2N

00:01
Jane Ryan

Open the door to innovation

2N INTERCOMS, IP ACCESS & SIP AUDIO SYSTEMS

" For 30 years 2N has been at the forefront of access control and telecommunications. We make sure our products are truly cutting edge, as well as 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."

MICHAL KRATOCHVÍL
Chief Executive Officer, 2N

" The 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."

MARTIN ANDERSEN
Vice President New Business, Axis Communications

Content

CONNECTIVITY IN AN IP ENVIRONMENT

Thanks to open standards, IP Intercoms from
2N can connect with a wide range of external
devices:

IP telephone
exchange

VMS

IP camera

PBX

IP telephone

iPhone
iPad

2N IP INTERCOMS

Android Telephone
Android Tablet

PC

Security system

Fingerprint
reader

Door
lock

RFID
card reader

Access
system

Light
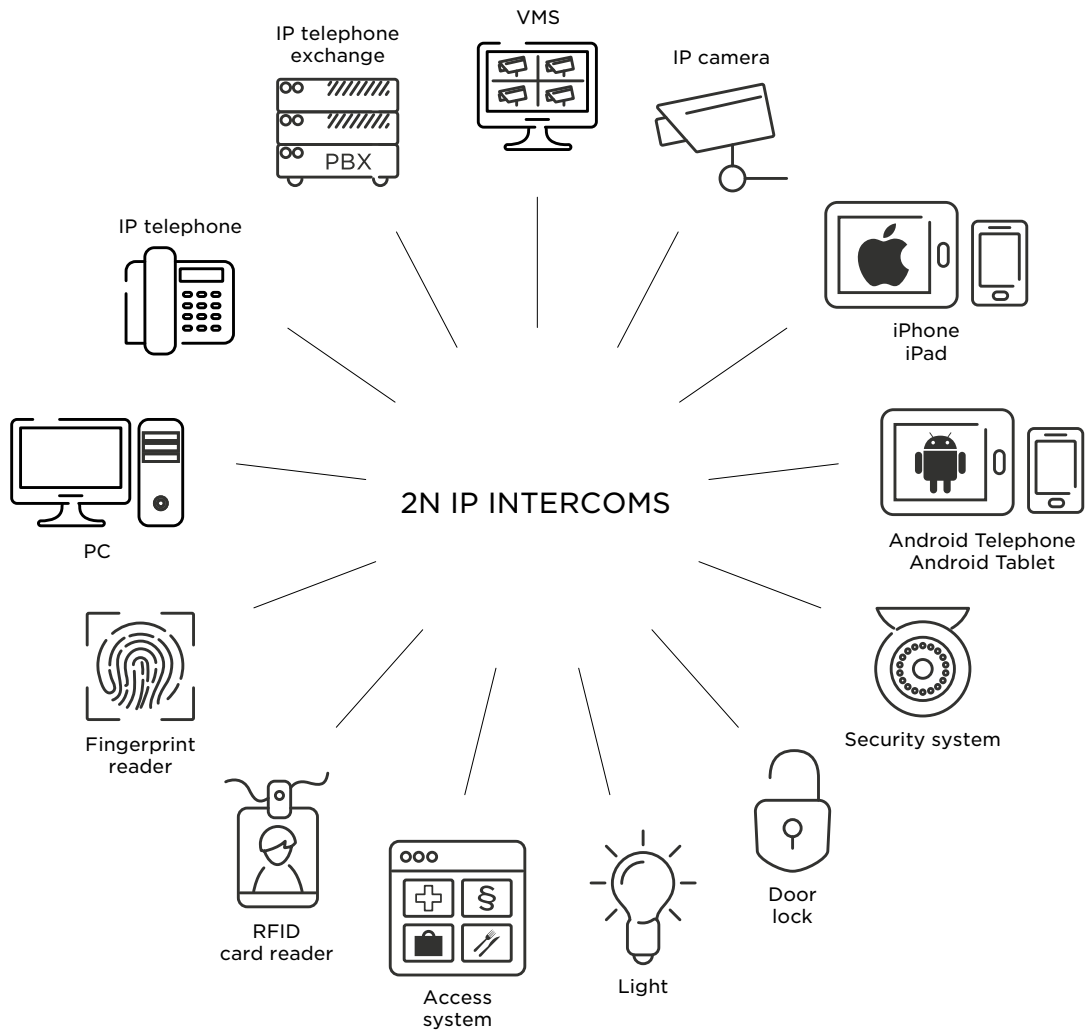
For information about Licencing
Policy visit please our website.

WaveKey

The future is mobile access control

Today, a mobile phone can fully replace an RFID card or a fingerprint.
Rely today on an access control method that will dominate the market.

RECOMMENDED USE

Touch Mode

Touch mode ensures com-
plete comfort. The user
only touches the reader
with their hand or elbow,
while leaving the phone
in their pocket.

Tap in App Mode

Contactless Tap in app
mode brings higher secu-
rity. The user must unlock
their mobile phone, open
the application, and press
the virtual button. It is also
an ideal way to open the
car park entrance from
your car.

Motion Mode

Completely contactless
door opening ensures
Motion mode. Just appro-
ach the camera intercom
with your phone in your
pocket, or wave your hand,
and the door will open.

Card Mode

The last option is Card
mode. The phone works as
a card and the user has to
tap it close to the access
reader. It's similar to po-
pular NFC technology, but
Wavekey works with both
Android and iOS phones.

SUPPORTED PRODUCTS
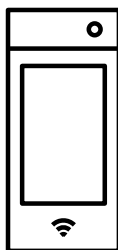
2N® IP Style

2N® IP Verso
2N® LTE Verso

2N® Access Unit 2.0
Bluetooth & RFID

2N® Access Unit
Bluetooth

2N® Access Unit M
Bluetooth & RFID

COMPARISON TABLES

Detailed overview of intercoms and answering units functions and parameters
to help you make the right choice.

Overview of Intercoms

Intercom	2N® IP Style	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	yes	no	yes	no	yes
Integrated electric switch	yes	yes	yes	yes	yes	yes	yes	yes
Numerical keypad available	yes, virtual	yes	no	yes	no	no	no	yes
Internal RFID card reader available	yes	yes	no	yes	no	yes	no	yes
Biometrics available	no	yes	no	no	no	no	no	yes
Bluetooth available	yes	yes	no	no	no	no	no	yes
Buttons	no	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	no
Audio line-in/line-out	line-out	line-out	line-out	line-out	line-out	no	line-out	line-out
Display - optional	yes, 10"	yes	no	no	no	no	no	yes
Tamper alarm output	yes	yes	yes	yes	yes	yes	yes	yes
Tamper alarm event in automation API	yes	yes	yes	yes	yes	no	no	yes
Suitable for outdoor use	yes	yes	yes	yes	yes	yes	yes	yes
IP/IK coverage	IP65/ IK08	IP54/IK8 (touchscreen IK7)	IP54/IK8	IP69K/IK10	IP69K/IK10	IP65/IK7	IP54/IK10	IP54/IK8 (touchscreen IK7)
Number of users	10 000	10 000	10 000	10 000	10 000	10 000	2	10 000
Security Relay support	yes	yes	yes	yes	yes	yes	yes	yes
Dimensions WxHxD (including frame)	170 x 355 x 41.6 mm (surface)	107x234x28 mm (2 modules)	107x130x28 mm	109x217x83 mm	109x217x83 mm	109×229x31 mm	115x193x57 mm	107x234x28 mm (2 modules)
Power supply POE	yes, PoE+	yes	yes	yes	yes	yes	yes	no
Power supply 12V DC	yes	yes	yes	yes	yes	yes	yes	yes
LTE connectivity	no	no	no	no	no	no	no	yes

Overview of Answering Units

Answering Unit	2N® Indoor Touch 2.0	2N® Indoor View	2N® Indoor Compact	2N® Indoor Talk
Recommended use	luxury MDU; smart home; offices	high-end MDU; offices	mid-range MDU; offices	secondary unit; offices
Display	7″	7″	4.3″	no
Display resolution [pixels]	1024 x 600	1024 x 600	480 x 272	---
Unit control	capacitive touch display	capacitive touch display	capacitive buttons	capacitive buttons
Operation system	Android	2N OS	2N OS	2N OS
3rd party apps	yes	no	no	no
Video voicemail	yes	no	no	no
Video preview	yes	yes	yes	no
Colour variants	black, white	black, white	black, white	black, white
Mounting options	wall mount, desk stand	flush, surface, desk stand	flush, surface, desk stand	flush, desk stand
WiFi(802.11bgn)	(optional)	no	no	no
Dimensions WxHxD [mm]	235x165x40	193x157x50	152x153x50	185x128x48.2
POE or 12V power supply	yes	yes	yes	yes
Integrated speaker	2W	2W	2W	2W
Integrated microphone	yes	yes	yes	yes
Digital input (doorbell button)	2	1	1	1
Line out (induction loop)	yes	yes	yes	yes
Digital output, Relay	2; 2	no	no	no

2N® IP Style

Designed to fit modern architecture

The 2N® IP Style is a best-in-class intercom that combines multi-technology access control to suit your needs in both residential and commercial environments. The 10" full-HD touch screen satisfies the most demanding clients. The 5 MPx full-HD camera gives them a sense of safety.

IP ENVIRONMENT

2N® IP Style
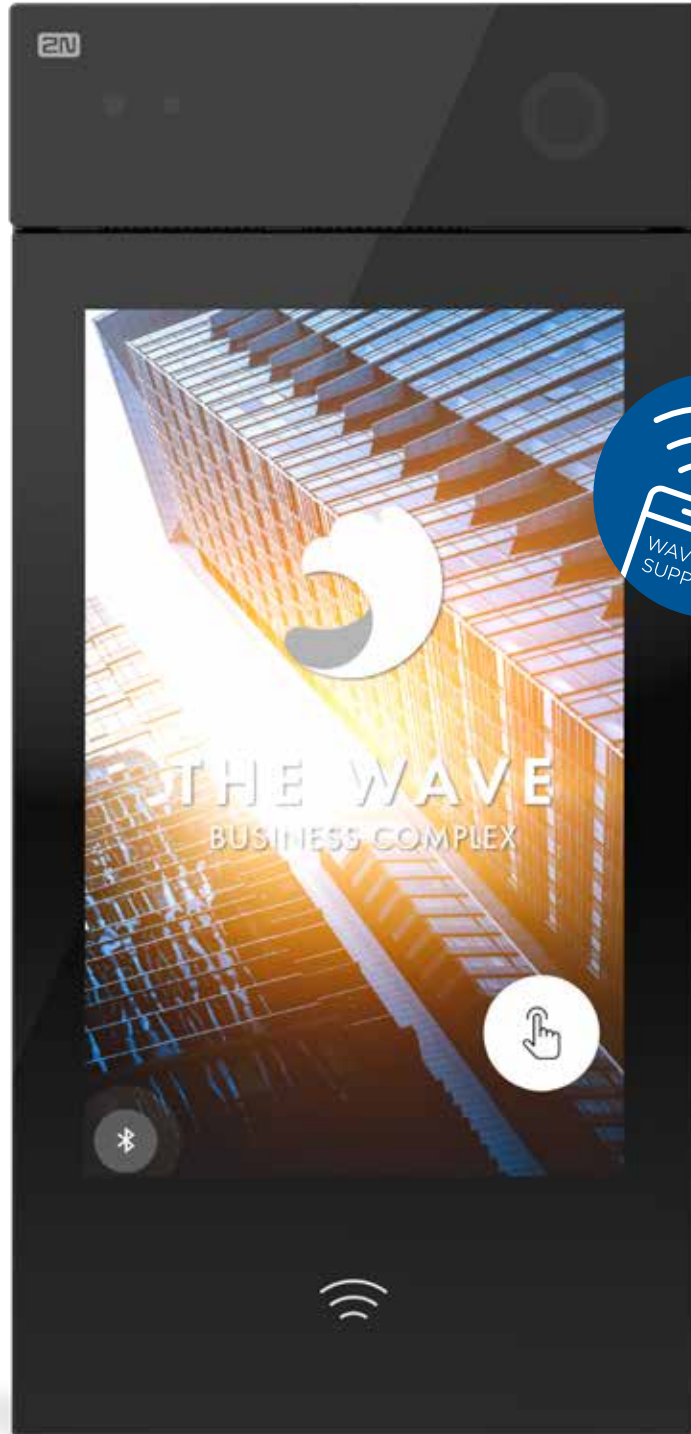
KEY FEATURES

- Designed to fit modern architecture
- Full HD camera with WDR
- Multi-technology access control
- Patented mounting mechanism

reddot winner 2022

iF DESIGN AWARD 2022

RECOMMENDED USES

For convenient entry to residential complexes

This luxury looking intercom with multi-technology access control is a great fit for an equally modern apartment building. The Bluetooth technology lets the residents into their homes not only safely, but also faster and more conveniently than an access card.

As a smart intercom for smart office buildings

10" HD display with a clear list of all companies including their logos, bidirectional video calls with ambient noise, and echo cancellation – this is what 2N® IP Style offers in an office environment. 2 microphones allow the receptionist to identify the newcomer and verify their purpose of arrival.

As a highly desirable security solution

The 5 MPx full HD camera of the intercom makes the 2N® IP Style a fully-fledged addition for any VMS. The intercom camera is conveniently situated, facing the visitor, and it supports WDR. Bad lighting isn't an issue. Take the advantage of ONVIF and RTSP protocols for the integration or another advanced automation feature.

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

UTP

2N® IP STYLE

UTP

2N® INDOOR TOUCH 2.0

LAN/WAN

UTP

IP PBX

IP PHONE

UTP

UTP

PC 2N® ACCESS COMMANDER

WI-FI

TABLET

CCTV
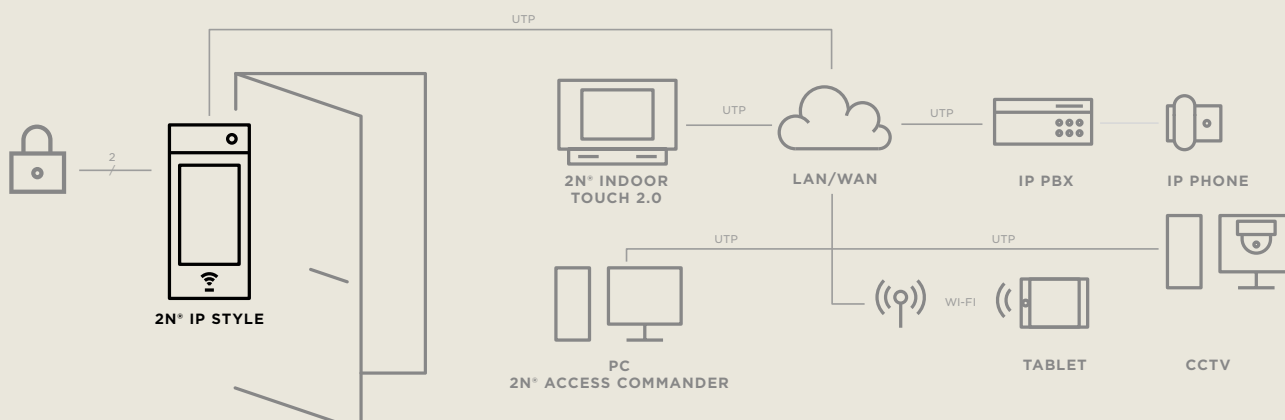
Technical parameters

2N® IP Style

Signalling protocol	
	SIP (UDP, TCP, TLS)
User interface	
Control	High-capacity touchscreen
Display size	10.1"
Display resolution	1280x800 TFT IPS
Display viewing angle	170°
Directory	2 modes: office/residential (10,000 users)
Audio	
Microphone	2 integrated microphones
Speaker	2 x 4 W/ 4 Ω
Amplifier	2 W (class D) amplifier
Sound pressure at 1kHz at 1m distance (SPL max)	85 dB
Output line out	1 VRMS/ 600 Ω
Volume control	Adjustable with automatic adaptive mode
Full duplex	Yes
Audio stream	
Protocols	RTP/RTSP
Codecs	G.711, G.722, G.729, L16/ 16 KHz
Camera	
Sensor	1/2.7" colour CMOS
Video resolution	2560x1920 (4:3); max QHD (16:9)
Frame rate	max 60 fps
Sensitivity	14 000 e⁻/lux-sec
View angle	110° (H), 95° (V), 150° (D)
Infrared light/night vision	Yes
Forensic WDR	Yes
Video stream	
Protocols	RTP/RTSP/HTTP
Codecs	H.264, MJPEG
IP camera function	Yes, ONVIF v2.4 profile S compatible
Interface	
Power supply	12 V ±15 % / 4 A DC or PoE+
PoE	PoE+ IEEE 802.3at (Class 4–25.5 W)
LAN	10/100BASE-TX with Auto-MDIX, RJ-45
Recommended cabling	Cat-5e or higher
Supported protocols	SIP 2.0, DHCP opt.66, SMTP, 802.1x, RTSP, RTP, TFTP, http, HTTPS, Syslog, ONVIF
Active switch output	NO/NC contact, up to 30 V / 1 A AC/DC
Active switch output	12 V / 0.6 A DC
Passive / active input	3; (-30 V to +30 V)
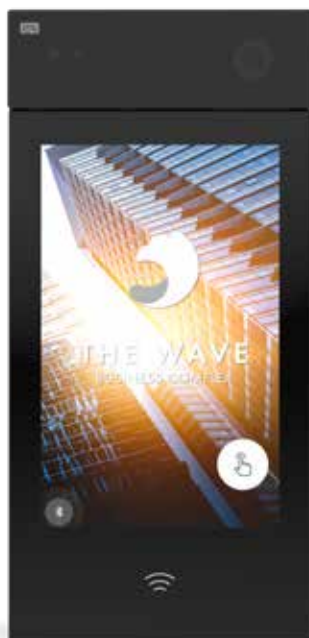
RFID card reader	
Supported frequencies	125 kHz and 13.56 MHz
125kHz	125 kHz EM4xxx
13.56 MHz	ISO14443A, ISO14443B, ISO15693, NFC support
13.56 MHz secured	HID SE (Seos, iClass SE, Mifare SE), HID Prox
Bluetooth	
Version	Bluetooth 5.0 LE compliant
Range	Adjustable (short ~ 0.5m, middle ~ 2m, long ~ up to 10 m)
Security	RSA-1024 and AES-128 encryption
Modes	Touch, Tap in App, Motion, Card
Mobile app support	2N® Mobile Key
Mechanical properties	
Cover	4mm tempered glass
Operating temperature	-30°C to 60 °C
Operating relative humidity	10 % – 95 % (non-condensing)
Storage temperature	-30°C to 70 °C
Surface mounting	170 (W) x 355 (H) x 40 (D) mm
Flush mounting	170 (W) x 355 (H) x 22 (D) mm
Weight	1950 g
Covering level	IP65
Resistance level	IK08

CONNECTION DIAGRAM
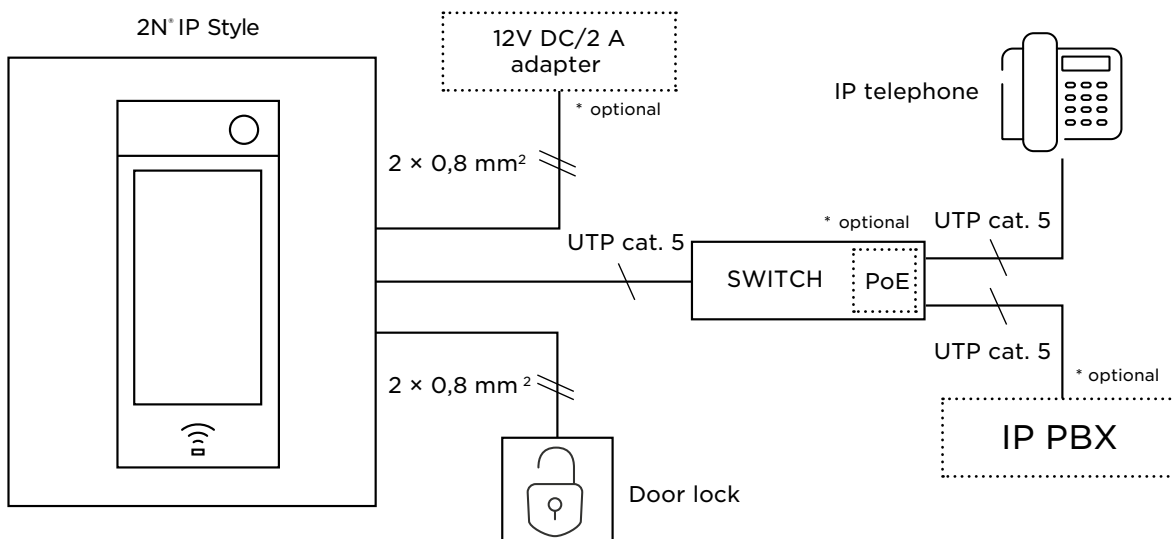
Order numbers

2N® IP Style

Order No.	**9157101**
Name	2N® IP Style
Desc.	main unit with 125 kHz 13.56 MHz RFID reader, Bluetooth, QR codes and virtual keypad

Order No.	**9157101-S**
Name	2N® IP Style
Desc.	main unit with 125 kHz and secured 13.56 MHz RFID reader, Bluetooth, QR codes and virtual keypad

Order No.	**9157002**
Name	Surface-mount box
Desc.	backplate for surface installation

Order No.	**9157001**
Name	Flush-mount box
Desc.	box for installation in the wall

Dimensions and fitting

2N® IP Style

WALL-MOUNTED

355,64 (14.00")

170,64 (6.71")

41,6 (1.63")

FLUSH-MOUNTED WITH BOX

355,64 (14.00")

170,64 (6.71")

60,1 (2.36")

22,6 (0.88")

351 (13.81")
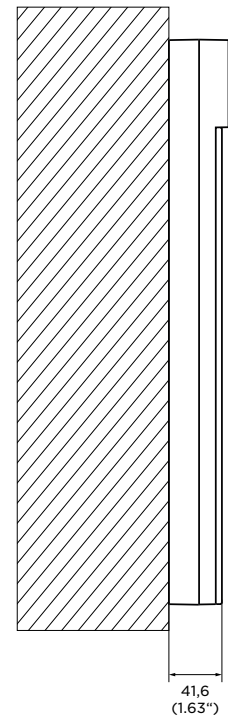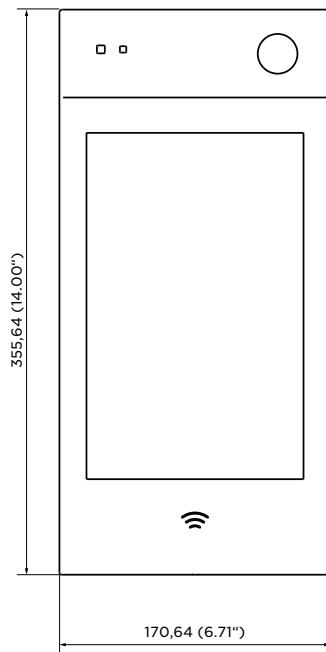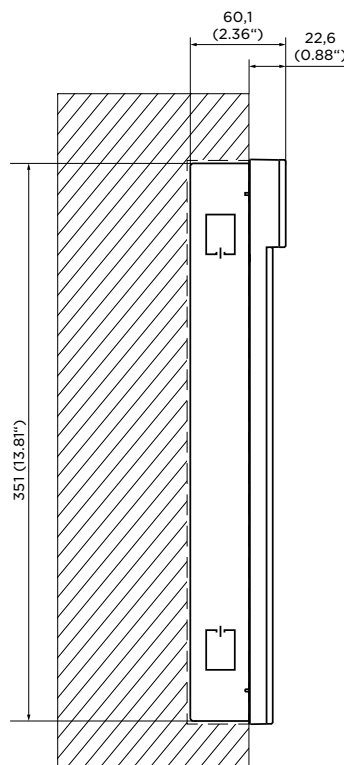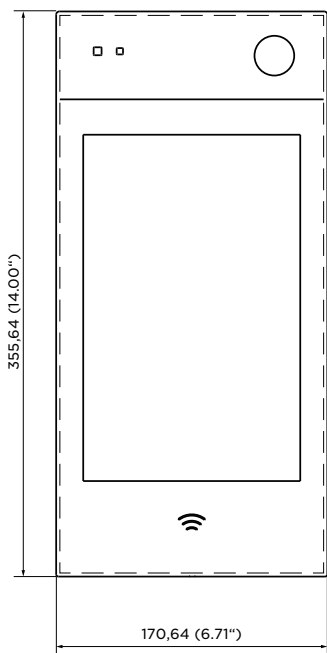
2N® IP Verso

A modular intercom to meet your needs

The 2N® IP Verso security intercom is a super configurable device. Its modular design can meet the needs of any demanding client or project. It provides reliable access control and allows you to easily interface with other systems, achieving even higher site security.

IP ENVIRONMENT

2N® IP Verso

WAVEKEY SUPPORT

KEY FEATURES

- Fully modular IP intercom
- Discrete HD camera
- Mobile access control
- Integration with security systems

reddot design award
winner 2017

RECOMMENDED USES

At the main entrances of residential complexes

A residential complex with tens of apartments might present a nightmare for a visitor. Make it easy for them. An outdoor intercom 2N®IP Verso can be fitted by an intuitive and clearly arranged phonebook to reach the right tenants or a receptionist. A second module combining Bluetooth and RFID technology then makes the access simpler for the residents.

A highly secure office building

The 2N® IP Verso with Touch Keypad & RFID module is a smart addition to your security system. While a receptionist can vet visitors, employees can use a key fob or a PIN to enter the building. What's more, the intercom's camera can stream to a VMS system. An integration with 3rd party systems such as Milestone or Genetec is a matter of course.

A single villa with home automation

If you have a single villa with an implemented home automation system, a luxury 2N® IP Verso with fingerprint reader will be a great solution. Secure the villa's entrance and accomplish a seamless integration with your system. Moreover, the IP intercom allows calling to smartphones and can open doors to visitors remotely.

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

UTP

2N® IP VERSO

2N® INDOOR TOUCH 2.0

LAN/WAN

IP PBX

IP PHONE

UTP   UTP

PC
2N® ACCESS COMMANDER

WI-FI

TABLET

CCTV

UTP   UTP
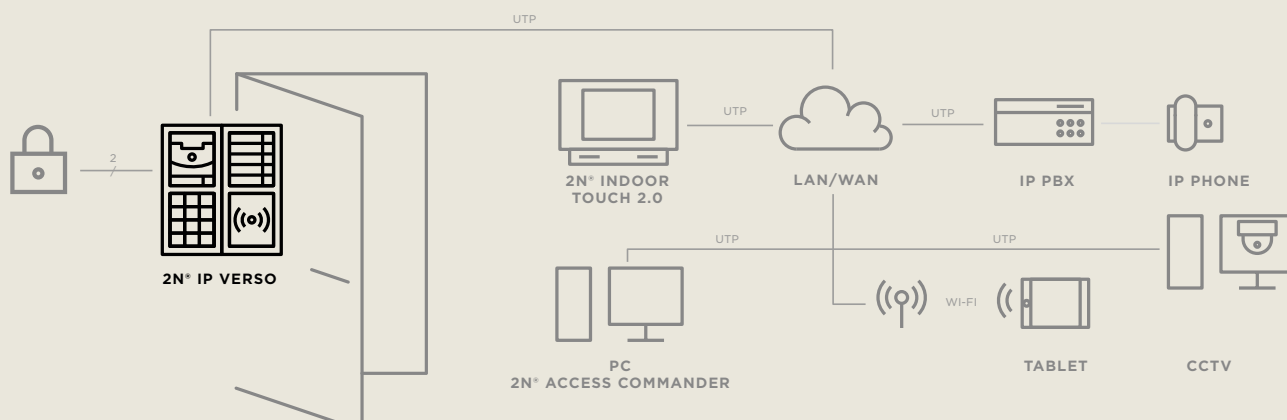
Technical parameters

2N® IP Verso

Signalling protocol	
	SIP (UDP, TCP, TLS)
Buttons	
Button design	White-backlit transparent buttons with replaceable nametags
Button count	1 and increments of 5 (max 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, L16/16kHz
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	128° (H), 95° (V), 134° (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 v2.4 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, ONVIF
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		
Supported frequencies	125kHz and 13.56MHz	
Supported cards	125 kHz:	EM4100, EM4102, HID Proximity
	13.56 MHz:	ISO14443A, ISO14443B, ISO15693, NFC support
		reads UID (CSN)
		reads PACs ID (iCLASS SIO-enabled cards) - only secured cards
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
Operating temperature	-40 °C – 60 °C
Operating relative humidity	10% – 95% (non-condensing)
Storing temperature	-40 °C –70 °C
Covering level	IP54
Resistance level	IK08, Touch Display module IK07

Dimensions	
Surface mounting frame	1 module: 107 (W) × 130 (H) × 28 (D) mm
	2 modules: 107 (W) × 234 (H) × 28 (D) mm
	3 modules: 107 (W) × 339 (H) × 28 (D) mm
Flush mounting frame	1 module: 130 (W) × 153 (H) × 5 (D) mm
	2 modules: 130 (W) × 257 (H) × 5 (D) mm
	3 modules: 130 (W) × 361 (H) × 5 (D) mm
Flush mounting box (minimum hole dimensions)	1 module: 108 (W) × 131 (H) × 45 (D) mm
	2 modules: 108 (W) × 238 (H) × 45 (D) mm
	3 modules: 108 (W) × 343 (H) × 45 (D) mm
Weight	From 2kg, based on configuration

CONNECTION DIAGRAM
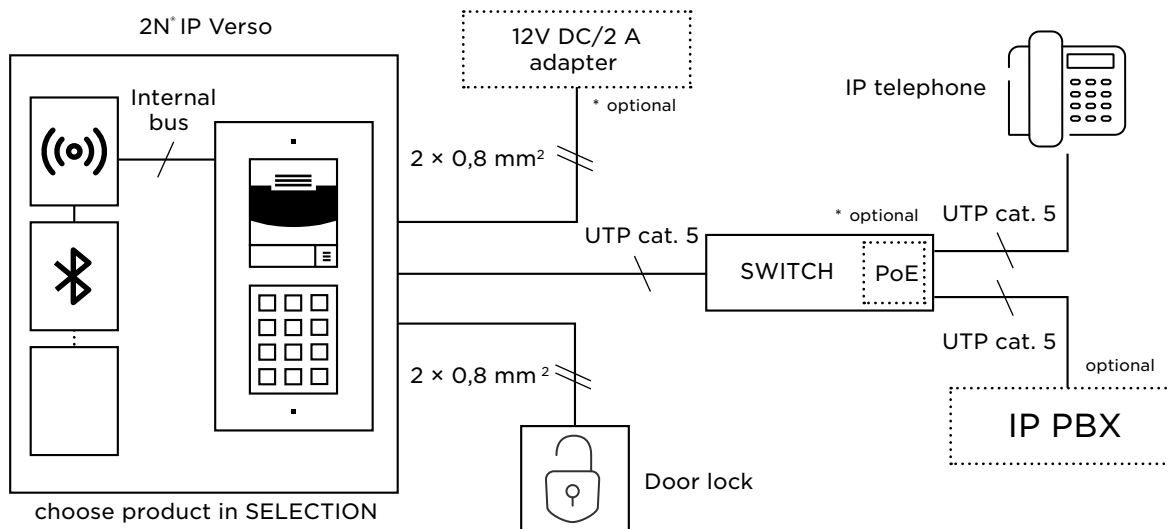
Order numbers

Main unit and modules

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

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

Order No.	**9155036**
Name	Touch Display module
Desc.	module for 2N® IP Verso, tree-structured phone book, touch keypad
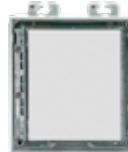
Order No.	**9155030**
Name	Infopanel module
Desc.	module for 2N® IP Verso, backlit

