SMART - SAFE - INNOVATIVE

2N ELEVATOR SYSTEMS - Emergency communication devices for any lift.
“For 28 years 2N has been on the forefront of access control and telecommunications. We take care to stay on the leading edge with our products, the R&D behind them, and the way we service our customers. We are proud of our growth on global markets and growing number of key players in elevator market becoming our customers.”

MICHAL KRATOCHVÍL
CEO, 2N Telekomunikace a.s.

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

PETER LINDSTRÖM
Vice President New Business, Axis Communications
| 2N® LIFTIP | 3 |
| 2N® LIFT1 | 5 |
| 2N® LIFT8 | 9 |
| 2N® EASYGATE PRO | 15 |
| 2N® EASYGATE IP | 17 |
| 2N® LIFT GATE | 19 |
| 2N® MY2N FOR LIFTS | 21 |
| 2N LIFT SOFTWARE | 23 |
| LIFT ACCESSORIES | 26 |
The 2N® LiftIP is a unique product on the lift communication systems market. It is using VoIP technology for transmitting call from a lift cabin. Therefore, you can install it anywhere where an IP infrastructure is available. What’s more, installation requires no additional converters or other hardware. The 2N® LiftIP provides high quality transmission of sound and continuous online monitoring.

Quick installation
Full duplex audio
Future proof solution
Installation

Technical Specifications

- **Voltage**: 10 – 30V DC, PoE (48V)
- **Consumption**: Maximum 6 W
- **Alarm/Cancel input**: 5-48 V DC
- **Speaker**: Integrated 16Ω / 0.25W
- **Microphone**: Integrated
- **Audio**: Full duplex
- **Induction loop output**: 0.5V RMS / 75 Ω
- **Pictograms**: 12 – 24 V DC / 200mA
- **Dimensions**: 65x130x24 mm
- **Operating temperature**: - 20 °C - +50°C
The 2N® Lift1 communication solution is designed for two-way emergency communication in the lift. Its typical use is in elevators where communication is required between the cabin and the control centre or machine room.

A comprehensive solution for single lift

Fully powered over phone line

Supports CPC and P100 protocols

2N® Lift1 CABIN UNIT COP

COP version - fixed
ord. 919640E
COP version - wired
ord. 919640XE

2N® Lift1 CABIN UNIT SURFACE MOUNT

With button
ord. 919645E
Without button
ord. 919645WBE

2N® Lift1 CABIN UNIT FLUSH MOUNT

With button
ord. 919618BE
Without button
ord. 919618E

2N® Lift1 CABIN UNIT TOC

With Voice alarm station switch
ord. 919631E
Without Voice alarm station switch
ord. 919630E
2N® Lift1 VOICE ALARM STATION SET
For top and under cabin
ord. 913661ESET

2N® Lift1 MACHINE ROOM STATION SET
Machine room unit
ord. 919654ESET

2N® Lift1 USB PROGRAMMING TOOL
For easy PC programming
ord. 919680E

2N® Lift1 Switch module
ord. 913648E

2N® Lift1 Blocking module
ord. 913649E

2N® Lift1 Ampflier module
ord. 913650E
Installation

Technical Specifications

**Electrical parameters**
- Minimum line current: 15 mA, off the hook
- Minimum line voltage: 22 V, on the hook
- DC voltage drop in the off the hook state: < 9 V, I = 20 mA, < 12 V, I = 50 mA
- Resistance on the hook: 1 MΩ >, U = 25..100 V
- Impedance off the hook: 220 Ω + 820 Ω paral. 115 nF, 15 to 60 mA
- Attenuation: > 14 dB, 15 to 60 mA
- Bandwidth: 300 to 3500 Hz, 15 to 60 mA
- Impedance while ringing: > 2 kΩC = 0.47 µF, 25 to 50 Hz
- Ringtone detection sensitivity: 10 to 20 V, 25 to 50 Hz
- Pulse dialling: 40 / 60 ms
- Tone-dial levels: -9.0 +2.0/-2.5 dB and -11.0 dB +2.5/-2.0 dB, 15 to 60 mA
- Power surge protection – differential between A, B leads: 1000 V (8 / 20 µs)

