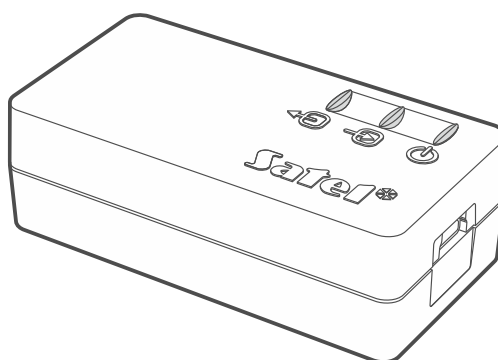


RS485 bus isolator
ISO-RS485

EN



CE

iso-rs485_en 04/26

IMPORTANT

The device should be installed by qualified personnel.

Prior to installation, please read carefully this manual.

Changes, modifications or repairs not authorized by the manufacturer shall void your rights under the warranty.

Description of symbols on the device:



Direct current (DC).



The device meets the requirements of the applicable EU directives.



The device is designed for indoor installation.



The device must not be disposed of with other municipal waste. It should be disposed of in accordance with the existing rules for environment protection (the device was placed on the market after 13 August 2005).

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Signs in this manual



Caution – information on the safety of users, devices, etc.



Note – suggestion or additional information.

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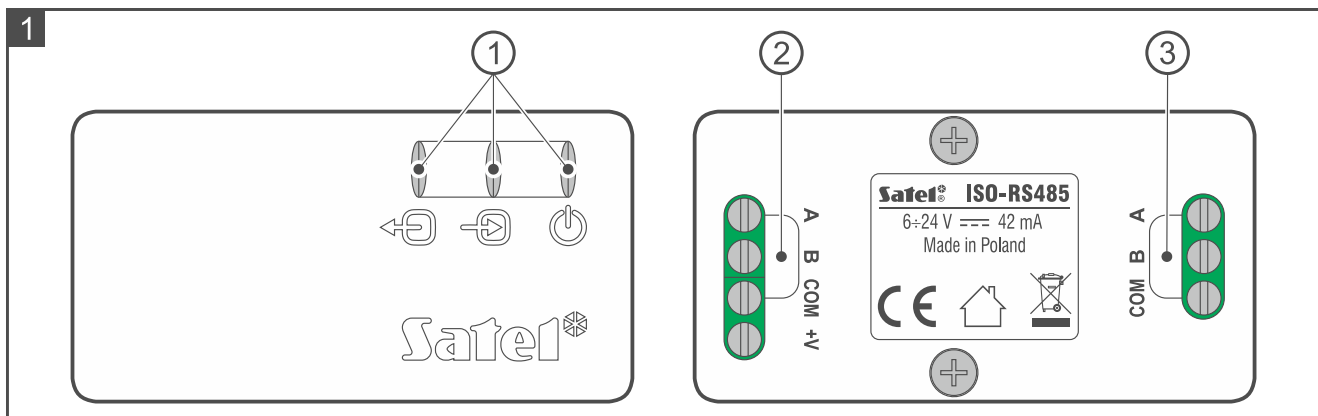
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The ISO-RS485 isolator is used to galvanically isolate two segments of the RS-485 bus. This allows the bus to be protected against electromagnetic interference and electrical faults. In addition, the isolator amplifies and stabilizes the transmitted signal, allowing the bus to be extended by 1000 meters. The isolator can also be used to create a branch on the bus.

1. Features

- Galvanic isolation of two segments of the RS-485 bus (e.g. two groups of devices on the bus).
- Protection against electromagnetic interference and electrical faults.
- Stabilization and amplification of the transmitted signal.
- Capability to extend the bus by 1000 meters.
- Capability to create a branch on the bus.
- Screw terminals for connecting the RS-485 bus.
- Powered by 6...24 VDC.
- LED indicators.

