

ACCO-USB

USB / RS-485 converter

acco-usb_en 04/22

The ACCO-USB converter enables communication between the RS-485 access control modules bus and the computer. The computer is used to configure the modules in the ACCO-SOFT-LT program (version 1.7.006 or newer) and to update the module firmware.



You can download the ACCO-SOFT-LT program from www.satel.eu.

1. Features

- Communication via the RS-485 bus between the computer and the following modules:
 - ACCO-KP,
 - ACCO-KP-PS,
 - ACCO-KPWG,
 - ACCO-KPWG-PS,
 - ACCO-KP2.
- Ability to configure the modules using a computer with the ACCO-SOFT-LT program installed.
- Ability to update the door controller module firmware.
- Ability to connect multiple ACCO-USB converters to the computer in order to enable management of several ACCO systems simultaneously.
- Ability to connect the ACCO-USB-CZ proximity card reader.
- Data transmission between the converter and the computer via USB 2.0.
- Powered from the computer USB port.
- LEDs to indicate the device status.

2. Specifications

ACCO-USB converter

Supply voltage	5 V (from USB port)
RS-485 bus maximum range for UTP type cable	1200 m
Maximum number of modules connected to RS-485 bus	255
Two-way transmission scheme	HALF-DUPLEX
USB standard	USB 2.0
Maximum humidity	93±3%
Working temperature range	+5°C...+40°C
Enclosure dimensions.....	125 x 114.5 x 31 mm
Weight.....	250 g

ACCO-USB-CZ proximity card reader

Supply voltage	12 VDC (from converter)
Maximum current consumption	50 mA

Reader transmit frequency.....	125 kHz
Outgoing data format	EM-MARIN
Supported card standards.....	UNIQUE, EM4001, EM4002, EM4003, EM4102
Maximum humidity	93±3%
Working temperature range	-20°C...+55°C
Enclosure dimensions	120 x 80 x 29 mm
Weight.....	186 g

3. Description

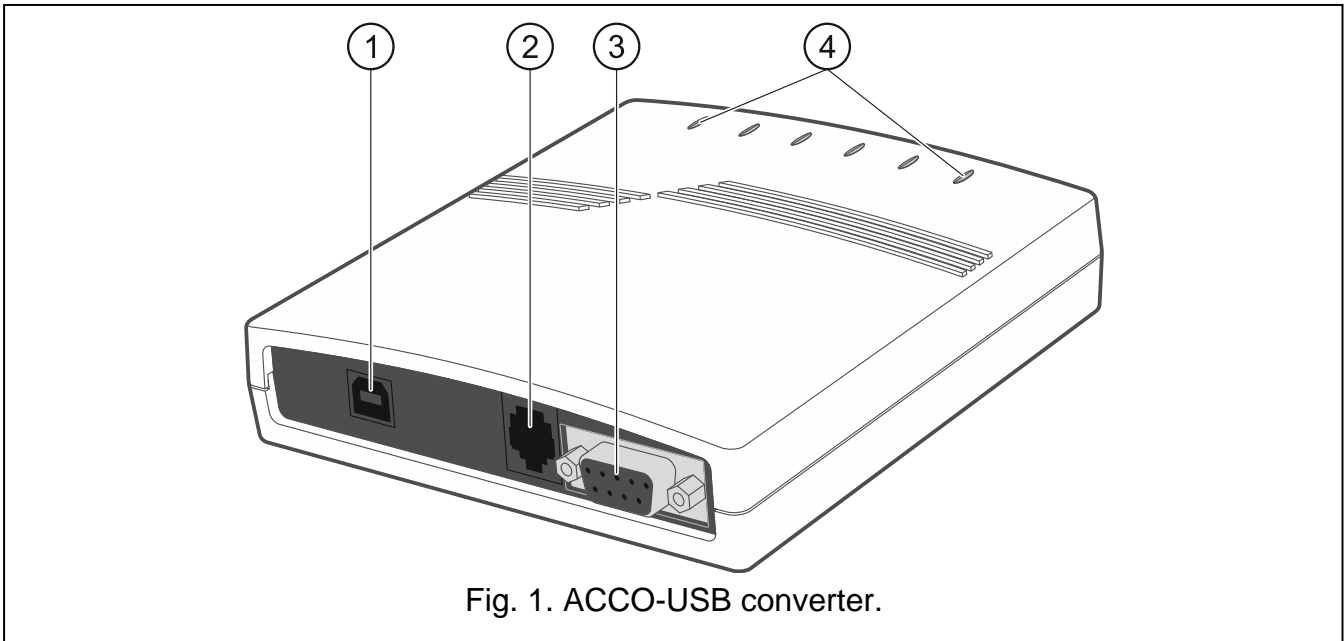


Fig. 1. ACCO-USB converter.