*Note Any ringing sequence is acceptable*

**Switch parameters**
- Minimum voltage: 9 V AC or DC
- Minimum voltage: 24 V AC or DC
- Maximum current: 1 A AC or DC
- Resistance – open: min 400 kΩ
- Resistance – closed: approx. 0.5 Ω
- Fuse: resettable

**Connection of external indicator elements**
- Power supply voltage: 12-24 V DC, external source
- Maximum switching current: 200 mA

**Other parameters**
- Dimensions of the Universal implementation: 65x130x24 mm
- Dimensions of the Compact implementation: 100x185x16 mm
- Operating temperature range: -20°C – 70°C
Electrical parameters

- Minimum line current: 15 mA, off the hook
- Minimum line voltage: 22 V, on the hook
- DC voltage drop in the off the hook state: < 9 V, I = 20 mA; < 12 V, I = 50 mA
- Resistance on the hook: 1 MΩ >, U = 25..100 V
- Impedance off the hook: 220 Ω + 820 Ω paral. 115 nF, 15 to 60 mA
- Attenuation: > 14 dB, 15 to 60 mA
- Bandwidth: 300 to 3500 Hz, 15 to 60 mA
- Impedance while ringing: > 2 kΩ C = 0.47 µF, 25 to 50 Hz
- Ringtone detection sensitivity: 10 to 20 V, 25 to 50 Hz
- Pulse dialling: 40 / 60 ms
- Tone-dial levels: -9.0 dB +2.0/-2.5 dB, -11.0 dB +2.5/-2.0 dB, 15 to 60 mA
- Power surge protection: – differential between A, B leads 1000 V (8 / 20 µs)

Note: Any ringing sequence is acceptable

Switch parameters

- Minimum voltage: 9 V AC or DC
- Minimum voltage: 24 V AC or DC
- Maximum current: 1 A AC or DC
- Resistance – open: min 400 kΩ
- Resistance – closed: approx. 0.5 Ω
- Fuse: resettable

Connection of external indicator elements

- Power supply voltage: 12-24 V DC, external source
- Maximum switching current: 200 mA

Other parameters

- Dimensions of the Universal implementation: 65×130×24 mm
- Dimensions of the Compact implementation: 100×185×16 mm
- Operating temperature range: -20°C – 70°C
2N® LIFT8

A highly modular lift communication system, where the two-wire bus makes the 2N® Lift8 readily installable in any lift context. This means that when it comes to providing for emergency lift communications you won't have to trouble with putting in new cabling. 2N® Lift8 meets all the applicable EU standards.

- **2 wire bus in shaft including power**
- **Comprehensive, modular, expandable**
- **Wide range of communication interfaces**

---

**2N® Lift8 CABIN UNIT COP**
- COP version - fixed
  - ord. 918610E
- COP version - wired
  - ord. 918610XE

**2N® Lift8 CABIN UNIT SURACE MOUNT**
- With button
  - ord. 918613E
- Without button
  - ord. 918613WBE

**2N® Lift8 CABIN UNIT FLUSH MOUNT**
- With button
  - ord. 918618BE
- Without button
  - ord. 918618E

**2N® Lift8 MACHINE ROOM PCB**
- For MRL elevators
  - ord. 918619E
2N® Lift8 MACHINE ROOM UNIT
MR unit + programming
ord. 918611E