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, capacitive touchscreen regular automatic calibration

Order No.	**9155031/ 9155031B**
Name	Keypad module nickel/black
Desc.	module for 2N® IP Verso, mechanical keypad, backlit symbols
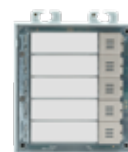
Order No.	**9155035**
Name	5 Buttons module
Desc.	module for 2N® IP Verso, quick dial buttons

Order No.	9155032/ 91550941US
Name	RFID Card Reader module, 125kHz
Desc.	xx41US reads even HID Proximity cards

Order No.	91550942/ 9155086
Name	RFID Card Reader module, 13.56MHz, NFC ready
Desc.	xx86 - secured 13.56MHz

Order No.	9155082
Name	Bluetooth & RFID module
Desc.	125kHz, 13.56MHz, NFC ready, Bluetooth 4.0

Order No.	9155084
Name	Bluetooth & RFID module
Desc.	125kHz, secured 13.56MHz, NFC ready, Bluetooth 4.0

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.	9155041
Name	Induction Loop module
Desc.	module for 2N® IP Verso, audio signal directly into a hearing aid

Order No.	9155039
Name	Blind Panel 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.	9155037
Name	Wiegand module
Desc.	module for 2N® IP Verso, installed under another module, for interconnection of systems

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

Order No.	9155198SET
Name	Security Bundle for 2N® IP/LTE Verso
Desc.	includes Tamper switch, I/O module and 2N® Security Relay

Order No.	915500371
Name	OSDP
Desc.	Connects the 2N IP intercom reader to a third-party access control system

WAVEKEY SUPPORT

Frames

Order No.	**9155011/ 9155011B**
Name	1 module flush frame nickel / black
Desc.	frame for installation in the wall, 1 module

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

Order No.	**9155012/ 9155012B**
Name	2 module flush frame nickel / black
Desc.	frame for installation in the wall, 2 modules

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

Order No.	**9155013/ 9155013B**
Name	3 module flush frame nickel / black
Desc.	frame for installation in the wall, 3 modules

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

Backplates and boxes

Order No.	**9155061**
Name	1 module backplate
Desc.	backplate for installation on glass or uneven surface, 1 module

Order No.	**9155062**
Name	2 modules backplate
Desc.	backplate for installation on glass or uneven surface, 2 modules

Order No.	**9155063**
Name	3 modules backplate
Desc.	backplate for installation on glass or uneven surface, 3 modules

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

Order No.	**9155067**
Name	3 (w) x3 (h) modules backplate
Desc.	backplate for installation on glass or uneven surface, 3x3 modules
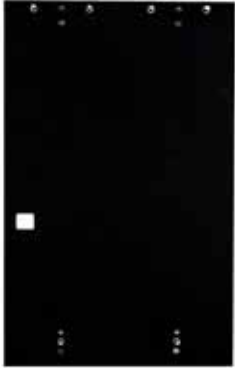
Order No.	9155066
Name	2 (w) x3 (h) modules backplate
Desc.	backplate for installation on glass or uneven surface, 2x3 modules

Order No.	9155065
Name	3 (w) x2 (h) modules backplate
Desc.	backplate for installation on glass or uneven surface, 3x2 modules

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

Order No.	9155072
Name	Wedge Backplate
Desc.	angle 25°, only for surface installation of 2N® IP/LTE Verso double-modules

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
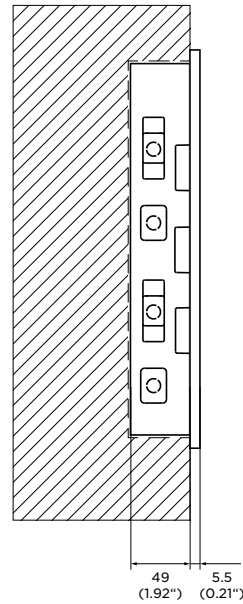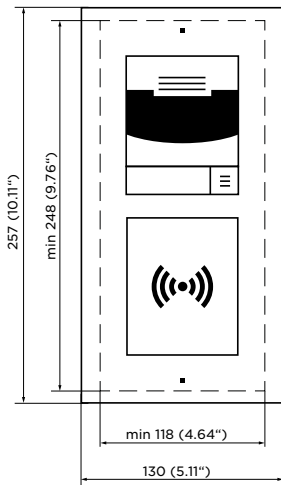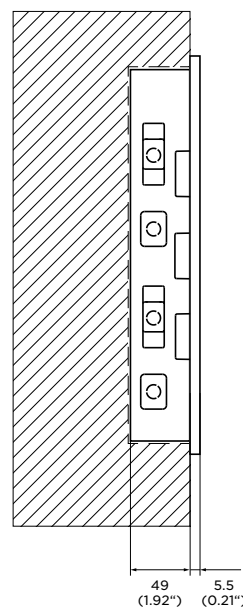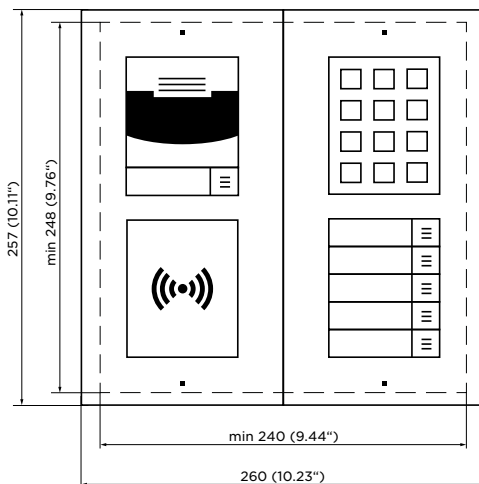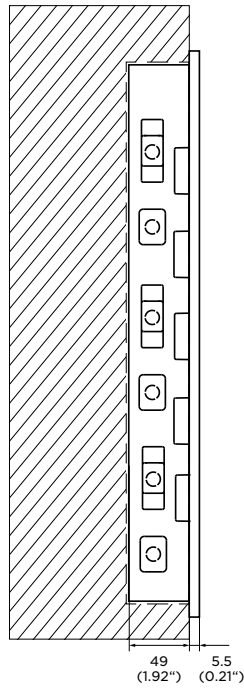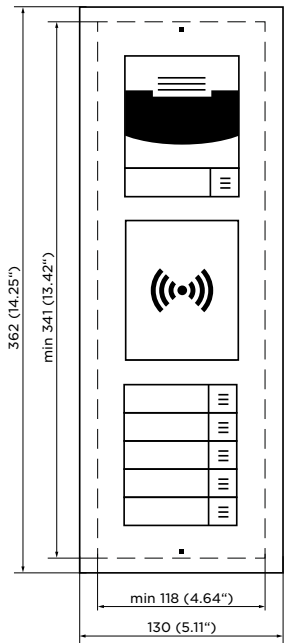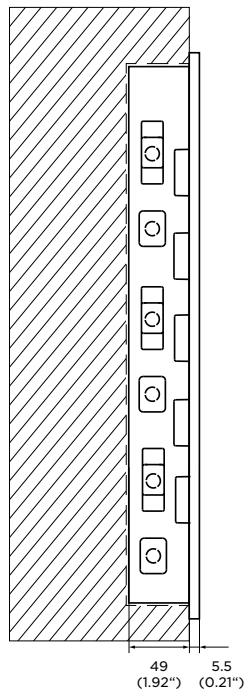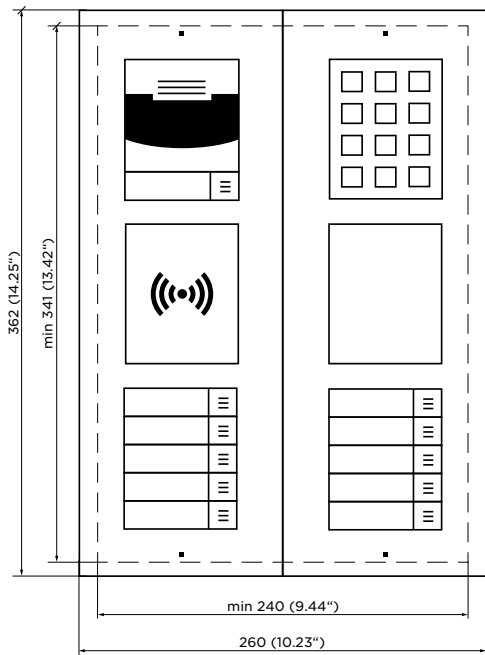
257 (10.11")
min 248 (9.76")
min 118 (4.64")
130 (5.11")

49 (1.92")
5.5 (0.21")

2× IN-WALL 2 MODULES

257 (10.11")
min 248 (9.76")
min 240 (9.44")
260 (10.23")

49 (1.92")
5.5 (0.21")

IN-WALL 3 MODULES

362 (14.25")
min 341 (13.42")
min 118 (4.64")
130 (5.11")

49 (1.92")   5.5 (0.21")

2× IN-WALL 3 MODULES

362 (14.25")
min 341 (13.42")
min 240 (9.44")
260 (10.23")

49 (1.92")   5.5 (0.21")

WALL-MOUNTED 2 MODULES

234,1 (9.21")

106,5 (4.19")

27,45 (1.08")

2× WALL-MOUNTED 2 MODULES

234,1 (9.21")

213,5 (8.40")

27,45

WALL-MOUNTED 3 MODULES

338,8 (13.33")

106,5 (4.19")

27,45 (1.08")

2× WALL-MOUNTED 3 MODULES

338,8 (13.33")

213,5 (8.40")

27,45

WALL-MOUNTED 1 MODULE

130 (5.11")

106,5 (4.19")

27,45 (1.08")

IN-WALL 1 MODULE

153 (6.02")

min 136 (5.35")

min 108 (4.25")

130 (5.11")

45 (1.77")

6.5 (0.25")
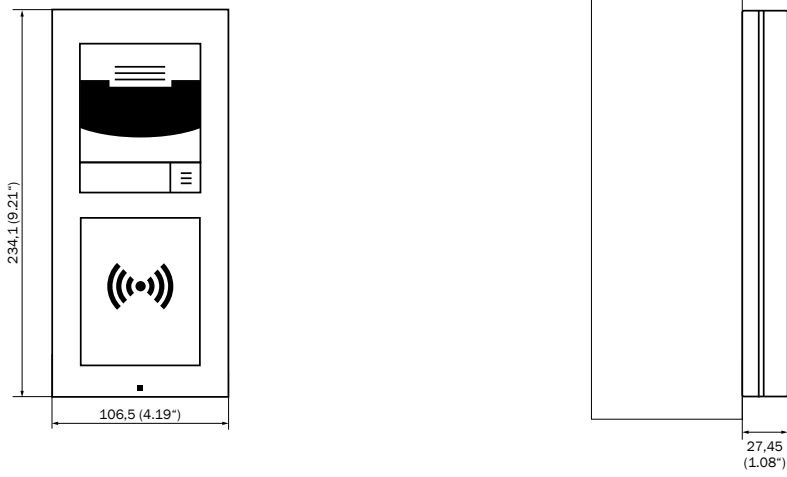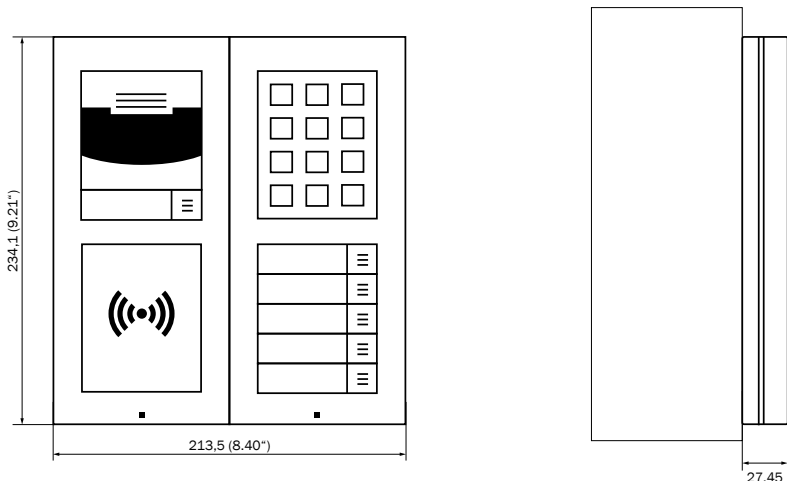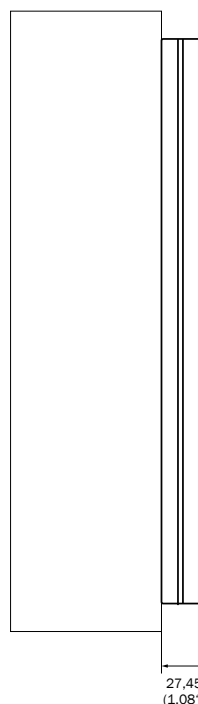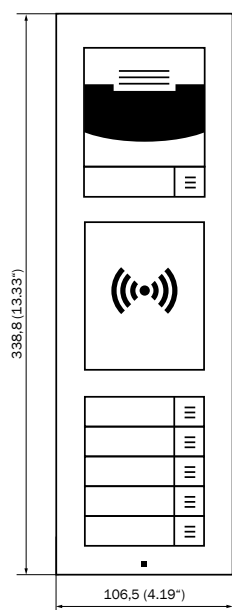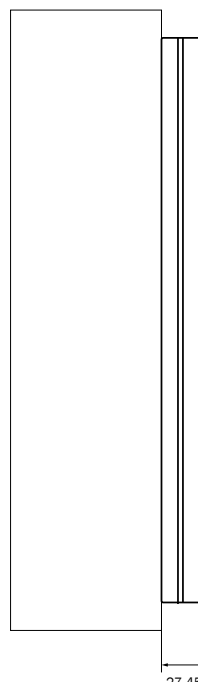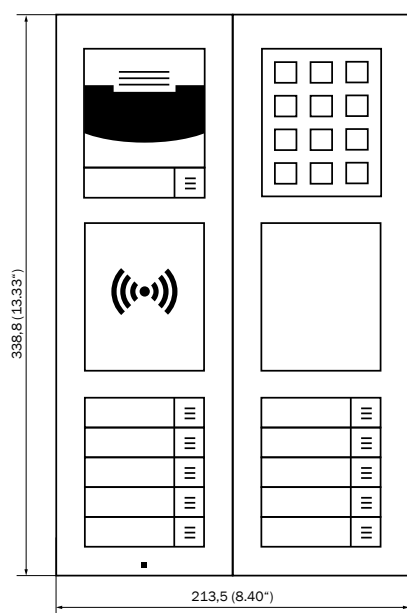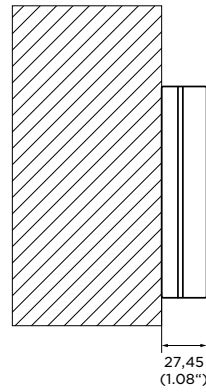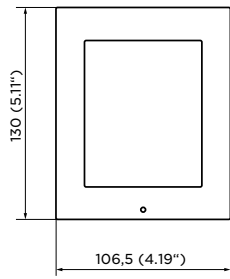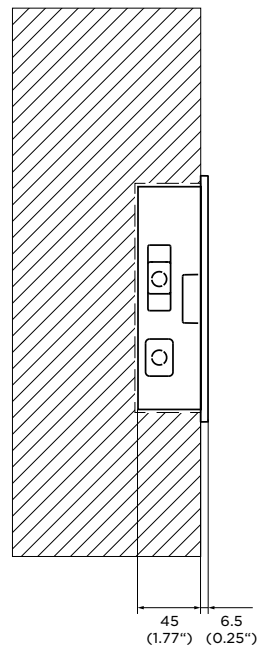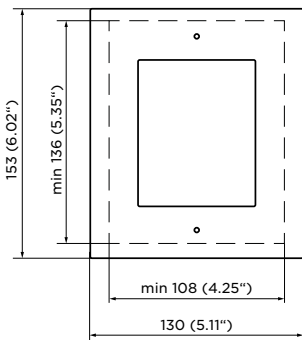
2N® IP Force

A door guard for extreme conditions

The 2N® IP Force is an extremely durable IP intercom that can withstand even the most demanding conditions. It allows for rigorous visitor communication monitoring and access control. Benefit from its advanced features for maximum, superior site security.

IP ENVIRONMENT

2N® IP Force

KEY FEATURES

- • Built for extreme conditions
- • Professional night vision
- • Clear sound in noisy environments
- • The most durable intercom on the market

RECOMMENDED USES

For communication at school entrances

Schools are not only there to impart knowledge to our children but also to keep children safe. With this in mind, 2N offers a door intercom that not only secures the school entrance, but allows for clear communication with all visitors.
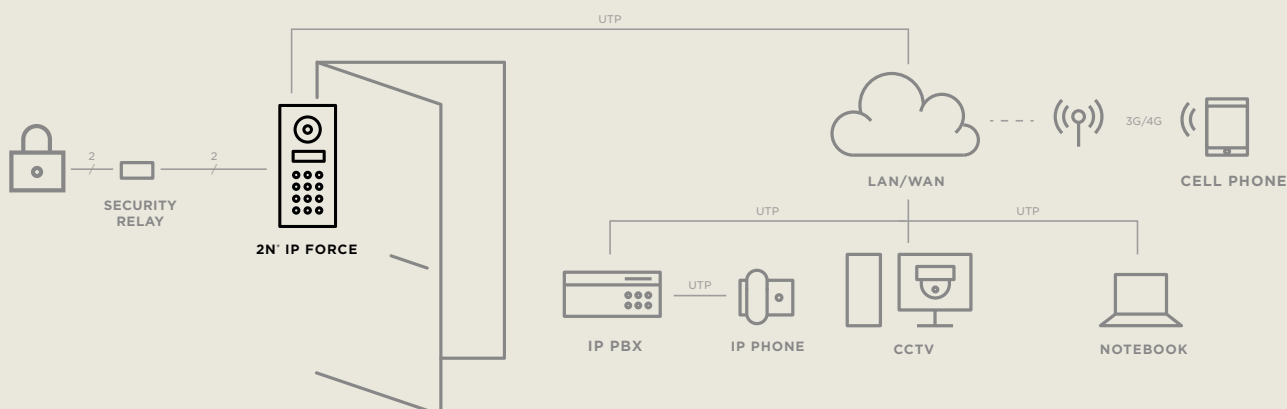
For secure detention centres

All communication and surveillance systems in detention centres must be highly reliable, durable and guarantee a maximum protection and security for wardens as well as prisoners.
The 2N® IP Force more than meets this requirement as the toughest intercom on the market.

For communication in parking lots

Want to avoid queues when people cannot enter or leave the parking place? The 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

UTP

SECURITY RELAY

2N® IP FORCE

LAN/WAN

3G/4G

CELL PHONE

UTP

UTP

IP PBX

UTP

IP PHONE

CCTV

NOTEBOOK

Technical parameters

2N® IP Force

Signalling protocol	
	SIP (UDP, TCP, TLS)
Buttons	
Button design	Transparent buttons with white backlighting and nameplate which can be easily replaced
Button count	1, 2 or 4
Numerical keypad	Optional
Audio	
Microphone	2 integrated microphones
Amplifier	10 W (class D)
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, L16/16kHz
Camera HD / SD	
Sensor	1/3'' colour CMOS / 1/4'' colour CMOS
JPEG resolution	1280 (H) x 960 (V) / 640 (H) × 480 (V)
Video resolution	640 (H) × 480 (V)
Frame rate	Up to 30 snapshots/s
Sensor sensitivity	5.6 V/lux-sec (550 nm) / 1.9 V/lux-sec (550 nm)
View angle	135° (H), 109° (V)
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 v2.4 profile S compatible
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 higher
Passive switch	NO and NC contacts, max. 30 V/1A AC/DC
Active switch output	9 up to 13 V DC depending on power supply, max. 700 mA
RFID card reader	
Supported frequencies	125kHz and 13.56MHz
	125 kHz: EM4100, EM4102, HID Proximity
	13.56 MHz: ISO14443A, ISO14443B, ISO15693, NFC support
	: reads UID (CSN)
	: reads PACs ID (iCLASS SIO-enabled cards) - only secured cards

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
Covering level	IP69K
Resistance level	IK10

CONNECTION DIAGRAM
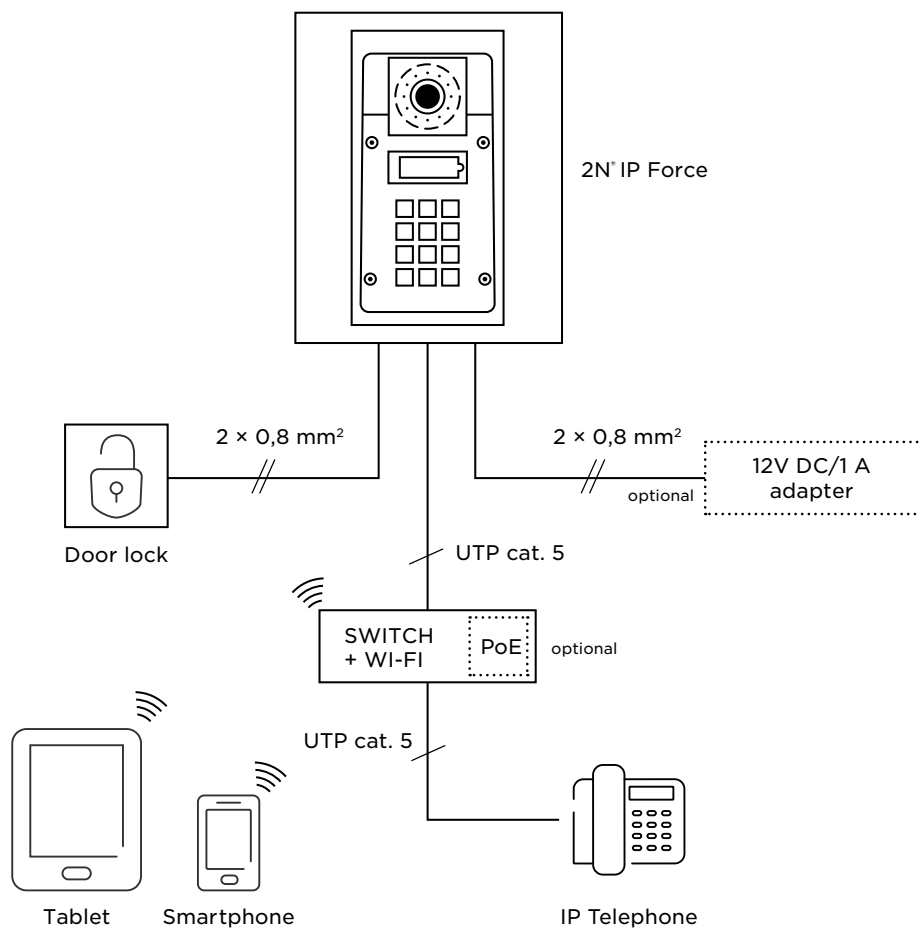
Order numbers

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 ready, 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.	**9151031**
Name	2N® IP Force, 13.56MHz RFID
Desc.	NFC ready, Wiegand interface

Order No.	**9151031S**
Name	2N® IP Force, 13.56MHz secured RFID
Desc.	NFC ready, Wiegand interface

Order No.	**9151010**
Name	2N® IP Force/Safety, Additional Switch
Desc.	additional input and output relays, tamper switch

Order No.	**9151198SET**
Name	Security Bundle for 2N® IP Force
Desc.	includes additional switch and 2N® Security Relay

Order No.	**9151021**
Name	Induction Loop
Desc.	Transfers audio from the intercom to the person who is wearing a hearing aid

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

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 Force

MOUNTING IN PLASTERBOARD

243,5 (9.58")

135,3 (5.32")

237 (9.33")

125 (4.92")

12,5 (0.49")

12 (0.47")

WALL-MOUNTED

217 (8.54")

110 (4.33")

83,1 (3.27")

FLUSH-MOUNTED WITH BOX

243,5 (9.58")

135,3 (5.32")

230 (9.05")

85 (3.34")

12 (0.47")

230 (9.05")

125 (4.92")
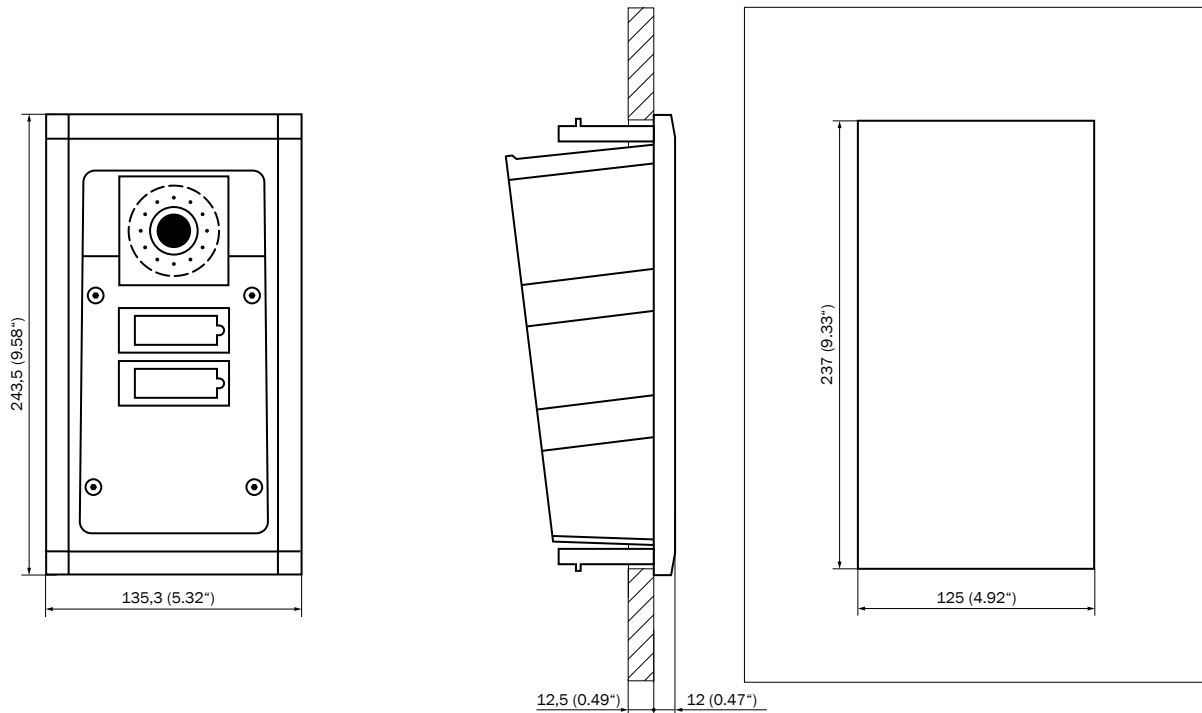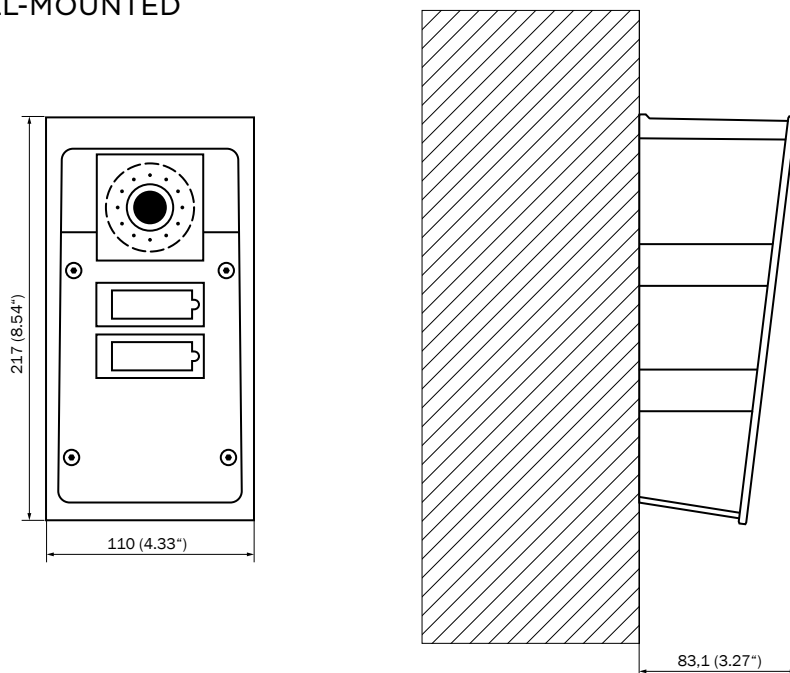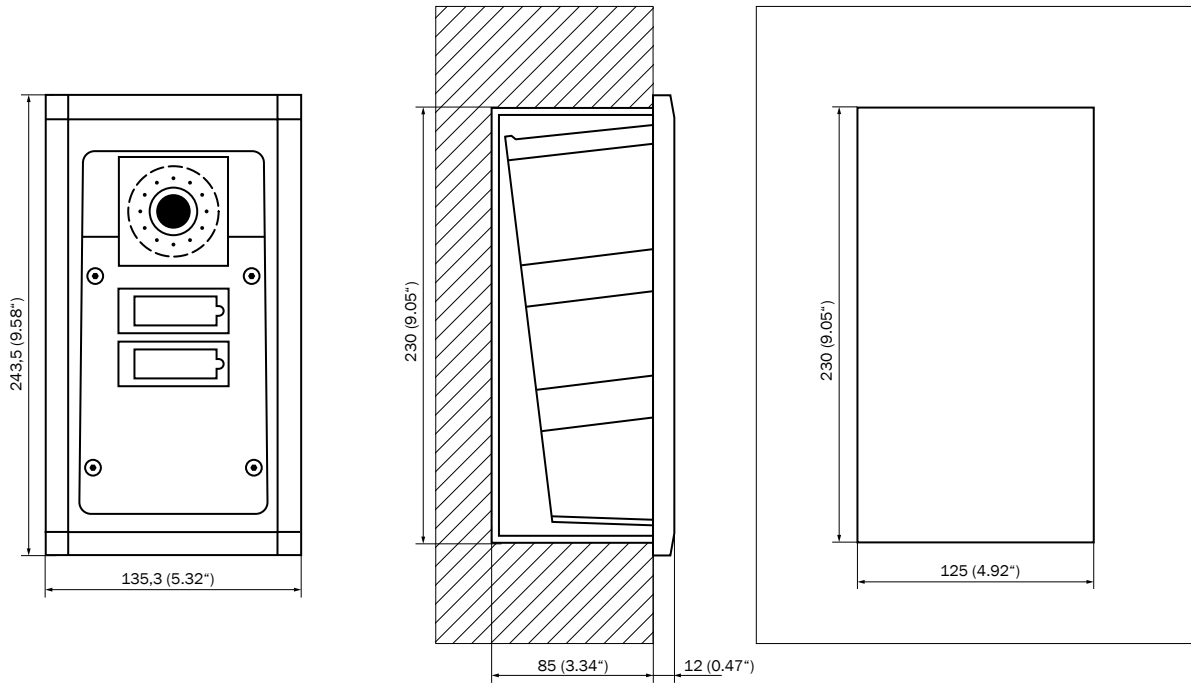
2N® IP Solo

Makes the entrance a part of any smart home

A compact IP intercom that's a great addition to your smart home's entrance. Despite only having one fitted button, it can still astonish you with its hidden HD camera, multiple functionalities including calls to your smartphone, and easy integration into the existing home automation system.

