

SmokeESC REP-3100 User Manual

1 Introduction

REP-3100 device allows for doubling range of communication bus network for systems with CAB-3000 and RCP-3100 with proper galvanic separation.

1.1 Technical parameters

PARAMETER	VALUE
Supply voltage	24 V DC \pm 15%
Current consumption e	typ. 70 mA, $I_{MAX} < 200$ mA
Operating temperature	From -25°C to +50°C
Storage temperature	From -25°C to +70°C
Humidity	<90% RH, no condensation
Enviromental class	2
Enclosure protection class	IP54
Dimensions with grommets	170 x 250 x 90 mm
Weight	750 g
Altitude above sea level	<2000 m AMSL

1.2 General description

The purpose of a REP-3100 device is regeneration of a signal propagating on a communication bus that allows to extend its range. Additionally the device provides galvanic separation between connected sections of a loop. Factory settings makes the device usable out of the box.

2 Installation and start-up

Before comissioning of a device make sure it has no visible damage and the installation has been carried on in accordance with recommendation of this manual.

2.1 Installation recommendation

Device needs to be mounted with its grommets facing downwards. For mount to a wall use two screws/bolt with a diameter of 4 mm and length at least 45 mm that are suited for surface type on which device will be mounted on.

Caution!

After mounting to a wall cover mounting holes with caps that are delivered with the device. Refusing to perform such action deprives a device of its guaranteed enclosure protection class.

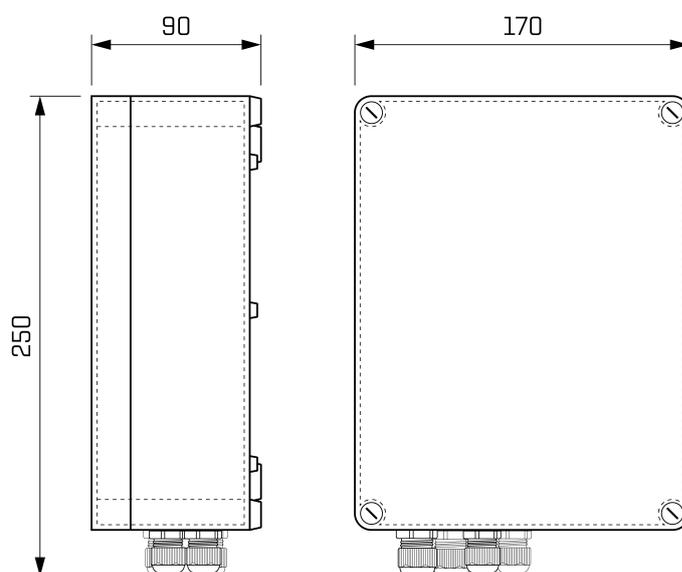


Fig. 1: Device dimensions in mm

Notes on safety!

- Before the first startup, carefully read this user manual.
- Neglecting to observe warnings and recommendations can result in electric shock, serious bodily injury, or fire.
- All connections and changes should be made with the power disconnected on all poles.
- Ensure proper operating conditions in accordance with the technical requirements of the device. Check the supply voltage, current output of the power source, and environmental conditions.
- Incorrectly connected device may become damaged.
- Only qualified individuals [after familiarizing themselves with this user manual] are allowed to connect the device and perform wiring.
- The responsibility for proper installation lies with the installer. Ensure that all guidelines and standards applicable in the given country are met.
- The device may be installed in a location accessible only to adults.
- Any attempts to make unauthorized changes to the device or self-repairs result in warranty voidance.

2.2 Connection of a device

2.2.1 Electrical connection

Caution!

The connection of the device must be carried out by authorized personnel. Any installations should be performed with the power turned off on all power supply poles. The device must be installed in the same building where the wiring connected to its connectors is done. All wires connected to the device must comply with the IEC 60332 standard.

Caution!

After connecting power cable to a device screw down grommet that was used to get cable into device case.

Connection of power supply has to be done in accordance with scheme on a figure 2. Cross-section of a power supply cable needs to be at least 0.5 mm² and during procedure carefully consider polarity of power supply.

