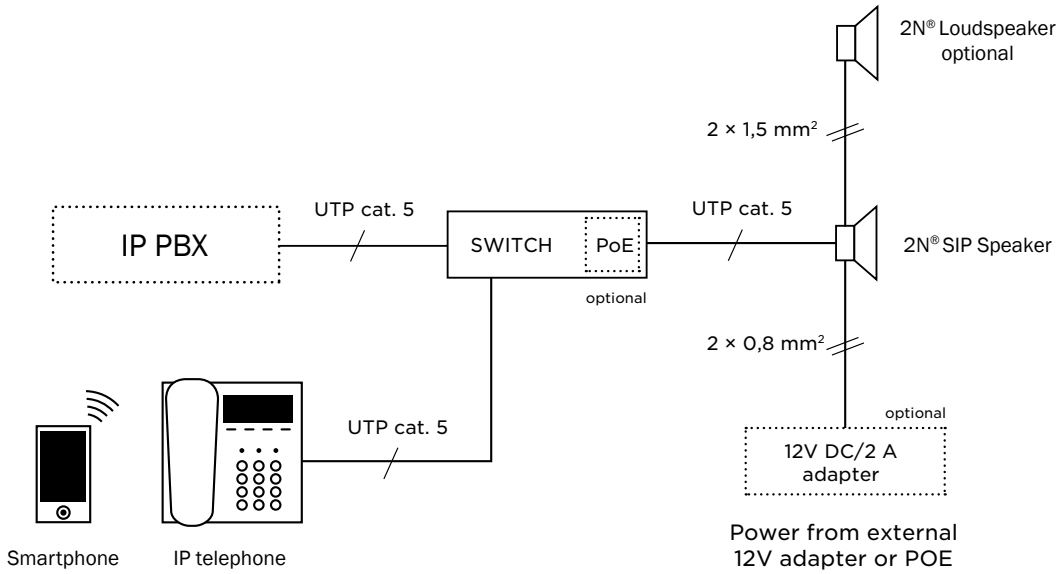
Order No.	**914034W**
Name	2N® Loudspeaker, wall mounted, white
Desc.	wall mounted, SIP based passive speaker

Technical parameters

2N® SIP Speaker

Audio parameters	
Output	8W PoE / 12W 12V
Sound pressure	99dB (SPLmax)
Impedance	8 Ohm
Frequency range	75Hz – 20KHz
Harmonic distortion	0,05 % @ 1 kHz
Signal-to-noise ratio	91 dB
Audio codecs	G.711 (PCMA, PCMU), G.729 (Annex A, B), G.722, L16/16kHz
Mechanical properties	
Dimensions (h/w/d)	250 x 176 x 143mm
Weight	2,3kg
Color	Black/White
Power supply	
External power supply	12V DC / 2A
Power over Ethernet	PoE IEEE 802.3af
LAN connection	
RJ-45 connector on rear panel	10/100BASE-TX with Auto-MDIX

CONNECTION DIAGRAM



2N® SIP Mic

Server-less paging to up to 12 zones

A SIP based microphone console for paging can appeal not only by wooden designer case, but also by various advanced functions such as broadcasting to 12 zones, two-way communication thanks to an inbuilt speaker, or playing back pre-recorded messages.

2N
2N® SIP Mic

IP ENVIRONMENT

2N® SIP Mic

AXIS COMMUNICATIONS · cisco Compatible · AVAYA · Lync · BROADSOFT · SIEMENS · Alcatel·Lucent

KEY FEATURES

- Sever-less paging
- Hands-free mode for making voice calls
- Pre-recorded announcements
- Paging to Axis IP Speaker over Axis VAPIX®