- ① USB socket for connecting the converter to the computer.
- ② RJ-45 socket for connecting the ACCO-USB-CZ proximity card reader.
- ③ DB-9F socket for connecting the RS-485 communication bus.
- ④ LED indicators:
 - PWR** – ON when the converter is connected to the computer by means of USB cable and the computer is turned on.
 - HEAD** – ON when the ACCO-USB-CZ proximity card reader is connected to the converter.
 - READ** – ON when the reader is waiting for proximity card to be read in.
 - ERR** – flashing when communication between the converter and a module is lost.
 - TX** – flashing when the converter is sending data to the computer.
 - RX** – flashing when the converter is receiving data from the computer.

4. Connecting to the computer

Connect the USB ports of the computer and the converter using the USB cable included in the kit. The green LED marked as PWR will turn ON in the converter. The Windows system will automatically detect connection of a new device and will install required drivers for the new hardware. After the converter is connected to the computer and drivers are installed, the converter will operate service-free.



If the system fails to find the required drivers automatically, download them from www.satel.eu.

Some versions of the Windows operating system may warn that the controller drivers have not passed conformity tests. Continue the installation of the drivers despite these warnings.

When the drivers are installed, an extra COM port will be available in the computer. Using this port and the ACCO-USB converter, the ACCO-SOFT-LT program will communicate with the modules connected to the RS-485 bus.

5. Connecting to the RS-485 bus

The ACCO-USB converter can be connected to the RS-485 bus of the ACCO system in any place. Up to 255 access control modules can be connected to the bus. The converter is not required for the ACCO system to operate. It is only used to configure the modules that work within the system and to update their firmware.

