



Hoist / Motor Controller

Instruction Manual

Models:

**MCBC4-DV-WM, MCBC8-DV-WM,
MCBC12-DV-WM**

version 1.0 since 3 February 2020

ATTENTION!

This instruction manual contains important information about the installation and the use of the equipment. Please read and follow these instructions carefully.

Always ensure that the power to the equipment is disconnected before opening the equipment or commencing any maintenance work.

1. General information

IMPORTANT INSTRUCTIONS!

All safety and operating instructions should be read before the equipment is installed or operated.

IMPORTANT SAFETY INFORMATION

The following general safety precautions have to be observed during all phases of operation, service, and the repair of this equipment. Failure to comply with these precautions or with specific warnings in this manual violates safety standards of design, manufacture, and the intended use of this equipment.

Do not operate in an explosive atmosphere!

Do not operate this equipment in the presence of flammable gases or fumes. Operation of any electrical instrument in such an environment constitutes a definite safety hazard.

Water, moisture, heat and humidity

Do not operate this equipment near water, in areas with wet floors or in high humidity atmosphere where condensation forms on the equipment. It should never be placed near or over a heat register or other source of heated air and it should not be installed or operated without proper ventilation.

2. Functions and Control

MCBC-DV-WM Motor Controller is designed to control up to 12 electrically compatible motors separately or simultaneously; controlled via cable remote controller MCBCX.MCP.

The unit is also equipped with AVM /Automatic voltage metering/ module. This module checks the main voltage for AC 400V +20% and the star configuration. If there is a problem with the main voltage, user is notified and the unit will not run any hoist.

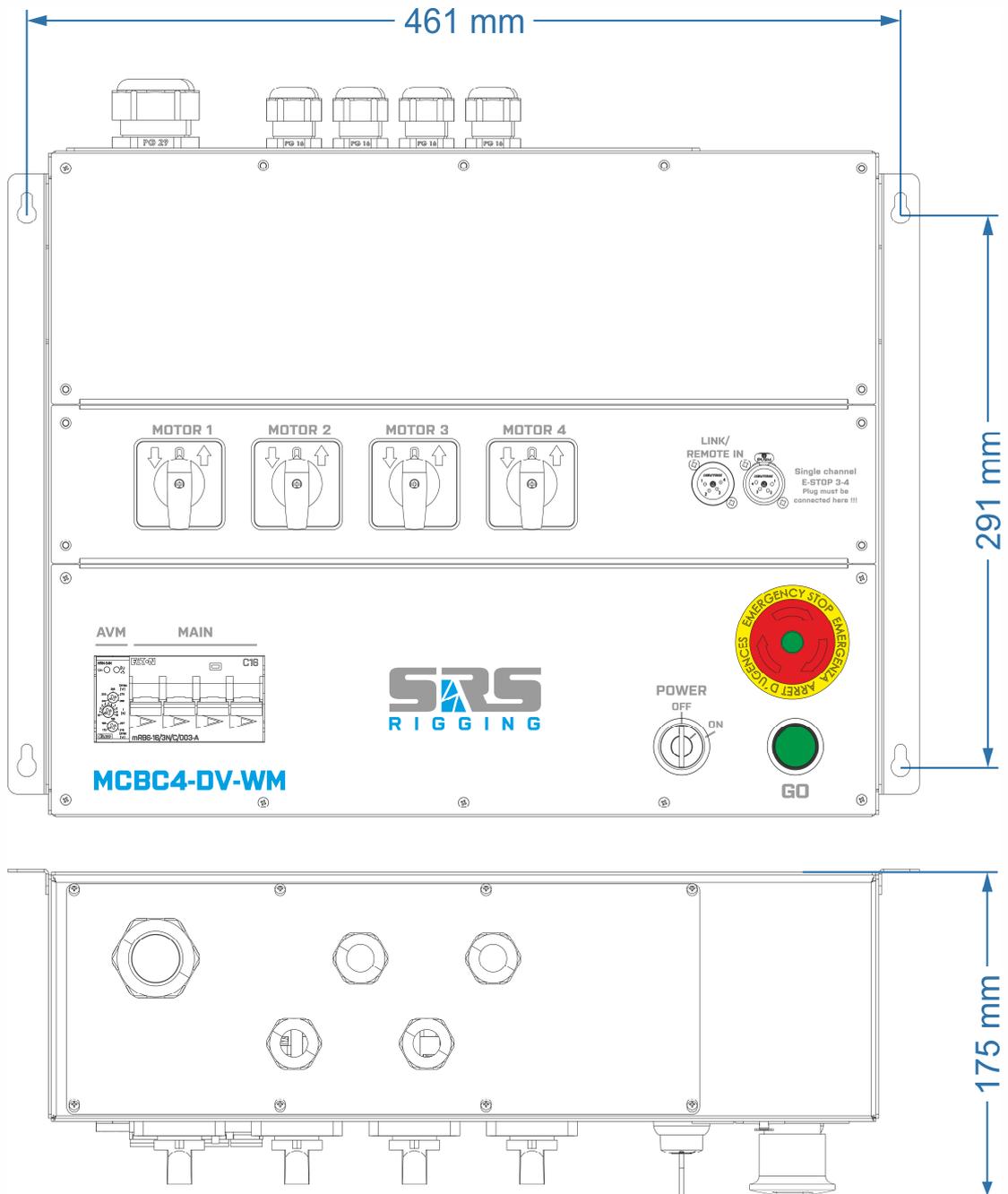
Unit does not work when:

