2N® Access Unit Bluetooth
(916013)

Data sheet and technical specifications

Basic description

The **2N® Access Unit Bluetooth** is a highly reliable access control system based on IP technology. It brings you a safe and convenient way to open doors using smart phones or tablets with the 2N® Mobile Key application. **Order number is 916013.**

Doors can be opened in several different ways. Currently available is "Tap in App" mode.

Tap in App mode lets you to tap the door open icon on your smartphone in the 2N® Mobile Key application as soon as you and your phone are in range of the Bluetooth module. The distance at which the application can communicate with the Bluetooth module can be configured manually.

Other access modes will become available in the near future:

- **Proximity Mode**
  If you have Proximity Mode configured, you can walk past a Bluetooth module in a 2N® Helios IP Verso or 2N® Access Unit and the door will open itself. All you need is a smart phone in your pocket or backpack installed with the 2N® Mobile Key application.

- **Touch Mode**
  When you have Touch Mode active then you need to touch the Bluetooth module, which has a built-in touch sensor. The smart phone with the installed application stays in your pocket or backpack.

These modes can be used in **combination with a PIN code** to increase security. When you approach a Bluetooth module using one of these security modes, you need to enter a PIN into the application on your phone to open a door. This is a form of two-way authentication.

Bluetooth module inside 2N® Access Unit is based on Bluetooth Low Energy technology (**Bluetooth Smart**). Compared to previous versions, Bluetooth Smart is intended to provide considerably reduced power consumption, increase the security and has support for access applications.

Communication between 2N® Access Unit Bluetooth and 2N® Mobile Key is secured by asymmetric RSA-1024 and symmetric AES-128 keys. Communication distance can be manually set via web interface and we offer three possibilities:

- **close range** – approx. to 0.5m

- **midrange** – approx. to 2m

- **long range** – more than 2m (depends on smartphone and type of installation, it can be even more than 10m)