RECOMMENDED USE

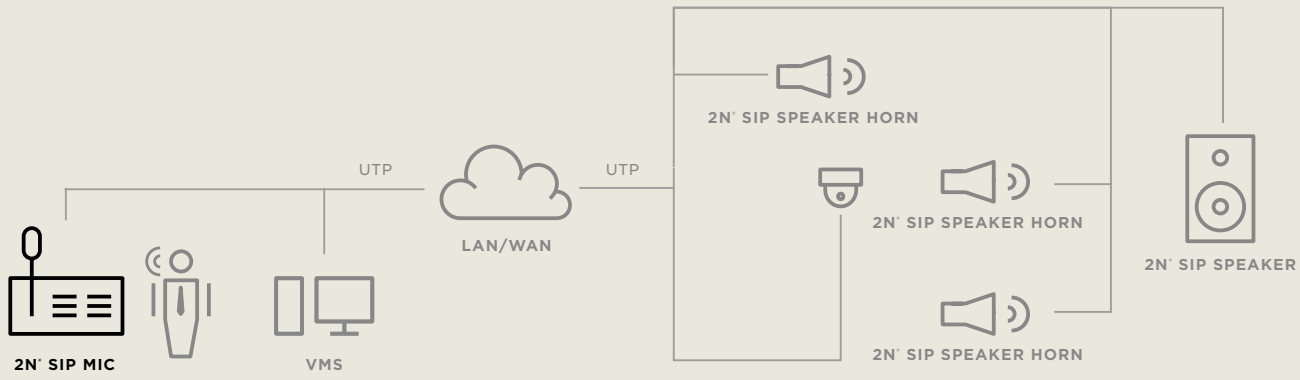
Public address in schools

Broadcast announcements into as many as 12 zones without having to install a server. A headmaster can broadcast specific messages into individual classrooms or to the entire school. Besides, at simple press of a button one can also listen to what is happening in certain areas.

Paging console for supervisory workplaces

Security officers responsible for camera-guarded premises need an effective tool to eliminate property losses in case of intrusion. Thanks to the 2N® SIP Mic IP console, they can report to the disturbed part of the object and inform/ expel/ intimidate the perpetrator with a live message. This method is much more effective than just a siren or a pre-recorded general announcement.

EXAMPLE OF CONNECTION OF THE 2N® SIP MIC



IP ENVIRONMENT

2N® SIP Mic

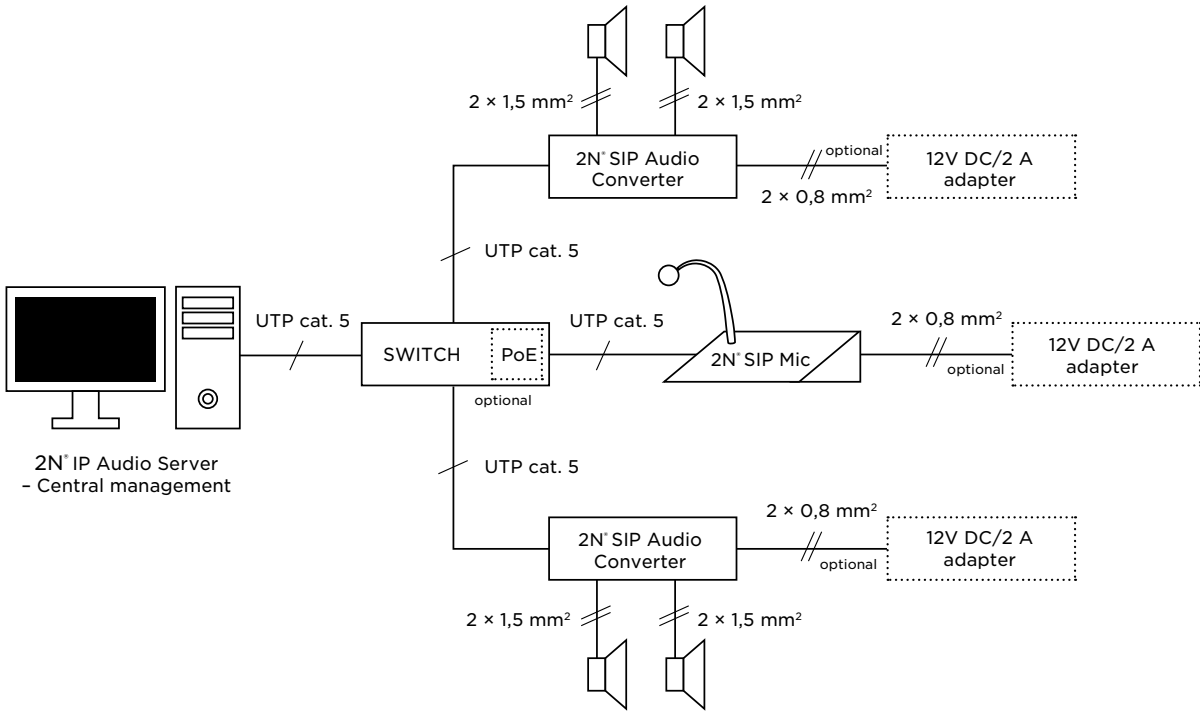
Order No.	**914431E**
Name	2N® SIP Mic
Desc.	microphone console, inbuilt speaker, server-less paging