- one phase is missing
- there is a under voltage on lines
- there is a overvoltage on lines

All electrical components carry their own individual CE and comply with European Directives. The components are housed in a robust steel wall mount rack casing with powder coating. Unit complies with the CE according to the Certification of Conformity that is attached to this manual.

MCBC-DV models

MCBC4-DV-WM



EMERGENCY STOP:

Emergency is a RED button located in the middle of yellow circle.

Emergency stop button turns the MCBC-DV-WM controller to an inactive state and stays in it.

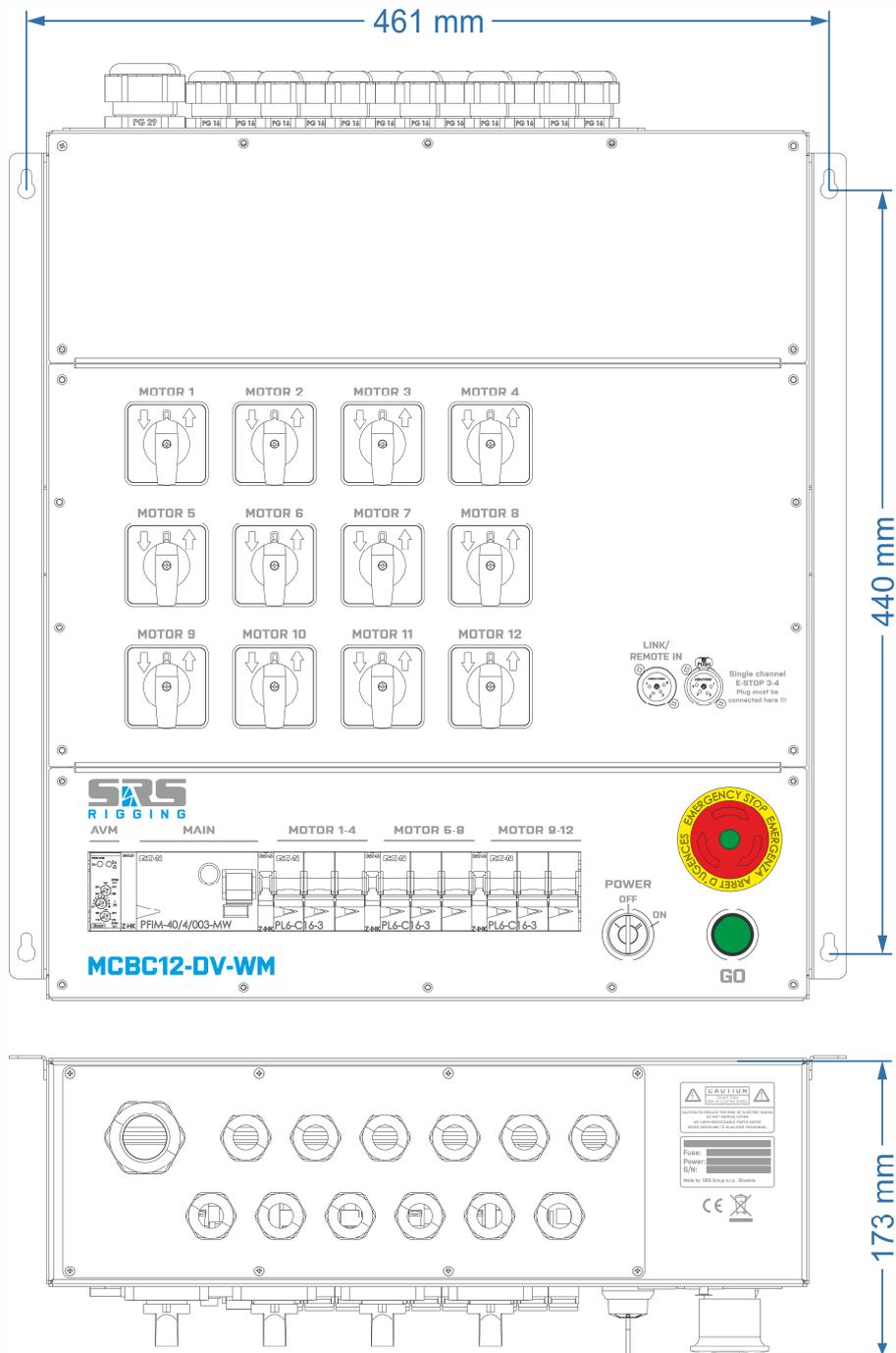
To release it, rotate the emergency stop clockwise.