IP ENVIRONMENT

2N® IP Solo

KEY FEATURES

- Entrance to your smart home
- Sharp video quality day and night
- Integration with Home Automation
- Tailored for the residential market

RECOMMENDED USES

As a doorbell for smart homes

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

As an accessory for the villa entrance

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

Communication in office buildings

The 2N® IP Solo is also perfectly suited for indoor office buildings where an intercom is only required for communication, as there is an existing access system in the building. An example would be the entrance from the staircase or the entrance to the reception on a given floor.

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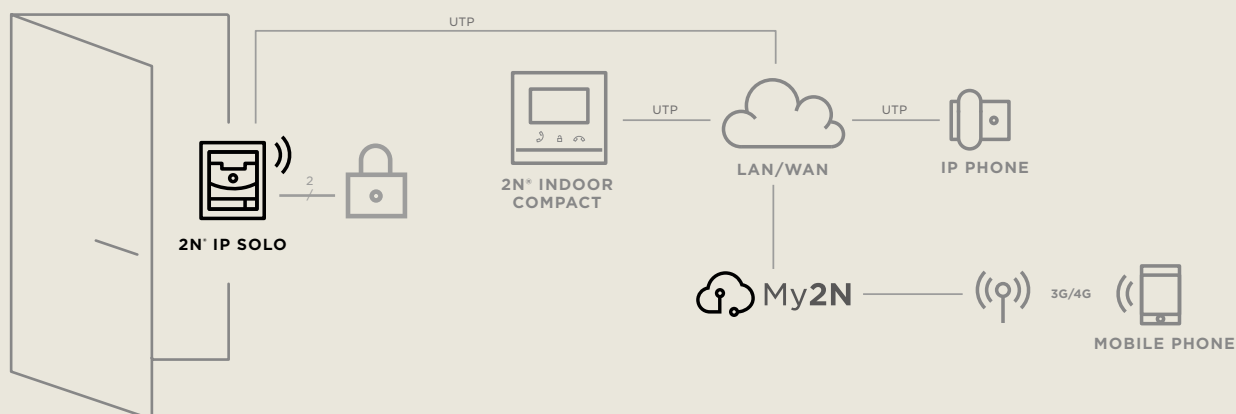
Technical parameters

2N® IP Solo

Signalling protocol	
	SIP (UDP, TCP, TLS)
Buttons	
Button design	White-backlit transparent button with replaceable nametag
Button count	1
Audio	
Microphone	1 integrated microphone
Amplifier	2 W (class D)
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.729, G.722, L16/16kHz
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	128° (H), 95° (V), 134° (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 v2.4 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, ONVIF
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
Operating temperature	-40 °C – 60 °C
Operating relative humidity	10% – 95% (non-condensing)
Storing temperature	-40 °C –70 °C
Covering level	IP54
Resistance level	IK08
Dimensions	
Surface mounting frame	1 module: 107 (W) × 130 (H) × 28 (D) mm
Flush mounting frame	1 module: 130 (W) × 153 (H) × 5 (D) mm
Flush mounting box (minimum hole dimensions)	1 module: 108 (W) × 131 (H) × 45 (D) mm

CONNECTION DIAGRAM
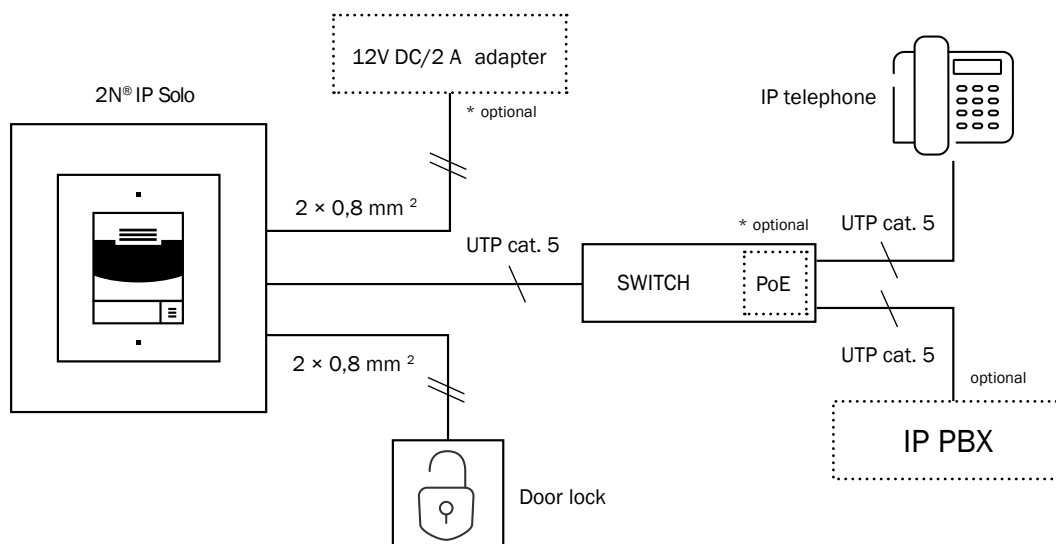
Order numbers

2N® IP Solo

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

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

Order No.	**9155301F/ 9155301BF**
Name	2N® IP Solo without camera, nickel/black
Desc.	unit for flush installation, in nickel and black colour

Order No.	**9155301S/ 9155301BS**
Name	2N® IP Solo without camera, nickel/black
Desc.	unit for surface installation, in nickel 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

Order No.	**9155071**
Name	Wedge backplate
Desc.	angle 25°, for surface installation only

Order No.	**9155074**
Name	Glass mount
Desc.	for installation on a glass surface, must be combined with 9155068

Dimensions and fitting

2N® IP Solo

WALL-MOUNTED

130 (5.11")

106,5 (4.19")

27,45 (1.08")

FLUSH-MOUNTED

153 (6.02")

min 136 (5.35")

min 108 (4.25")

130 (5.11")

45 (1.77")

6.5 (0.25")
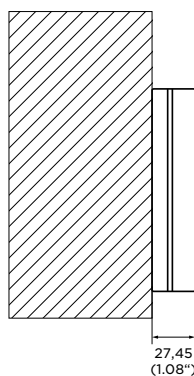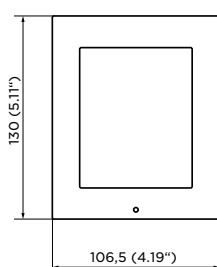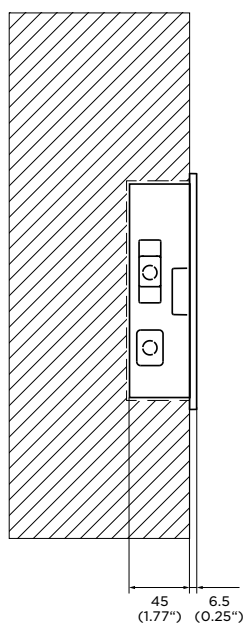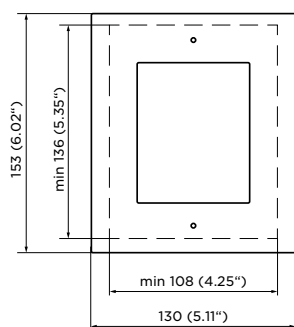
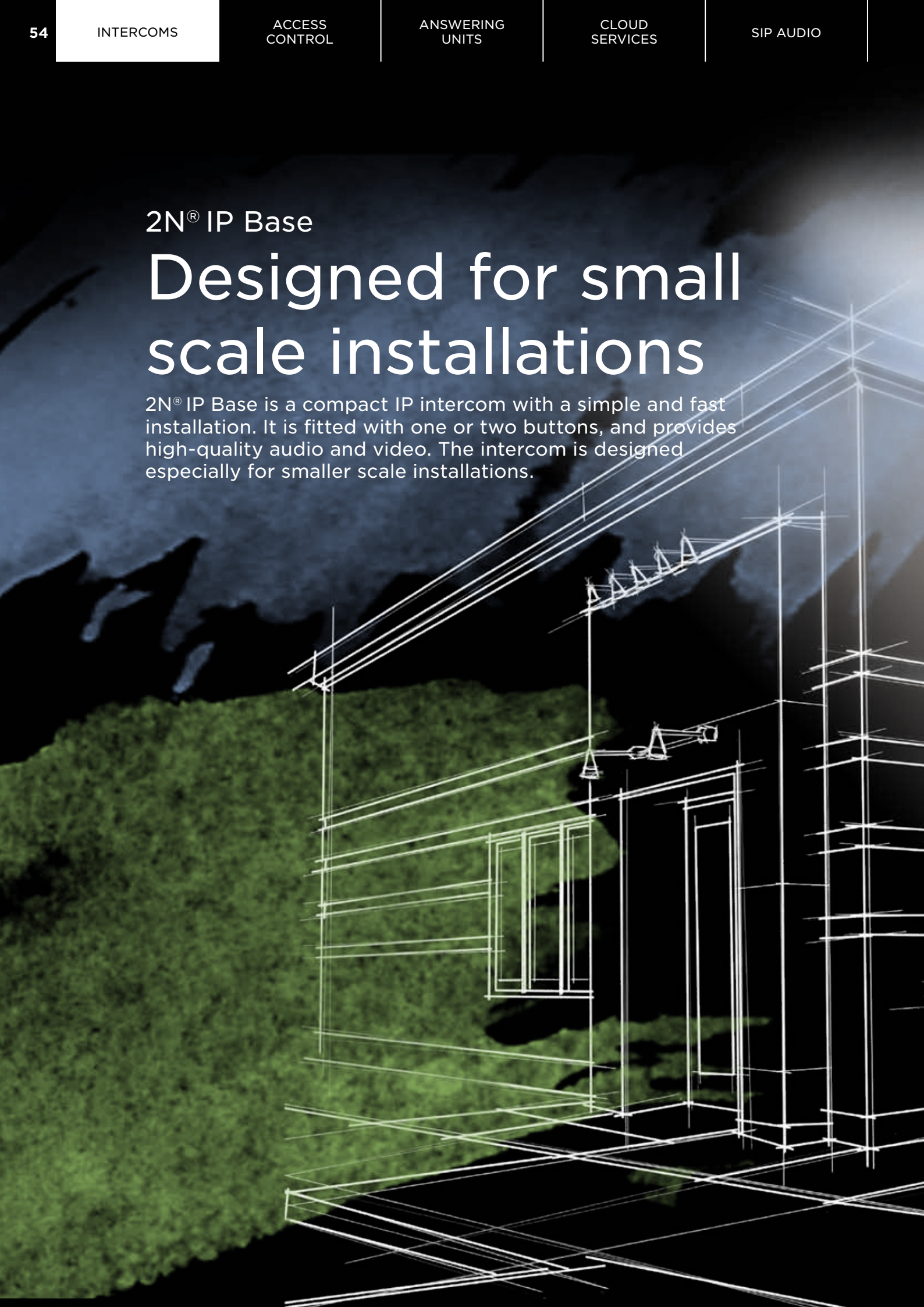## 2N® IP Base

Designed for small scale installations

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

IP ENVIRONMENT

2N® IP Base

KEY FEATURES

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

RECOMMENDED USES

For door communication in 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 only the authorized people to get in. Despite its simplicity and easy mounting, it presents an efficient access control solution.

As an entry level intercom for the residential market

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

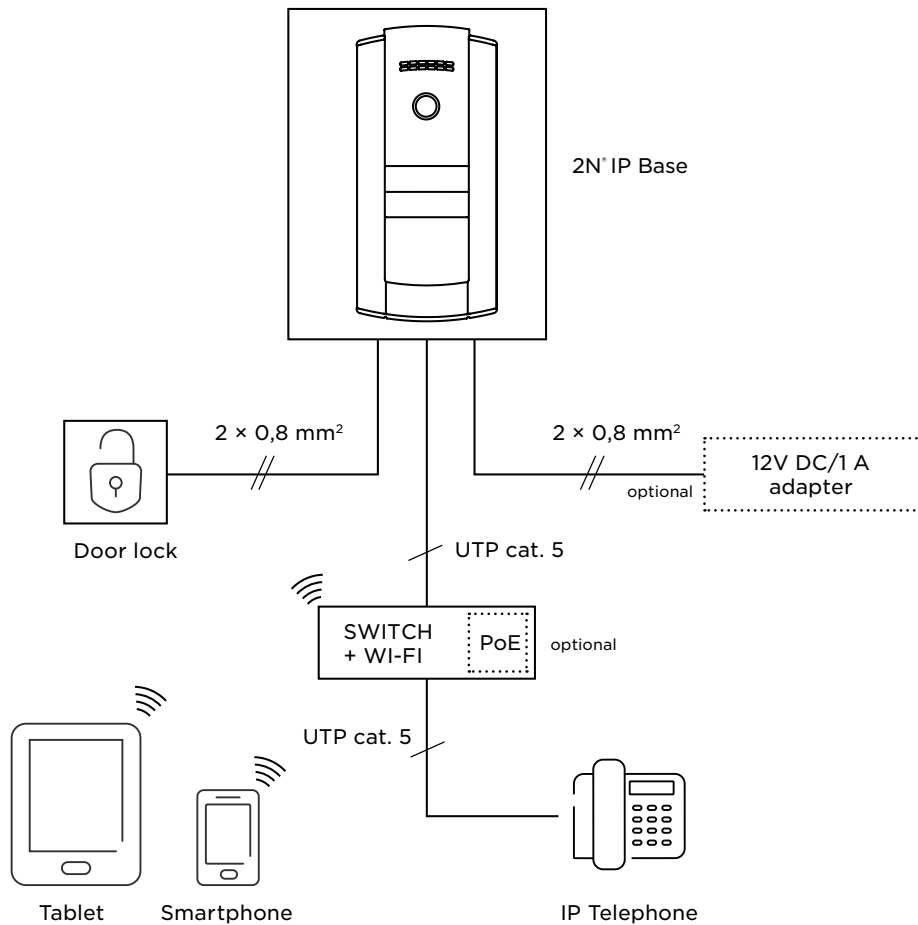## EXAMPLE OF CONNECTION OF 2N® IP BASE IN RESIDENTIAL ENVIRONMENT

UTP

2N® IP BASE

2N® INDOOR TALK

UTP

LAN/WAN

UTP

IP PHONE

My2N — 3G/4G — **MOBILE PHONE**
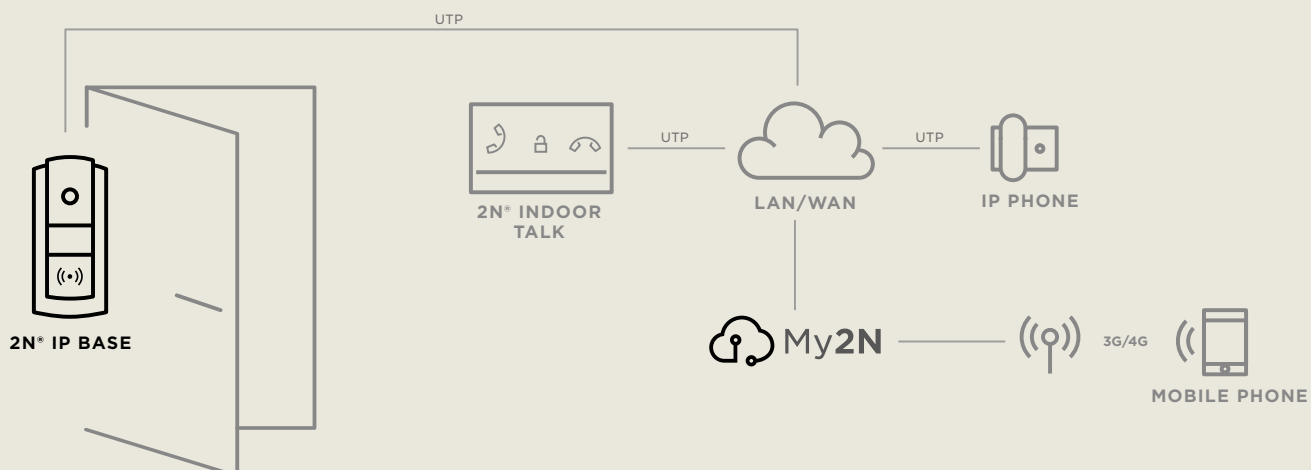
Technical parameters

2N® IP Base

Signalling protocol	
	SIP (UDP, TCP, TLS)
Buttons	
Button design	White-backlit transparent buttons with replaceable nametags
Button count	1 or 2 (both options included in the package)
Audio	
Microphone	1 integrated microphone
Amplifier	2 W (class D)
Speaker	2 W / 8 Ω
Volume control	Adjustable with automatic adaptive mode
Full duplex	Yes (AEC)
Audio stream	
Protocols	RTP
Codecs	G.711, G.729, G.722, L16/16 kHz
Camera	
Sensor	1/3" colour CMOS
JPEG resolution	Up to 1280 (H) x 960 (V)
Video resolution	640 (H) x 480 (V)
Frame rate	Up to 30 snapshots/s
Sensor sensitivity	5.6 V/lux-sec (550 nm)
Viewing angle	135 ° (H), 109 ° (V), 141 °(D)
Infrared light	No
Video stream	
Protocols	RTP/RTSP/HTTP
Codecs	H.263, H.263+, H.264, MPEG-4, M-JPEG
IP camera function	yes, ONVIF v2.4 profile S compatible
Interface	
Power supply	12 V ±15 % / 2 A 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 higher
Supported protocols	SIP2.0, RTP, HTTP, HTTPS, Syslog, ONVIF
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 600 mA
RFID card reader	
Supported frequencies	125kHz and 13.56MHz
125 kHz:	EM4100, EM4102, HID Proximity
13.56 MHz:	ISO14443A, ISO14443B, ISO18092
:	reads UID (CSN)

Mechanical properties	
Cover	Robust aluminium casting with surface finish
Operating temperature	−40 °C – 55 °C
Operating relative humidity	10 % – 95 % (non-condensing)
Storing temperature	−40 °C – 70 °C
Weight	Max net weight: 1 kg
Covering level	IP65
Resistance level	IK 7
Dimensions	229 (W) x 109 (H) x 31 (H) mm

CONNECTION DIAGRAM

2N° IP Base

2 × 0,8 mm²

2 × 0,8 mm²

optional

12V DC/1 A adapter

Door lock

UTP cat. 5

SWITCH + WI-FI

PoE

optional

UTP cat. 5

Tablet   Smartphone

IP Telephone

Order numbers

2N® IP Base

Order No.	**9156111CB**
Name	2N® IP Base, with frame
Desc.	main unit with black frame, HD camera

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

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

Dimensions and fitting

2N® IP Base

WALL-MOUNTED

228,5 (8.99")

108,5 (4.27")

30,75 (1.21")
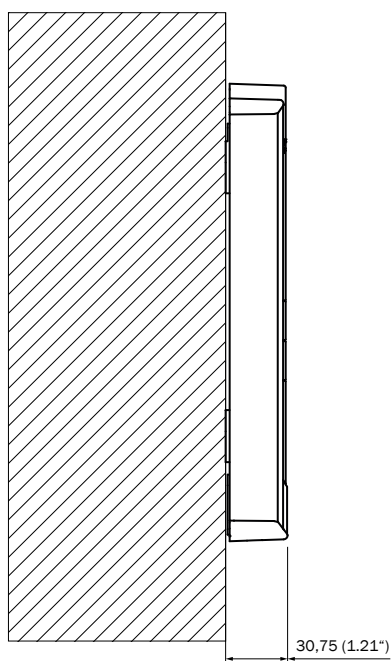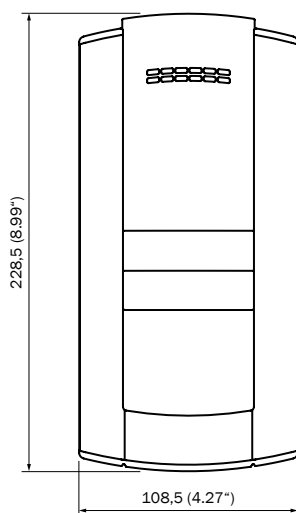
2N® IP Safety

A highly visible aid when you're in distress

2N® IP Safety is a first-class security intercom designed for emergency communication. 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 locate in a poor visibility.

IP ENVIRONMENT

2N® IP Safety

KEY FEATURES

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

RECOMMENDED USES

To make cities safer

2N® IP Safety with its bright colour is a reliable emergency communicator that can be installed on custom posts within a city to provide safety to its inhabitants and tourists. Also integrate it also with VMS and public address systems. The external camera zooms in on the area and the speaker can immediately sound a safety warning.

On roads & highways

Accidents can easily happen on highways and therefore emergency communicator must be in place. This is where 2N® IP Safety comes into its own. Due to its IP nature, remote control and a regular audio loop test, attendants in a dispatching centre always know that drivers on highways can reach out for help anytime.

In industrial enviroments

In critical situations, 100% reliability and simple operation is a must. In case of an industrial incident, this IP intercom can halt the entire production line and simultaneously send an alert to a control centre. Using the stream from external cameras, it it's also possible to manage the situation and get back on track in no time.

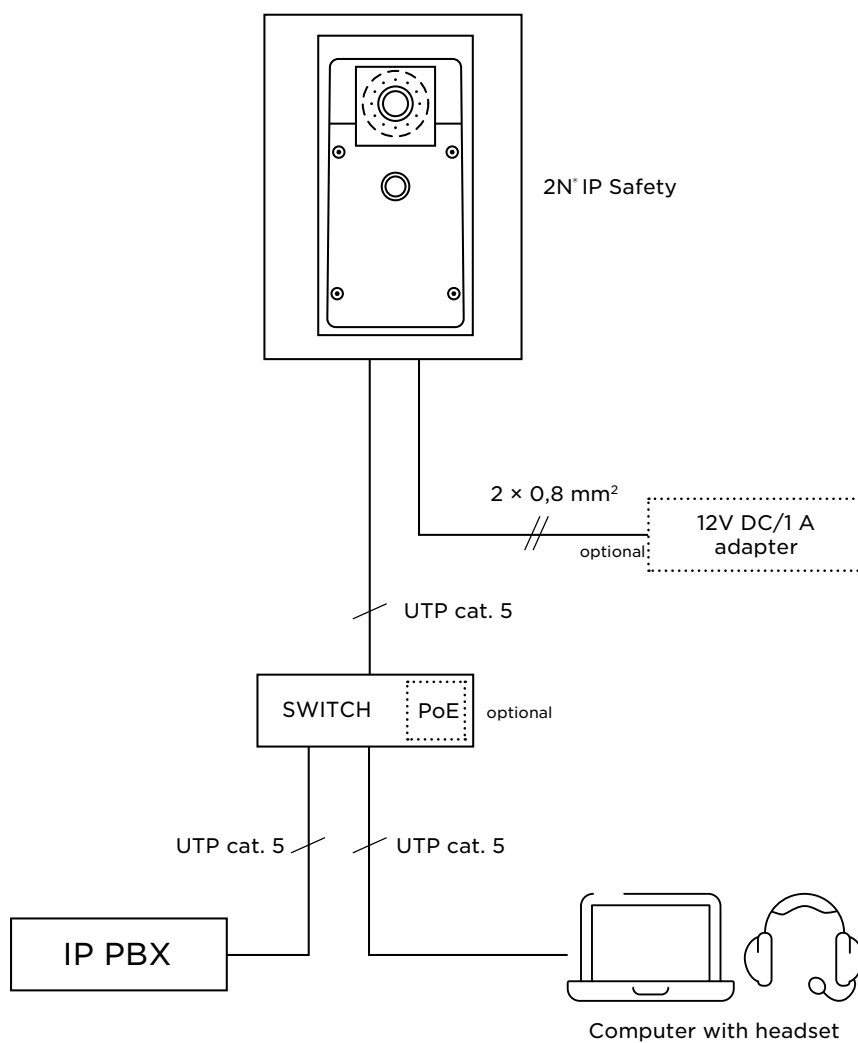## EXAMPLE OF CONNECTION OF 2N® IP SAFETY ON MOTORWAY

UTP

S.O.S

2N® IP SAFETY

LAN/WAN

UTP

IP PHONE

NOTEBOOK
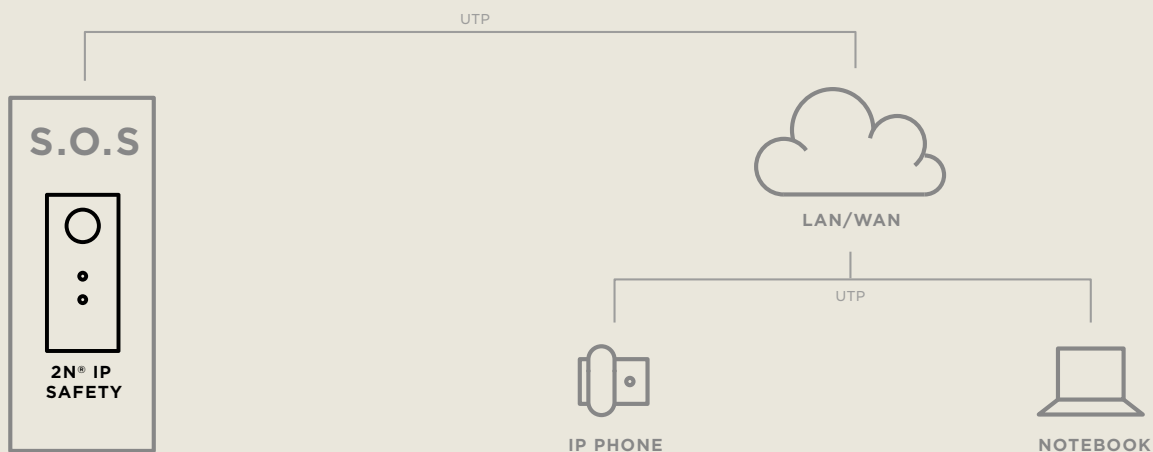
Technical parameters

2N® IP Safety

Signalling protocol	
	SIP (UDP, TCP, TLS)
Buttons	
Button design	Industrial waterproof, stainless steel, vandal resistant pushbutton, blue backlit
Button count	1 (2 on request)
Audio	
Microphone	2 integrated microphones
Amplifier	10 W (class D)
Loudspeaker	10 W
Volume control	Adjustable with automatic adaptive mode
Full duplex	Yes (AEC)
Audio stream	
Protocols	RTP/RTSP
Codecs	G.711, G.729, G.722, L16/16 kHz
Interface	
Power supply	12 V ±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, ONVIF
Passive switch	NO and NC contacts, up to 30 V / 1 A AC/DC
Active switch output	9 up to 13 V DC depending on power supply (PoE: 9 V; adaptor: power supply voltage minus 1 V), max 600 mA
Mechanical properties	
Cover	Robust aluminium casting
Operating temperature	−40 °C to 55 °C
Operating relative humidity	10 % – 95 % (non-condensing)
Storing temperature	−40 °C to 70 °C
Weight	netto max. 2 kg / brutto max. 2,5 kg
Covering level	IP69K
Resistance level	IK10
Dimensions	217 x 109 x 83 mm, 242 x 136 x 83 mm incl. frame

CONNECTION DIAGRAM

2N® IP Safety

2 × 0,8 mm²

12V DC/1 A
adapter

optional

UTP cat. 5

SWITCH   PoE   optional

UTP cat. 5   UTP cat. 5

IP PBX

Computer with headset

* 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

Order No.	**9152000**
Name	2N® IP Safety, frame
Desc.	2N® IP Safety - metal frame (orange colour)

Order No.	**9151010**
Name	2N® IP Force/Safety, Additional Switch
Desc.	additional input and output relays, tamper switch

Mounting

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

Order No.	**9151002**
Name	2N® IP Safety, flush 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

MOUNTING IN PLASTERBOARD

243,5 (9.58")

135,3 (5.32")

12,5 (0.49") 12 (0.47")

237 (9.33")

125 (4.92")

WALL-MOUNTED

217 (8.54")

110 (4.33")

83,1 (3.27")

FLUSH-MOUNTED WITH BOX

243,5 (9.58")

135,3 (5.32")

230 (9.05")

85 (3.34")

12 (0.47")

230 (9.05")

125 (4.92")
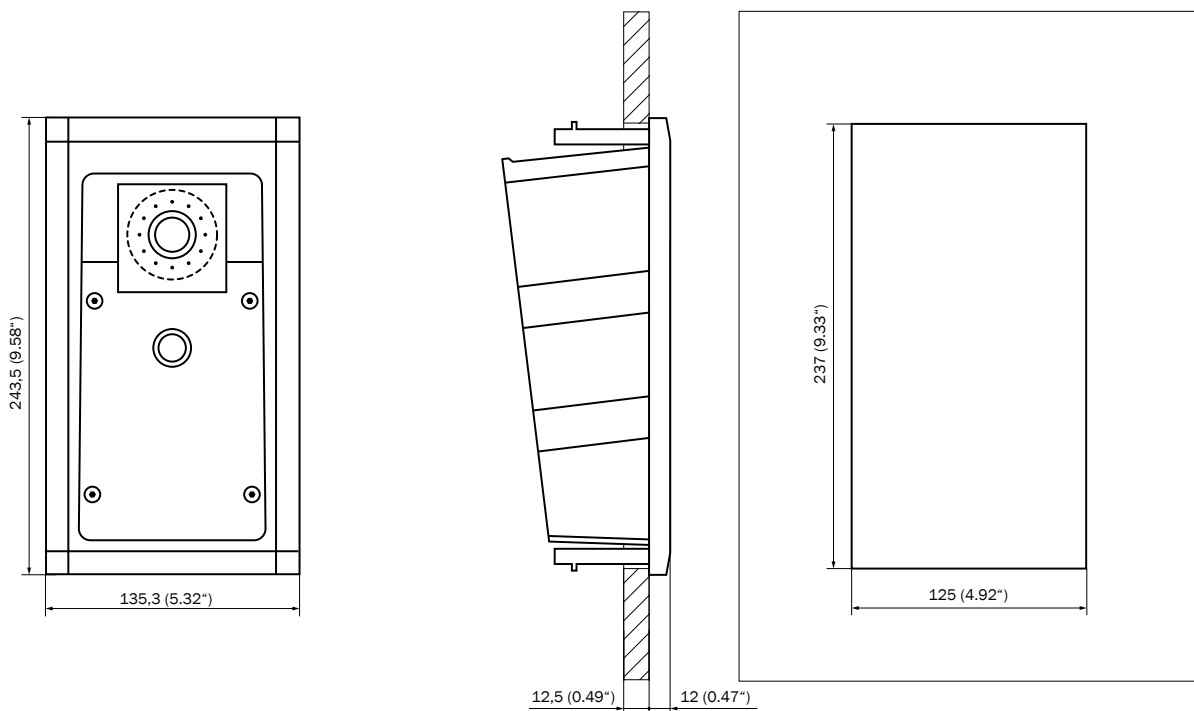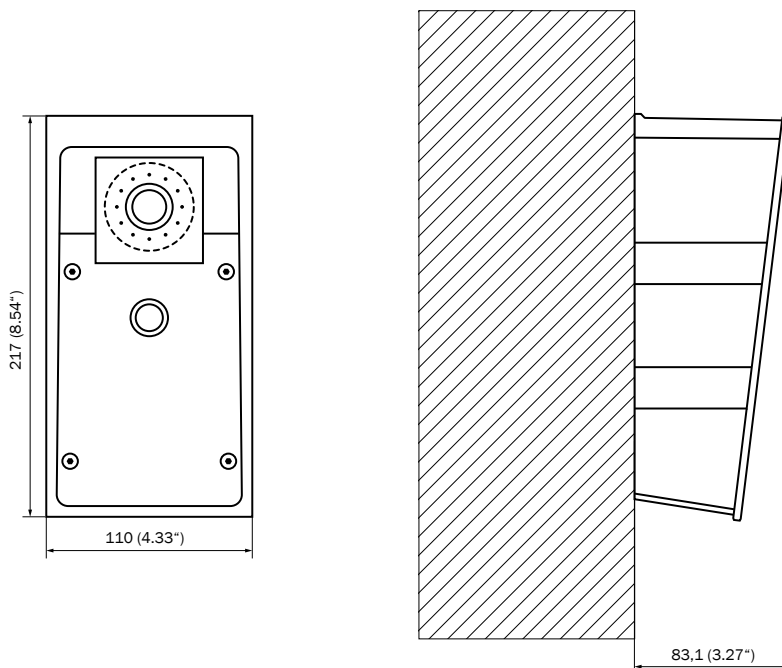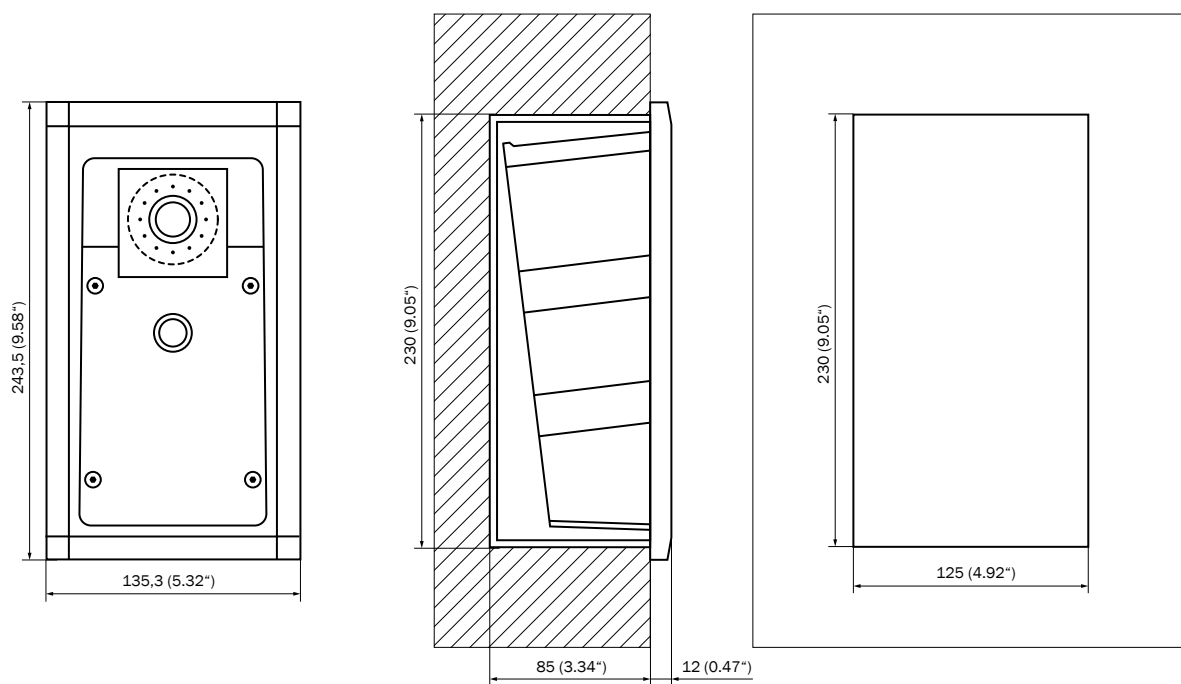
2N® IP Uni

Great value for money

The 2N® IP Uni is an easy to install, affordable intercom suitable for general communication. 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.

