

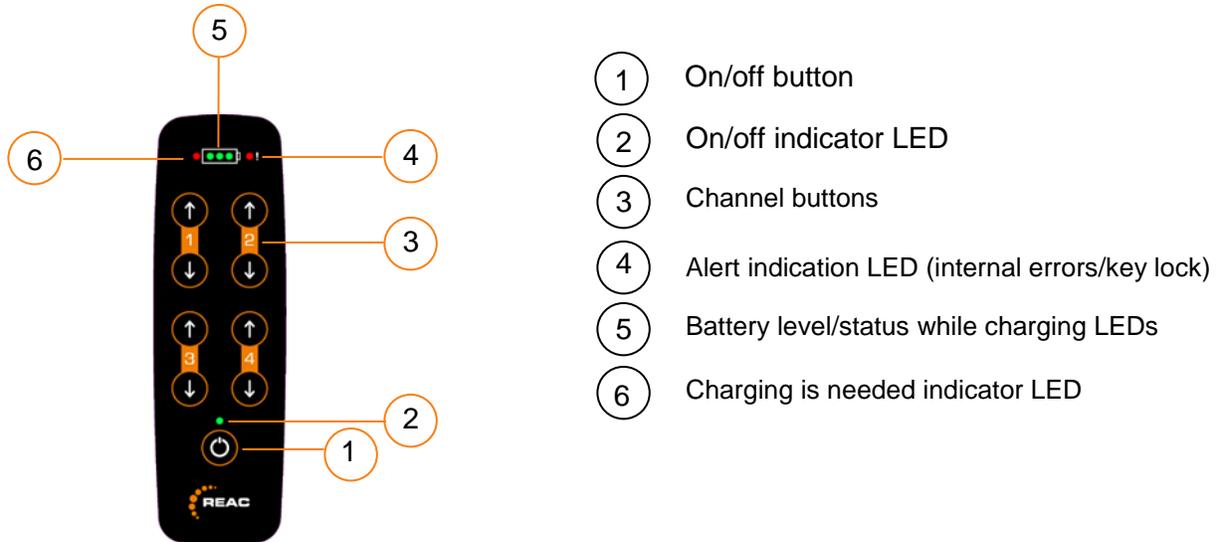
Control System RCS10



The REAC Control System - RSC10 consists of two units, one control box (RCB10) and one hand control (RHC10). In this document some of the main functions and features will be described in more detail.

Buttons & LEDs

The RHC10 can be equipped with up to 10 buttons and 10 LED indicators, which can be configured in many combinations. Below is an explanation of the buttons and LEDs on a RHC10 with REAC standard overlay and standard features, some options are also briefly mentioned.



On/off buttons and on/off indicator

As standard the RHC10 has an on-off button to activate/deactivate the system and also an on-off LED to indicate whether the system is on or not. It is possible not to have an on-off button, if so any button will activate the system.

To minimize power consumption, there is a timeout which will automatically turn off the system when exceeded. This timeout is 10 minutes for systems with on-off-button and 2 minutes for systems without the on-off-button.

Channel buttons

The standard RHC10 can control up to 4 actuator channels. It is only allowed to operate one channel at a time. If two or more channels are operated simultaneously, all movement will stop.

Alert indicator LED

On the standard overlay there is an alert indicator LED, marked with “!”. This LED is used to indicate that some internal error has occurred or that the key lock is activated. Fault handling and key lock functionality are described in further details in separate sections below.

