

OPERATION AND INSTALLATION INSTRUCTIONS FOR INS-ACC-60 STANDALONE PROXIMITY FOB READER



The INS-ACC-60 is a standalone proximity key fob reader in Unique 125 kHz standard. The device is designed to control one output by means of key fobs stored in the reader's memory. The output can be used to control external devices such as: reversible E-lock or relay. The reader is installed in a standard 060 mm electrical box or can be surface-mounted using an optional box to be purchased separately.

INS-ACC-60 supports up to 6144 key fobs, assigned in the same way as with other Aco products of the CDNP7ACC and INSPIRO+ series (any number of key fobs assigned to each apartment, including the master and installer's key fobs). The reader also supports simple adding of key fobs using the master key fob (without having to connect it to a PC) or advanced adding and managing of key fobs via ACC_v73 software (version v7.3 or higher) which can be downloaded free of charge from www.support.aco.com.pl (use a CDN-USB cable to connect the reader with a PC, to be purchased separately).

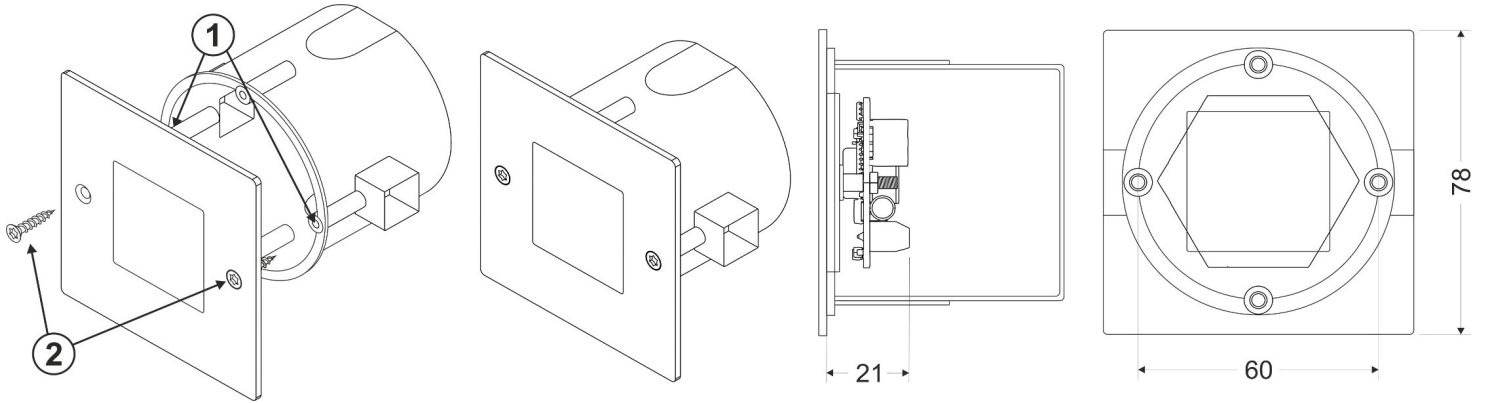
INS-ACC-60 signals the output activity (such as door opening) by a sound signal (built-in buzzer, which can be switched off using the computer software).

1. TECHNICAL PARAMETERS

- Power supply: 12V-15V DC; 40mA (without output load)
- Power consumption in standby mode: ~0.3W
- Output current capacity 1A max. (0.5 A for reversible E-lock)
- Output control method: pulse short-to-ground (for E-lock) or permanent short-to-ground (for relay/gate)
- Maximum number of cards/key fobs: 6144
- Card/key fob reading standard: Unique 125 kHz