IP ENVIRONMENT

2N® IP Uni

KEY FEATURES

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

RECOMMENDED USES

As an info point for public spaces

Have you ever got lost in 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 a button you connect with the information centre and the problem is soon resolved.

As an info point for retail buildings

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 CENTER

UTP

2N® IP UNI

LAN/WAN

UTP   UTP

IP PBX   UTP   IP PHONE   NOTEBOOK
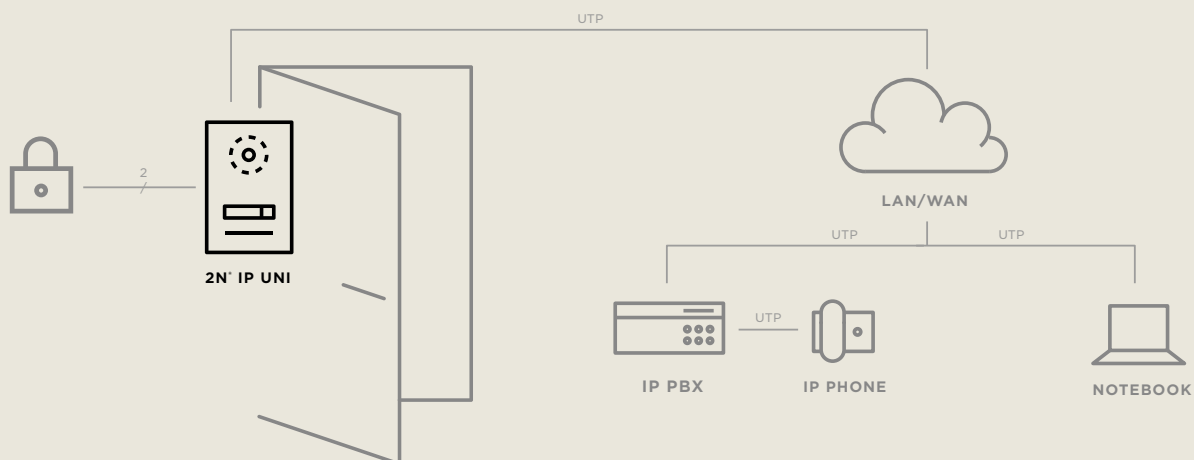
Technical parameters

2N® IP Uni

Signalling protocol	
	SIP (UDP, TCP)
Buttons	
Button design	White-backlit transparent buttons with easily replaceable nametags
Button count	1 or 2
Audio	
Microphone	1 integrated microphone
Amplifier	1 W (class D)
Speaker	1 W
Volume control	Adjustable with automatic adaptive mode
Full duplex	Yes (AEC)
Audio stream	
Protocols	RTP
Codecs	G.711
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	NO and NC contacts, max. 30 V/1A AC/DC
Active switch output	8–12 V DC/max. 600 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 mounting box
	193 × 115 × 57 mm when fitted on surface
Weight	product net: 500 g
	total including container: 800g
Covering level	IP54
Resistance level	IK10

CONNECTION DIAGRAM

2N® IP Uni

2 × 0,8 mm²

optional   12V DC/1 A adapter

UTP cat.5

SWITCH   PoE   optional

UTP cat. 5   UTP cat. 5

IP PBX

IP Telephone
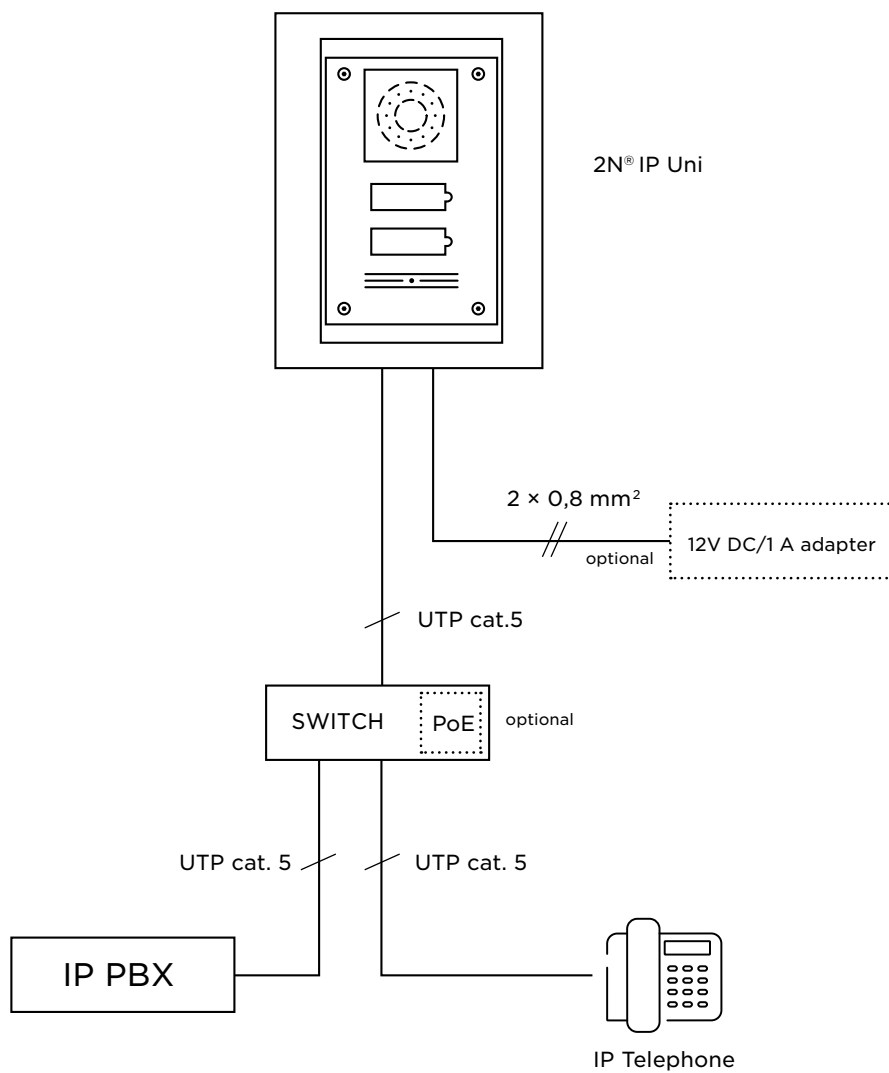
Order numbers

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

205 (8.07")
125 (4.92")
193,5 (7.61")
55 (2.16") 9,25 (0.36")

MOUNTING IN PLASTERBOARD

193,2 (7.60")
115,8 (4.55")
180 (7.08")
100 (3.93")
12,5 (0.49") 9,25 (0.36")

WALL-MOUNTED

193,2 (7.60")

115,8 (4.55")

56,75 (2.23")
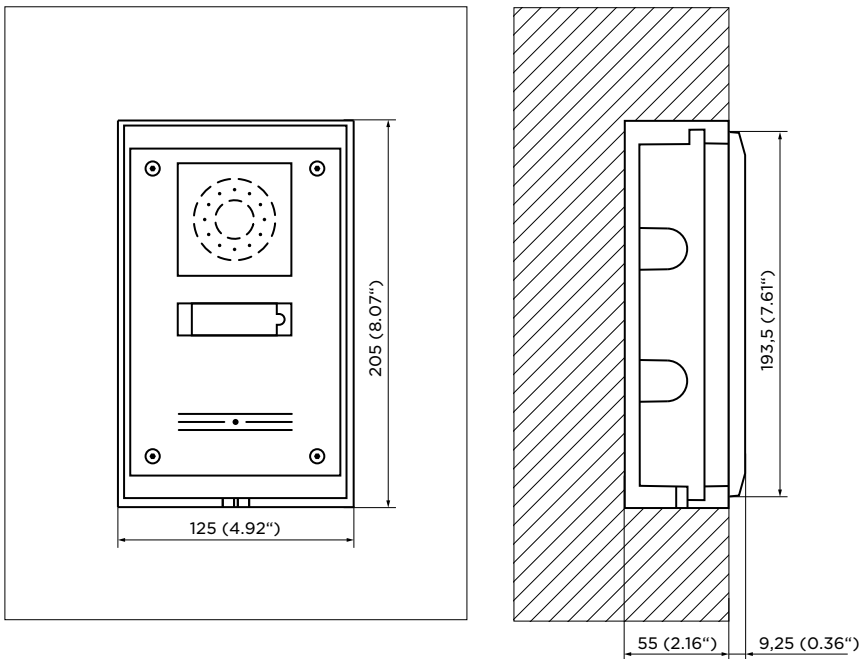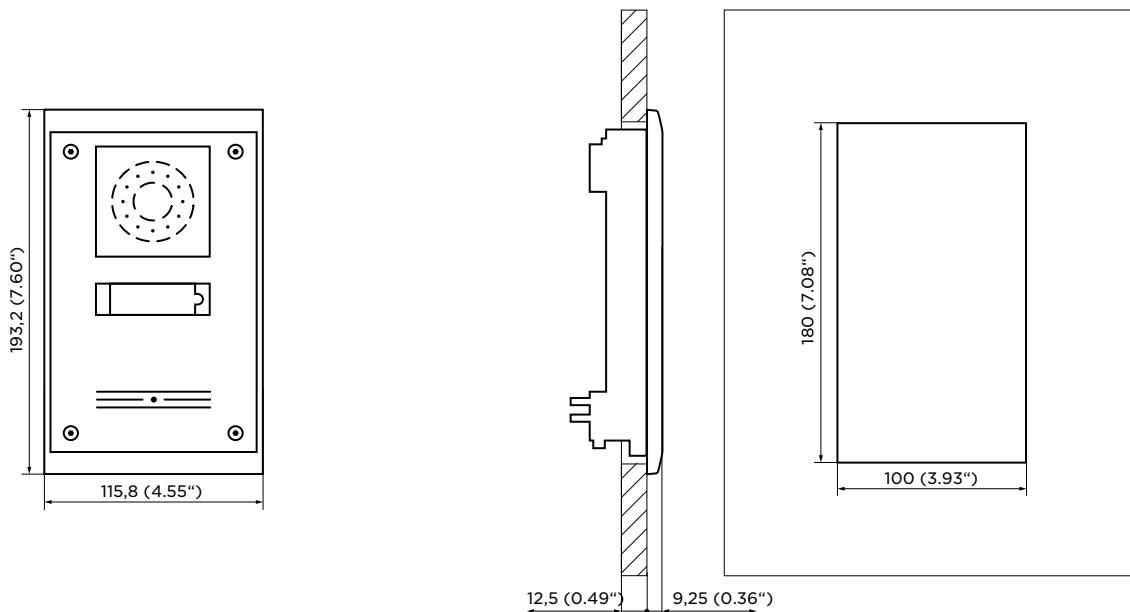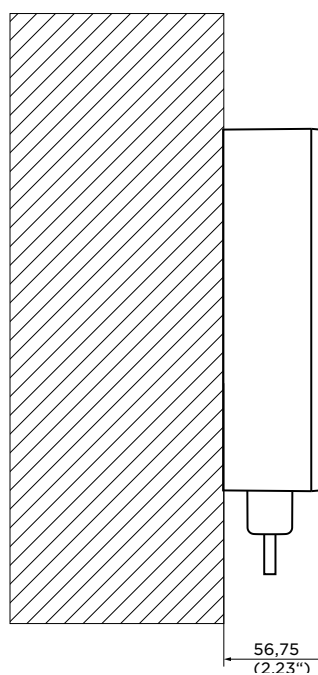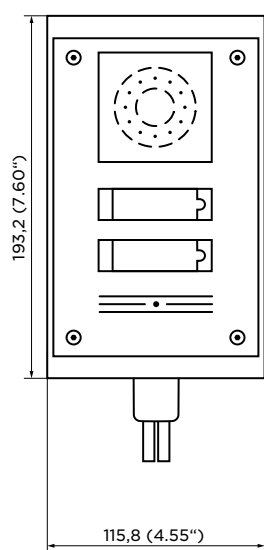
2N® LTE Verso

The 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 features such as video communication. The main unit with HD camera can be accompanied by RFID, Bluetooth or biometrics supporting modules.

Reception

2N® LTE Verso

WAVEKEY
SUPPORT

KEY FEATURES

- Ideal retrofit solution
- Secure configuration via My2N cloud
- Pick any of the 16 modules available
- Minimal installation costs

RECOMMENDED USES

For an easy and effective upgrade to video intercoms

State protected historical buildings, older terraced houses - all these sites could run into problems when 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, meaning the user benefits from all advanced features such as video communication.

For communication at 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 a minimum.

EXAMPLE OF CONNECTION OF THE 2N® LTE VERSO

2N® LTE VERSO

2N® INDOOR TOUCH 2.0

My2N

SIP PBX

SIP PHONE

4G/WI-FI
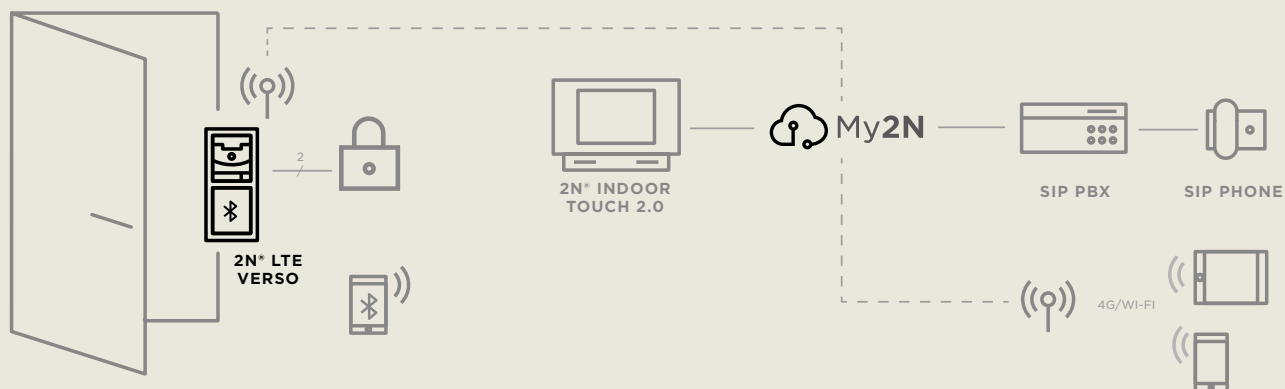
Technical parameters

2N® LTE Verso

Signalling protocol	
	SIP (UDP, TCP, TLS)
Buttons	
Button design	White-backlit transparent buttons with replaceable nametags
Button count	1 and increments of 5 (max 146)
Button extenders	Up to 30 modules, limited by power supply
Numeric keypad	Optional
Audio	
Microphone	1 integrated microphone
Amplifier	2 W (class D)
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.729, G.722, L16/16 kHz
Camera	
Sensor	1/3" colour CMOS
JPEG resolution	Up to 1280 (H) x 960 (V)
Video resolution	640 (H) x 480 (V)
Frame rate	Up to 30 snapshots/s
Sensor sensitivity	5.6 V/lux-sec (550 nm)
View angle	128 ° (H), 95 ° (V), 134 ° (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 v2.4 profile S compatible
Interface	
Power supply	12 V ±15 % / 2 A DC
LTE FDD	Cat.1, 3GPP release 9 compliant
LTE bands (9155401C-E and 9155401CB-E)	B1(2100) B3(1800) B7(2600) B8(900) B20(800)
Supported protocols	SIP2.0, DHCP opt. 66, SMTP, 802.1x, RTSP, RTP, TFTP, HTTP, HTTPS, Syslog, ONVIF
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 (power supply voltage minus 2 V), up to 400 mA
External LTE Antenna	
Gain	4.1 dB
Power handling	25 W
Operating temperature	-40 °C to +85°C
Dimensions	14 (W) x 6 (H) x 122 (L) mm
Mounting	Adhesive Mount
Cable length	2 m

RFID card reader		
Supported frequencies	125kHz and 13.56MHz	
	125 kHz:	EM4100, EM4102, HID Proximity
	13.56 MHz:	ISO14443A, ISO14443B, ISO15693, NFC support
	:	reads UID (CSN)
	:	reads PACs ID (iCLASS SIO-enabled cards) - only secured cards

Mechanical properties	
Cover	Robust zinc casting with surface finish
Operating temperature	-40 °C – 60 °C
Operating relative humidity	10 % – 95 % (non-condensing)
Storing temperature	-40 °C – 70 °C
Weight	Max net weight: From 2kg, based on configuration
Covering level	IP54
Resistance level	IK08

Dimensions	
Surface mounting frame	
1 module	107 (W) x 130 (H) x 28 (D) mm
2 modules	107 (W) x 234 (H) x 28 (D) mm
3 modules	107 (W) x 339 (H) x 28 (D) mm
Flush mounting frame	
1 module	130 (W) x 153 (H) x 5 (D) mm
2 modules	130 (W) x 257 (H) x 5 (D) mm
3 modules	130 (W) x 361 (H) x 5 (D) mm
Flush mounting box (minimum hole dimensions)	
1 module	108 (W) x 131 (H) x 45 (D) mm
2 modules	108 (W) x 238 (H) x 45 (D) mm
3 modules	108 (W) x 343 (H) x 45 (D) mm
Module internal cutout	
72 (W) x 89.3 (H) mm	

CONNECTION DIAGRAM

choose product in SELECTION
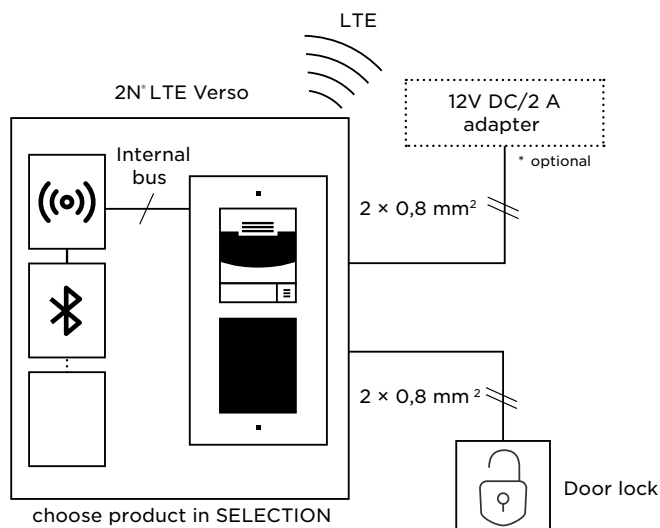
Order numbers

Main unit and modules

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

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

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

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, capacitive touchscreen, regular automatic calibration

Order No.	**9155031/ 9155031B**
Name	Keypad module nickel/black
Desc.	module for 2N® LTE Verso, mechanical keypad, backlit symbols
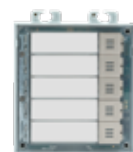
Order No.	**9155035**
Name	5 Buttons module
Desc.	module for 2N® LTE Verso, quick dial buttons

Order No.	9155032/ 91550941US
Name	RFID Card Reader module, 125kHz
Desc.	xx41US reads even HID Proximity cards

Order No.	91550942/ 9155086
Name	RFID Card Reader module, 13.56MHz, NFC ready
Desc.	xx86 - secured 13.56MHz

Order No.	9155082
Name	Bluetooth & RFID module
Desc.	125kHz, 13.56MHz, NFC ready, Bluetooth 4.0

Order No.	9155084
Name	Bluetooth & RFID module
Desc.	125kHz, secured 13.56MHz, NFC ready, Bluetooth 4.0

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.	9155041
Name	Induction Loop module
Desc.	module for 2N® LTE Verso, audio signal directly into a hearing aid

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

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

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

Order No.	9155038
Name	Tamper Switch module
Desc.	module for 2N® LTE Verso

Order No.	9155198SET
Name	Security Bundle for 2N® IP/LTE Verso
Desc.	includes Tamper switch, I/O module and 2N® Security Relay

Order No.	915500371
Name	OSDP
Desc.	Connects the 2N IP intercom reader to a third-party access control system

Frames

Order No.	**9155011/ 9155011B**
Name	1 module flush frame nickel / black
Desc.	frame for installation in the wall, 1 module

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

Order No.	**9155012/ 9155012B**
Name	2 module flush frame nickel / black
Desc.	frame for installation in the wall, 2 modules

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

Order No.	**9155013/ 9155013B**
Name	3 module flush frame nickel / black
Desc.	frame for installation in the wall, 3 modules

Order No.	**9155023/ 9155023B**
Name	3 module surface frame nickel / 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.	9155072
Name	Wedge Backplate
Desc.	angle 25°, only for surface installation of 2N® IP/LTE Verso double-modules

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
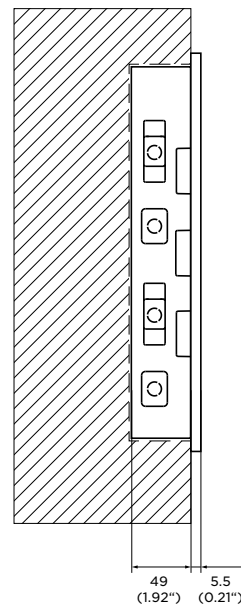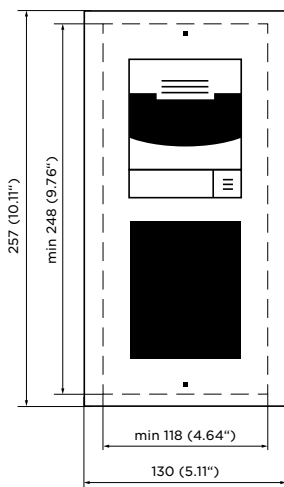
2× IN-WALL 2 MODULES
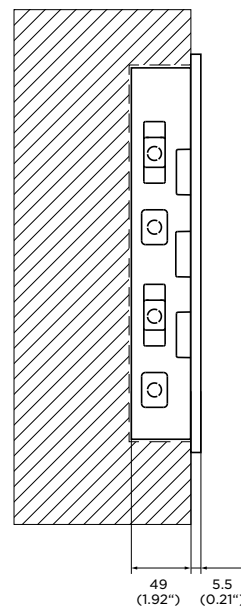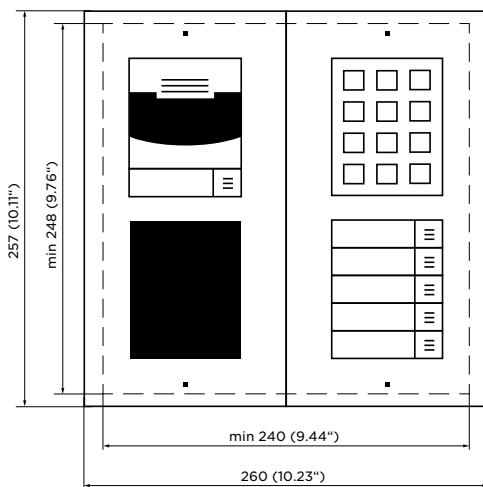
IN-WALL 3 MODULES
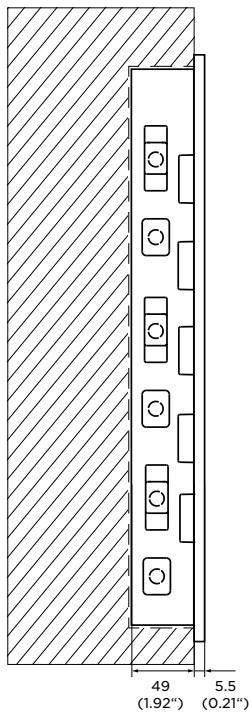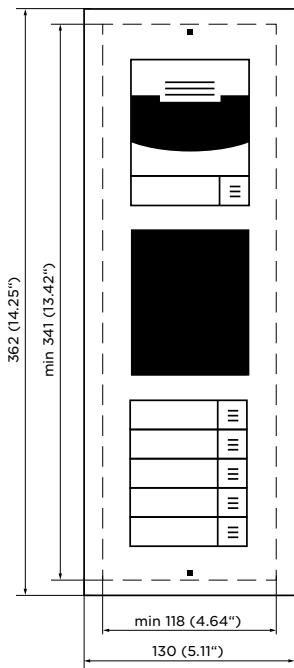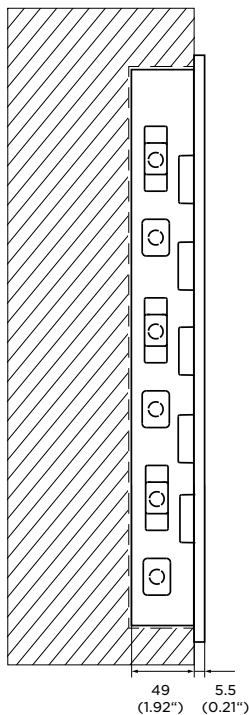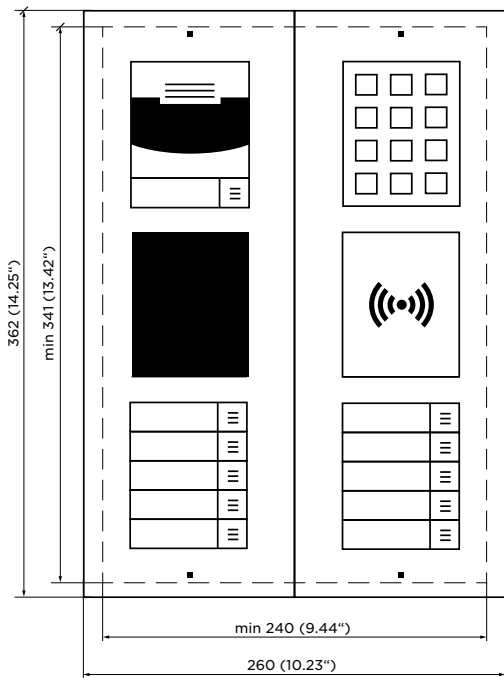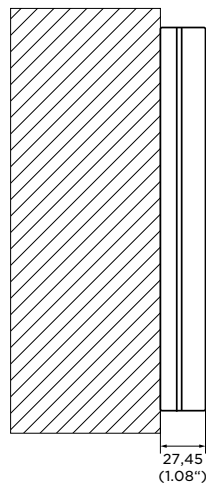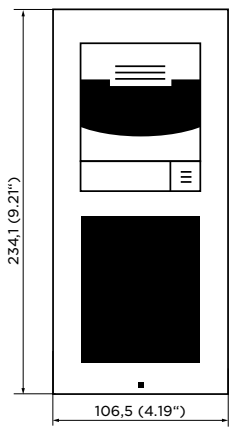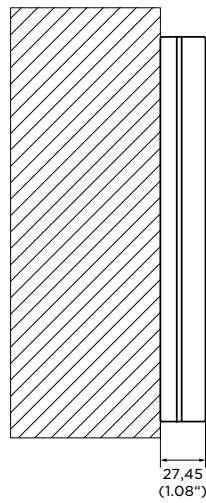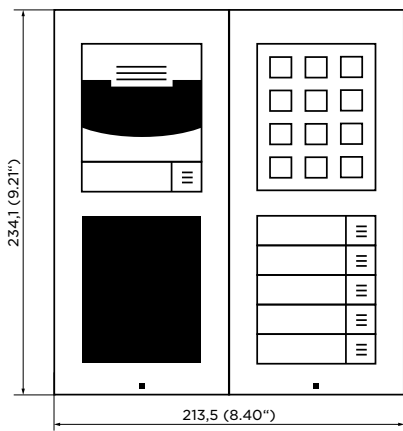
362 (14.25")
min 341 (13.42")
min 118 (4.64")
130 (5.11")