2N® Lift8 SHAFT UNIT
Top, under cabin or pit
ord. 918612E

2N® Lift8 SHAFT UNIT ANTIVANDAL
For heavy duty environment
ord. 918617E

2N® Lift8 SPLITTER
Shaft extender
ord. 918620E

2N® Lift8 I/O MODUL
For easy lift monitoring
ord. 918621E
# 2N® LIFT8

<table>
<thead>
<tr>
<th>Product</th>
<th>Description</th>
<th>Order Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>2N® Lift8 CAMERA MODULE</td>
<td>For visual alarm confirmation</td>
<td>918622E</td>
</tr>
<tr>
<td>2N® Lift8 FIREMAN</td>
<td>For fire fighter elevators</td>
<td>918615E</td>
</tr>
<tr>
<td>2N® Lift8 PICTOGRAM CONTROLLER</td>
<td>External pictogram driver</td>
<td>918655E</td>
</tr>
<tr>
<td>2N® Lift8 VOICE ALARM STATION SET</td>
<td>For top and under cabin</td>
<td>913662ESET</td>
</tr>
</tbody>
</table>
2N® LIFT8

Communication interface

2N® Lift8 PSTN
ord. 918652E

2N® Lift8 GSM/UMTS
ord. 918650E
ord. 918651E

2N® Lift8 LTE
Available 2020

2N® Lift8 VOIP
ord. 918653E

2N® Lift8 RS232
ord. 918654E

2N® Lift8 IP
ord. 918655E

Monitoring interface

12
Technical Specifications

Central unit
- Power: 100 - 240 V; 50/60 Hz; 0.75 A; 60 W max.
- Backup power supply: Built-in lead acid battery
- Connection options: 4 reporting units + 7 splitters + 8 I/O modules
- Maximum distance between the splitters: 100 m
- Control-room connection interface: Optional PSTN / GSM / UMTS / VoIP
- Configuration and monitoring: Voice menu / USB / remote
- Status indicators: 5× LED, three-colour
- Dimensions and weight: 300×170×72 mm, 2.7 kg
- Splitter: 10 to 20 V, 25 to 50 Hz
- Power: 24 V from a central or local unit
- Capacity: 4 reporting units + camera module
- Maximum total shaft cable length: 600 m
- Lift blocker output: Relay, NO and NC contacts
- Dimensions: 142×98×34 mm
- Reporting units: 9V AC or DC
- Link to splitter: 2 wires for power, voice and data
- Inputs for buttons and signals: ALARM1, ALARM2, CANCEL
- LED signalling: Connecting, Connection confirmed
- Option to hook up an external microphone, speaker and LED: Yes, on the cabin reporting unit
- Numeric keypad, system configuration option: Yes, on the machine room reporting unit
- Option to connect an earpiece in noisy circumstances: Yes, in the machine room and shaft reporting units
- In-shaft visibility: Yes, backlit buttons
- I/O Module: 200 mA
- Power: 24 V from a central or local unit
- Capacity: 4 inputs + 4 outputs
- Inputs: Galvanically isolated, 12 - 24 V AC or DC
- Outputs: Relay, contacts Normally-Open (NO), max. 250 V, 5 A
- Dimensions: 142×98×34 mm
Central unit

- Power: 100 - 240 V; 50/60 Hz; 0.75 A; 60 W max.
- Backup power supply: Built-in lead acid battery
- Connection options: 4 reporting units + 7 splitters + 8 I/O modules
- Maximum distance between the splitters: 100 m
- Control-room connection interface: Optional PSTN / GSM / UMTS / VoIP
- Configuration and monitoring: Voice menu / USB / remote
- Status indicators: 5× LED, three-colour
- Dimensions and weight: 300×170×72 mm, 2.7 kg

Splitter

- Power: 10 to 20 V, 25 to 50 Hz
- Power: 24 V from a central or local unit
- Capacity: 4 reporting units + camera module
- Maximum total shaft cable length: 600 m
- Lift blocker output: Relay, NO and NC contacts
- Dimensions: 142×98×34 mm

Reporting units

- Power: 9V AC or DC
- Link to splitter: 2 wires for power, voice and data
- Inputs for buttons and signals: ALARM1, ALARM2, CANCEL
- LED signalling: Connecting, Connection confirmed
- Option to hook up an external microphone, speaker and LED: Yes, on the cabin reporting unit
- Numeric keypad, system configuration option: Yes, on the machine room reporting unit
- Option to connect an earpiece in noisy circumstances: Yes, in the machine room and shaft reporting units
- In-shaft visibility: Yes, backlit buttons