2. MOUNTING

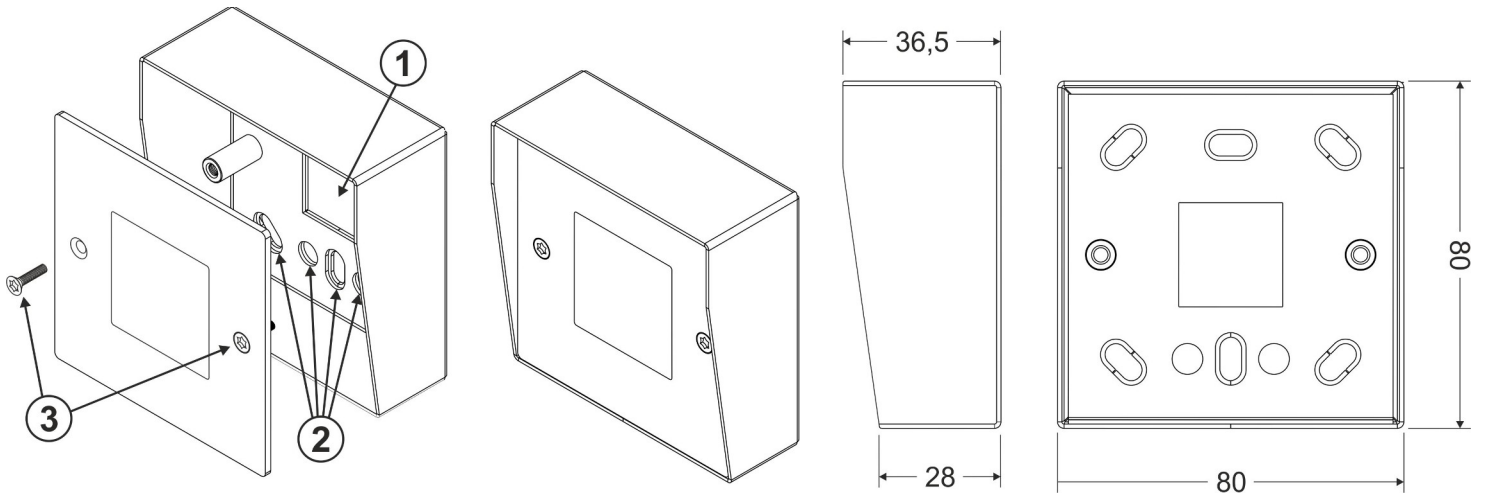
Flush-mounted version



The standard installation box $\Phi 60$ mm is flush mounted so that the mounting holes **1** are level. We insert cables through the holes in the box. Connect the reader according to the diagram further in this manual. The set includes TX10 key and two screws **2** used for fixing the reader module to the box.

Surface-mounted version

For the surface-mounted version, purchase the **INS-P-XXS-60 NT** surface-mounted box and use it instead of the flush-mounted box. In the set of surface mounted box screws are included to screw the front to the box.



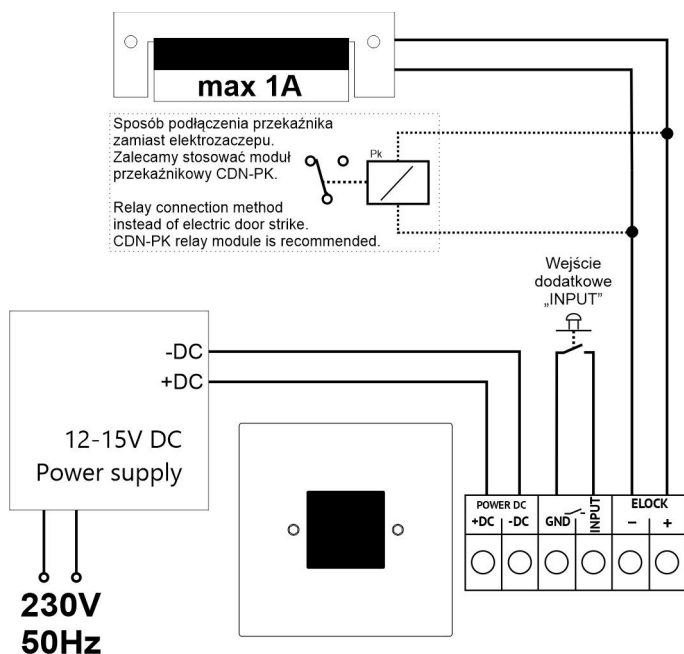
Lead the wires through hole **1**. Holes **2** are used for screwing the box with studs. Connect the reader according to the diagram on page 3 of this manual. Close the reader housing using a TX10 key with screws **3**.

Installation two readers

When mounting two readers in close to each other, such as on two sides of an entrance, keep a min. 15cm distance between one reader and the other. A smaller distance may cause interference and malfunction of the devices.