49 (1.92")
5.5 (0.21")

2× IN-WALL 3 MODULES

362 (14.25")
min 341 (13.42")
min 240 (9.44")
260 (10.23")

49 (1.92")
5.5 (0.21")

WALL-MOUNTED 2 MODULES

234,1 (9.21")

106,5 (4.19")

27,45 (1.08")

2× WALL-MOUNTED 2 MODULES

234,1 (9.21")

213,5 (8.40")

27,45 (1.08")

WALL-MOUNTED 3 MODULES

338,8 (13.33")

106,5 (4.19")

27,45 (1.08")

2× WALL-MOUNTED 3 MODULES

338,8 (13.33")

213,5 (8.40")

27,45 (1.08")

WALL-MOUNTED 1 MODULE

130 (5.11")

106,5 (4.19")

27,45 (1.08")

IN-WALL 1 MODULE

153 (6.02")

min 136 (5.35")

min 108 (4.25")

130 (5.11")

45 (1.77")

6.5 (0.25")

INTERCOMS

ACCESS
CONTROL

ANSWERING
UNITS

CLOUD
SERVICES
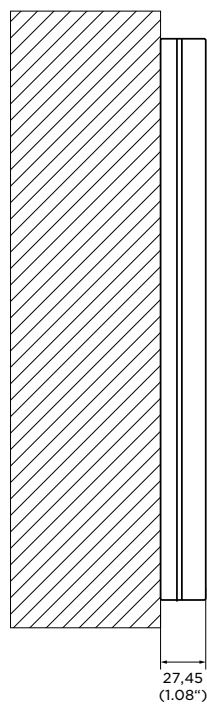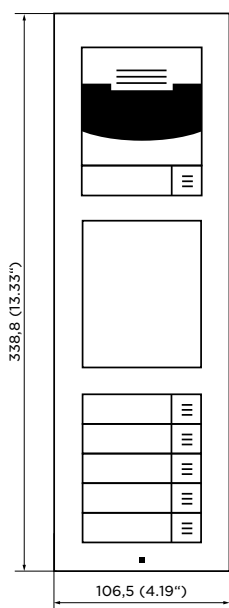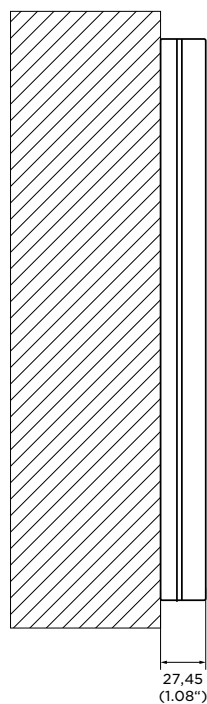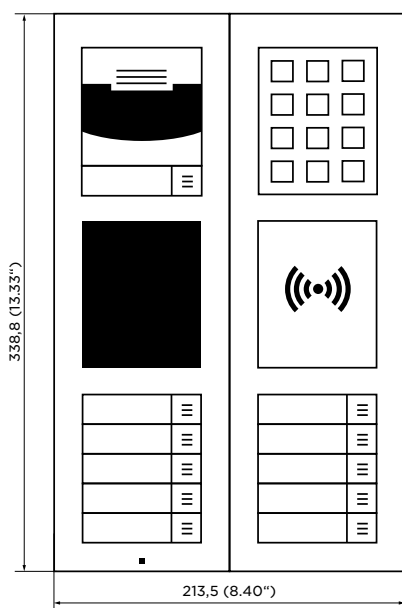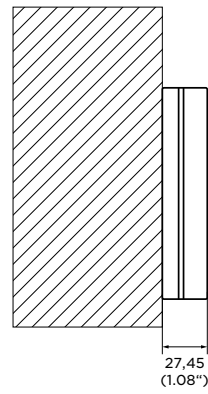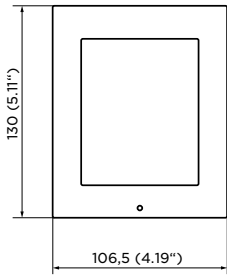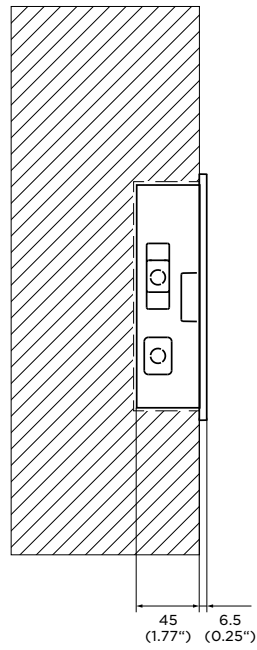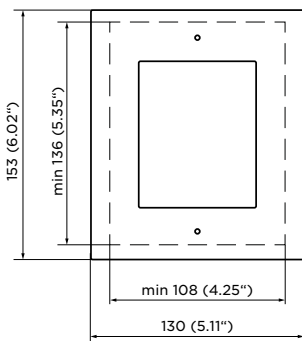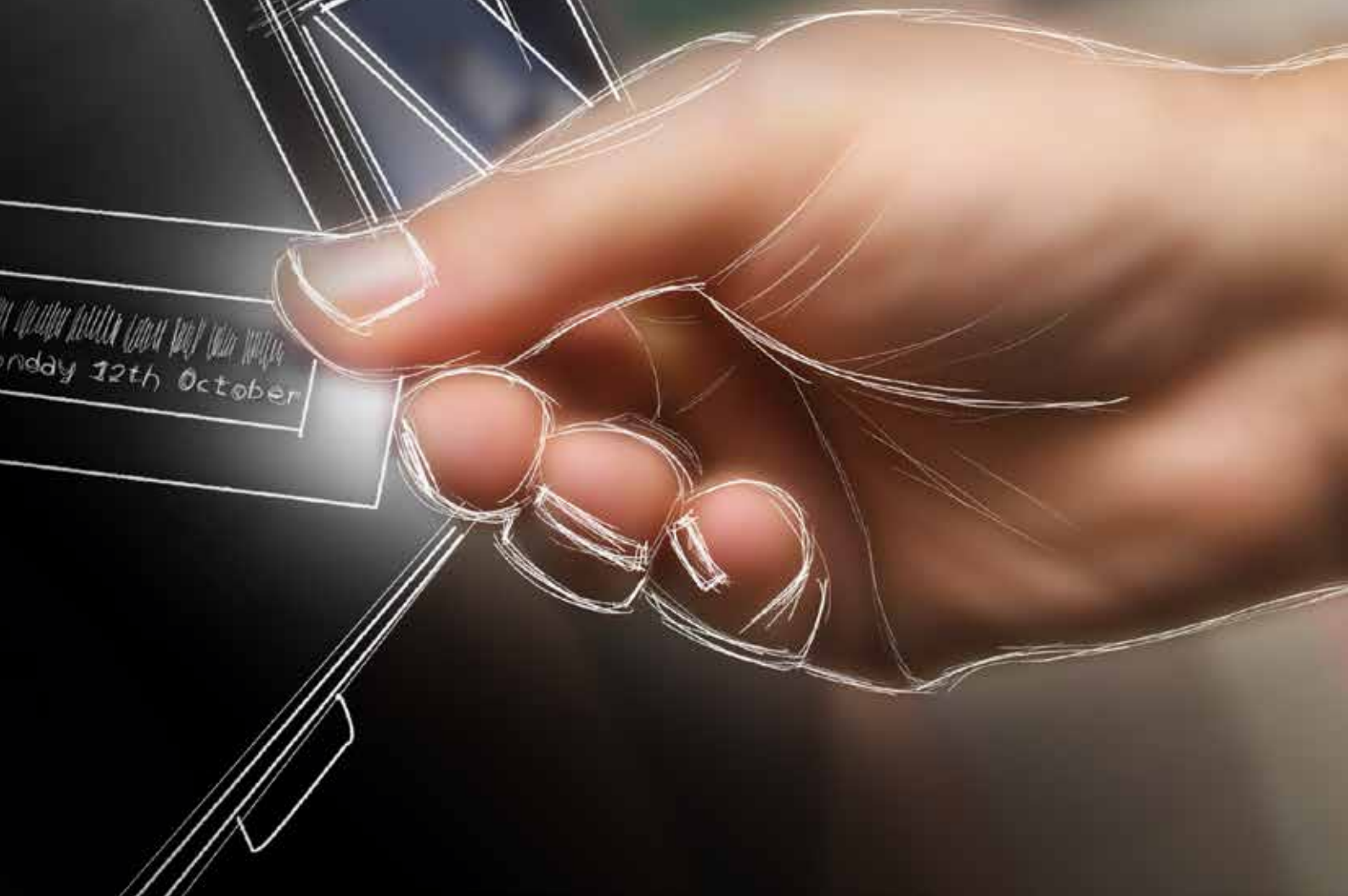
SIP AUDIO

2N® IP Audio Kit

Create your own IP intercom

This OEM IP intercom is intended for incorporation into a variety of devices. It is designed to value in the form of remote control, monitoring, and audio communication. Benefit from live support at the push of a button.

IP ENVIRONMENT

2N® IP Audio Kit

KEY FEATURES

- **VoIP solution you don't have to develop**
  This OEM intercom is easily incorporated into your existing device.
  Thanks to IP technology you simply extend it to include
  IP audio functionality.

- **Wide range of connectors**
  Choose from a wide range of interfaces. Hook up a microphone, speakers,
  headphones or keypad buttons.

- **SIP support, with no server needed**
  With its SIP protocol support the intercom easily links with IP phones
  and PBX from other producers, without having to connect to the server.

- **Remote administration and control**
  The HTTP API allows this OEM intercom system to be easily integrated
  into the master system for remote administration. Alternatively, save time
  and money on on-site support thanks to our free service
  2N® Remote Configuration. Access all your devices remotely
  via secured cloud connection.

- **Adaptive volume**
  The 2N® IP Audio Kit automatically adjusts speaker
  volume based on ambient noise level.

TECHNICAL PARAMETERS

Signalling protocol	
	SIP (UDP, TCP, TLS)
Buttons/Keypad Interface	
	Up to 16 separate buttons in 4x4 matrix
Audio	
Microphone	electret microphone, Max. Vpp = 100mV, Rin = 4.4kΩ, Vbias = 1.5V
Line input	Max. 755mV RMS, Rin = 47kΩ
Amplifier	10W (class D), MONO output, THD < 1%, min. loudspeaker impedance: 4Ω
Line output	Max. 755mV RMS, Rout = 600Ω
Full duplex	Yes (AEC)
Protocols	RTP/RTSP
Codecs	G.711
Interface	
Power Supply	9 to 36 V ± 10 % / 2 A DC or PoE, typically 12 V DC
PoE	802.3af (Class 0 – up to 12.95W)
Power consumption	2W in idle state
LAN	10/100BASE-TX with Auto-MDIX, RJ-45
Recommended cabling	Cat-5e or higher
Passive switch	NO/NC relay contact; up to 30V / 1A DC or 125V / 0.3A AC
Active switch outputs	2 terminals (OUT1, OUT2); 7 to 11V DC depending on power supply (PoE: 10 V; adaptor: power supply voltage minus 2 V), max. 600mA
Logical inputs	2 galvanically isolated (IN1, IN2); Uin < 1,1V (L), Uin > 3V (H), max. Uin = 32V
LED control outputs	3 programmable terminals (LED1, LED2, LED3); up to 12V / 20mA
Supported protocols	SIP 2.0, DHCP opt. 66, SMTP, 802.1x, RTP, RTSP, TFTP, HTTP, HTTPS, Syslog
Mechanical Properties	
Working temperature	−40°C – 55°C
Working relative humidity	10% – 95% (non-condensing)
Storing temperature	−40°C – 70°C
Dimensions	142 x 98 x 34 mm
Weight	Up to 280g
Protection class	IP20

Order numbers

2N® Audio Kit

| Order No.	**9154100**
Name	2N® IP Audio Kit
Desc.	OEM IP Intercom, audio addition

2N Access Unit 2.0

Readers with complete intelligence

The innovative 2N Access Units 2.0 are based on IP technology and combine the 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 a combination.
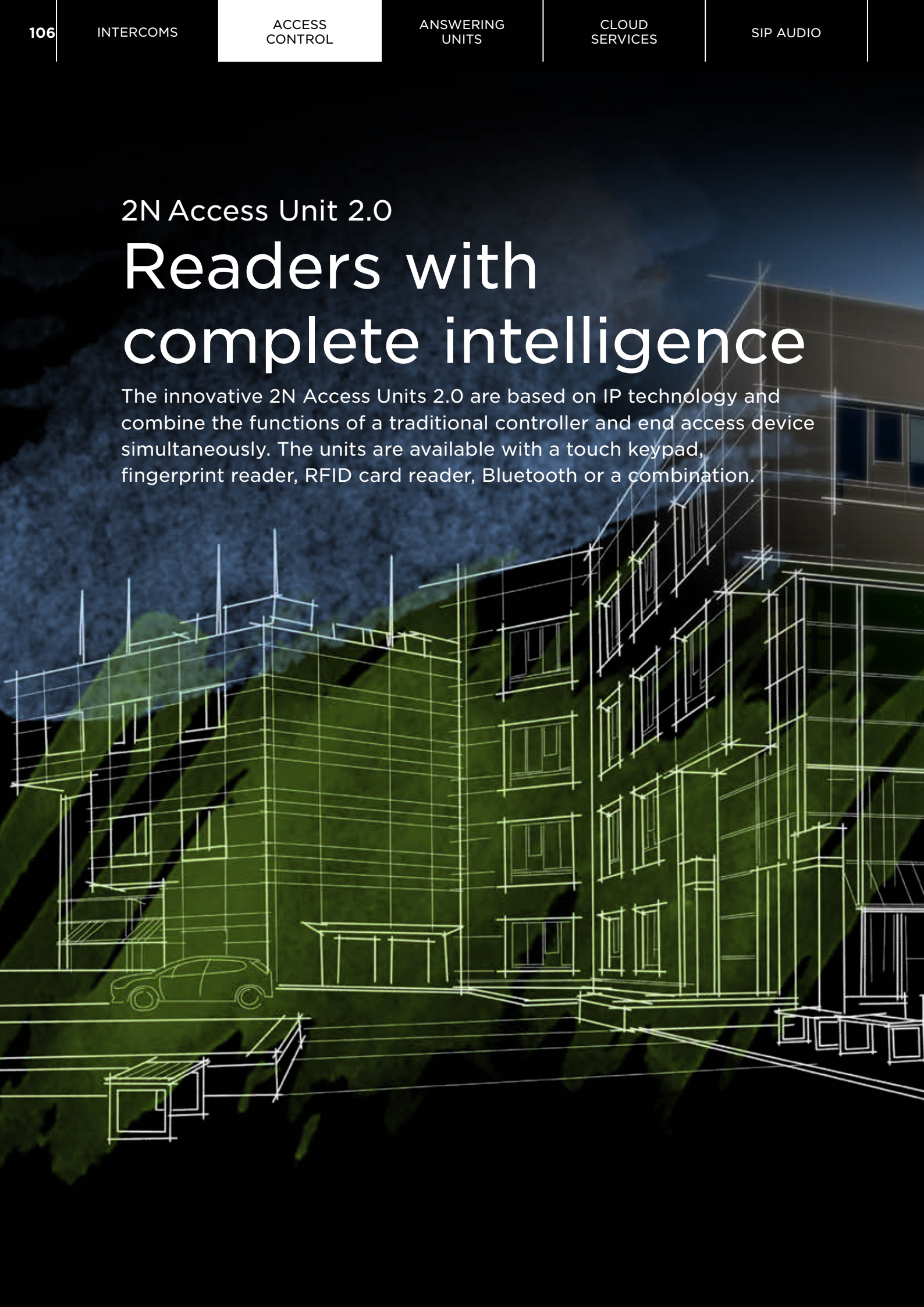
IP ENVIRONMENT

2N Access Unit 2.0

WAVEKEY SUPPORT

KEY FEATURES

- Controller and reader in one
- Single cable installation
- Wide variety of access technologies
- Remote configuration and management

RECOMMENDED USES

A villa secured by a fingerprint reader

The 2N® Access Unit 2.0 Fingerprint Reader offers a perfect solution for a family house. Keep what's most important to you under maximum protection. The residents can rest assured they will never have problems getting in - the access unit is both weather resistant and very secure - it cannot be tricked, even by spoof fingerprints.
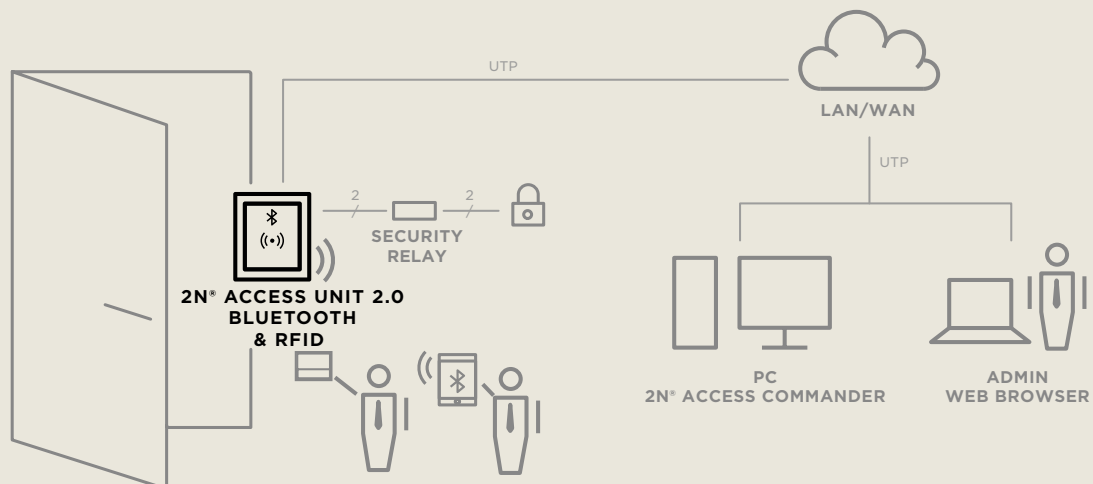
For areas needing high protection

In places where a higher level of security is needed (such as banks, labs, warehouses or stores), users need to prove their identity twice - once by swiping their RFID card, and again by entering a PIN code. This is easily done thanks to the 2N Access Unit 2.0 combining a card reader and keypad in one compact unit supporting a dual--factor authentication.

As a convenient way of accessing a common space

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

EXAMPLE OF CONNECTION OF THE 2N ACCESS UNIT 2.0

UTP

LAN/WAN

UTP

2

2

SECURITY RELAY

2N® ACCESS UNIT 2.0 BLUETOOTH & RFID

PC
2N® ACCESS COMMANDER

ADMIN
WEB BROWSER

Technical parameters

2N Access Unit 2.0

Audio	
Speaker	0.8 W / 8 Ω
Interfaces	
Power supply	12 V ±15 % / 2 A DC or PoE
PoE	PoE 802.3af (Class 0–12.95 W)
LAN	10/100BASE-TX with Auto-MDIX, RJ-45 modular jack (916013 has terminal block or needs RJ-45 pigtail)
Recommended wiring	Cat-5e or higher
Supported protocols	DHCP opt. 66, SMTP, TFTP, HTTP, HTTPS, Syslog
Passive switch	NO/NC contact, up to 30 V / 1 A AC/DC
Active switch output	8 to 12 V DC according to power supply (PoE: 10 V; adapter: power voltage minus 2 V), up to 400 mA
Inputs	2; can be used in passive or active mode (-30V to +30V DC)
Tamper switch is part of the 2N Access Unit	
RFID card reader	
Supported frequencies	125kHz or 13.56MHz
125 kHz	EM4100, EM4102
	HID Proximity (only versions with 125kHz reader and marked „S" or „US" in Order No.)
13.56 MHz	ISO14443A, ISO14443B, ISO15693, NFC support
	reads UID (CSN)
	reads PACs ID (iCLASS SIO-enabled cards)
Bluetooth	
Version	Compatible with Bluetooth 4.0 or higher (BLE)
RX sensitivity	Up to -93 dBm
Range	Adjustable (short ~ 0.5m, middle ~ 2m, long ~ up to 10 m)
Security	RSA-1024 and AES-128 encryption
Mobile applications	2N® Mobile Key (Android 6.0 and higher, iOS 12.0 and higher)
Fingerprint reader	
Sensor	Optical, with resistant glass
Signalization	Acoustic and multi-coloured LED
Sensing area	15.24 x 20.32 mm
Touch Keypad	
Technology	Capacitive (0.1pF sensitivity)
Calibration	SmartSence (regular automatic calibration)
Signalization	Acoustic and multi-coloured LED

Mechanical properties	
Frame	Robust zinc cast with surface finish
Operating temperature	-40 °C to 60 °C
Operating relative humidity	10 % – 95 % (non-condensing)
Storage temperature	-40 °C to 70 °C
Weight	max: 0.5 kg (based on configuration)
Cover rating	IP54
Resistance level	IK08
Dimensions	
Wall (surface) mounting frame	
1 module	107 (W) x 130 (H) x 28 (D) mm
Flush mounting frame	
1 module	130 (W) x 153 (H) x 5 (D) mm
Flush mounting box (minimum hole dimensions)	
1 module	108 (W) x 131 (H) x 45 (D) mm

CONNECTION DIAGRAM
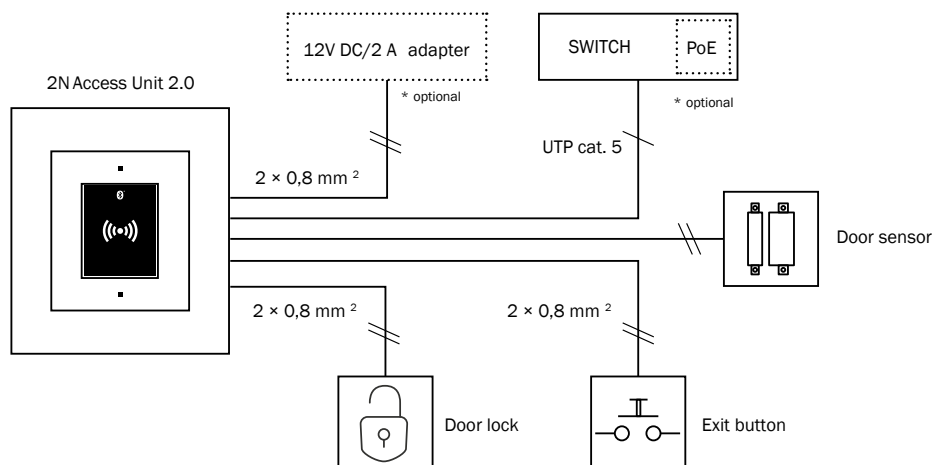
Order numbers

2N Access Unit 2.0

Order No.	9160334
Name	2N® Access Unit 2.0 RFID
Desc.	125kHz, 13.56MHz, NFC

Order No.	9160344-S
Name	2N® Access Unit 2.0 RFID
Desc.	125kHz, secured 13.56MHz, NFC

Order No.	9160341
Name	2N® Access Unit 2.0 RFID
Desc.	125kHz

Order No.	9160341US
Name	2N® Access Unit 2.0 RFID
Desc.	125kHz, reads HID Prox

Order No.	9160342
Name	2N® Access Unit 2.0 RFID
Desc.	13.56MHz

Order No.	9160342-S
Name	2N® Access Unit 2.0 RFID
Desc.	secured 13.56MHz

Order No.	9160335
Name	2N® Access Unit 2.0 Bluetooth & RFID
Desc.	125kHz, 13.56MHz, NFC

Order No.	9160335-S
Name	2N® Access Unit 2.0 Bluetooth & RFID
Desc.	125kHz, secured 13.56MHz, NFC

Order No.	**9160336**
Name	2N® Access Unit 2.0 Touch Keypad & RFID
Desc.	125kHz, 13.56MHz, NFC

Order No.	**9160336-S**
Name	2N® Access Unit 2.0 Touch Keypad & RFID
Desc.	125kHz, secured 13.56MHz, NFC

Order No.	**916032**
Name	2N® Access Unit 2.0 Touch Keypad
Desc.	capacitive touch technology, regular automatic calibration, backlit symbols

Order No.	**916031**
Name	2N® Access Unit 2.0 Fingerprint Reader
Desc.	optical technology, acoustic and visual signalling, weatherproof

Accessories

Order No.	9155011/ 9155011B
Name	1 module flush frame nickel/ black
Desc.	frame for installation in the wall, in nickel or black colour

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

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

Order No.	916020
Name	RJ-45 connector cable
Desc.	cable for interconnecting the Access Units

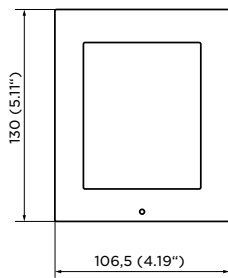| Order No.	
Name	2N® Mobile Key
Desc.	a free application that turns your mobile phone into an access card

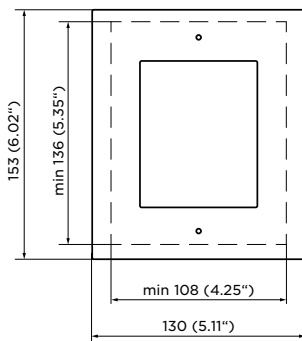| Order No.	9155061
Name	1 module backplate
Desc.	backplate for surface installation, 1 module

Dimensions and fitting

2N Access Unit 2.0

WALL-MOUNTED 1 MODULE

130 (5.11")

106,5 (4.19")

27,45 (1.08")

IN-WALL 1 MODULE

153 (6.02")

min 136 (5.35")

min 108 (4.25")

130 (5.11")

45 (1.77")

6.5 (0.25")
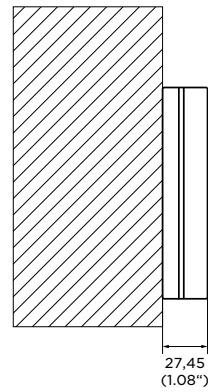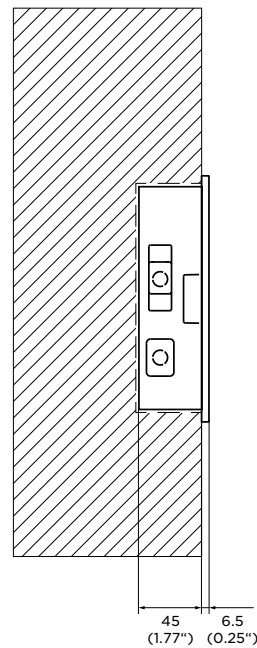
2N Access Unit M

Access control readers in mullion design

A very narrow design makes these readers ideal for installation on a door frame or on places where there is not enough space, regardless whether it is a brick wall, glass or metal surface. The hardened glass on the front of the unit not only looks elegant, but also guarantees resistance to scratches.

IP ENVIRONMENT

2N Access Unit M

KEY FEATURES

- Based purely on IP technology
- Mullion style mounting
- Multi-technology readers
- Remote configuration and management

RECOMMENDED USES

For high level of protection of server rooms

All servers with sensitive data deserve real protection – cybersecurity as well as physical security. Let employees identify themselves by an RFID card, PIN code or both. The only thing needed is then the 2N® Access Unit M Touch Keypad & RFID.
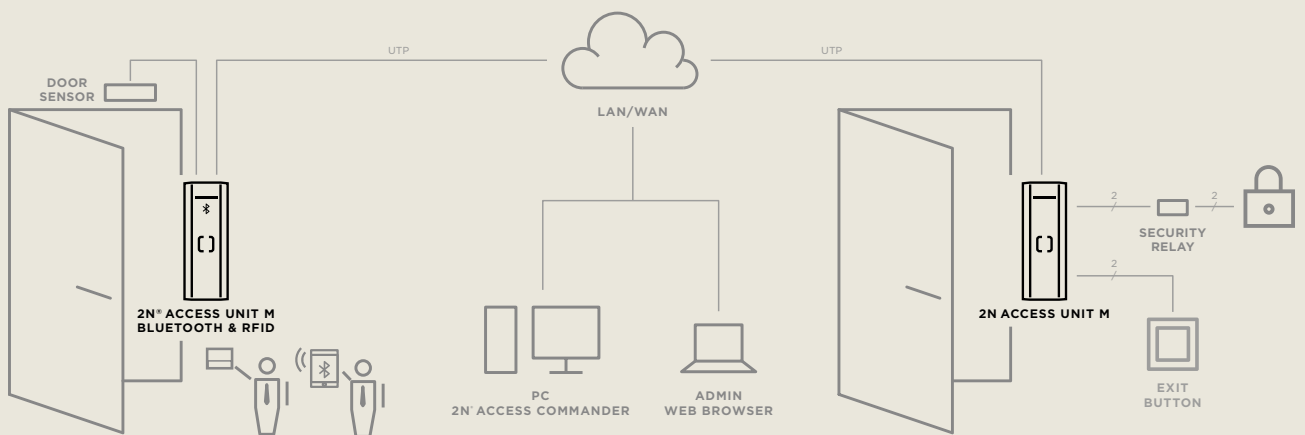
For securing meeting rooms

A project with meeting rooms that need empoyee authorisation to enter, and have glazd windows can prove difficult. We have a simple solution - the 2N Access Unit M can be easily installed on glass surface or metal door frame and allows access in traditional manner, via RFID cards, as well as the trendy way using a smartphone with Bluetooth. Each employee can pick which suits them best.

In most common access control for office buildings

There are many rooms and places inside an office building that need to be protected. RFID cards are often connected to an attendance system, which makes them the most widespread method of employees identification. Besides, the multi-frequency 2N® Access Unit M RFID can also be used as T&A terminal and send the date to 2N® Access Commander.