2N® SIP Mic

TECHNICAL PARAMETERS

Audio stream	
	SIP2.0, RTP multicast, VAPIX®
Audio codecs	G.711u, G.722
Speakers	2 built-in, stereo, power output 2x1 W
Interfaces	
Logical inputs	2, galvanically separated, sensitive to contact or voltage from 5 to 48 V
Relay output	1, galvanically isolated, NO and NC contact, max load 48 V, 1 A
Headphone output	3.5 mm jack, stereo, power output 2x30 mW, min. load impedance of 16 Ohm, DR. 101 dB, THD+N -85 dB
Primary microphone input	symmetric, XLR, integrated phantom power supply 24 V, DR 88 dB, THD+N -82 dB
Headset microphone input	3.5 mm jack, integrated power supply for electret microphones, DR 84 dB, THD+N -78 dB
Line input	3.5 mm jack, mono or stereo non-symmetric stereo, DR 93 dB, THD+N -82 dB
Power supply	
	12 to 32 V, power draw max. 1 A PoE to 802.3af standard
Dimensions	
	209 x 65 x 143 mm
Operating temperature	
	temperature range 0-40°C
Buttons and labels	
Double button	28mm x 14mm
Large button	14mm x 14mm
Small button	9mm x 9mm

CONNECTION DIAGRAM



* Power from external 12V adapter or POE

2N® SIP Audio Converter

Upgrade for analog paging

Connect your Public Address to your telephone system and use it to make announcements via your mobile phone. 2N® SIP Audio Converter converts the sound from a SIP phone system to the classic analogue form so you can broadcast live or pre-recorded messages over the IP network to any distance.

2N® SIP Audio Converter
POWER
RDY/ACT
RST
part of
2N IP AUDIO SYSTEM

IP ENVIRONMENT

2N® SIP Audio Converter

Cisco Compatible · AVAYA · Lync · BROADSOFT · SIEMENS · Alcatel·Lucent

KEY FEATURES

- **Makes public address system from any IP telephony system**
- **Two-way communication**
- **Upgrade of an analog PA system to flexible IP PA system**
- **Web interface configuration**