2. Description



- ① LED indicators.
- ← [green] – connection to the primary bus.
 - [green] – connection to the secondary bus.
 - ⏻ [red] – power.
- ② primary RS communication bus [PRI].
- ③ secondary RS communication bus [SEC].

2.1 Terminals

- A, B** - RS communication bus.
- COM** - common ground.
- +V** - power input.

3. Installation



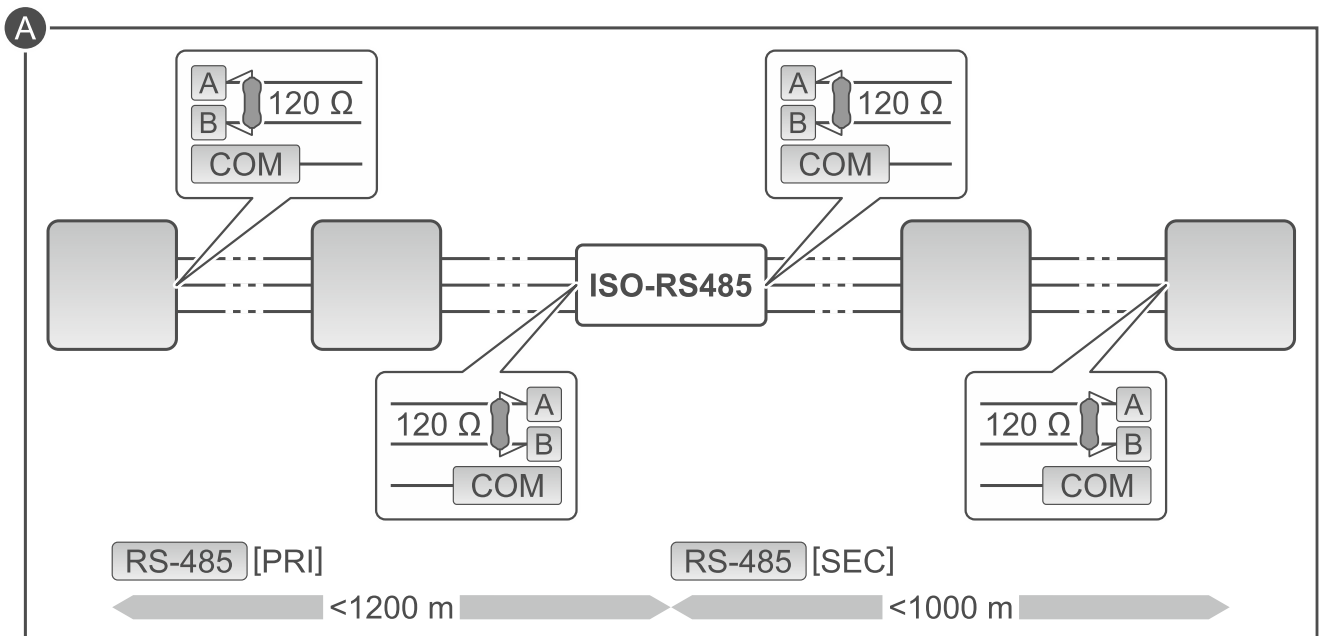
Disconnect power before making any electrical connections.