EXAMPLE OF CONNECTION OF THE 2N ACCESS UNIT M

Technical parameters

2N Access Unit M

Audio	
Speaker	0.8 W / 8 Ω

Interfaces	
Power supply	12 V ±15 % / 2 A DC or PoE
PoE	PoE 802.3af (Class 0–12.95 W)
LAN	10/100BASE-TX with Auto-MDIX, RJ-45 modular jack
Recommended wiring	Cat-5e or higher
Supported protocols	DHCP opt. 66, SMTP, 802.1x, TFTP, HTTP, HTTPS, Syslog
Passive switch	NO/NC contact, up to 30V / 1A AC/DC
Active switch output	8 to 12V DC according to power supply (PoE: 10V; adapter: power voltage minus 2V), up to 600mA
Inputs	2; can be used in passive or active mode (-30V to +30V DC)
Tamper switch is part of the 2N Access Unit M	

RFID card reader	
Supported frequencies	125kHz and 13.56MHz
125 kHz	EM4100, EM4102
13.56 MHz	ISO14443A, ISO14443B, ISO15693, NFC support
	reads UID (CSN)

Bluetooth	
Version	Compatible with Bluetooth 4.0 or higher (BLE)
RX sensitivity	Up to -93 dBm
Range	Adjustable (short ~ 0.5m, middle ~ 2m, long ~ up to 10 m)
Security	RSA-1024 and AES-128 encryption
Mobile applications	2N® Mobile Key (Android 6.0 and higher, iOS 12.0 and higher)

Touch Keypad	
Technology	Capacitive (0.1pF sensitivity)
Signalization	Acoustic and multi-coloured LED

Mechanical properties	
Cover	Tempered glass with rugged plastic
Operating temperature	-40 °C to 60 °C
Operating relative humidity	10 % – 95 % (non-condensing)
Storage temperature	-40 °C to 70 °C
Weight	max: 0.5 kg
Cover rating	IP55
Resistance level	IK07
Dimensions	
Wall (surface) mounting frame	
	50 (W) x 132 (H) x 27 (D) mm

CONNECTION DIAGRAM
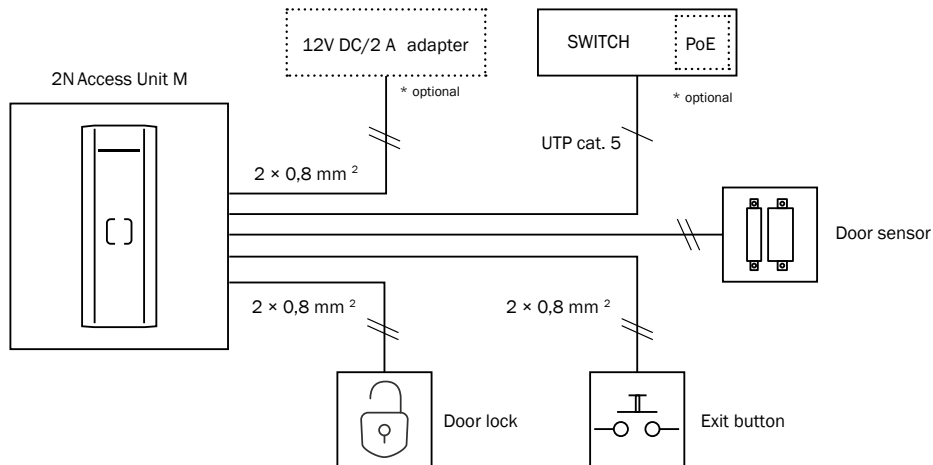
Order numbers

2N Access Unit M

Order No.	**916112**
Name	2N® Access Unit M RFID
Desc.	13.56MHz, NFC ready

Order No.	**916114**
Name	2N® Access Unit M RFID
Desc.	125 kHZ, 13.56 MHz, NFC ready

WAVEKEY SUPPORT

Order No.	**916115**
Name	2N® Access Unit M Bluetooth & RFID
Desc.	125kHz, 13.56MHz, NFC

Order No.	**916116**
Name	2N® Access Unit M Touch Keypad & RFID
Desc.	125kHz, 13.56MHz, NFC

Accessories

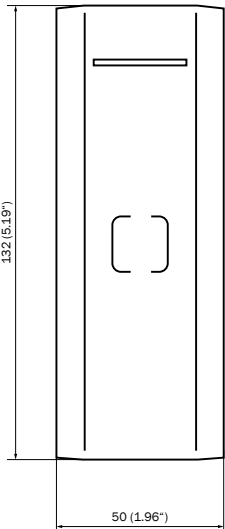| Order No.	
Name	2N® Mobile Key
Desc.	free application that turns your mobile phone into an access card

Dimensions and fitting

2N Access Unit M

WALL-MOUNTED

132 (5.19")

50 (1.96")

27 (1.06")
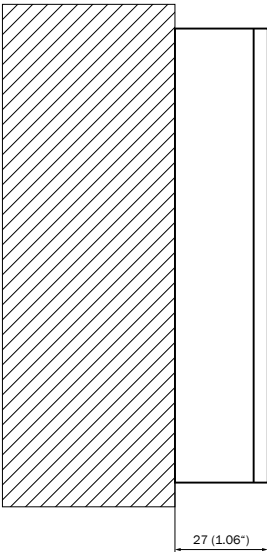
2N® Access Commander

Software for access control and bulk management

2N® Access Commander, the nerve centre of the whole 2N IP access control system, has a simple and intuitive user interface. Use it not only for managing access to the building, but also for time and attendence tracking, visitor management or for monitoring the status of connected access control devices in real time.

IP ENVIRONMENT

2N® Access Commander

KEY FEATURES

- **CENTRALISED DEVICE MANAGEMENT**
  Update firmware in bulk and in a few clicks. It ensures optimal performance and security of devices. Plus you can see immediately if devices are all online and check their door states.

- **MULTI-COMPANY SITES**
  Admins may control the whole site whilst managers may be granted set privileges in their own company. This makes 2N® Access Commander an ideal solution for buildings with several companies.

- **ATTENDANCE MONITORING**
  2N® Access Commander offers native attendance monitoring features. Track user attendance, view reports in the software and export records to PDF or CSV.

- **HIGHLY OPEN TO INTEGRATION**
  A REST API offers endless integration possibilities. LDAP support and custom mappings streamline workflow with user directories. CSV sync provides low level integration with simpler systems.

- **LOGS AND NOTIFICATIONS**
  Respond more effectively to designated events thanks to instant alerts by email or in the notification channel. Get the full picture with camera logs offering snapshots surrounding chosen events.

- **FREE MOBILE CREDENTIALS**
  Mobile access control, powered by WaveKey, is fully integrated in the software. No separate reader programming tools, no need to use a 3rd party mobile credential gateway and best of all, no charge for credentials.

- **VISITOR CREDENTIAL MANAGEMENT**
  Easily onboard visitors, granting time-limited access to the areas you choose. Issue credentials remotely for self-serve access and maintain an audit trail for compliance.

- **AREA RESTRICTIONS**
  Tighten security and enforce access policy compliance with the Anti-passback function. Restrict how many people are allowed in an area with Occupancy Management.

TECHNICAL PARAMETERS

General	
The 2N® Access Commander is distributed as an image for server installation (2N® Access Commander Virtual Machine) or as a software pre-installed on mini-PC (2N® Access Commander Box).	

2N® Access Commander Virtual Machine	
Introduction	The 2N® Access Commander is an access control software distributed as a complete package in the .OVA format. It is intended to be imported into the virtual systems such as Oracle VM VirtualBox, VMware (v6.5) or Microsoft Hyper-V. The server should be up and running 24/7 as it records all logs from connected 2N devices.
Example of HW requirements	Below are the minimum suggested requirements for an installation of up to 500 devices (2N IP intercoms and access units) connected to the 2N® Access Commander and 7,000 users.
Operating system	any 64-bit system (Windows, Linux, macOS, Solaris)
CPU	2 GHz & 2 cores (64-bit)
RAM	2 GB
Internet connectivity	needed for the software upgrade (512 kbps at least)

2N® Access Commander Box	
Introduction	The 2N® Access Commander Box is an access control software pre-installed on an ultra-compact, small and powerful computer.
Dimension	56.1 x 107.6 x 114.4 mm (0.69 L)
CPU	2.24 GHz (Intel® Celeron® Processor J3160)
Hard drive	120 GB (2.5" SSD SATA III)
RAM	4 GB (DDR3 SODIMM memory)
Connectors	VGA and HDMI Gigabit LAN port
Mounting	VESA mounting bracket
Operating temperature	0°C to +35°C
Storage temperature	-20°C to +60°C
Connected devices	500
Users	7,000
Users per group	1,500

Supported browsers	
Optimized for	Google Chrome browser (version 60 and higher)
Other supported browsers	Mozilla Firefox (version 55 or higher), Microsoft Edge (version 40 and higher) As other browsers have not been fully tested, their full functionality cannot be guaranteed.

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)

Information about the license policy for 2N® Access Commander can be found on our website www.2n.com

2N® Indoor Touch 2.0

Luxury designed for your interior

The stylish multifunctional communicator 2N® Indoor Touch 2.0 fits elegantly into any interior. One glance at the display panel will let you know who is standing outside your door, and you can open a dialogue or open the door lock.
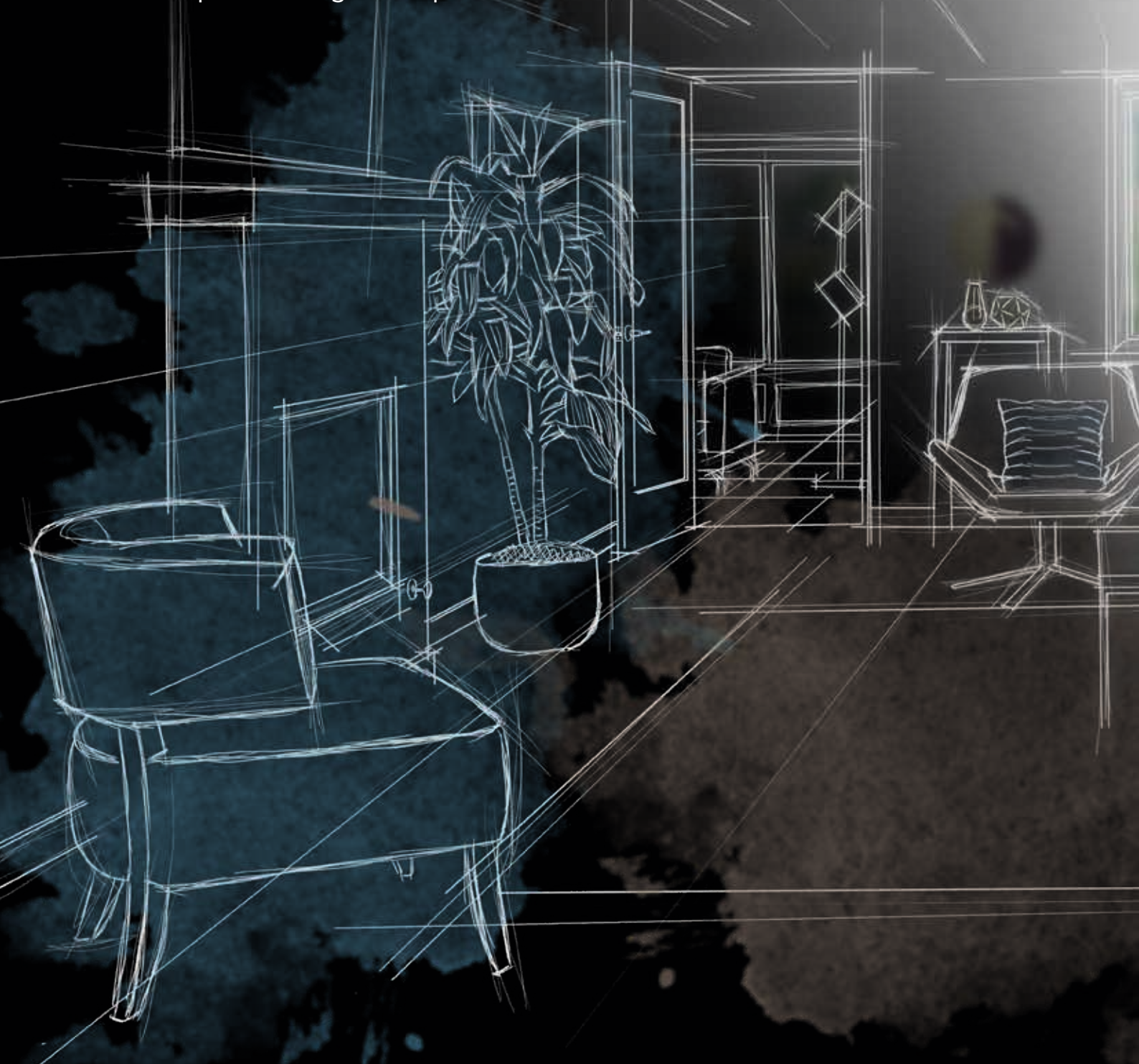
IP ENVIRONMENT

2N® Indoor Touch 2.0

KEY FEATURES

- See what's happening outside your door
- Easy integration with home automation systems
- 4mm glass with capacitive touch

reddot design award
winner 2017

RECOMMENDED USES

For home entrance monitoring

Keep track of what's going on outside your front door. Thanks to the 2N® Indoor Touch 2.0 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.

For integration into home automation systems

The 2N® Indoor Touch 2.0 allows easy control of home automation systems. The answering unit is supplied with a preinstalled licence for the installation of third-party applications for Android. Enjoy having air-conditioning, lighting, playing music and even greeting visitors at your door under your complete control.

EXAMPLE OF CONNECTION OF THE 2N® INDOOR TOUCH 2.0
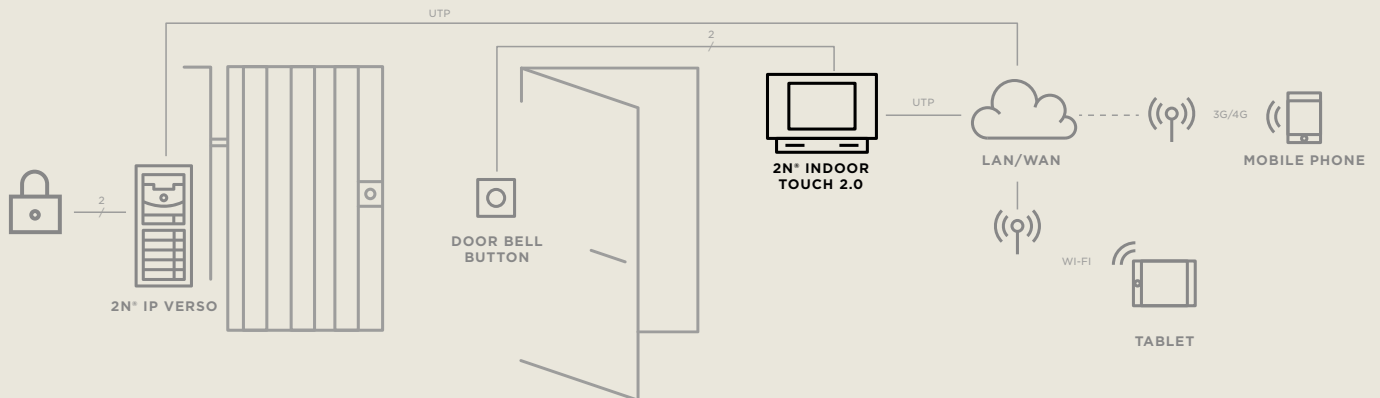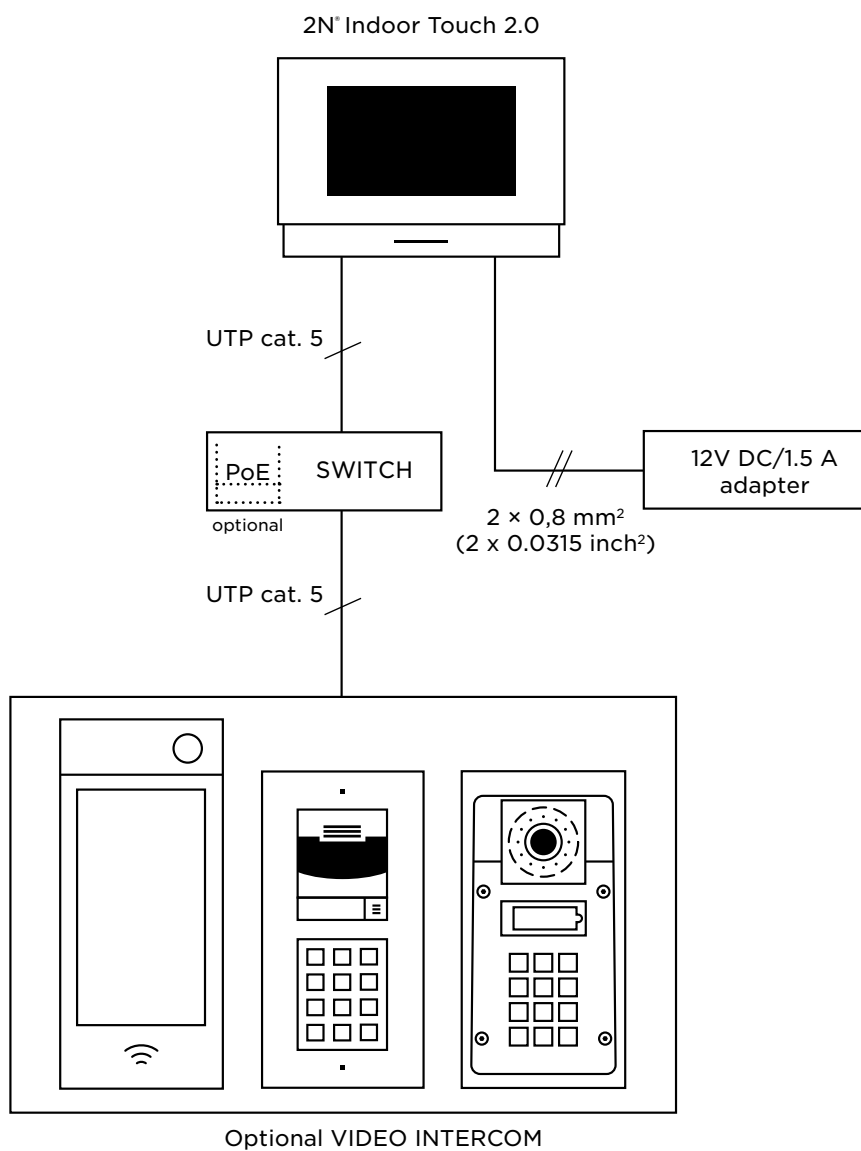
Technical parameters

2N® Indoor Touch 2.0

Power Supply	
Type	12V DC adapter or PoE 802.3af
Recommended power supply	12V/1A
Reverse polarity protection	yes
User interface	
Controls	high-capacity touch screen
Display size	7" colour display
Resolution	1024x600px, 16:9
Backlighting	LED with eco mode
Status indicator	1x RGB LED (missed calls, eco mode, etc.)
Operating System	
	Android 6.0
Audio	
Microphone	integrated
Speaker	integrated, 2W
Codecs	G.711, G.722, G.729
Video	
Codecs	H.264, MJPEG
Interface	
LAN	10/100BaseT, RJ-45
Recommended cabling	Cat5e or better
2x relay	
2x GPIO (doorbell input, etc.)	
Memory card	microSD card (up to 16GB)

Mechanical Parameters	
Dimensions (W x H x D)	235 x 165 x 40mm
Weight	850g
Operating temperature	0°C to 60°C
Relative operating humidity	10% to 90% (non-condensing)
Storage temperature	-20°C to 70°C
Recommended altitude	0 to 2000m

CONNECTION DIAGRAM

2N˙ Indoor Touch 2.0

UTP cat. 5

PoE SWITCH
optional

12V DC/1.5 A adapter

2 × 0,8 mm^2
(2 x 0.0315 inch^2)

UTP cat. 5

Optional VIDEO INTERCOM

Order numbers

2N® Indoor Touch 2.0

Order No.	**91378375**
Name	2N® Indoor Touch 2.0, PoE, black
Desc.	7" touchscreen, 4mm glass, capacitive touch, license for installation of 3rd party applications for Android

Order No.	**91378375WH**
Name	2N® Indoor Touch 2.0, PoE, white
Desc.	7" touchscreen, 4mm glass, capacitive touch, license for installation of 3rd party applications for Android

Order No.	**91378380**
Name	2N® Indoor Touch 2.0, flush mounted power supply
Desc.	power supply for installation in the wall

Order No.	**91378382**
Name	2N® Indoor Touch 2.0, desk stand black
Desc.	Desk stand black

Order No.	**91378382W**
Name	2N® Indoor Touch 2.0, desk stand white
Desc.	Desk stand white

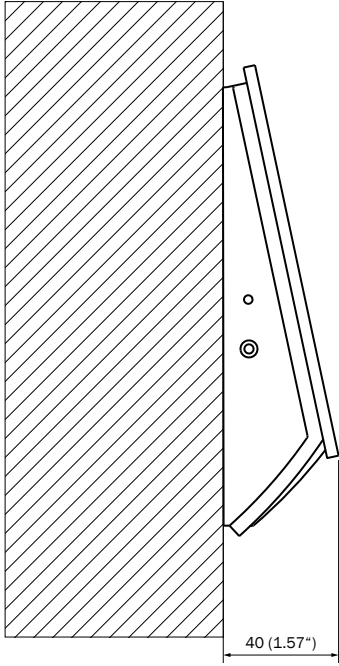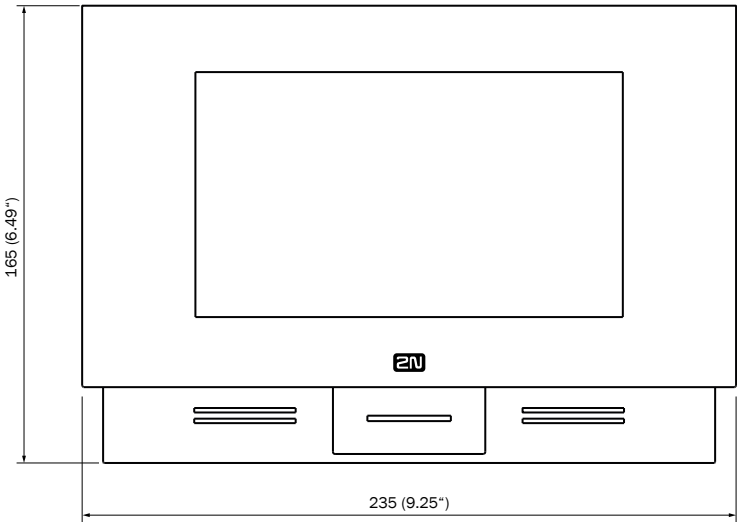| Order No.	**91378396**
Name	2N® Meeting Room
Desc.	SW, overview of scheduled occupancy of meeting rooms

Dimensions and fitting

2N® Indoor Touch 2.0

WALL-MOUNTED

165 (6.49")

235 (9.25")

40 (1.57")

2N® Indoor View

A lightning-fast indoor station

The main feature of the 2N® Indoor View answering unit is a 7″ touchscreen with a wide viewing angle. The tempered glass surface and stylish design are the perfect choice for any luxury residential project. To install the device, all you need is a UTP cable and an installation box.

IP ENVIRONMENT

2N® Indoor View

KEY FEATURES

- 7" touch display with HD resolution
- Immediate response to touch
- Residents' privacy in safe hands
- Remote configuration

RECOMMENDED USES

For full-screen video calls

From a safety perspective, every family will welcome the option of being able to see who is ringing their doorbell. The full-screen preview from the intercom camera is a huge benefit. They can exchange a few words and then remotely let the person in. The full-screen video calls are compatible only with some 2N intercoms.

Video surveillance and integration

The resident can see what is going on in places where no intercom has been installed, and there is only an IP camera (e.g., a hallway, yard or garage). The resident can turn on the air-conditioning, lighting or call the lift directly from the display on their unit. The unit can send up to 3 different HTTP commands.

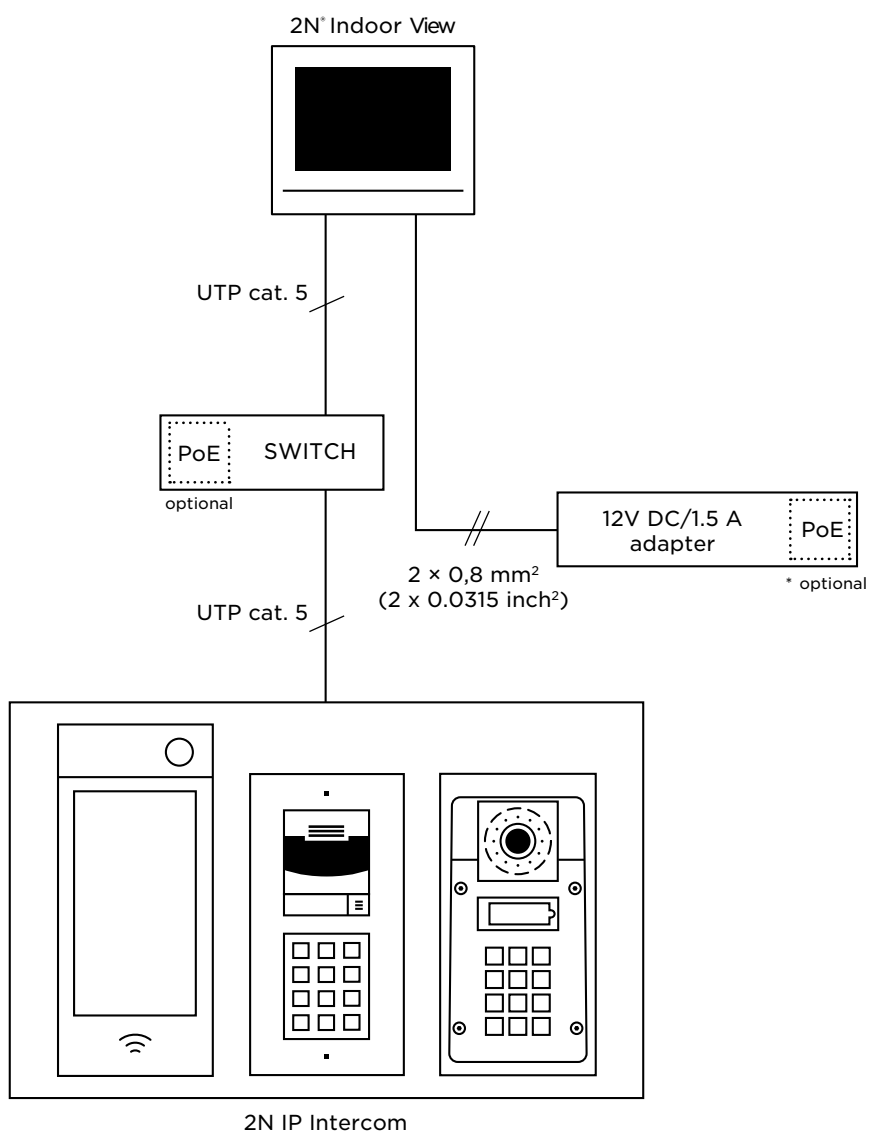## EXAMPLE OF CONNECTION OF THE 2N® INDOOR VIEW

UTP

2

2

DOOR BELL
BUTTON

2N® INDOOR
VIEW

UTP

LAN/WAN

3G/4G

MOBILE PHONE

2N® IP STYLE
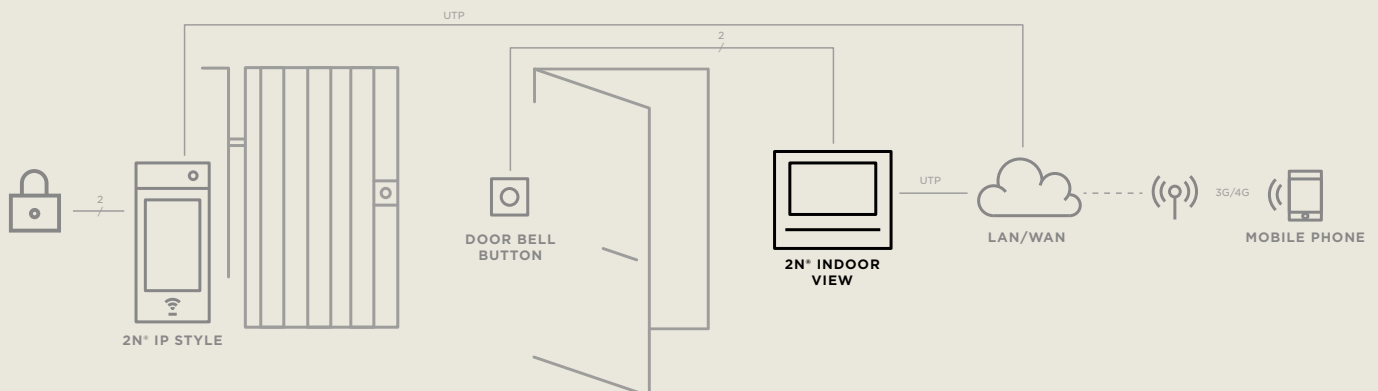
Technical parameters

2N® Indoor View

Power Supply	
Type	12V DC adapter or PoE 802.3af
Recommended power supply	12V/1A
Reverse polarity protection	yes
User Interface	
Controls	capacitive touch panel
Display size	7"
Resolution	640x480px, 1024x600px
Audio	
Microphone	integrated
Speaker	integrated, 2W
Induction loop output	600mV RMS
Codecs	G.711, G.729, G.722, L16/16kHz
Video	
Codecs	H.264, MJPEG
Interface	
LAN	10/100BaseT, RJ-45
Recommended cabling	Cat5e or higher
Doorbell Input	
Input type	switching contact (button/relay)
Contact type	normally open (NO)
Contact parameters	up to 50V/5mA, DC
Mechanical Parameters	
Dimensions (W x H x D)	193x157x50mm
Weight	555g
Operating temperature	0 to 50°C
Relative operating humidity	10 to 90% (non-condensing)
Storage temperature	-20 to 70°C
Recommended altitude	0 to 2000m

CONNECTION DIAGRAM

2N® Indoor View

UTP cat. 5

PoE
SWITCH
optional

12V DC/1.5 A
adapter
PoE
* optional

2 × 0,8 mm^2
(2 x 0.0315 inch^2)

UTP cat. 5

2N IP Intercom

Order numbers

2N® Indoor View

Order No.	91378601
Name	2N® Indoor View black
Desc.	in-wall answering unit, 7" display, slim design (10 mm)

Order No.	91378601WH
Name	2N® Indoor View white
Desc.	in-wall answering unit, 7" display, slim design (10 mm)

Order No.	91378800
Name	2N Indoor Flush Box
Desc.	box for installation in the wall

Order No.	91378803
Name	2N Indoor Surface Box
Desc.	surface-mount box for 2N answering units, only in black colour

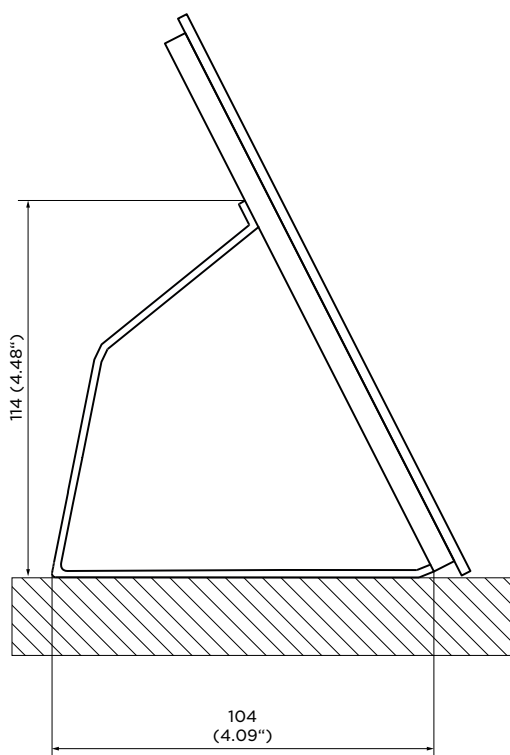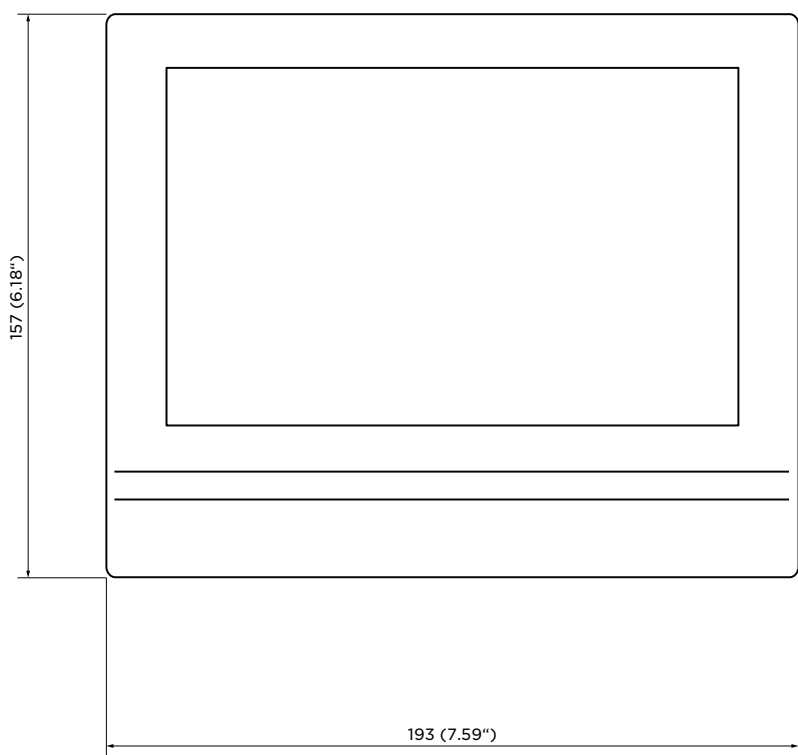| Order No.	91378802
Name	2N Indoor Desk Stand
Desc.	stand for 2N answering units, only in black colour