When several more controllers are linked together, the press of any E-STOP button will shut down all connected controllers.

GO:

When active, the green pushbutton turns the selected channels of Hoist Control system ON. Once the GO button is released, the energizing of the hoists is turned off.

MCBC12-DV-WM



EMERGENCY STOP:

Emergency is a RED button located in the middle of yellow circle. Emergency stop button turns the MCBC-DV-WM controller to an inactive state and stays in it. To release it, rotate the emergency stop clockwise.

When several more controllers are linked together, the press of any E-STOP button will shut down all connected controllers.

GO:

When active, the green pushbutton turns the selected channels of Hoist Control system ON. Once the GO button is released, the energizing of the hoists is turned off.

3. Operation

The Motors/Hoists connected to the MCBCXX-DV-WM controller can be activated individually or simultaneously using the GO button located on the front panel, via cable remote or by linked controller. The selection of the hoists that are controlled is made by switches located on front panel.

Several MCBCXX-DV-WM controllers can be linked together to create bigger systems.

How to start

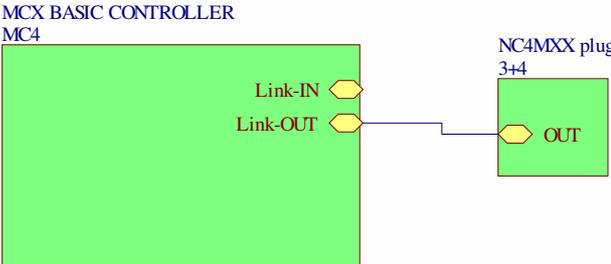
- Connect the mains power to the X0 terminal. The AC400V power supply and check RCBB0.
- If the main is OK, LED on AVM module is green
- If there is 123 align, all outputs will work normally.
- If there is 132 align, the outputs will not work.
- If there is a problem with main voltages, red LED on AVM module is ON. This is due to one missing phase. Disconnect mains and check line voltage and the presence of all phases.
- Connect the electric hoists to the X1 terminal
- Check if all emergency STOP buttons /on device and all other linked devices in system/ are released and there is presence of security plug/breach with short circuit in between pins 3 and 4 on last unit in system.

To Move a Single/Several Motor(s):

- Set the UP/DOWN switch for each motor to the desired direction.
- Hold the GO button until all motors are moved the desired height and release.