I/O Module

- Power: 24 V from a central or local unit
- Capacity: 4 inputs + 4 outputs
- Inputs: Galvanically isolated, 12 - 24 V AC or DC
- Outputs: Relay, contacts Normally-Open (NO), max. 250 V, 5 A
- Dimensions: 142×98×34 mm
2N® EASYGATE PRO

2N® EasyGate PRO is a full featured land-line replacement. An analogue GSM/UMTS/VoLTE gateway suited for a lift environment. Connect to it any lift emergency communication system, or use it as an instant replacement of fixed lines via mobile (cellular) solution. In addition, the gateway can make a call for transferring data and SMS messages. Also available as dual SIM.

Land-line replacement

Trouble-free installation

Lift monitoring by SMS report

2N® Lift GATEWAY GSM
ord. 5013331LE

2N® Lift GATEWAY UMTS
ord. 5013381LE

2N® Lift GATEWAY VoLTE
ord. 5013391LE
### Installation

![Diagram of installation setup](image)

### Technical Specifications

<table>
<thead>
<tr>
<th>Type</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>GSM model</strong></td>
<td></td>
</tr>
<tr>
<td>GSM networks</td>
<td>850/900/1800/1900 Mhz</td>
</tr>
<tr>
<td>GSM modules</td>
<td>Cinterion MC55i-w</td>
</tr>
<tr>
<td>Data</td>
<td>CSD (up to 14.4 kbit/s), GPRS Class 10</td>
</tr>
<tr>
<td>SIM card</td>
<td>3 V and 1.8 V</td>
</tr>
<tr>
<td><strong>GSM/UMTS model</strong></td>
<td></td>
</tr>
<tr>
<td>GSM networks</td>
<td>850/900/1800/1900 Mhz</td>
</tr>
<tr>
<td>UMTS networks</td>
<td>900/2100 MHz (EU version), 850/1900 MHz (US version), 850/2100 MHz (Japanese version)</td>
</tr>
<tr>
<td>Data</td>
<td>HSDPA 3.6 Mbps, WCDMA, EDGE, GPRS</td>
</tr>
<tr>
<td>SIM card</td>
<td>3 V and 1.8 V</td>
</tr>
<tr>
<td><strong>Antenna</strong></td>
<td></td>
</tr>
<tr>
<td>Connector type</td>
<td>SMA</td>
</tr>
<tr>
<td>Impedance</td>
<td>50 Ohms</td>
</tr>
<tr>
<td><strong>Line interface</strong></td>
<td></td>
</tr>
<tr>
<td>Interface type</td>
<td>Two-wire, FXS for phone or external PBX line</td>
</tr>
<tr>
<td>Connector type</td>
<td>RJ12, 6/2, or terminal</td>
</tr>
<tr>
<td>Supported modes</td>
<td>DTMF and pulse</td>
</tr>
<tr>
<td><strong>Power source</strong></td>
<td></td>
</tr>
<tr>
<td>Power unit supplied</td>
<td>(12 V/1 A)</td>
</tr>
<tr>
<td>Option to connect an</td>
<td>DTMF and pulse</td>
</tr>
<tr>
<td>external 10 to 16 V</td>
<td></td>
</tr>
<tr>
<td>DC power source</td>
<td>Backup power using 4×AA batteries</td>
</tr>
<tr>
<td></td>
<td>16/12 kHz</td>
</tr>
<tr>
<td><strong>USB Interface</strong></td>
<td></td>
</tr>
<tr>
<td>Configuration and</td>
<td>200 mA</td>
</tr>
<tr>
<td>upgrade using 2N® PC</td>
<td></td>
</tr>
<tr>
<td>Manager UNI</td>
<td></td>
</tr>
<tr>
<td><strong>Other</strong></td>
<td></td>
</tr>
<tr>
<td>Dimensions</td>
<td>163×157×38 mm</td>
</tr>
<tr>
<td>Operating temperature</td>
<td>0°C – 45°C</td>
</tr>
<tr>
<td>Operational status</td>
<td>4×LED (on, GSM network, line, data), LED</td>
</tr>
<tr>
<td>signalling</td>
<td>indicator – signal strength/battery status</td>
</tr>
<tr>
<td>Operational status</td>
<td>4×LED (on, GSM network, line, data)</td>
</tr>
<tr>
<td>signalling</td>
<td>signal strength/battery status</td>
</tr>
<tr>
<td>LED indicator</td>
<td></td>
</tr>
</tbody>
</table>
2N® EASYGATE IP