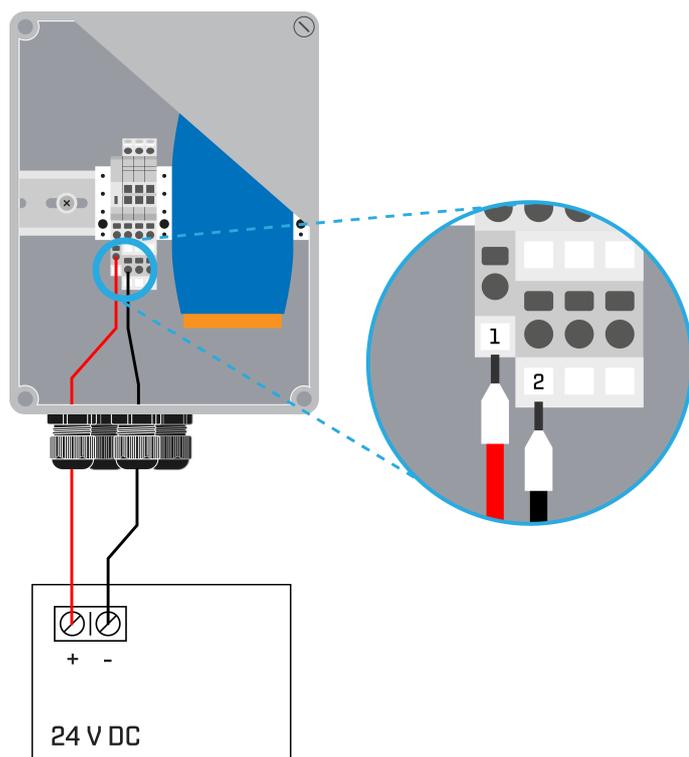


Fig. 2: Power supply connection

device's connectors 4-5 and 6-7. Shield of a cable need to be connected on the beggining of a bus using EMC grommet or different grounding connector present in the cotrol cabinet. When connecting bus with PS-3000 or SDC-3000 make shure shielding is connected between cables with usage of EMC connector inside device case. Maximum length of a bus might be lower due to wrong cable type used lack of proper shielding or due to EMC intereference.

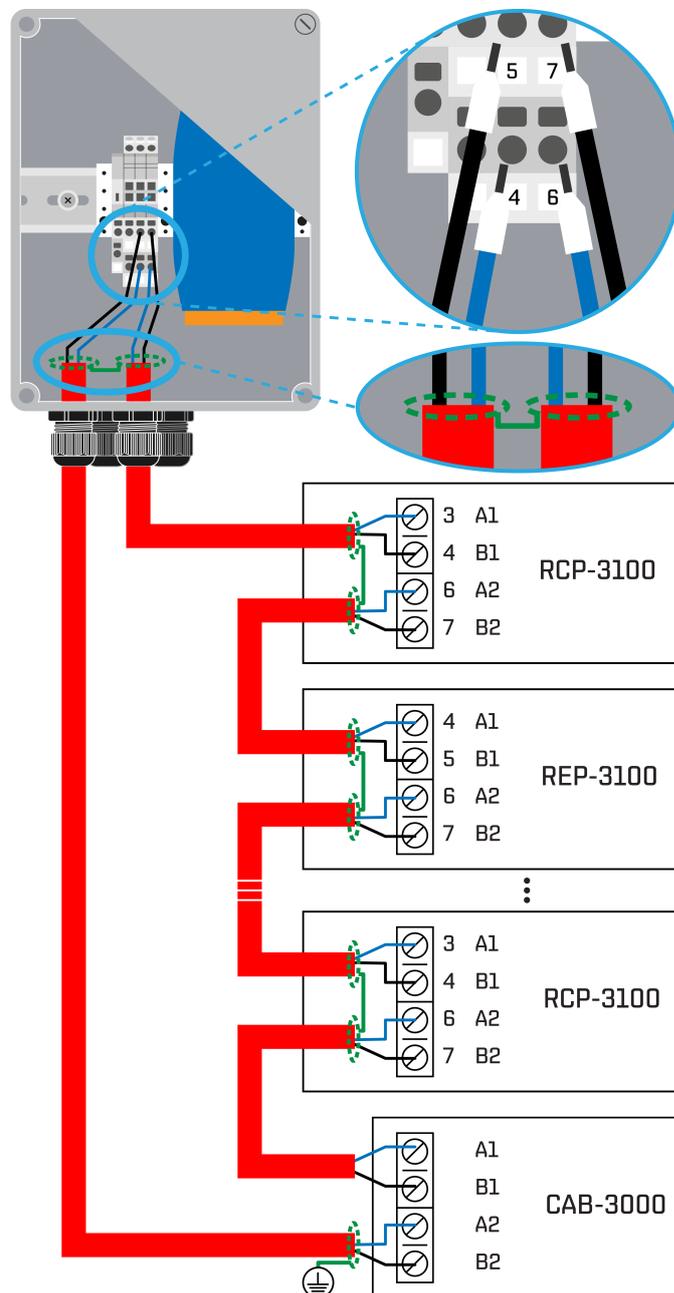


Fig. 3: Connection of a communication bus

2.2.2 Connection of a communication bus

In case of problem with communication between devices over communication bus use REP-3100 repeater. It is possible to add up to 4 repeaters into single bus. For connection use cable of type of YnTKSYekw 1x2x0.8 or of similar characteristic. Bus connection has to be made in accordance with scheme of figure 3 using

2.3 Other components

2.3.1 Fuse

The unit is fitted with four 1A fast-acting fuses [520.627] located in fuse terminal 1. Fuses should be changed only by qualified personnel with authorisation.

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Technical issues?

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