Dimensions and fitting

2N® Indoor View

IN-WALL MOUNTED

157 (6.18")

193 (7.59")

Ø103 (4.05")

55 (2.16")

11 (0.43")

WALL-MOUNTED

157 (6.18")

193 (7.59")

88 (3.46")

62 (2.44")

DESK STAND

157 (6.18")

193 (7.59")

114 (4.48")

104
(4.09")
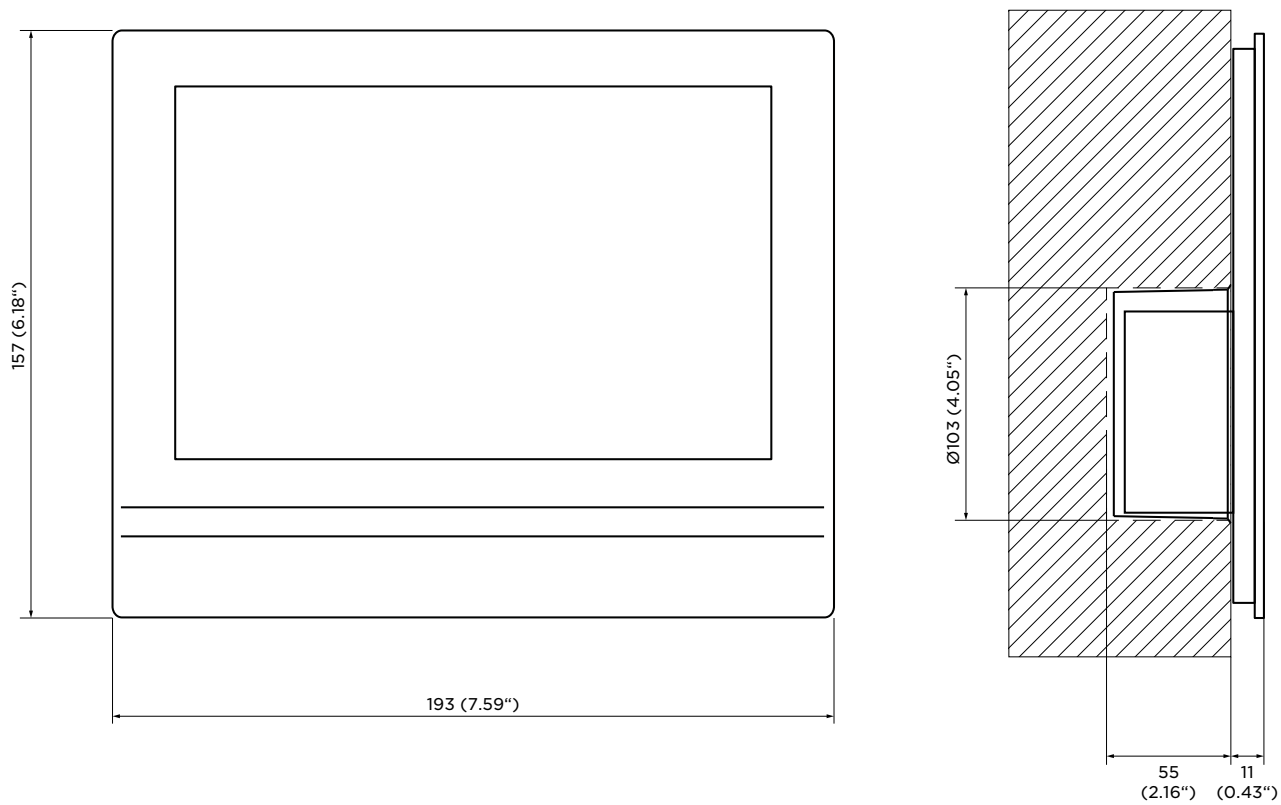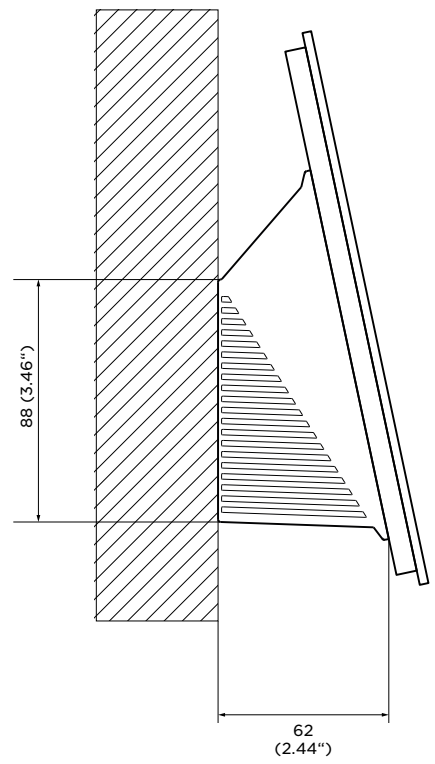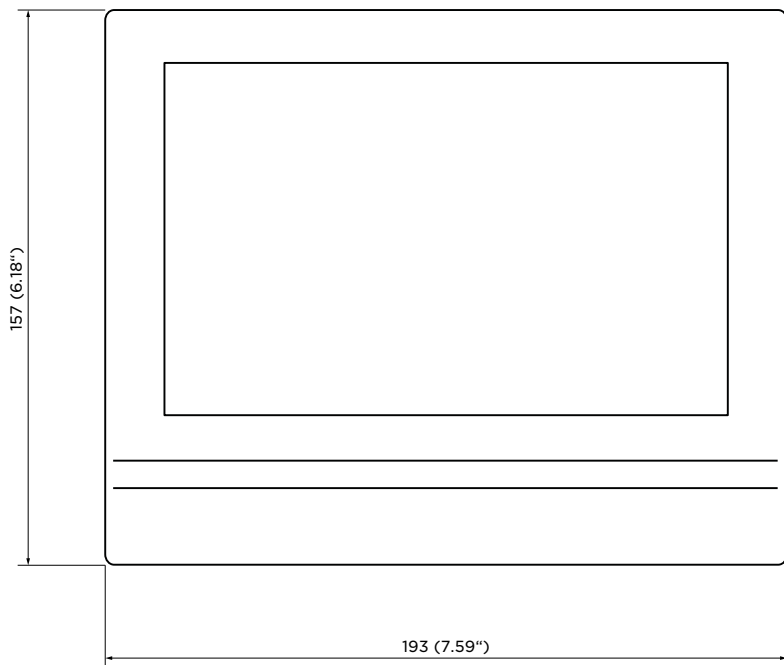
2N® Indoor Compact

An elegant solution for video communication

The 2N® Indoor Compact is an indoor answering unit designed especially for the residential market. Installation by connecting a single UTP cable and configuration via a web interface guarantees that integrators can get the unit into operation quickly and easily. Users will be impressed by the minimalist design, tempered glass surface, 4.3" colour display and intuitive controls.

IP ENVIRONMENT

2N® Indoor Compact

KEY FEATURES

- Intuitive controls, even for inexperienced users
- Stylish surface made of tempered glass
- Configuration via a web interface
- HD quality sound with noise suppression
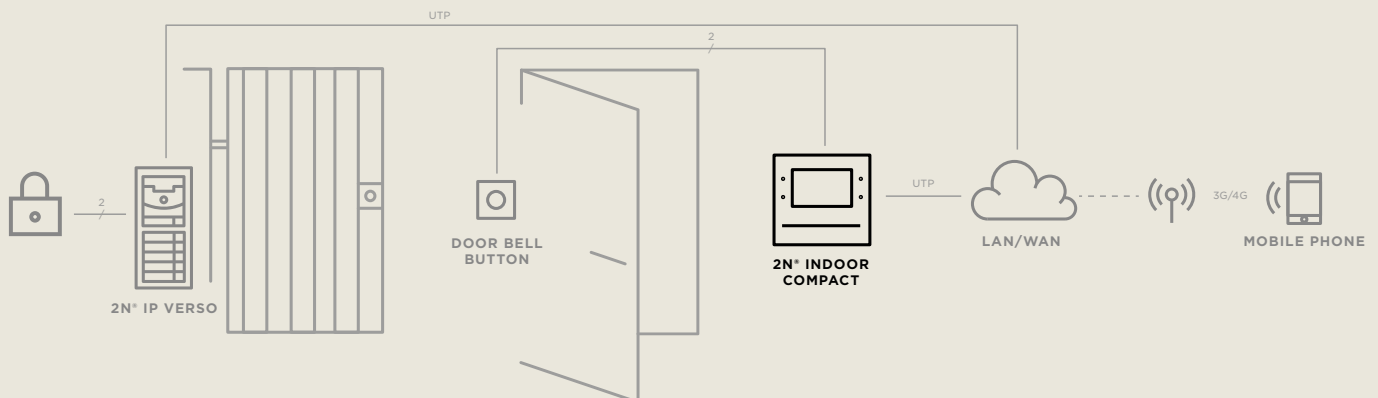
RECOMMENDED USES

For video door communication for an apartment

As soon as a visitor rings the bell at the front door, the call can be accepted in the living room or kitchen with a single touch of the button and the door can be opened just as easily. In case the resident is not at home, a call log with snapshots is saved in the unit.

To monitor both internal and external views

When accepting a call on the 2N® Indoor Compact, it's possible possible to switch from the intercom's camera to video from an external IP camera by the entrance. Make sure only the person you want to let in enters the building.
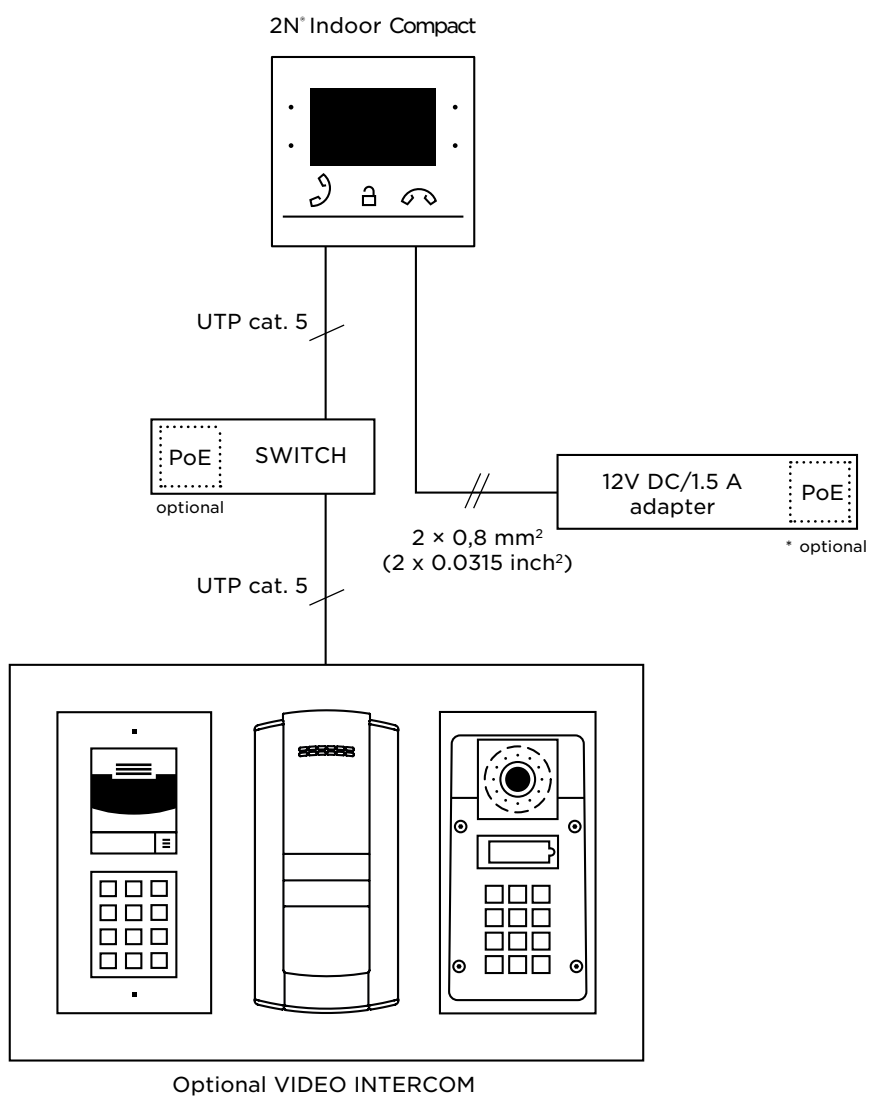
EXAMPLE OF CONNECTION OF THE 2N® INDOOR COMPACT

UTP

2

2

2N® IP VERSO

DOOR BELL
BUTTON

2N® INDOOR
COMPACT

UTP

LAN/WAN

3G/4G

MOBILE PHONE

Technical parameters

2N® Indoor Compact

Power Supply	
Type	12V DC adapter or PoE 802.3af
Recommended power supply	12V/1A
Reverse polarity protection	yes
User Interface	
Controls	7 capacitive buttons with RGB LED backlight
Display size	4.3″ colour display
Resolution	480x272px
Audio	
Microphone	integrated
Speaker	integrated, 2W
Induction loop output	600mV RMS
Codecs	G.711, G.729, G.722, L16/16kHz
Video	
Codecs	H.264, H.263, MJPEG
Interface	
LAN	10/100BaseT, RJ-45
Recommended cabling	Cat5e or higher
Doorbell Input	
Input type	switching contact (button/relay)
Contact type	normally open (NO)
Contact parameters	up to 50V/5mA, DC
Mechanical Parameters	
Dimensions (W x H x D)	152 x 153 x 50mm
Weight	387g
Operating temperature	0 to 50°C
Relative operating humidity	10 to 90% (non-condensing)
Storage temperature	-20 to 70°C
Recommended altitude	0 to 2000m

CONNECTION DIAGRAM

2N˚ Indoor Compact

UTP cat. 5

PoE | SWITCH

optional

12V DC/1.5 A adapter | PoE

2 × 0,8 mm^2
(2 x 0.0315 inch^2)

* optional

UTP cat. 5

Optional VIDEO INTERCOM

Order numbers

2N® Indoor Compact

Order No.	**91378501**
Name	2N® Indoor Compact, black
Desc.	4.3" display, slim design (10mm), PoE

Order No.	**91378501WH**
Name	2N® Indoor Compact, white
Desc.	4.3" display, slim design (10mm), PoE

Order No.	**91378800**
Name	2N Indoor Flush Box
Desc.	box for installation in the wall

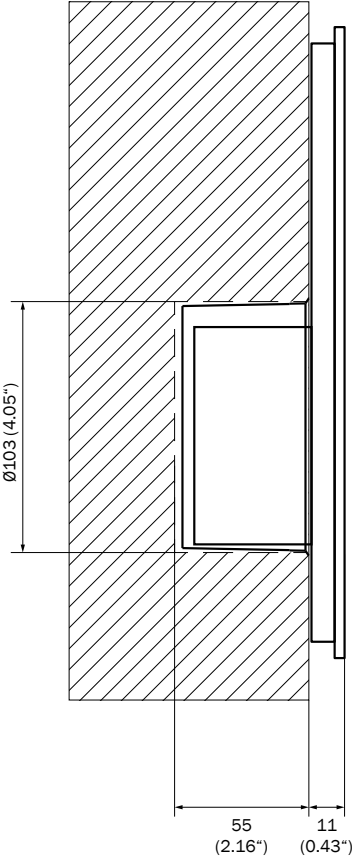| Order No.	**91378803**
Name	2N Indoor Surface Installation Box
Desc.	surface-mount box for 2N answering units, only in black colour

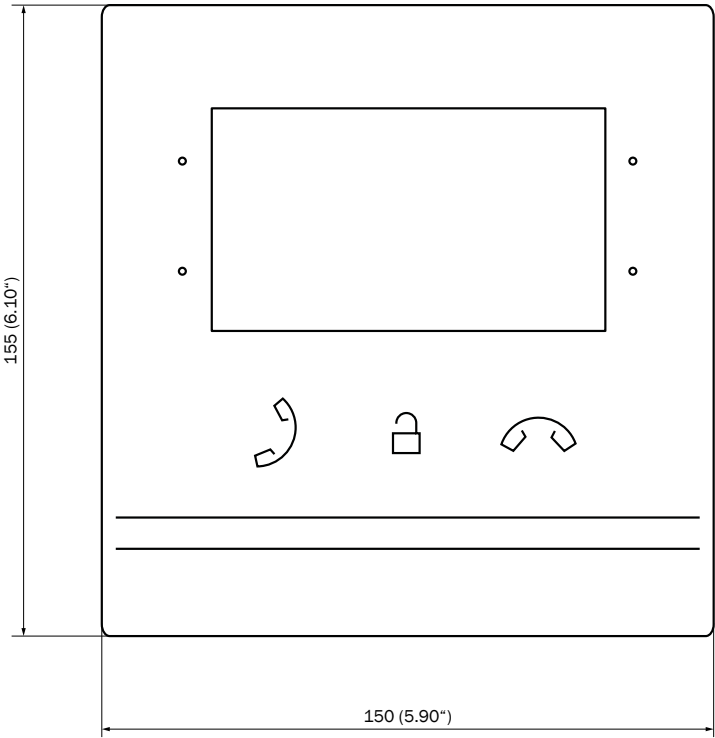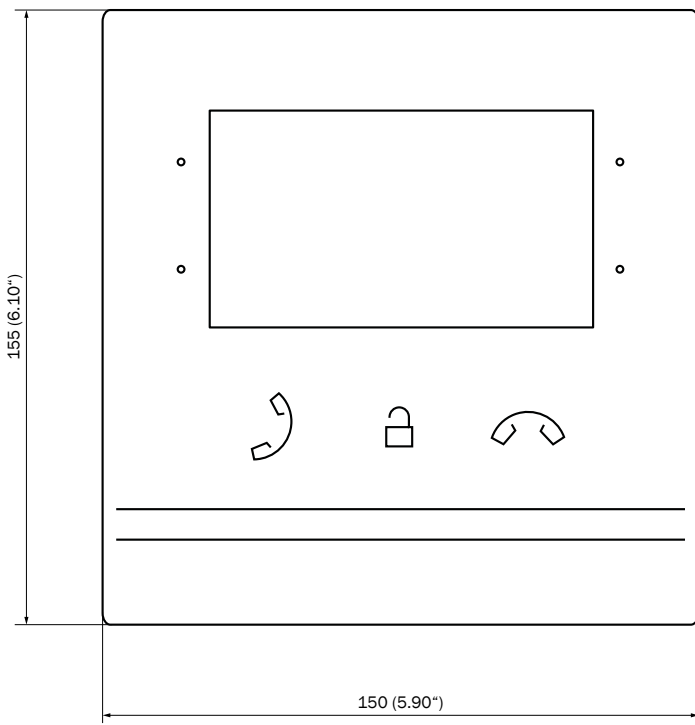| Order No.	**91378802**
Name	2N Indoor Desk Stand
Desc.	stand for 2N answering units, only in black colour

Dimensions and fitting

2N® Indoor Compact

IN-WALL MOUNTED

155 (6.10")

150 (5.90")

Ø103 (4.05")

55 (2.16")   11 (0.43")

WALL-MOUNTED

DESK STAND

155 (6.10")

150 (5.90")

114 (4.48")

104
(4.09")
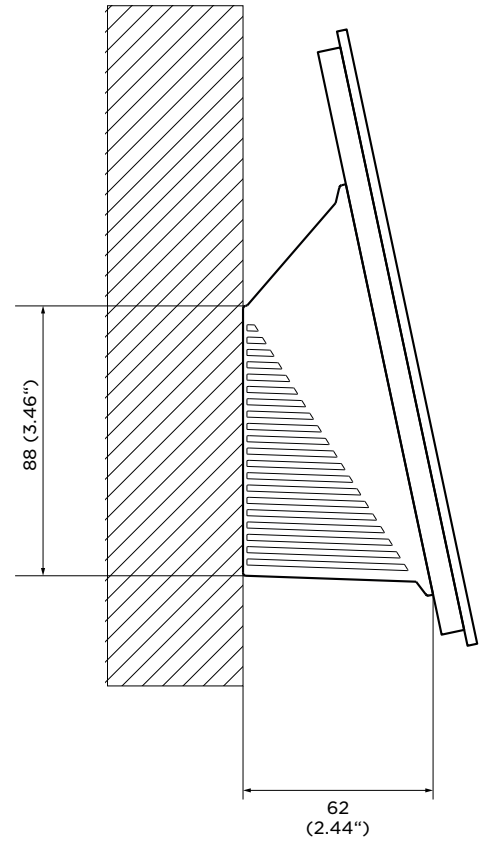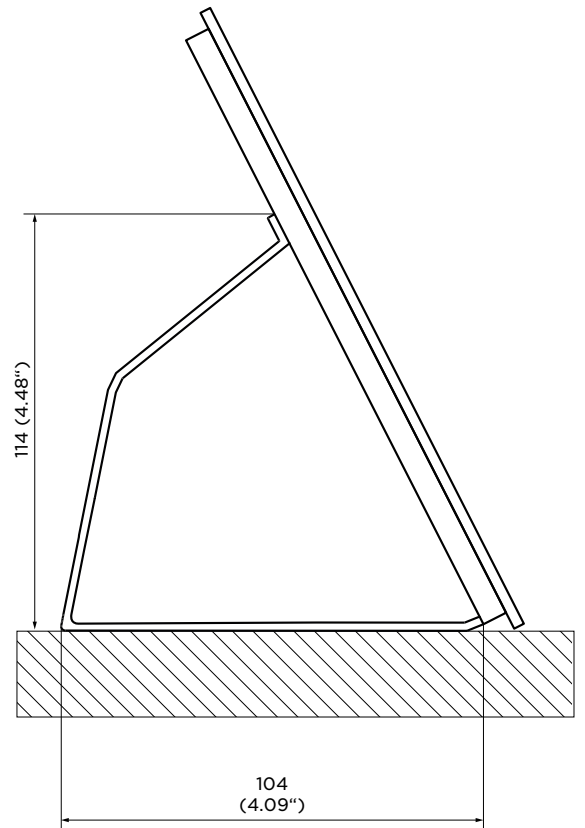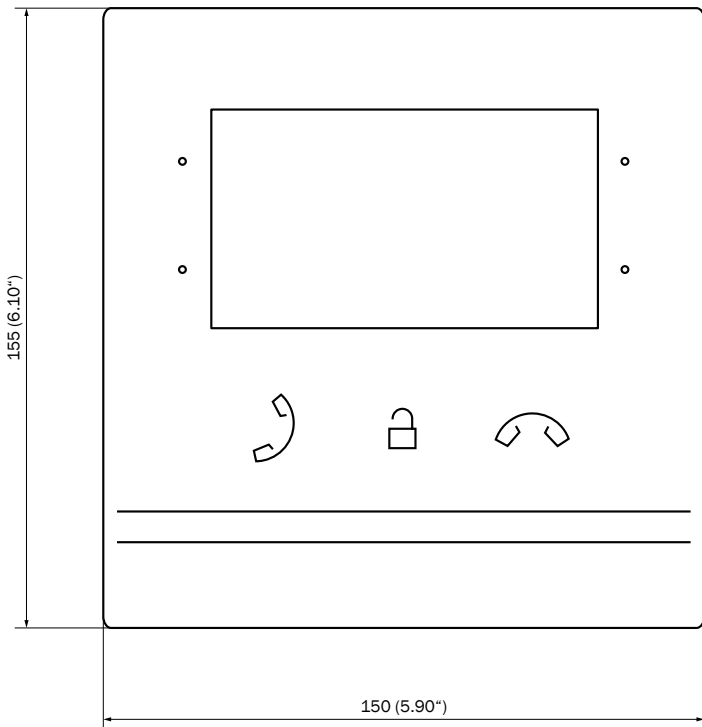
2N® Indoor Talk

An answering unit with HD sound

The 2N® Indoor Talk answering unit will suit every flat or home. The aesthetic appearance of this product was achieved by using a glass surface and striking backlighting of its icons. Overall, though, our primary focus was to give you the highest-quality sound with top notch audio components.

IP ENVIRONMENT

2N® Indoor Talk

KEY FEATURES

- HD quality sound with high volume
- Luxury design and materials
- Backlit touch buttons for easy control
- Precision installation box

iF

**DESIGN AWARD 2019**

RECOMMENDED USES

As an intuitive unit for the whole family

Due to its simple design, anyone can quickly master the operation of the 2N® Indoor Talk, no matter their age. Have the option to set the required intensity of icon backlighting, choose from the 10 available ringtones or set the unit to "Do not disturb" mode.

As a complementary answering unit

Having basic functionalities, 2N® Indoor Talk can serve as an additional unit to the main video answering unit. The 2N® Indoor Talk allows you to make calls not only to a 2N IP Intercom, but to other corresponding answering units at home, or on the reception of the apartment building.

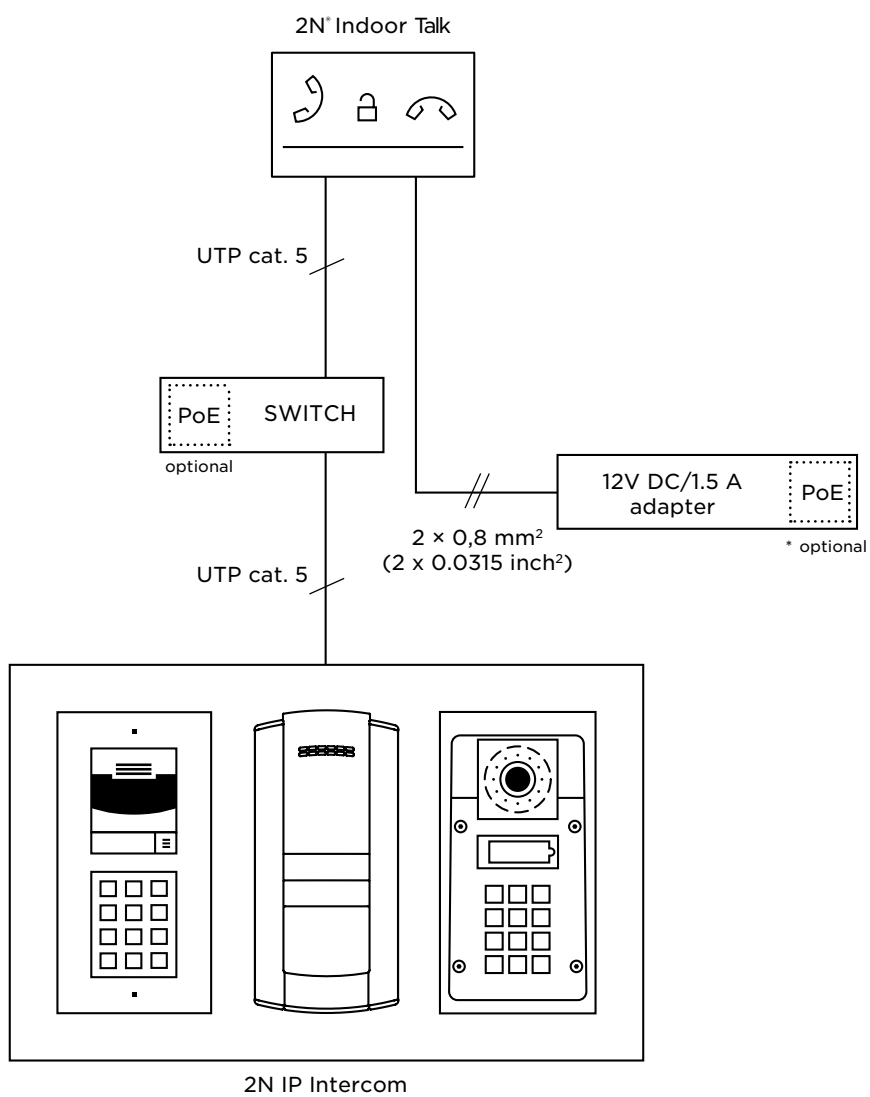## EXAMPLE OF CONNECTION OF THE 2N® INDOOR TALK

UTP

2

2N® IP SOLO

DOOR BELL BUTTON

2N® INDOOR TALK

UTP

LAN/WAN

3G/4G

MOBILE PHONE
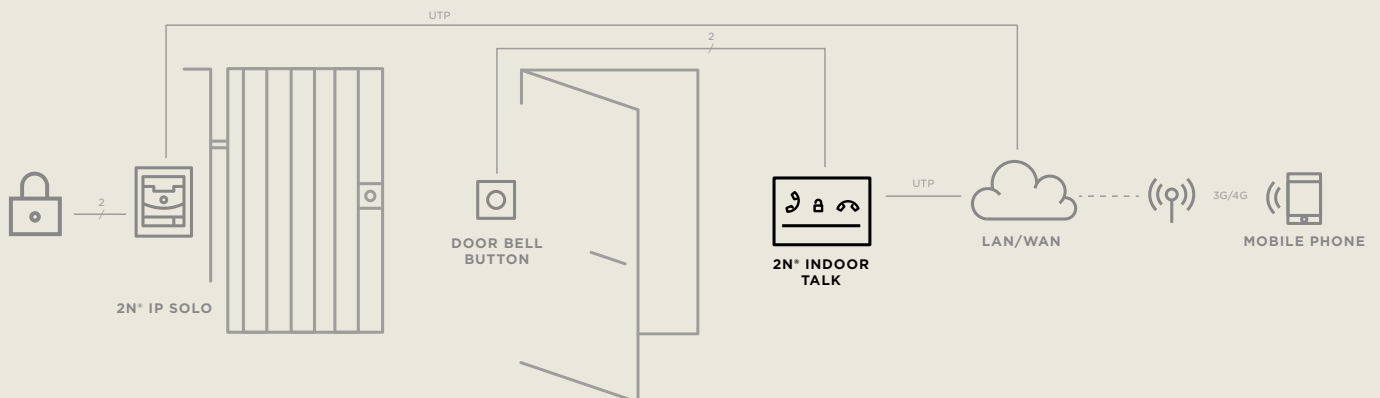
Technical parameters

2N® Indoor Talk

Power Supply	
Type	12V DC adapter or PoE 802.3af
Recommended power supply	12V/1A
Reverse polarity protection	yes
User Interface	
Controls	7 capacitive buttons with RGB LED backlight
Audio	
Microphone	integrated
Speaker	integrated, 2W
Induction loop output	600mV RMS
Codecs	G.711, G.729, G.722, L16/16kHz
Interface	
LAN	10/100BaseT, RJ-45
Recommended cabling	Cat5e or better
Doorbell Input	
Input type	switching contact (button/relay)
Contact type	normally open (NO)
Contact parameters	up to 50V/5mA, DC
Mechanical Parameters	
Dimensions (W x H x D):	185 x 128 x 48.2mm
Weight	387g
Operating temperature	0 to 50°C
Relative operating humidity	10 to 90% (non-condensing)
Storage temperature	-20 to 70°C
Recommended altitude	0 to 2000m