Connectors

The **2N® Access Unit Bluetooth** includes the following elements and connectors accessible to the user:
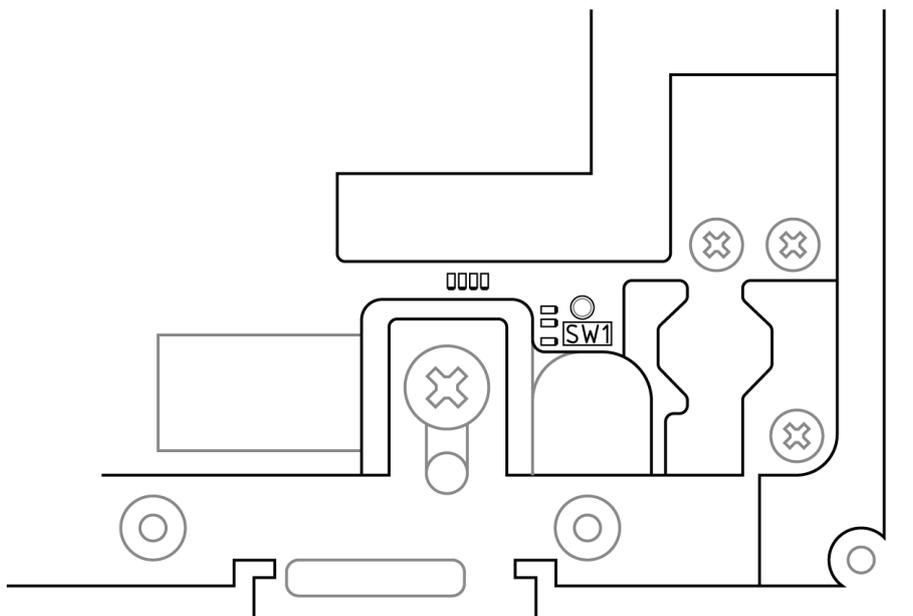
- Connector description (X10 / X8 / X11)
  - LAN RJ45 cable reduction
  - LAN connection (PoE 802.3af (Class 0; 12.95W))
  - 10/100BASE-TX Auto-MDIX
  - RELAY – max. 30V / 1A AC/DC
  - Output – 8V up to 12V DC, max 500mA
  - Inputs: passive or active mode (-30V to +30V DC)
    OFF = not connected or U_{in} > 1.5 V
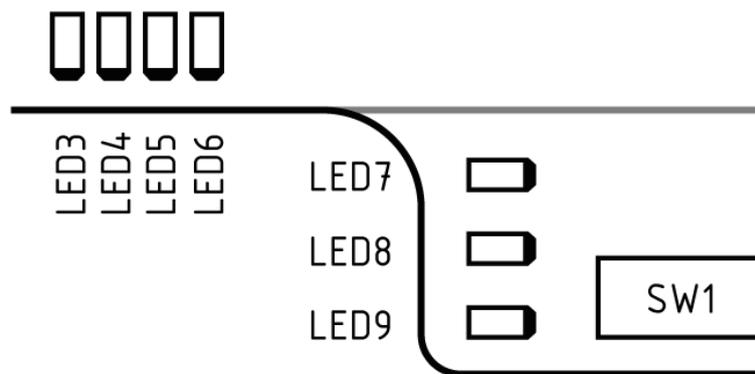   ON = connected or U_{in} < 1.5 V
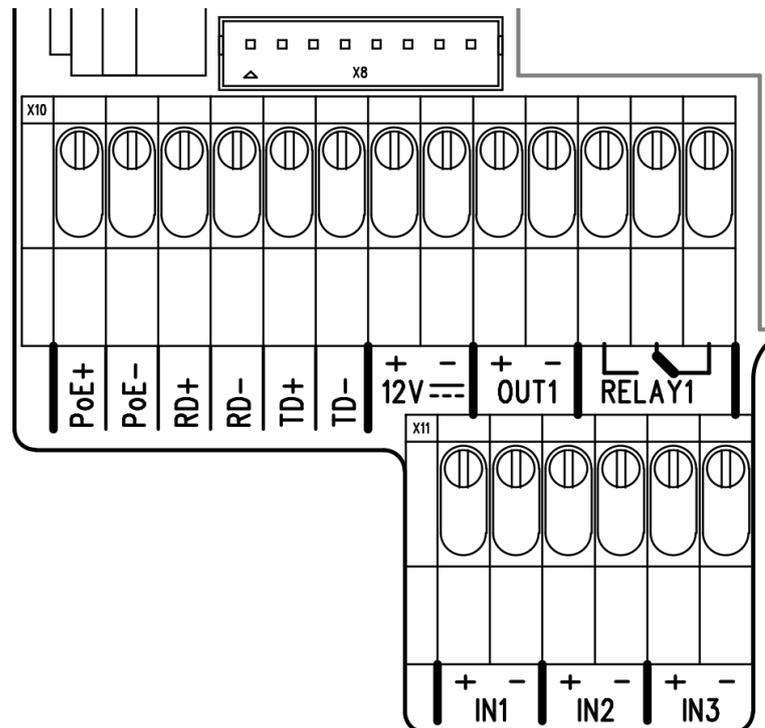
- X9 - 2N® Access Unit bus connector
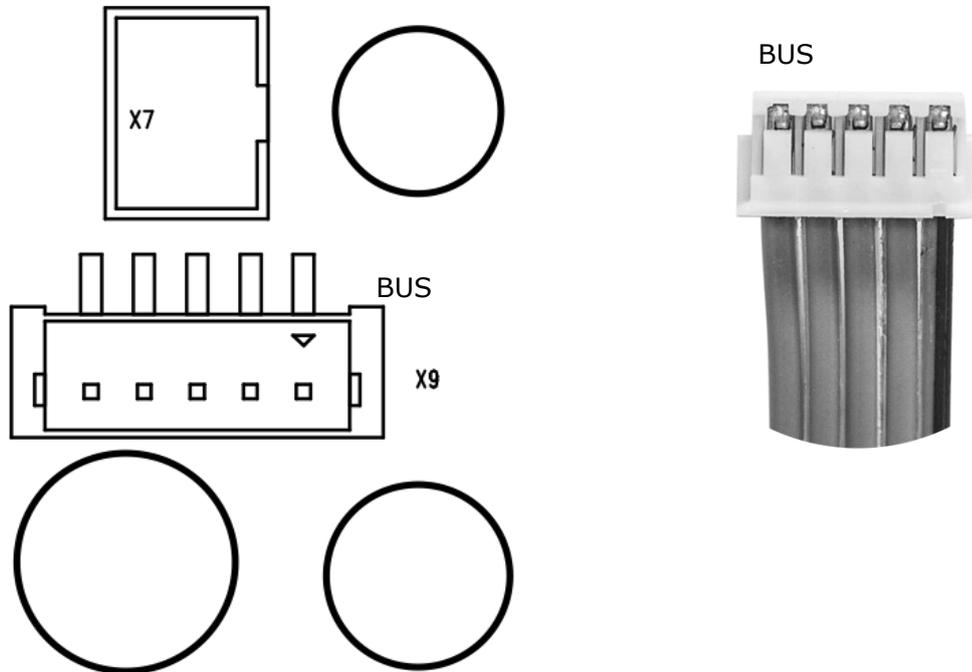
- SW1 - RESET / FACTORY RESET button