Controller normal operation:

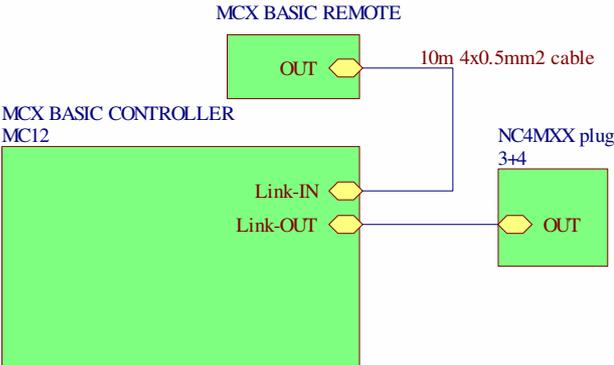
In this mode, the controller is operated by GO and E-STOP buttons located on the front panel.



During operation, the NC4MXX plug must be connected to the last controller in chain

Controller with remote operation:

In this mode, the controller is operated by GO and E-STOP buttons located either on the front panel or on the MCBCX.MCP.

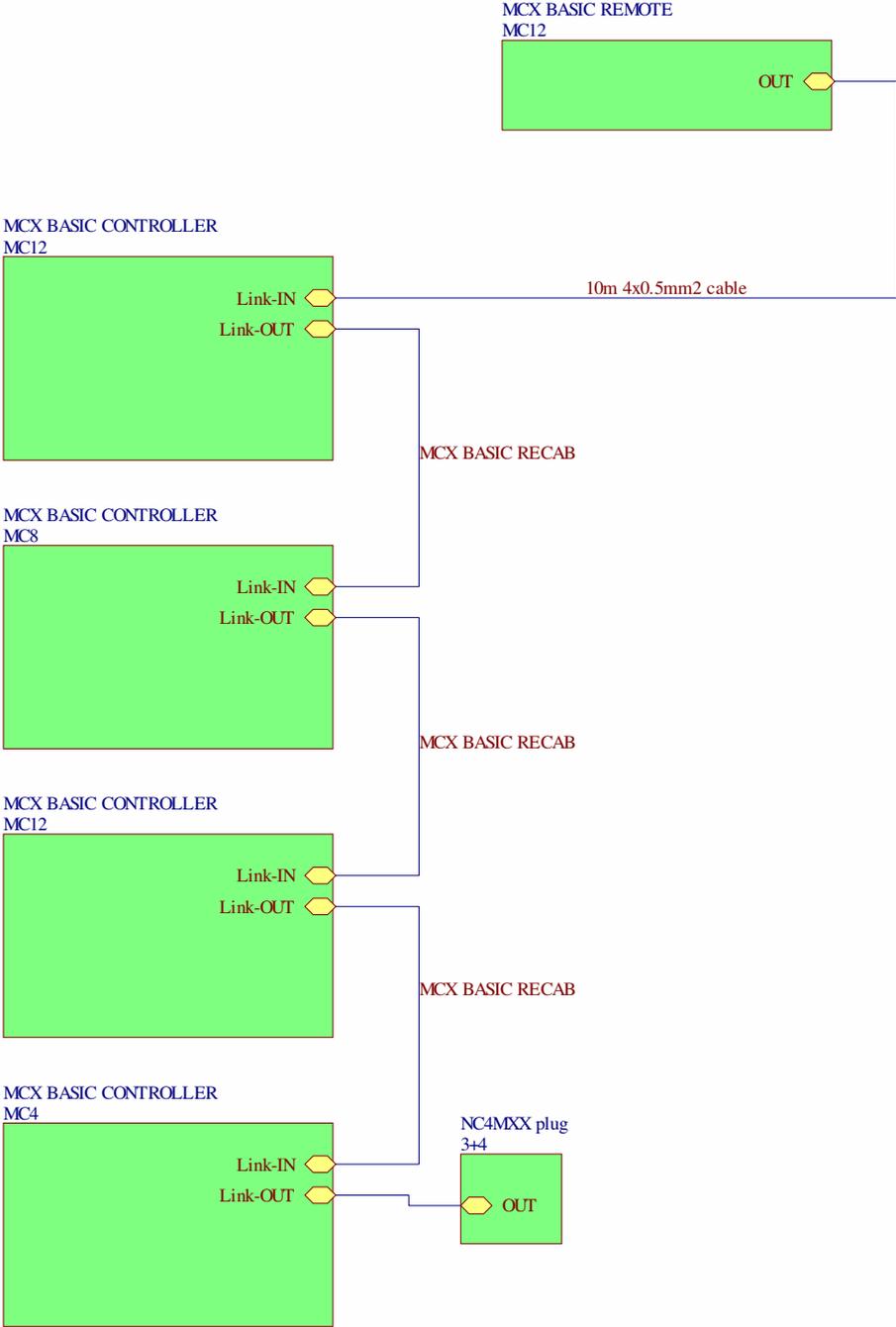


During operation, the NC4MXX plug must be connected to the last controller in chain

Controller link operation:

In this mode, all linked controllers are operated by any GO and E-STOP button located either on the front panel or on the MCBCX.MCP.

Don't forget to plug the NC4MXX plug to the last controller in chain.



During operation, the NC4MXX plug must be connected to the last controller in chain

4. Description of connectors

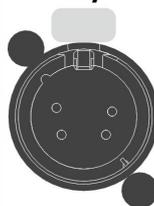
4.1 REMOTE / LINK connector

Lines 3 and 4 are normally closed – NC, by default for normal operation. Due to this, it is necessary to fit the safety breach /MXX connector/ to the link OUT connector with the short circuit between pins 3 and 4 for normal operation.

This breach must be connected to the last controller in system if the controllers are linked.

Neutrik NC4FXX

Pin 1. Remote go in
Pin 2. Remote go out
Pin 3. Safety in
Pin 4. Safety out



4.2 Mains power input:

Pin	Function
X0.1	L1 main
X0.2	L2 main
X0.3	L3 main
X0.4	Neutral
X0.5	EARTH

4.3 Output connectors:

Pin	Function
X1.1	L1 M1
X1.2	L2 M1
X1.3	L3 M1
X1.4	PE M1
X1.5	L1 M2
X1.6	L2 M2
X1.7	L3 M2
X1.8	PE M2
X1.9	L1 M3
X1.10	L2 M3
X1.11	L3 M3
X1.12	PE M3
X1.13	L1 M4
X1.14	L2 M4
X1.15	L3 M4
X1.16	PE M4

5. Technical data

- Mains input: AC400V +-20% 50/60Hz
- MCBC8-DV 4x hoist protected by 3xMCB C16 + 1x RCD30mA