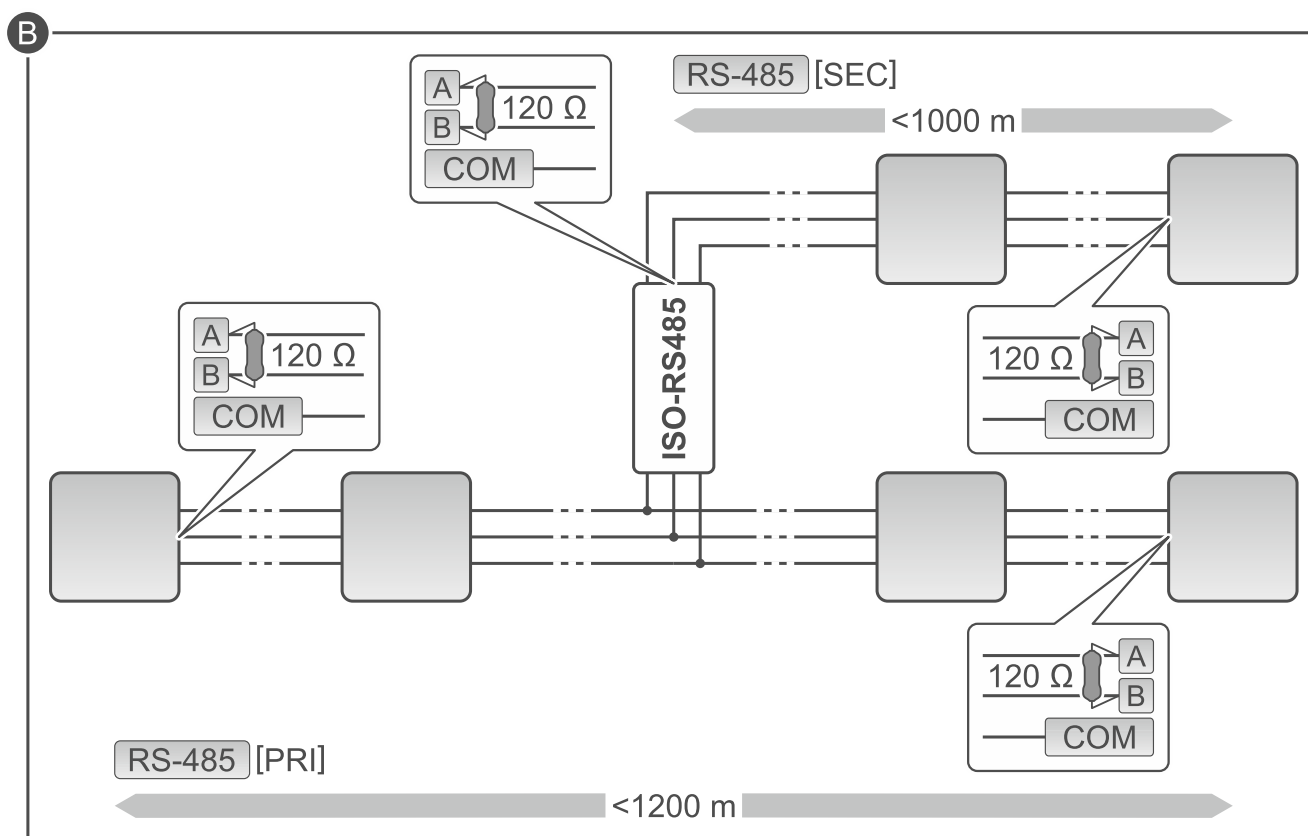
3.1 Tips for installation

- The isolator should be installed indoors, in spaces with normal air humidity.
- Do not install the isolator outdoors.
- The isolator requires 6...24 VDC power supply.