- LED Signalization:
  - LED1, LED2 - status signalling LED (picture above)
  - LED3, LED4, LED5 - I/O signalization IN1 - IN3
  - LED6 - relay signalization - RELAY1
  - LED7, LED8 - LED signalization (green and red)...see below
  - LED9 - LAN activity signalization (orange)

IP address settings

- Default setting is DHCP ON

- To switch DHCP OFF press and hold the RESET button (SW1).
  - Wait until the red and green signalization LEDs (LED8 and LED9) on the device come on simultaneously (approx. 15 s).
  - Wait until the red LED goes off (approx. 5 s).
  - Release the RESET button.

- To tell the IP address press and hold the RESET (SW1) button.
  - Wait until the red and green signalization LEDs on the device come on simultaneously (approx. 15 s).
  - Release the RESET button. The device announces the current IP address via inbuilt speaker (in the Access Unit) automatically.

- Use 2N® Helios IP Network Scanner to locate the unit in the network

Refer to the **2N® Access Unit Bluetooth Configuration Manual** for more information regarding the installation and configuration.

Technical Parameters

Interface

- **Power supply:** PoE and/or 12V ±15 % / 2A DC
- **PoE:** PoE 802.3af (Class 0–12.95 W)
- **LAN:** 10/100BASE-TX with Auto-MDIX, RJ-45, connecting block or pigtail RJ-45
- **Recommended cabling:** Cat-5e or higher
- **Supported protocols:** DHCP opt. 66, SMTP, 802.1x, TFTP, HTTP, HTTPS, Syslog
- **Passive switch:** make and break contact, up to 30V / 1A AC/DC
- **Active switch output:** 8 to 12V DC according to power supply (adapter: source voltage minus 2 V; PoE: 10V), up to 550 mA
- **Inputs: passive / active mode (-30V to +30V DC)**
  - OFF = open or $U_{in} > 1.5$ V
  - ON = short-circuit or $U_{in} < 1.5$ V
- **Tamper switch** is a native part of the **2N® Access Unit**
- **Speaker:** 0.8W / 8Ω

Bluetooth

- **Bluetooth 4.0 Compliant** (Bluetooth Smart)
- **RX sensitivity**: down to -93 dBm
- **Range**: more than 10 meters
- **Power consumption**: 20mA at 12V DC
- **Mobile App Support**: Android 4.4 or iOS 10 and higher

Mechanical properties

- **Cover:** 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
- **Dimensions (1-module solution):**
  - Wall (surface) mounting frame: 107 (W) x 130 (H) x 28 (D) mm
  - Flush mounting frame: 130 (W) x 153 (H) x 5 (D) mm
  - Flush mounting box (minimum hole): 108 (W) x 131 (H) x 45 (D) mm
- **Weight:** Max weight: 2 kg
- **Cover rating:** IP54, IK08