New generation of analogue GSM/UMTS/VoLTE/LTE gateway embodies our long term experience in the lift and telecommunication field. It supports SIP protocol to provide reliable transmission of DTMF codes to the dispatching centre. Device management can be done either locally, or via cloud which becomes handy in case of big number of monitored devices. Durable industrial mechanics is suitable for demanding and humid environment. Monitored in-built battery backup fully complies with the latest elevator norms for emergency communication.

- SIP over LTE
- Auto configuration
- Online monitoring

Available in 2020
### Technical Specifications

**Voice**
- **GSM networks**
  - 850/900/1800/1900 Mhz
  - 900/1900 Mhz (US)
  - 850/1900 Mhz (JPN)
- **UMTS networks**
  - 900/2100 MHz (EU)
  - 850/1900 MHz (US)
  - 850/2100 MHz (JPN)
- **LTE networks (EU/NA/AU)**
  - LTE FDD: B1/B3/B5/B7/B8/B20
  - WCDMA: B1/B5/B8
  - GSM: B3/B8
  - LTE FDD: B2/B4/B12
  - WCDMA: B2/B4/B5
  - LTE TDD: B40
  - WCDMA: B1/B2/B5/B8
  - GSM: B2/B3/B5/B8

**Data**
- **LTE**
  - LTE FDD: Max 10Mbps (DL)/Max 9Mbps (UL)
  - LTE TDD: Max 8.96Mbps (DL)/Max 3.1Mbps (UL)
- **UMTS**
  - DC-HSDPA: Max 42Mbps (DL)
  - HSDPA: Max 5.76Mbps (UL)
- **GSM**
  - EDGE: Max 296Kbps (DL)/Max 176.8Kbps (UL)
  - GPRS: Max 107Kbps (DL)/Max 85.6Kbps (UL)

**Serial Interface**
- **SIM cards**
  - 3 V and 1.8 V

**Antenna**
- **Connector type**
  - SMA
- **Impedance**
  - 50 Ohms

**Line Interface**
- **Interface type**
  - Two-wire, FXS for phone or external PBX line
- **Supported modes**
  - DTMF

**Power source**
- **Power unit supplied with the gateway**
  - (12 V/1 A)
- **Option to connect an external 10 to 16 V DC power source**
  - 16/12 kHz

**USB Interface**
- **Configuration and upgrade**
  - Web GUI, or My2N for lifts cloud

**Other**
- **Dimensions**
  - 195 × 119 × 61 mm
- **IP coverage**
  - IP43
- **Operating temperature**
  - -40°C to +85°C
- **Operational status signalling**
  - 4×LED (ON, GSM network, line, data), LED indicator – signal strength/battery status
2N® LIFTGATE

A LTE router which is designed to provide connectivity to elevator IP devices via 2 wire in travelling cable. This provides cost effective modernization possibility without need to replace travelling cable. It supports SIP protocol and methods of reliable transmission of DTMF codes to the dispatching centre. Device management can be done either locally, or via cloud which becomes handy in case of big number of monitored devices. Monitored in-built battery backup fully complies with the new elevator norms for emergency communication.