RECOMMENDED USE

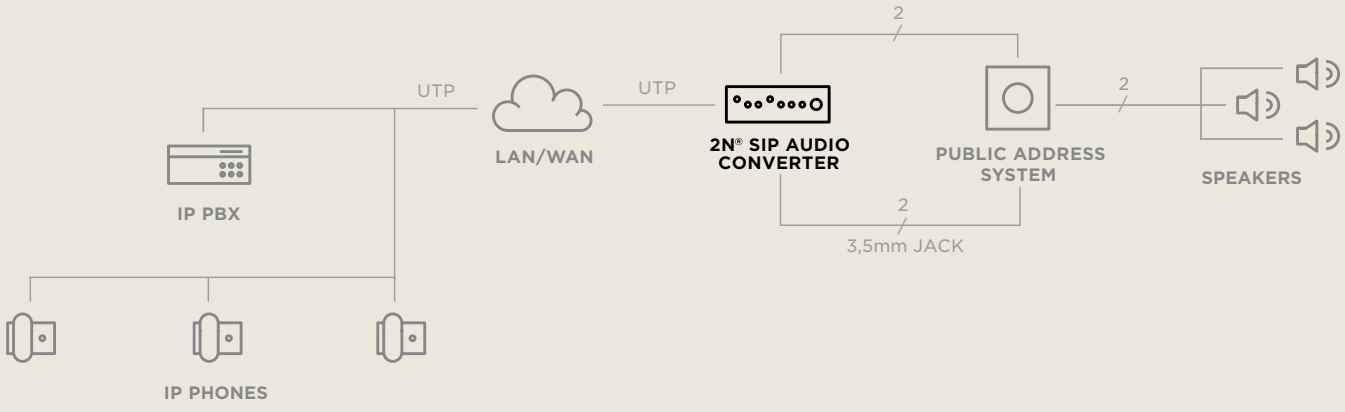
Doctor's waiting room

2N® SIP Audio Convertor lets you make live or pre-recorded messages from an IP connected telephone. Thanks to relay output of the 2N® SIP Audio Converter, it is possible during live paging to turn on a light sign such as „Next one, please", what may help patients with hearing disabilities.

Two-way communication at schools

An integration of the 2N® SIP Audio Convertor with a SIP Speaker and a IP microphone allows teachers to get easily hold of a janitor for a maintenance and service purposes. There is no more a need to leave a classroom when a projector doesn't work. Also, the janitor can easily verify whether everyone left the premises after school thanks to the listen-in function. Both functionalities are particularly useful in case of escalated situation as well.

EXAMPLE OF CONNECTION OF THE 2N® SIP AUDIO CONVERTER



IP ENVIRONMENT

2N® SIP Audio Converter

Order No.	**914401E**
Name	2N® SIP Audio Converter
Desc.	IP audio decoder, support for SIP protocol, built-in amplifier

Order No.	**914490E**
Name	2N® SIP Audio Converter, set speaker & mic
Desc.	package of 2N® SIP Audio Converte, small speaker and microphone