3. WIRING DIAGRAM

Please note! To ensure proper functioning and use safety, connect the door entry unit to earth by connecting the grounding terminal on unit's body with relevant protective installation (PE). Use a 1mm^2 cross-section cable (such as LY1,0) to connect the device to power supply. The maximum cable length for E-lock circuit is 7 m, for power supply circuit - 30 m. Insufficient power supply, too small cable cross-section and too long connections (voltage drops) may cause device operation disturbances (such as reset system trip and device restarting, especially when opening the E-lock).



The reader is powered solely by a DC 12-15V power supply unit which is connected to +DC, -DC/GND terminals. Connect the E-lock to the ELOCK+ and ELOCK- terminals.

The INPUT and GND/-DC can be used to connect any NO button (for instance INS-OB or any "bell" type button).

4. OPERATION PRINCIPLE

The reader can work fully autonomously. Applying a key fob, stored in the reader's memory, to the reader will trigger "Opening" - or ELOCK output activation together with a device connected to it, such as E-lock. By default, the output remains active for 4 seconds. The delay is configurable in the range of 0 to 25 seconds, via the PC software, where "0" means 0.6 s. When the output is active, an audio signal is also activated. Applying a key fob to the reader, if such key fob is not stored in the reader's memory, causes only a short triple beep. Beeping can be switched off completely via the software.

The reader supports adding key fobs via the Master key fob, which can be used at any time for simple adding more key fobs that activate the output to the reader's memory. The reader supports multiple Master key fobs. Another way to add key fobs to the reader is to connect the reader to a PC using a CDN-USB cable. It is then possible to add key fobs to any address or zone, same way as in case of readers built into the CDNP7ACC or INSPIRO+ panels. The PC software can also be used to upload key fobs from the file which was created as a backup of stored key fobs from any Aco device featuring a proximity card/key fob reader, otherwise referred to as ACC. Key fobs can be deleted from the reader only via the PC software. Deleting key fobs without a PC is possible though a complete "reset" of the reader, which will erase all stored key fobs from the reader's memory.

Connect the reader to a PC via optional CDN-USB cable and using ACC_v73 software (version v7.3 or higher available free of charge at www.support.aco.com.pl) to: add or remove any key fob, change output activation time, change output shorting to ground (pulse/permanent), activate reversible E-lock, switch sound signals off or on and save all settings and key fobs to file (for instance as backup copy or for programming another reader). The reader also features an INPUT terminal which, when shorted to GND using an optional button, causes direct activation of the Output (for instance when leaving the facility). The INPUT is protected against permanent short circuit. Reader's readiness (or standby) is signalled by blinking LED every two seconds on the panel marked "STAT" (invisible when front panel is attached to the box).

5. HANDLING THE READER

When no key fob is stored in the memory (default setting) then upon powering up the reader automatically switches to adding the "Master" key fob for 10 seconds - signalled by recurring quick beeps. During these 10 seconds apply the key fob to add the "Master" key fob to the reader (this is indicated by a single longer beep). If the key fob is not applied within 10 seconds, the reader goes into the standby mode. Upon powering up again and with no other key fobs stored in the memory, adding the master key fob to the reader is not possible - in order to make it possible again, restore the factory settings by deleting all key fobs from the memory. The "Master" key fob or more "Master" key fobs can also be added via the PC software by adding a key fob in 0 position/0 apartment (otherwise referred to as "Administrator's key fobs") in zone 4 (each key fob in this position will be a "Master" key fob).

Adding a new key fob using the "Master" key fob

Apply the master key fob against the reader (the output will be opened / activated) and then when opening is finished within 10 sec., apply the master key fob again - the reader enters the key fob storing mode, signalling it with recurring quick beeps and blinking status LED. If within 10 seconds new key fobs are applied one by one, they will be automatically stored in the memory (key fobs will be saved one by one in the position/apartment in zone one as Administrator's key fobs).

When a key fob is successfully stored, it is indicated by a single longer beep. If now next key fob is applied against the reader for 10 seconds or if the applied key fob is already stored in the reader's memory (triple beep sound will be heard), the reader will exit the key fob storing mode and go into the standby mode.