CONNECTION DIAGRAM

2N® Indoor Talk

UTP cat. 5

| PoE | SWITCH |
optional

12V DC/1.5 A adapter | PoE |

2 × 0,8 mm² (2 x 0.0315 inch²)

* optional

UTP cat. 5

2N IP Intercom

Order numbers

2N® Indoor Talk

Order No.	**91378401**
Name	2N® Indoor Talk, black
Desc.	HD sound, slim design (10mm), PoE

Order No.	**91378401WH**
Name	2N® Indoor Talk, white
Desc.	HD sound, slim design (10mm), PoE

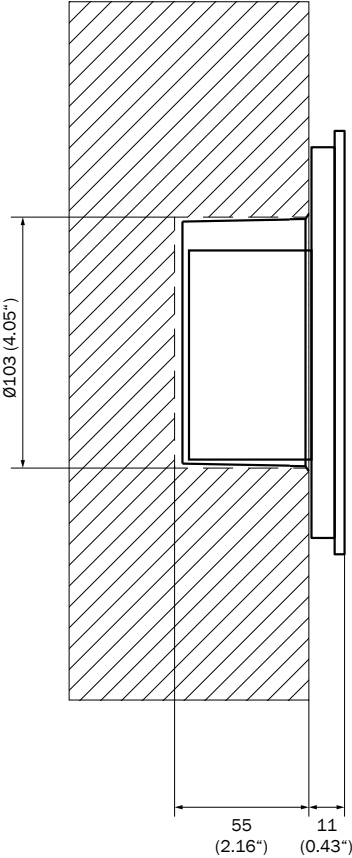| Order No.	**91378800**
Name	2N Indoor Flush Box
Desc.	box for installation in the wall

Order No.	**91378802**
Name	2N Indoor Desk Stand
Desc.	stand for 2N answering units, only in black colour

Dimensions and fitting

2N® Indoor Talk

IN-WALL MOUNTED

153 (5.03")

185 (7.28")

Ø103 (4.05")

55 (2.16")   11 (0.43")
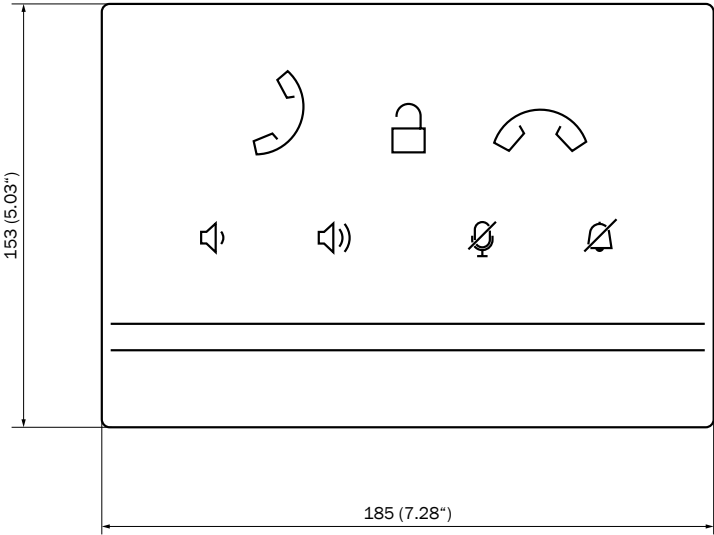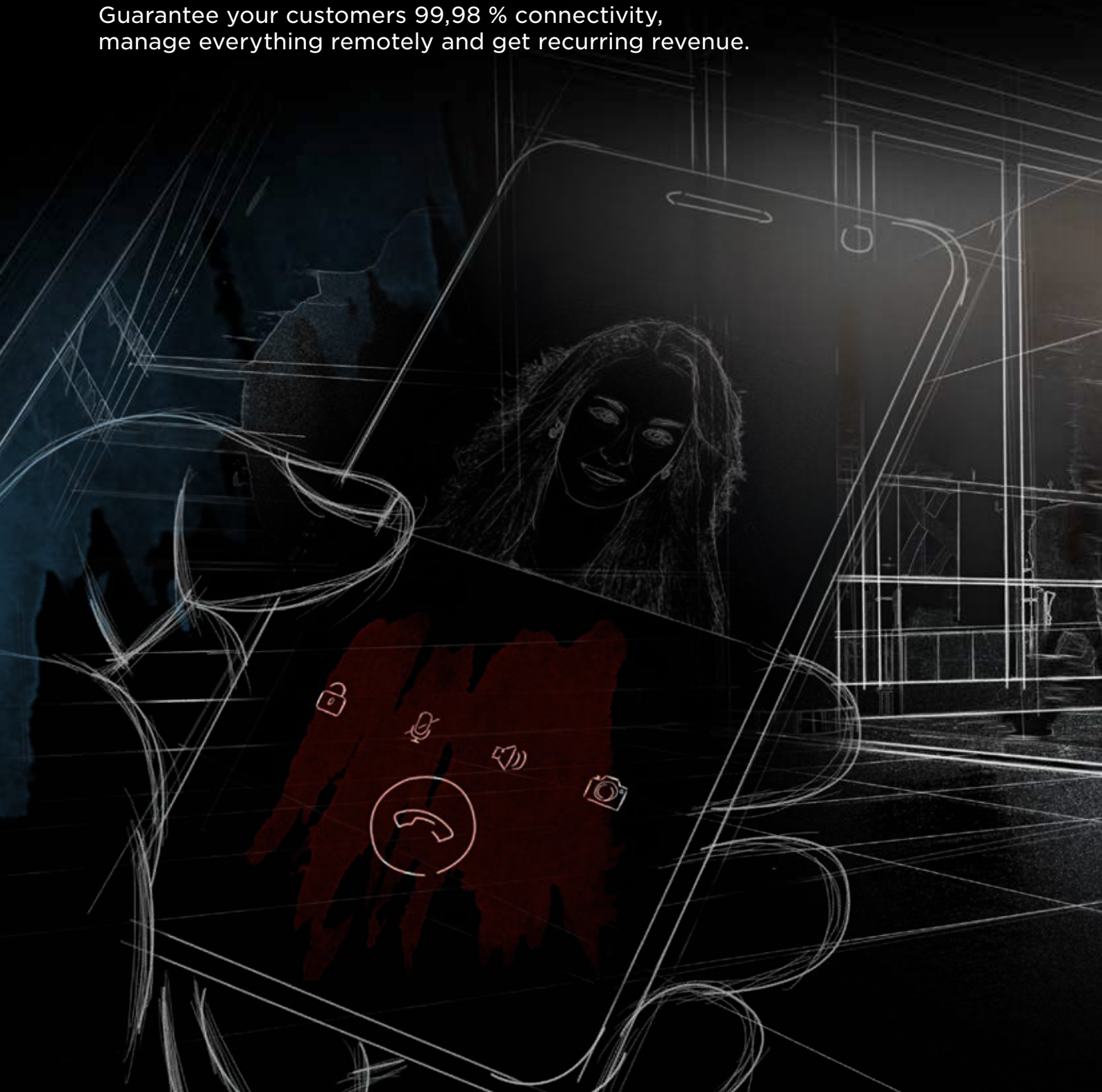
DESK STAND
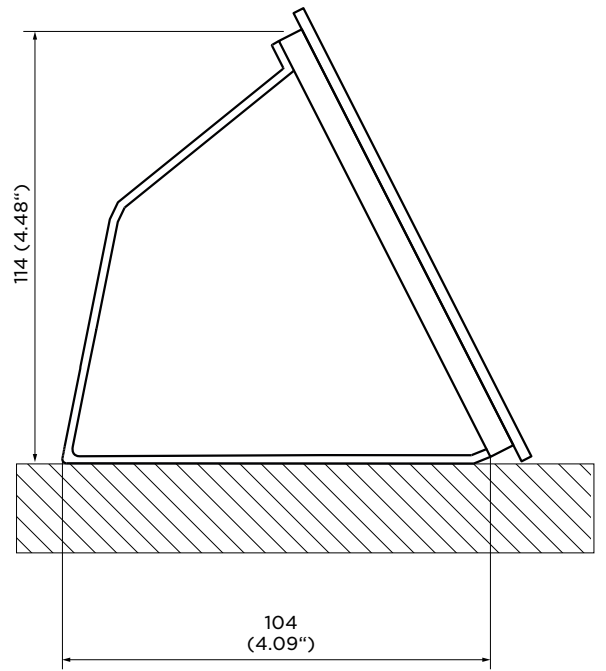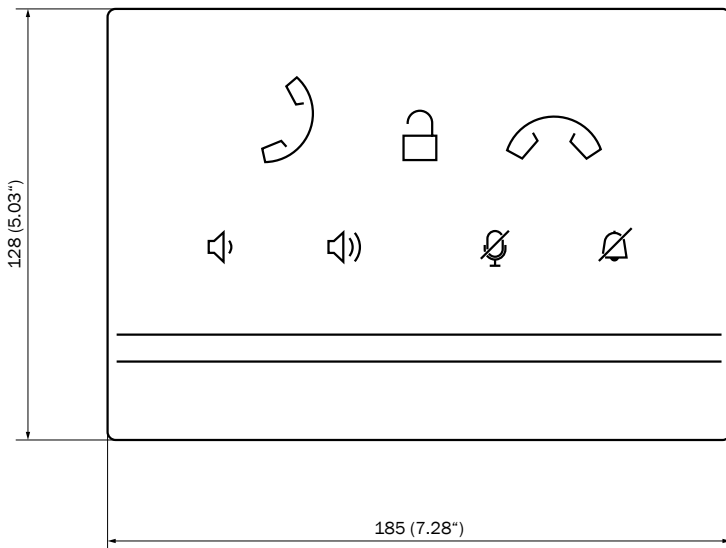
2N® Mobile Video

The most reliable mobile service

Build your business on a professional cloud service. Guarantee your customers 99,98 % connectivity, manage everything remotely and get recurring revenue.
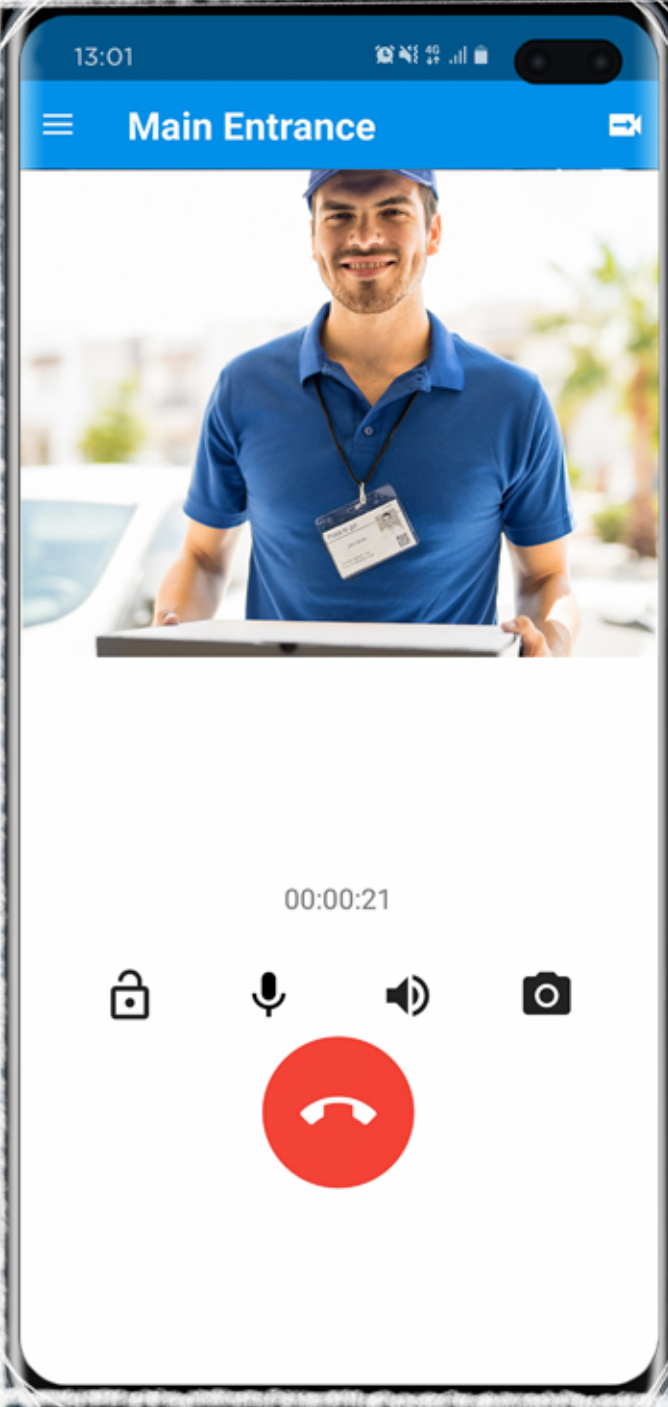
2N® Mobile Video

KEY FEATURES

- **The most reliable cloud service**

  2N® Mobile Video is a key service provided by My2N, which is hosted on world-leading Amazon servers (AWS). Thanks to modern SW architecture based on microservices, it provides top level reliability.

- **The least expensive video answering unit**

  Apart from the intercom and your smartphone, won't need anything else to open a door, meaning no network gateways or hardware answering units. You´ll appreciate its easy setup- especially in large installations.

- **Tailored for multi-tenant building needs**

  Intergrate the intercom with your home automation system to control the lights, the alarm, or start any custom action using 2N® Mobile Video. Also benefit from remote access - in combination with a 2N Intercom with IP technology, the tenant can accept a call even when they're away from home.

TECHNICAL PARAMETERS

General requirements

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 2.22
or newer connected to the internet.

A mobile phone with the Android operating system version 6 or newer or
iOS version 12 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 73 and higher).
Additional supported browsers are:	Mozilla Firefox (version 66 and higher), Microsoft Edge (version 44 and higher). On other browsers not tested, we cannot guarantee full functionality.

Limitations

	The 2N® Mobile Video service can be used for a maximum of 500 devices in one location (site). A maximum of 5 devices can be called using one speed-dial button.

Limitations

	Service reliability is 99.7 % (the service is not guaranteed).

INTERNET

My2N

2N® MOBILE
VIDEO

3G/4G

| 2N® LTE VERSO | 2N® IP SOLO | 2N® IP STYLE | 2N® IP FORCE | 2N® IP VERSO | 2N® IP BASE | 2N® INDOOR TOUCH 2.0 |
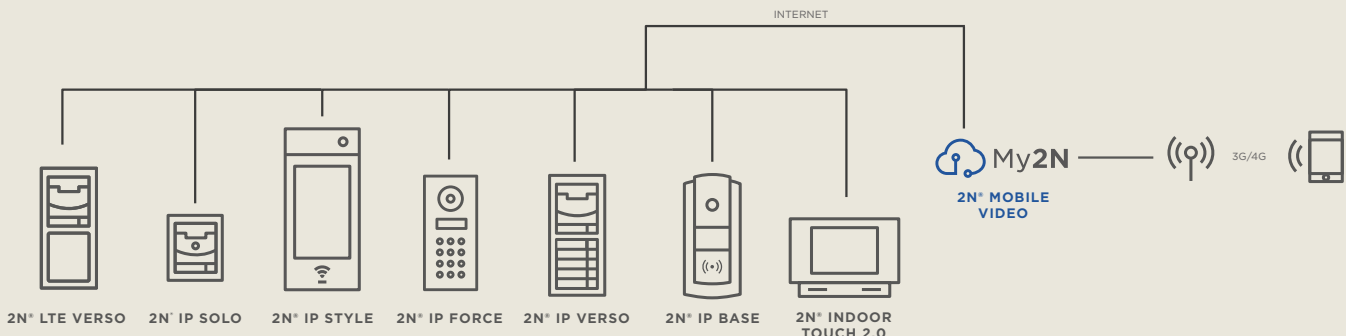
Order numbers

2N® Mobile Video

Order No.	**9137958**
Name	My2N Annual Apartment Subscription
Desc.	for apartment buildings

Order No.	**9137957**
Name	My2N Annual Device Subscription
Desc.	for family homes and other types of installations

Cloud Services

The My2N cloud platform offers the administration and configuration of all 2N devices from one location – and much more. Its basic building blocks are reliability, security and stable performance. These are precisely the elements that allow you to set up all 2N devices throughout the whole building remotely, in real time.

IP ENVIRONMENT

Remote Management

No one these days wants to travel around solving customer requests face to face. Thanks to our remote management, you can add and remove users and devices, update firmware, diagnose and troubleshoot, all without leaving your home or office.

KEY FEATURES

- **Be effective**

    Configuration directly on the My2N portal is up to 90% faster compared to traditional product-based configuration.

- **Happy customers**

    Keep your customers happy and respond to their requests almost instantly.

- **Contactless service**

    Thanks to remote services, you won't have to make appointments with apartment residents and the property manager. Get the job done when it's convenient for you.

- **Comply with the SLA terms and conditions**

    Response times to incidents under SLAs tend to be restricted. My2N will help you meet the requirements.

- **Encrypted connection**

    Take cyber security to the next level with Tribble Tunnel, our own protocol which provides double encryption.

- **Advanced profile settings**

    While you can't set up complex scenarios on the My2N portal, you can always use it to connect remotely to the product's web interface.

SCHEME OF REMOTE MANAGEMENT

WHOLE SITE ADMINISTRATION

ADMINISTRATOR

MY2N

HTTPS
HTTPS
HTTPS
HTTPS

ADVANCED
DEVICE
CONFIGURATION

2N® INDOOR VIEW
MOBILE PHONE
MOBILE PHONE
MOBILE PHONE
APARTMENT #3

2N® INDOOR COMPACT
MOBILE PHONE
MOBILE PHONE
APARTMENT #4

2N® INDOOR VIEW
MOBILE PHONE
APARTMENT #1

2N® INDOOR TALK
MOBILE PHONE
MOBILE PHONE
MOBILE PHONE
MOBILE PHONE
APARTMENT #2

ADVANCED
DEVICE
CONFIGURATION

2N® IP VERSO

MAIN ENTRANCE

2N ACCESS UNIT 2.0

CELLARS

ADVANCED DEVICE CONFIGURATION

IP ENVIRONMENT

Cloud calling

You can set up a call from an intercom to a smartphone or an answering unit installed in the apartment in just a few minutes. What's required to set up a cloud call? You only need an intercom and an answering unit connected to the internet. Your phone will be able to accept calls from anywhere in the world, as long as there is sufficient signal.

KEY FEATURES

• **99.98% reliability**

Our statistics speak for themselves. Cloud calling via My2N

is unquestionably the most reliable service on the market.

• **Set up a call in just a few minutes**

Cloud setup for simple residential installations is up to 90% faster

compared to traditional web-based configuration..

• **No extra hidden HW**

We don't over-complicate our solution with GSM gateways.

You won't even need to buy an answering unit for the intercom

to enable phone calling.

• **More than just a phone call**

The 2N® Mobile Video app can do more than just contact the resident.

It can also provide video surveillance, open doors and much more.

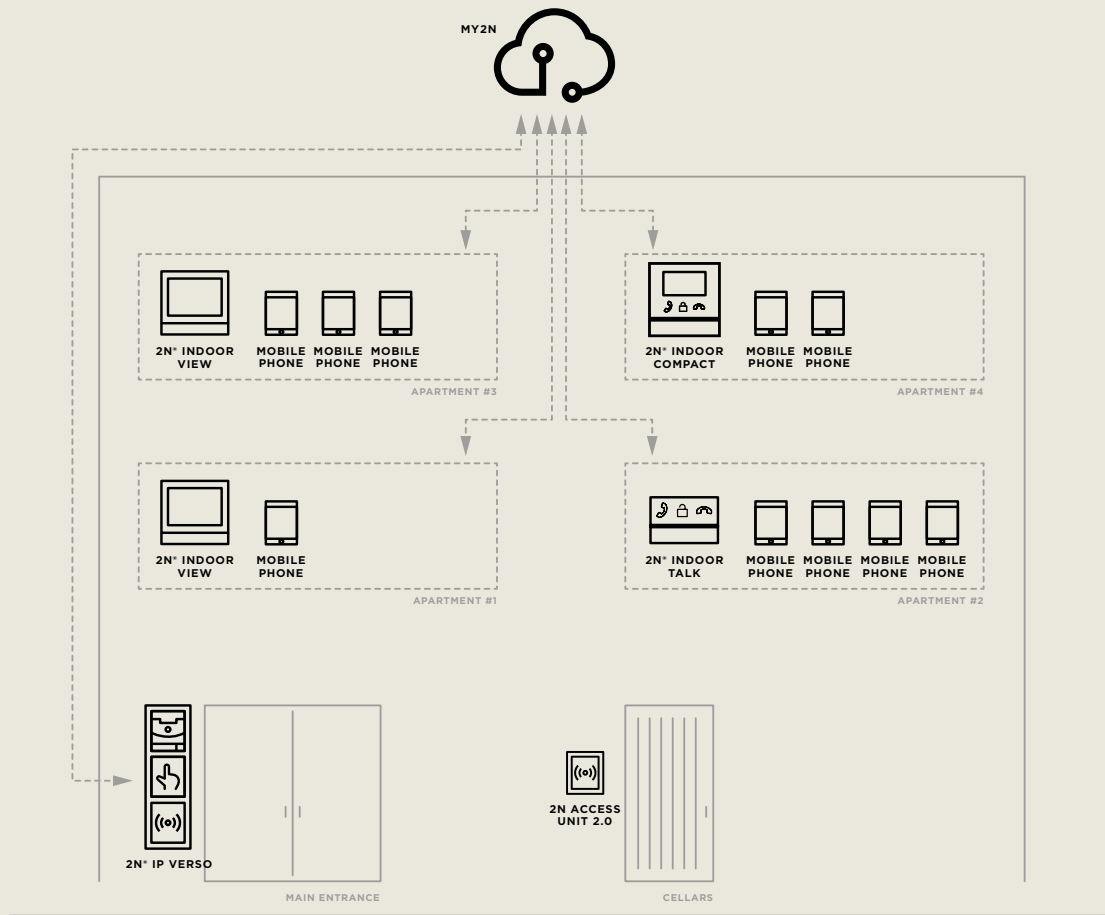• **Prepare for installation ahead of time**

Set up calls between products while you're still in the office without

even needing to switch the products on. As soon as the technician

has installed the equipment, everything will work instantly.

• **Generate long-term income**

Premium calls to smartphones are a paid service. This service has

money-making potential in the distribution chain as well.

SCHEME OF CLOUD CALLING

MY2N

2N® INDOOR VIEW — MOBILE PHONE MOBILE PHONE MOBILE PHONE
APARTMENT #3

2N® INDOOR COMPACT — MOBILE PHONE MOBILE PHONE
APARTMENT #4

2N® INDOOR VIEW — MOBILE PHONE
APARTMENT #1

2N® INDOOR TALK — MOBILE PHONE MOBILE PHONE MOBILE PHONE MOBILE PHONE
APARTMENT #2

2N® IP VERSO
MAIN ENTRANCE

2N ACCESS UNIT 2.0
CELLARS

2N SIP Audio

The public address is vital both for emergency situations and the organisation of everyday life - broadcasting warnings, instructions, scheduled commands or background music for communal spaces.
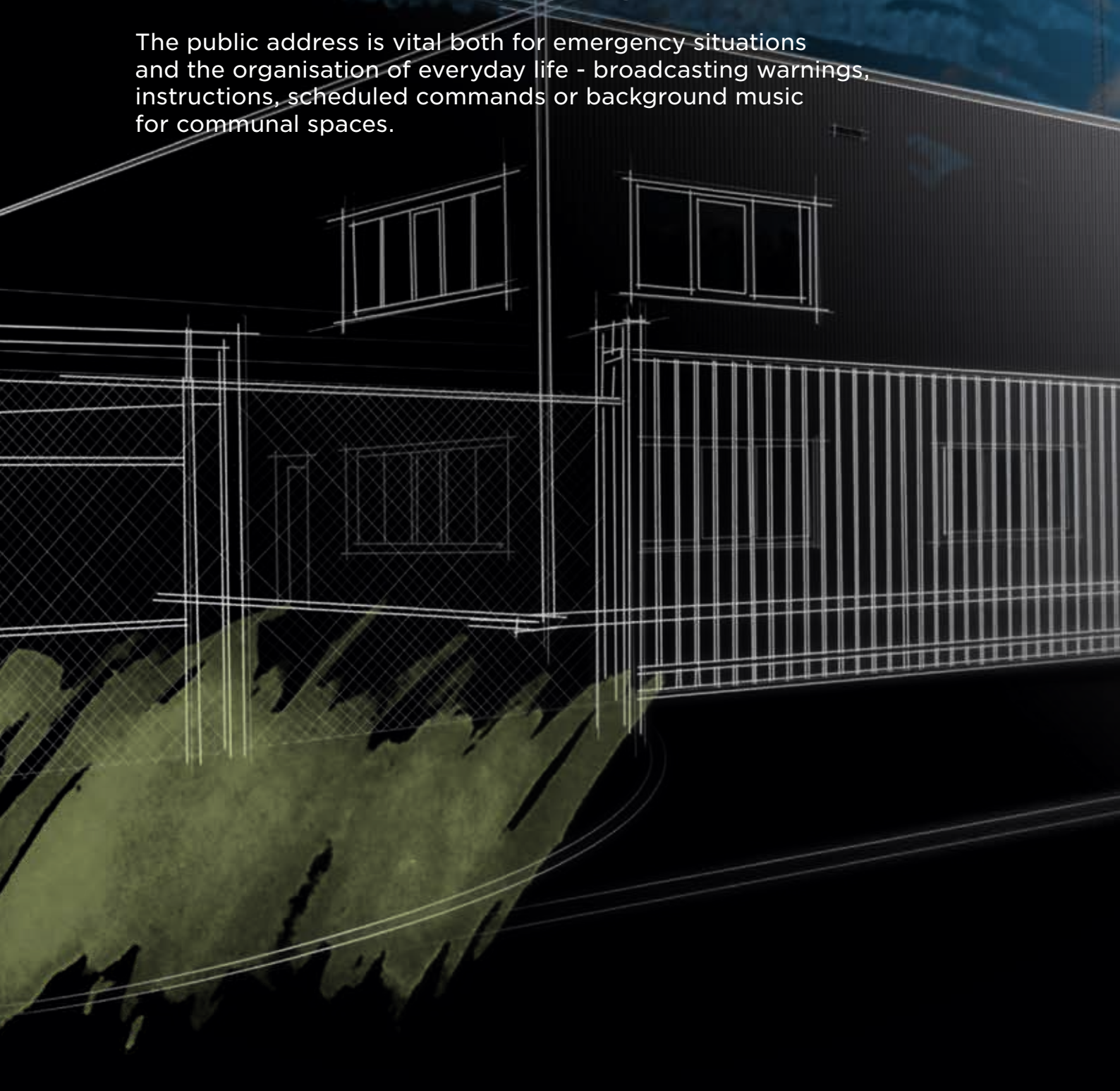
IP ENVIRONMENT

2N® SIP Speaker Horn

KEY FEATURES

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

RECOMMENDED USES

As a 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. What's more, when in integration with VMS, the intruder can be addressed specifically by using visual information.

For public announcements in urban areas

Public announcements have to be loud enough to be heard through closed windows to catch the 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.

For assembly line emergency communication

Working in a noisy environment, such as an assembly line, requires wearing earplugs. However, in case of emergency an announcement, and especially 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.

ORDER NUMBERS

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

Order No.	**914423E**
Name	2N® SIP Speaker Horn Adapter
Desc.	stabilised 24V / 2A power source (if no PoE available)

Order No.	**914481EM**
Name	SIP Audio external microphone Mono
Desc.	Audio surveillance, omnidirectional, outdoor

Order No.	**914481EST**
Name	SIP Audio external microphone Stereo
Desc.	Audio surveillance, omnidirectional, outdoor

cisco Compatible | AVAYA | Lync | BROADSOFT | SIEMENS | Alcatel·Lucent

TECHNICAL PARAMETERS

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

IP ENVIRONMENT

2N® SIP Speaker

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 USES

At schools classroom

2N® SIP Speaker meets the requirements of every school, 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.

At 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 usually monitored, can sometimes face unwelcome intruders.. 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.

ORDER NUMBERS

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

cisco Compatible   AVAYA   L Lync   BROADSOFT   SIEMENS   Alcatel·Lucent

TECHNICAL PARAMETERS

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

IP ENVIRONMENT

2N® SIP Mic

KEY FEATURES

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

RECOMMENDED USES

For public announce-ments 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. What's more, at a simple press of a button, they can also listen to what's happe-ning in certain areas.

As a 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.

ORDER NUMBERS

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

TECHNICAL PARAMETERS

Audio stream	
	SIP2.0, RTP multicast, VAPIX®
Audio codecs	G.711u, G.722, L16/16 kHz
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

IP ENVIRONMENT

Other Accessories

Electrical strikes

Mini electronic door strike, series 5	11202101
Mini electronic door strike, series 5 - long	11202101-L
Mini electronic door strike with mechanical blocking, series 5	11202103
Mini electronic door strike with mechanical blocking, series 5 - long	11202103-L
Mini electronic door strike with hold-open mechanism, series 5	11202102
Mini electronic door strike with hold-open mechanism, series 5 - long	11202102-L
Mini electronic door strike with monitoring, series 5	11202104
Mini electronic door strike with monitoring, series 5 - long	11202104-L
Mini reverse electronic door strike, series 5	11202105
Mini reverse electronic door strike, series 5 - long	11202105-L
Mini reverse electronic door strike with monitoring, series 5	11202106
Mini reverse electronic door strike with monitoring, series 5 - long	11202106-L
Electromechanical lock SAM 7255	11202201
Electromechanical lock SAM 7255 with monitoring	11202201-M
Electromechanical lock SAM 9235	11202202
Electromechanical lock SAM 9235 with monitoring	11202202-M
Cable protector FX290	11202301
Cable protector FX510	11202302
Cable protector FX300G	11202303
Cable protector FX500G	11202304
Electromagnetic lock MEX100	11202107
Magnetic strip P300RP	11202501
Automatic door opener ED100	11202401

IP videophones

2N® IP Phone D7A	1120102

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 RFID card reader 125 kHz EMarine	9137420E
External RFID card reader 125 kHz + 13.56 MHz (USB)	9137421E
External card reader Wiegand 125 kHz EMarine RFID	9159030
External card reader Wiegand 13.56 MHz Mifare RFID	9159031
External Bluetooth reader (USB interface)	9137422E
External fingerprint reader (USB interface)	9137423E
External RFID card reader secured 125kHz + 13.56MHz (USB)	9137424E

Licences

Other

2N® IP Verso connection cable length 3m	9155054
2N® IP Verso connection cable length 5m	9155055
2N® IP Verso Blind button	9155051
2N® IP Security Relay	9159010
Wiegand Isolator	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

www.2n.com