2N® SIP Audio Converter

TECHNICAL PARAMETERS

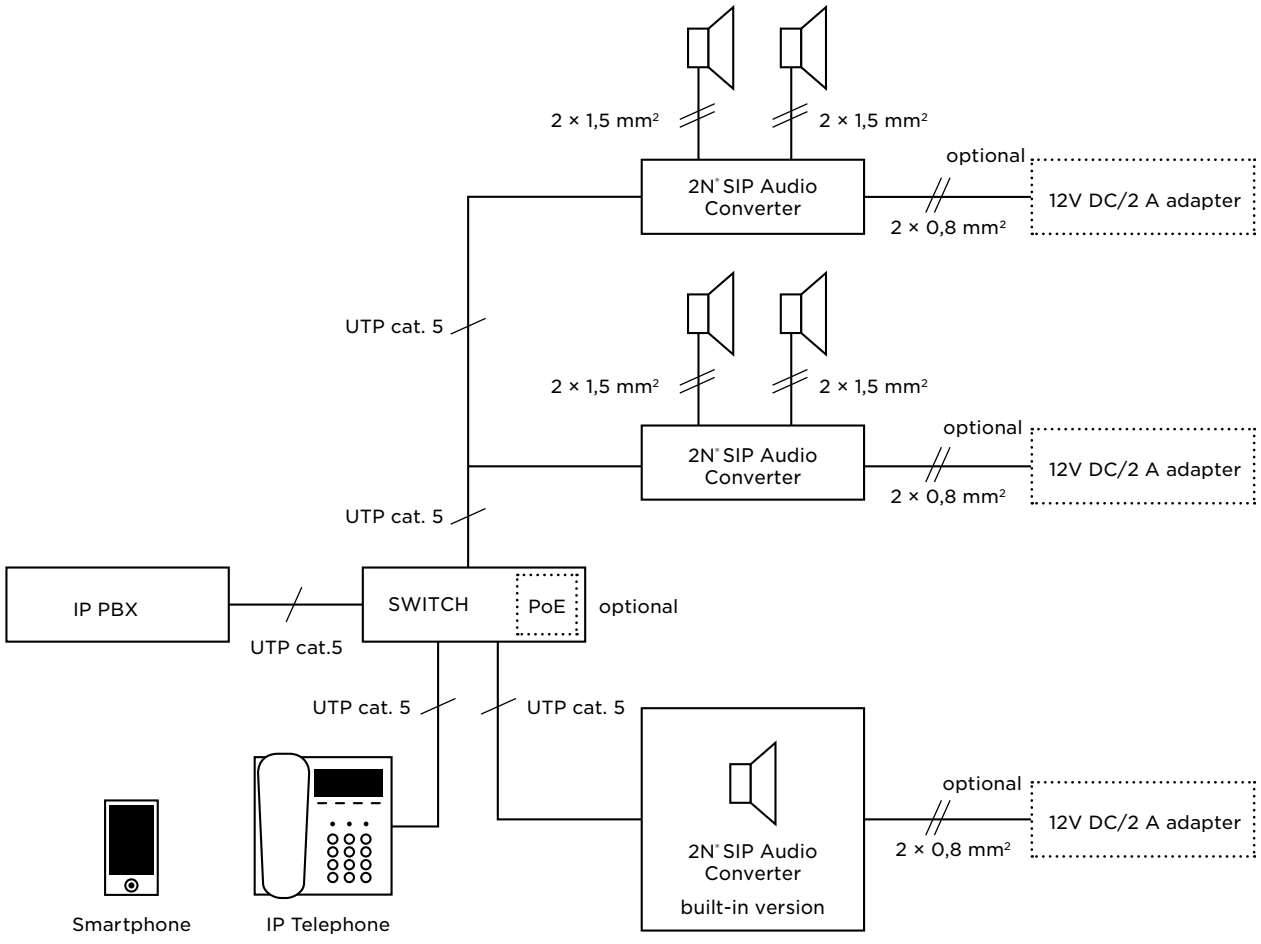
Interface			
Power from external source	12 V DC / 2 A		
Power from LAN	PoE IEEE 802.3af		
LAN connection	RJ-45 connector on rear panel 10/100BASE-TX with function Auto-MDIX		
Digital output	1× Relay output, 24V 1A AC/DC, galvanically insulated		
Digital input	1× Digital input, 5 to 24 V DC, galvanically uninsulated		
Earphone/line out	1× STEREO 3,5 mm jack on front panel		
Microphone/Line in	1× STEREO 3,5 mm jack on front panel		
Output of powerful amplifier	4× terminal on rear panel, STEREO/MONO with autodetection		
Control and signalling			
Signalling state	3× RGB LED on front panel		
Local control	3× button on front panel		
Remote control	1× Infrared detector on front panel		
Audio			
Speaker impedance	4 – 8 Ω		
Amplifier performance	Speaker	12 V/2 A	PoE
	2 × 4 Ω STEREO	2 × 10 W	2 × 5 W
	2 × 8 Ω STEREO	2 × 9 W	2 × 5 W
	4 Ω MONO	1 × 18 W	1 × 10 W
	8 Ω MONO	1 × 18 W	1 × 10 W
Frequency range	20 Hz – 20 kHz (± 0,5 dB)		
Harmonic distortion	0,05 % @ 1 kHz		
Signal-to-noise ratio	91 dB		
Audio compression	MPEG-1 Audio Layer II (MP2)		
Bandwidth	32–320 kbps		
Audiocodices	G.711 (PCMA, PCMU), G.729 (Annex A, B), L16		
Mechanical properties			
Dimensions	105 × 34 × 86 mm		
Dimensions (with L-profiles)	130 × 34 × 86 mm		
Weight	300 g		