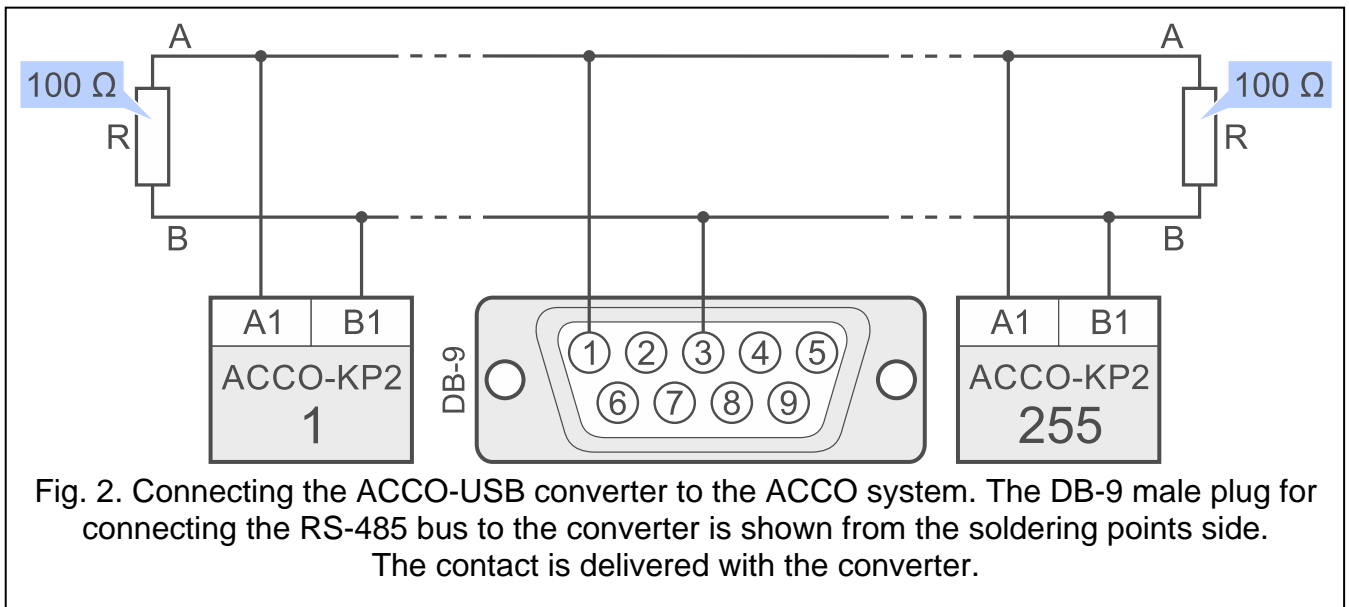


Fig. 2. Connecting the ACCO-USB converter to the ACCO system. The DB-9 male plug for connecting the RS-485 bus to the converter is shown from the soldering points side. The contact is delivered with the converter.



In case of any problems with communication through the RS-485 bus, connect the common ground of all modules and the converter (pin 5) with an additional wire.

6. ACCO-USB-CZ proximity card reader

The ACCO-USB-CZ proximity card reader is the CZ-EMM reader adapted to work with the ACCO-USB converter.

Connect the reader RJ-45 cable to the converter socket. The red LED marked as HEAD will turn ON in the converter.

When connected to the converter, the reader enables:

- adding cards to the users,
- searching for users by means of cards.



Wherever the word “card” is used in the manual, it means a passive transponder, which may be a card, a key tag, etc.

The bicolor LED indicates:

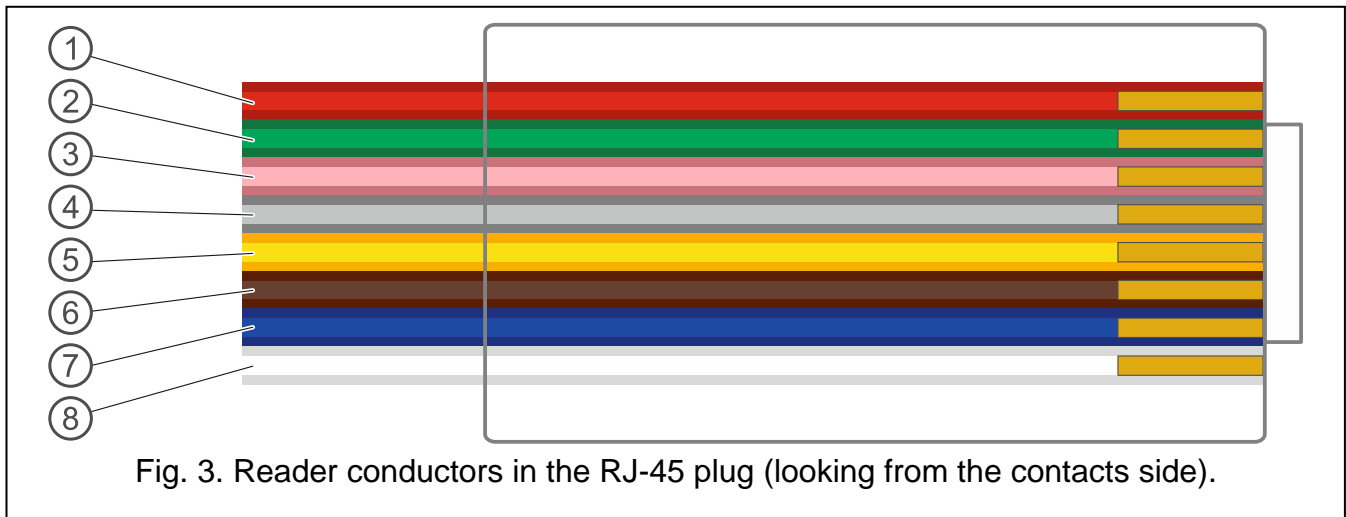
ON in red – reader OK.

flashing in green – waiting for the card to be placed in proximity.

The sounder indicates:

1 short beep – readout of a new card code (card adding) or readout of a known card code (searching for the user by the card).

2 long beeps – unknown card (searching for the user by the card).



Explanations for Fig. 3:

- ① red wire – power supply.
- ② green wire – data.
- ③ pink wire – LED green color control.
- ④ gray wire – LED red color control.
- ⑤ yellow wire – sounder control.
- ⑥ brown wire – reader operation blocking.
- ⑦ blue wire – common ground.
- ⑧ white wire – presence control.

The declaration of conformity may be consulted at www.satel.eu/ce