Pure IP solution
2 wires in travelling cable
Auto configuration
Technical Specifications

Data
- LTE FDD: Max 10Mbps (DL)/Max 5Mbps (UL)
- LTE TDD: Max 8.96Mbps (DL)/Max 3.1Mbps (UL)
- UMTS DC-HSDPA: Max 42Mbps (DL)
- HSDPA: Max 5.76Mbps (UL)
- WCDMA: Max 384Kbps (DL)/Max 384Kbps (UL)
- EDGE: Max 296Kbps (DL)/Max 236.8Kbps (UL)
- GPRS: Max 107Kbps (DL)/Max 85.6Kbps (UL)

WAN
- 1Gbps
- SIM card
  - 3 V and 1.8 V

Router
- Network protocols
  - PPP, PPPoE, TCP, UDP, DHCP, ICMP, NAT, HTTP, HTTPS, DNS, ARP, RIP, OSPF, NTP, SMTP, Telnet, VLAN, SSH2, etc.

LiftGate cabin switch
- Number of ports
  - 4x 10/100 Mbps (2x PoE)
- DSL
  - IEEE B1901
- Output voltage
  - 12V

Antenna
- Connector type
  - SMA
- Impedance
  - 50 Ohms

Power source
- Backup power
  - internal 12 V 9Ah, external battery optionally

USB Interface
- Configuration and upgrade
  - Web GUI, or My2N for lifts cloud

Other
- Dimensions
  - 240 × 268 × 72 mm
- IP coverage
  - IP30
- Operating temperature
  - 0°C to +45°C
- Operational status signalling
  - 8 LEDs (Power, Battery, Cellular, Signal, Internet, Internet backup, DSL line 1, DSL line 2)
In order to overcome knowledge gap in implementation of IP technologies, we are coming up with My2N cloud which helps elevator companies to install and operate IP devices without special skills and in minimal time. My2N cloud allows to connect and configure audio units and gateways with 1 click installation formula.

Monitored elevators are organized in a well-arranged structure, and only authorized administrators and technicians can make changes in device settings.

All devices constantly provide operational data like signal strength, battery status, network registration, etc. Error states and outages are reported to system administrators immediately. Possibility to access device remotely reduces maintenance cost and simplifies troubleshooting, implementation of new features or configuration changes.

My2N cloud offers several security mechanisms which protect devices against various cyberattacks. Devices can communicate with the cloud service even if they are hidden behind firewall without being exposed to the public internet.

Emergency communication system can be easily integrated with any 3rd party system by partner API.

**KEY CHARACTERISTICS:**
- Auto configuration
- Device status monitoring
- Remote management
- VPN
- Reliable DTMF transmission
- Cloud PBX (SIP proxy)
- Partner API for easy integration
TRANSITION TO 4G (LTE) NETWORKS

Soon, the whole elevator industry will face a technological change due to transition of mobile networks from GSM and UMTS to LTE (4G). As a result, vast majority of installed gateways are going to stop working, so elevators will lose connectivity to call centers with all legal consequences. In reaction to that a 4G gateway will be necessary.

However replacement with VoLTE gateways has some essential drawbacks:

• At present no roaming within the networks
• DTMF distortion – this a crucial problem for elevator signalling protocols (CPC, P100)

IS THERE ANY SOLUTION HOW TO ENSURE RELIABLE TRANSMISSION OF DTMF CODES?

Yes. The LTE network is used as a data transfer technology through which voice is transferred using the SIP protocol. A SIP client is implemented in the LTE gateway and registered centrally to a VoIP provider, or cloud PBX in My2N cloud.

Elevator companies have to take action and begin with replacement process. Ongoing changes are perfect opportunity to approach emergency communication in more professional, effective and modern way.
2N LIFT SOFTWARE

Call Centre for Lifts is a software solution for the comprehensive management of emergency lift communicators. The software will even allow you to handle alarms and control calls. You get not only a detailed overview of all your calls from the lift, but the option to archive them or export the data e.g. for customer reports preparation.

Management of control and alarm calls
No extra hardware required
Support for CPC and P100 protocols
With the aid of 2N® Lift1 Service Tool software, you will be able to completely set up the 2N® Lift1 communicator. In addition to this, the software application can, apart from configuration, also be used to perform an upgrade and to change the language version.