TECHNICAL PARAMETERS

2N® SIP Audio Converter built into speaker

Interface	
Power from external source	12 V DC / 2 A
Power from LAN	PoE IEEE 802.3af
LAN connection	RJ-45 connector on rear panel 10/100BASE-TX with function Auto-MDIX
Digital output	Only external contact required
Digital input	1× Digital input, 5 to 24 V DC, galvanically uninsulated
Output of powerful amplifier	6 W
Control and signalling	
	3 buttons
Audio	
Sound pressure level	100 dB
Frequency range	20 Hz – 20 kHz (± 0,5 dB)
Harmonic distortion	0,05 % @ 1 kHz
Signal-to-noise ratio	91 dB
Audiocodices	G.711 (PCMA, PCMU), G.729 (Annex A, B), L16
Mechanical properties	
Dimensions	237 × 170 × 80 mm
Weight	1 300 g

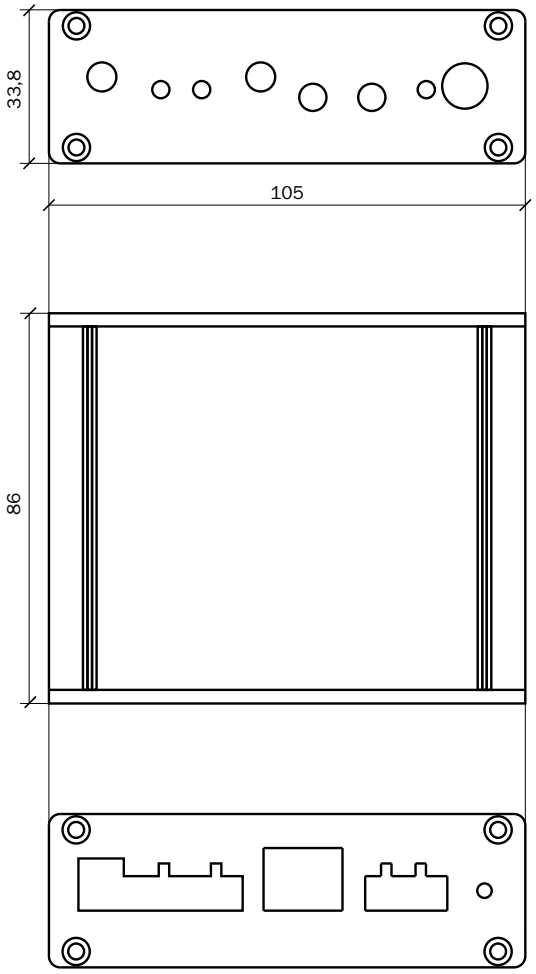
CONNECTION DIAGRAM



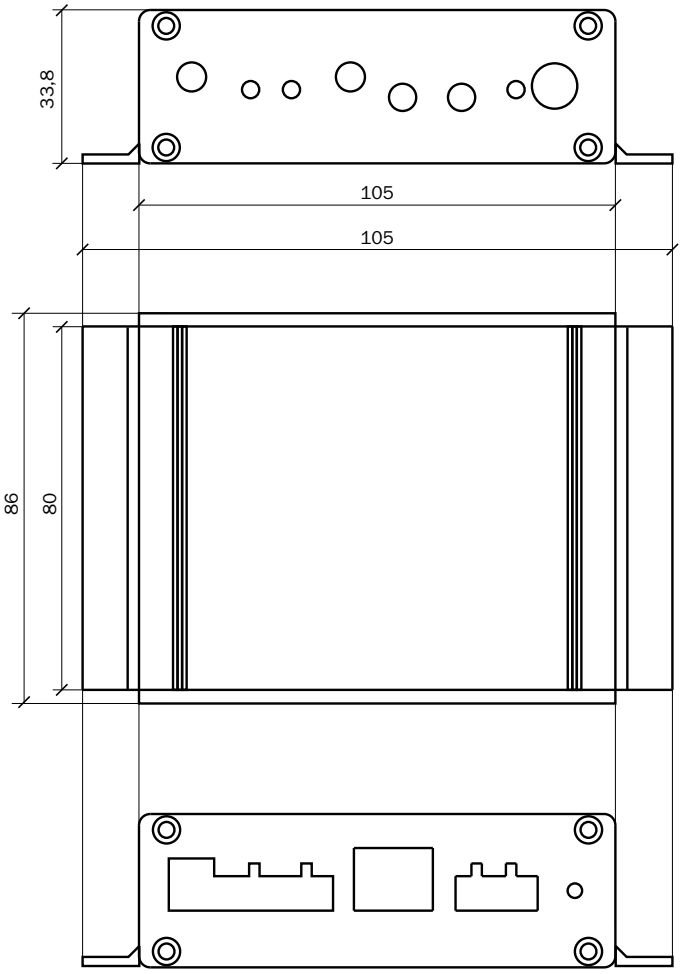
* Power from external 12V adapter or POE

2N® SIP Audio Converter

WITHOUT LUGS



WITH LUGS



IP ENVIRONMENT

Other Accessories

Electrical strikes	
Electrical strike 11211 12V/230mA DC	932071E
Electrical strike 11221 hold-open 12V/230mA DC	932081E
Electrical strike 11211MB mechanical blocking 12V/230mA DC	932091E
Electrical strike 31211 fail-safe 12V/170mA	932072E
Electrical strike 211211 door signalling 12V/230mA	932061E
Electrical strike 321211 fail-safe, door signalling 12V/170mA	932062E

License	
License for G.729	9137902
Enhanced Audio	9137905