- MCBC12-DV 4x hoist protected by 2xMCB C16 + 1x RCD30mA
- MCBC4-DV: 4x hoist protected by RCBO C16 30mA

Protection and Safety:

- AVM – Automatic Voltage Metering
- Mains contactor

Metal Housing:

- 1.5mm Steel housing with gray powder coating

Dimensions /W x D x H/:

- MCBC12-DV-WM: TBD
- MCBC8-DV-WM: TBD
- MCBC4-DV-WM: TBD

6. Warranty

MCBCXX-DV-WM hoist controller is covered by a 2-year manufacturer's warranty. For extended warranty conditions, please contact the manufacturer at sales@srs-group.com.

The warranty covers the original factory installed components of the controller and their correct functioning.

The warranty voids if any part or replacement component is installed or modified without authorization from the manufacturer and/or the internal circuit is tampered or modified and/or the controller is operated outside of normal using conditions – electrical power supply is not conform or there is connection error or mechanical damage of controller, including overload and improper use.

The manufacturer always helps with the repair of each unit.



DECLARATION OF CONFORMITY

According to the specification of Machinery Directive 2006/42/CE, Annex II A:

Name of producer: SRS Group s.r.o.
Address of producer: Rybníčná 36/D
821 07 Bratislava
Slovakia

Declares that the product

Name of product: **MCBC4-DV-WM-SCT**
Type: **973001**
Year of construction: 2018

Corresponds with the following harmonized standards:

Safety: EN 60065
EN 60950
EN 60204-1
EN 13850
EN 12100-2
EMC: EN55103-1, resp. EN55103-2

And is in compliance with following requirements:

Machinery directive: 2006/42/CE
Low Voltage directive: 2014/35/CE
Electromagnetic compatibility directive: 2014/30/CE

Bratislava, 10.5.2018


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