With the 2N® LiftIP Service Tool, you will be able to fully configure the 2N® LiftIP lift communicator yourself. The tool will also help you update the software or switch between languages for audio announcements played back in the lift cabin or used during configuration.

The 2N® Lift8 Service Tool is software used for local (USB) or remote (IP) configuration of one complete 2N® Lift8 communication system (audio messages, additional modules, splitters and I/O modules).
### LIFT ACCESSORIES

<table>
<thead>
<tr>
<th>Product Description</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>2N® 2Wire - Ethernet 2 wire convertor</td>
<td>9159014E</td>
</tr>
<tr>
<td>2N® Emergency button under/or top of the cabin</td>
<td>918690E</td>
</tr>
<tr>
<td>2N® Floor annunciator</td>
<td>913305E</td>
</tr>
<tr>
<td>2N® External microphone 1 m</td>
<td>913627E</td>
</tr>
<tr>
<td>2N® External microphone 3 m</td>
<td>9136273E</td>
</tr>
<tr>
<td>2N® External speaker 1 m</td>
<td>913625E</td>
</tr>
<tr>
<td>2N® External speaker 3 m</td>
<td>9136253E</td>
</tr>
<tr>
<td>2N® External LED’s 1 m</td>
<td>913620E</td>
</tr>
<tr>
<td>2N® External LED’s 3 m</td>
<td>9136203E</td>
</tr>
<tr>
<td>2N® High gain antenna 9dB 10 m</td>
<td>22041567</td>
</tr>
<tr>
<td>2N® Induction Loop Amplifier with Antenna</td>
<td>919622E</td>
</tr>
</tbody>
</table>

### TÜV SÜD Certified

All emergency communication products are certified by TÜV SÜD Czech. The TÜV certificates confirm compliance with EN81-28, EN 81-70, EN81-72 and EN81-80.

### NGN Ready

The world is switching from analog lines to IP technologies, particularly among fixed-line operators, who are upgrading their original analog lines. Always striving to provide the most reliable services, our 2N® Lift1, 2N® Lift8 and 2N® LiftIP elevator communicators comply with this trend. We tested the 2N® Lift1, 2N® Lift8 a 2N® LiftIP on these new connections in a special Deutsche Telekom laboratory in Bonn.
EN 81-28 - Emergency calls. The purpose of this standard is to improve communication in emergency situations in elevators. It eliminates the risk of passengers being entrapped due to malfunctions in elevator installation. This is accomplished by fitting all elevators with an emergency call system, which connects lift cabin with remote emergency service.

EN 81-70 - Barrier free elevators. This standard allows people with reduced mobility (pushchairs, wheelchairs, walking aids, etc.) or other disabilities (mental disability, sight and hearing impairment, etc.) to enter elevator cabins easily and operate elevators without limitations.

EN 81-72 - Firefighting elevator. The standard deals with the significant hazards, hazardous situations and events relevant to firefighter elevators installed mostly in new buildings. They are primarily intended for use by passengers and thus may be used for firefighting and evacuation purposes under direct control of firefighters.
EN 81-20 – Requirements for construction. This standard replaces the EN 81-1 standard and specifies the emergency call system requirements in greater detail. Lifts must now be equipped with additional communication units that must be installed with the ALARM system under the EN 81-28 standard to allow a person trapped in the shaft to place an emergency call.

EN 81-71 – Vandal resistant elevators. The EN 81-71 standard defines the testing methodology and classification of elevators according to their vandal resistance. Furthermore, this standard provides guidance to building designers, customers, etc., and requirements for design in projects requiring additional security in order to protect against the risk of vandalism.

EN 81-80 – Elevator modernization / hazard analysis. EN81-80 SNEL (Safety Norm for Existing Lifts) improves the security of existing passenger and goods passenger elevators. This standard defines rules for improving safety of existing elevators based on risk assessment and categorises various hazards and hazardous situations.