Enhanced Video	9137906
Enhanced Integration	9137907
Enhanced Security	9137908
Gold	9137909
License Informacast	9137910
License NFC	9137915

IP videophones	
IP telephone Yealink SIP T58A	91378360

RFID tags (for Verso and Force)	
Card EMarine RFID 125 kHz	9134165E
Key EMarine RFID 125 kHz	9134166
Card Mifare RFID 13,56 MHz	9134173
Key Mifare RFID 13,56 MHz	9134174

External card reader RFID	
External card RFID 125 kHz EMarine	9137420E
External card RFID 13,56 MHz	9137421E
External card reader Wiegand 125 kHz EMarine RFID	9159030
External card reader Wiegand 13,56 MHz Mifare RFID	9159031

Other

External antenna for Induction Loop module	9155043
2N® IP Verso connection cable length 3m	9155054
2N® IP Verso connection cable length 5m	9155055
2N® IP Verso Blind button	9155051
2N® IP Verso Nametag Foil	9155052
2N® IP Security Relay	9159010
2N® IP Wiegand	9159011
2N® Induction Loop	9159050
External antenna	9159051
Power supply 12V/1A	9159052
2N® 2Wire (plug EU/US/UK)	9159014EU 9159014US 9159014UK
Exit button	9159013
IP relay – 1 output	9137410E
IP relay – 4 output	9137411E
Magnetic contact	9159012
Power supply 12V/2A	91341481E
Transformer	932928
PoE Injector (EU/US plug)	91378100E 91378100US

Notes

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2N Telekomunikace, a.s.
Modřanská 621, 143 01 Prague 4
Company ID No 26183960
sales@2n.cz, www.2n.cz

