

# **2N<sup>®</sup> Analog Force**

### **Additional Switch**



### **Configuration Manual**

Version: 1.1 www.2n.cz

The 2N TELEKOMUNIKACE a.s. is a Czech manufacturer and supplier of telecommunications equipment.













The product family developed by 2N TELEKOMUNIKACE a.s. includes GSM gateways, private branch exchanges (PBX), and door and lift communicators. 2N TELEKOMUNIKACE a.s. has been ranked among the Czech top companies for years and represented a symbol of stability and prosperity on the telecommunications market for almost two decades. At present, we export our products into over 120 countries worldwide and have exclusive distributors on all continents.



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2N TELEKOMUNIKACE a.s. hereby declares that the  $2N^{\textcircled{\$}}$  product complies with all basic requirements and other relevant provisions of the 1999/5/EC directive. For the full wording of the Declaration of Conformity see the CD-ROM (if enclosed) or our website at www.2n.cz.



The 2N TELEKOMUNIKACE a.s. is the holder of the ISO 9001:2009 certificate. All development, production and distribution processes of the company are managed by this standard and guarantee a high quality, technical level and professional aspect of all our products.



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### 1. Product Overview

The purpose of this module is to extend the 2N<sup>®</sup> Analog Force/Safety door communicator with another switch, e.g., for electric door lock. It gives you features like unlimited time switching or permanent switch during the time of the call or time limited switching (selectable approx. from 1 to 6 sec.) via external button.

Additional switch contains 3 contacts:

- C Common contact
- NC Normally closed
- NO Normally opened





### 2. Installation

### Caution

- Before installing the module, make sure that the current and voltage limits of the module will not be exceeded in your application (refer to the Technical Parameters chapter). Never use this module for mains voltage switching! All wiring has to be done only after proper installation of the additional switch.
- 1. Remove 4 screws from the top side of intercom, then remove the top metal plate.





2. Remove keypad.





**3.** Remove 4 screws holding 2 horizontal pillars, then remove the pillars and button board.



**4.** Replace 2 distance pillars from the lower side of intercom by the 2 longer distances delivered with departure switch.



**5.** Insert departure switch and fix it with the two shorter distance pillars delivered with the switch.









**6.** Make a wire connection to the switch.



7. Put the horizontal pillars and button board back and fix them with 4 screws.

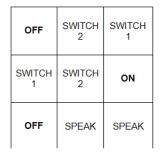


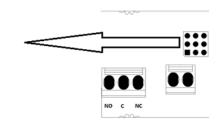
**8.** Put the keypad back. Close the intercom with top metal plate and fix it with 4 screws.



### 3. Configuration

By using jumpers it is possible to set on what kind of event should departure switch react by closing or opening its contacts. The departure switch can react to three different events: dep. switch on/off from the SWITCH 1, dep. switch on/off from the SWITCH 2 and pick up/hang up the telephone line (means beginning and end of the call).





The dep. switch contacts are available both normally open (between clips NO and C) as well as normally closed (between clips C and NC). NC and NO in this case refers to the contact state. see pic. above.

#### Example 1 - dep. switch operation by using password for SWITCH 2

Switching on and off is set to SWITCH 2. Dep. switch will close after receiving password for SWITCH 2 (parameter **821**) and open after the switching time for SWITCH 2 (parameter **823**) will elapse. If you set parameter **824** to non-zero value, will be also synchronized with SWITCH 1 (explained in the communicator manual).





#### Example 2 - dep. switch operation for unlimited time

Dep. switch closure is set to SWITCH 1, dep. switch opening to SWITCH 2. The dep. switch will close when it has received the password for SWITCH 1 and will remain closed until the communicator has received the password for SWITCH 2 and until the switching time of SWITCH 2 elapses (parameter 823, it is recommended to set this parameter as low as possible, which is 1s).



#### Example 3 - dep. switch closure for the duration of the call

Closure and opening is set to SPEAK. The dep. switch will close when the line is picked up and open when the line is hung up. For the duration of the call the dep. switch will be closed.





### 4. External button switch

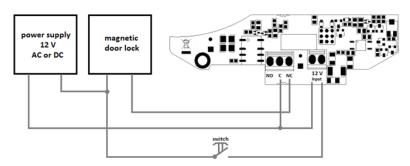
#### External switch functional description

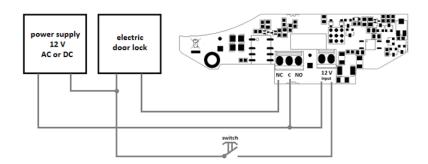
After an external button (switch on the pic. above) is pushed (switch OFF/ON), The "departure switch" occurs regardless of configuration settings. After an external button is released (switch ON/OFF) "departure switch" ends automatically after preset delay time by adjustable rotary trimmer from approx. 1 sec. up to 6 sec. regardless of configuration settings. NC and NO on the pic. below in this case refers to the door state if switch is in OFF state.

Both connectors (for external button and door lock) are galvanically isolated from each other and main electrical circuitry of the main communicator board.

#### How to connect

Examples on how to connect lock in case of one power supply:







## 5. Technical Parameters

• Switching device: Latching relay

• Max. switching voltage: 60 V AC/DC

• Max. switching current: 2 A AC/DC

• Max. switching power: 60 VA / 30 W

**Power supply for external button input**: voltage 10 15 (V), available current must be: 6 mA.





An Axis company

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