Adding and deleting key fobs plus programming other settings using the ACC software, version V7.3 or higher (ACC_v7.x)

Connect the reader to a PC using the CDN-USB cable. **Please note!** The sequence of connecting is important to prevent any damage of the devices. Start with connecting the USB cable to the reader, then connect the USB cable to a PC (during the initial connection of the CDN-USB cable to the PC, install drivers). The last step is to power up the reader if required - programming of the reader is also possible without power supply - the reader will be powered directly via the CDN-USB cable. When the ACC software, version V7.3 or higher (the latest version is available for download from www.support.aco.com.pl) is launched, the bottom bar on the screen will show a rectangle, indicating its connection status: if the CDN-USB is missing, the rectangle is red ("USB cable not connected"); when the cable is connected, the rectangle will change its colour to yellow ("USB cable connected"), then when connection with reader is established, the rectangle should change into green and the message "Connected with INS-ACC-60 module" should appear next to it - or "connection to the module not established" will be displayed if connecting the module failed (such as due to transmission error or damage). When the connection status is "Connected to module..." - communication with the module is established and the "Read", "Write", "Verify" buttons are active.

In addition, only when connected to the INS-ACC-60 standalone reader, the following parameters can be changed:

- **ELOCK output activation time:** set the output activation time in [s] in the range 1 to 25.

- **Output type:** "E-lock" (default settings) when connecting a conventional E-lock, "reversing" for reversible E-lock and "relay" - voltage on the output will appear during opening without additional modulation such as when connecting a relay to the output. **Please note!** The output shows the value of voltage connected to the power supply of the reader module.

- **Sounds:** (factory enabled) option to disable or enable the Beeper (reader beeps)

Located on the right side of the program is an "image" of the reader's memory. It shows the number of key fobs stored in the system and their assignment - or positions to which they are assigned (each position number corresponds to an apartment number / telephone number / uniphone address in the CDNP7ACC and INSPIRO+ door entry system). Any number of key fobs can be stored in each position, otherwise "apartment" or "unit number" or "uniphone address" (from 0 - 255). When adding using the "Master" key fob, the added key fobs are always stored in position 0, zone 1. After clicking on relevant position, the central part of the program displays the key fobs assigned to that (selected) position and the physical key fob numbers. To delete a key fob, select the key fob number with a single click and click the "Delete" button. To add a key fob, select the position and click the "Add" button. Any key fob can be added (stored) by typing its physical number manually or by clicking "Read card" - reader should start "beeping", then apply the key fob to be stored in the reader - after a short while the physical number of key fob should appear in the field. Also a description of the key fob can be added in the field on the right. This makes it easier to find the key fob in case of changes. Save the key fob by clicking the "Add" button.

Also a backup file of the stored key fobs and settings can be saved in a file, using the conventional "File" menu on the top left of the program. Having saved the file, it can be opened at any time and the backup restored or the same key fob numbers and settings can be uploaded to other readers. It is possible to lock the access to the reader using the installer's password. The software also supports combining different key fob files from several readers, into a single file to compile all key fobs to a single reader. To do this, click "Add file" in the software. This option is also used to add files from older version of the INS-ACC reader and from CDNPACC/ Inspiro / Familio-P/PV series products and other CDN modules with "ACC" readers.

Resetting the reader - restoring factory settings and removing key fobs or resetting in case of failure.

Follow the steps below to restore the factory settings:

1. turn the power off,
2. wait about 10 seconds,
3. connect "reset" terminals at the back of the reader (such as with tweezers)
4. turn the power on,
5. keep "reset" terminals shorted for 5 seconds
6. at a continuous beep, stop shorting the "reset" terminals

Following these steps all key fobs will be deleted and factory settings will be restored:

output activity time: 4s

output type: E-lock

acoustic signalling activation

"Master" key fob adding activation

Instructions and more information also available at www.support.aco.com.pl and www.aco.com.pl

IMPORTANT! When disinfecting panels made of stainless steel, use cleaning agents based on alcohol only. Any chlorides (which are present in common cleaning products) are harmful to the steel surface, causing abrasion of its natural protective coating and increasing the risk of corrosion.

RULES FOR STORING WASTE ELECTRICAL EQUIPMENT

Waste electrical equipment must not be disposed of with other waste. It should be stored in places designated for this purpose. For this purpose, please contact the responsible institutions or companies involved in waste recycling. - Directive 2002/96/EC of 27.01.2003