Illustrations: Milan Hübner

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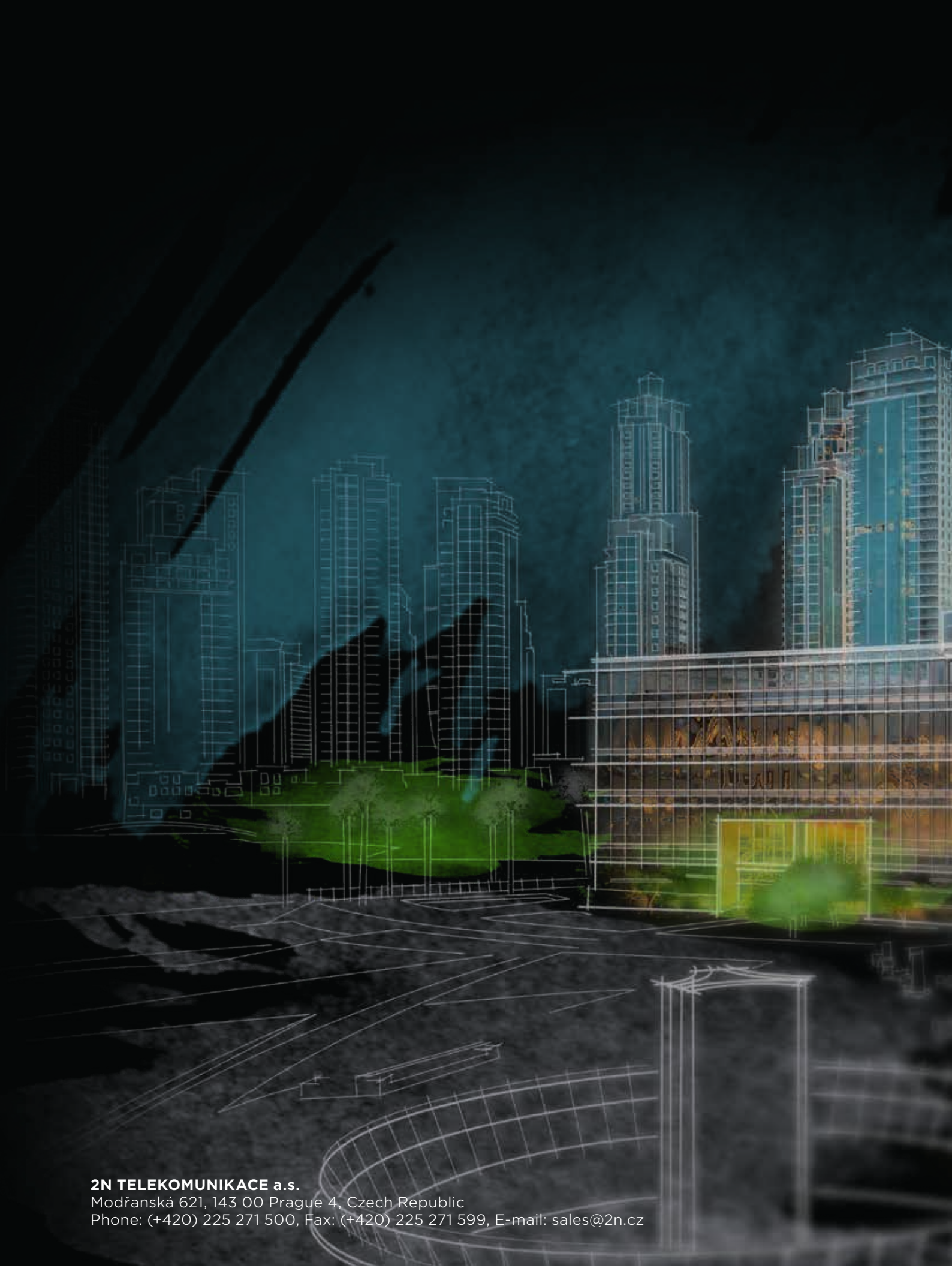

2N TELEKOMUNIKACE a.s.
Modřanská 621, 143 00 Prague 4, Czech Republic
Phone: (+420) 225 271 500, Fax: (+420) 225 271 599, E-mail: sales@2n.cz

www.2n.cz