RS communication bus

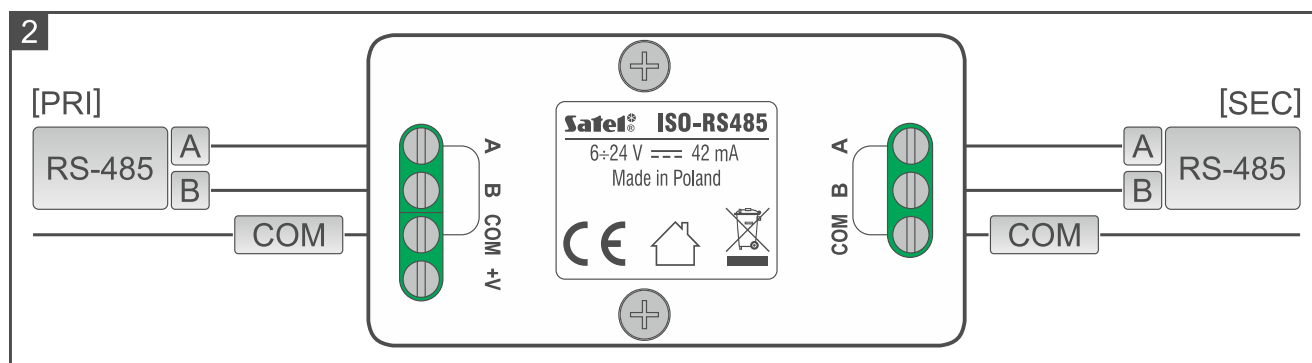
- You can connect the isolator to the bus at any point.
- Use a UTP cable (unshielded twisted pair).
- Connect the isolator to the bus if you want to:
 - galvanically isolate two segments of the bus / two groups of devices on the bus and protect the bus against electromagnetic interference (A).
 - amplify the transmitted signal and extend the bus (A).
 - create a branch on the bus so that no interference or signal reflections are generated (B).
- The length of the primary bus [PRI] must not exceed 1200 meters.
- The length of the secondary bus [SEC] created using the isolator must not exceed 1000 meters (A and B).
- Place $120\ \Omega$ ($\pm 20\%$) resistors at both ends of the bus. Place the resistors on both the primary and secondary bus (A and B). It is not required when the bus is shorter than 10 m.
- We recommend connecting the COM terminals of all devices on the bus with an additional wire.



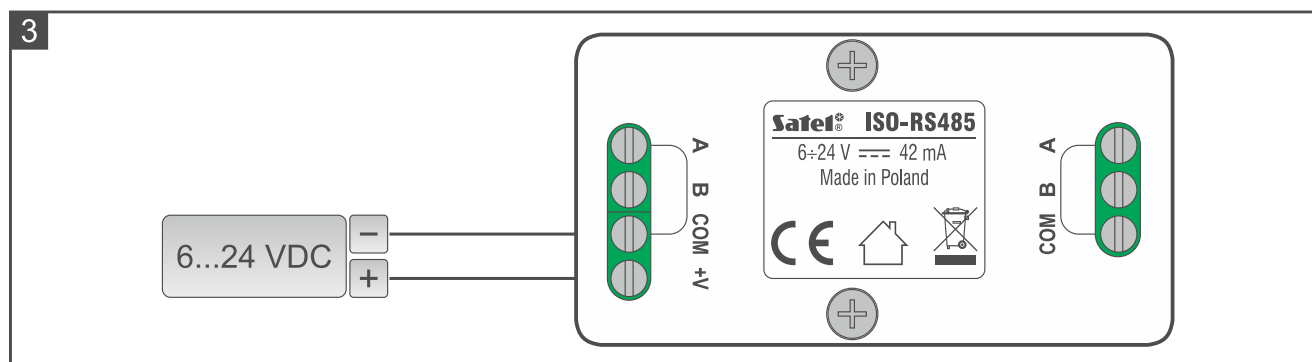


3.2 Installation

1. Screw the communication bus wires to the isolator terminals (Fig. 2). Screw the primary bus [PRI] wires to the A and B terminals next to the +V terminal; and screw the secondary bus [SEC] wires to the A and B terminals on the opposite side of the enclosure.



2. Screw 120 Ω resistors to the isolator A and B terminals.
3. Screw the ground wires to the isolator COM terminals (Fig. 2).
4. Screw the power wires to the isolator +V and COM terminals (Fig. 3).



5. Power on the isolator. The power indicator  will turn ON.

4. Specifications

Supply voltage	6...24 VDC
Maximum current consumption	42 mA
Maximum length of secondary bus	1000 m
Termination resistors	120 Ω ±20%
Operating temperature range.....	-10°C...+55°C
Maximum humidity	93±3%
Dimensions	68 x 35 x 22 mm
Weight.....	36 g