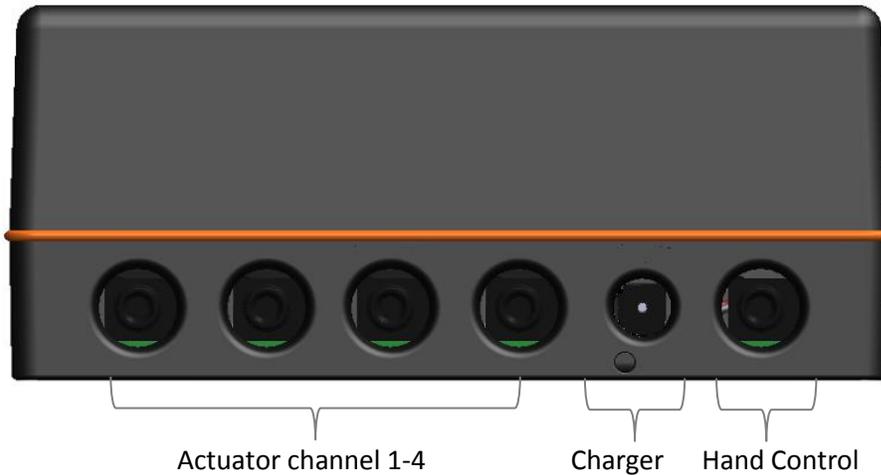
Charge indicator

The standard RHC10 has a battery indicator showing the battery level and status while charging. If the battery level is very low a warning LED will indicate that charging is needed. **Note:** when the level is critically low all operation will be aborted to protect the batteries.

Connectors and charging

Connector placement

The figure below shows the placement of the connectors:



Note: Actuator connectors and the hand control connector are of the same type. Make sure that the connectors are correctly plugged. A failure will not harm, but the system will not operate properly. If O-rings are used for IP-protection some grease on them (standard Vaseline is OK) simplifies assembly.

Connectors

The RCB10 is designed to work with standard mono connectors. The current limit is by default set to 8A for each channel, these limits can be individually configured pre-delivery if needed. Current peaks above the current limit are allowed for 250ms, when this is exceeded the actuator will be turned off.

If the actuator is stopped due to the current limit, you can still run in the opposite direction.

Charging

The battery is charged through an external charger. Charging is only allowed with the charger delivered together with the RCB10. Charging time for a completely discharged system is approximately 6 hours. The 3 green battery LEDs on the Hand control will flash synchronized when the battery is fully charged. It is recommended to charge the battery before first use.

- Charging must take place in a room with good air ventilation, ambient temperature shall be 0-40 °C.
- The battery must be charged as soon as possible after the low battery LED is lit. Leaving a battery with poor charge for a long time will damage the battery.
- Operation is not allowed (and is also prevented by the system) during charging.
- During storage the battery must be charged every 2nd month.

Warning: In the unlikely event of battery acid leakage and you get it in your eyes or on your skin - rinse thoroughly with lots of water and contact your local healthcare for further consultation.

Fault handling

Internal errors

If any internal error is detected the operation is turned off on that channel or on all channels based on the type of error and the alert indicator LED is lit.

For systems where the standard RHC10 is used, errors are cleared when pressing the on-off button and then the channel/channels are turned on again. For systems without the on-off button, the procedure is the same except that a timeout determines when the errors are cleared. As default that timeout is 10 seconds. If the error remains no operation is possible and the channel/channels are turned off again.

“Emergency stop”

If the system for some reason fails to stop when releasing the channel button, pressing of any other button/buttons will lead to a stop of all movements.

Other

Key lock

A key lock function to lock one or several channels is available. To lock a channel press both buttons for that channel at the same time for 3 seconds until the alert indicator LED is lit. Channel is locked.

If the system is turned off with the key lock activated and then is started again, the alert LED will lit for a short while to indicate that a key lock is active.

To unlock, the same procedure is used, press both channel buttons at the same time for 3 seconds until the alert indicator LED is switched off.

Cleaning and disinfection

The RCS system is designed to fulfil IPx4 (or IPx6 as an option), this means that cleaning with water is not a problem. For disinfection it is recommended to use soap or equal and clean with a tissue.

Charger connector plug

Warning: If the system is equipped with a charger connector plug to seal the connector hole, please be aware that this plug can be removed and swallowed by a small child (choking hazard).

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REAC AB
Forsbrogatan 4
662 34 Åmål, Sweden

REAC Poland Sp. z o.o
Ul. Sulejowska 45
97-300 Piotrków Trybunalski, Poland

www.reac.se
E-mail: info@reac.se
Phone: +46 532 78 50 00