



Power supply for rotating and lifting modules for electric modulog rotating and lifting modules



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1 Description of the product

The control module is used for power supply and control of a modulog rotating or lifting module with a brushless 24 V or 48 V DC motor in combination with an operating element (as per data sheet M8.203).

1.1 Variant 24 VDC

The power supply for the rotating module is connected to the control module with screw terminals in the housing.

The screwable plug connection for the operating element is located on the rotating module itself.

1.2 Variant 48 VDC

The power supply and control cable for the rotating/ lifting module is provided by 2 off 1.8 m long cables with a plug connection. The operating element is connected to the control module via a screwable plug connection.

2 Validity of the documentation

This document applies to the following products:

Power supply for rotating and lifting modules of data sheet M8.202. The following types or part numbers are concerned:

Control module 24 VDC

- 6863 020

Control module 48 VDC

- 6862 914

3 Target group of this document

- Specialists, fitters and set-up men of machines and installations with expert knowledge in electrical engineering.

Qualification of the personnel

Expert knowledge means that the personnel must

- be in the position to read and completely understand technical specifications such as circuit diagrams and product-specific drawing documents,
- have expert knowledge (electric, hydraulic, pneumatic knowledge, etc.) of function and design of the corresponding components.

An **expert** is somebody who has due to its professional education and experiences sufficient knowledge and is familiar with the relevant regulations so that he

- can judge the entrusted works,
- can recognize the possible dangers,
- can take the required measures to eliminate dangers,
- knows the acknowledged standards, rules and guidelines of the technology.
- has the required knowledge for repair and mounting.

4 Symbols and signal words

WARNING

Person damage

Stands for a possibly dangerous situation.
 If it is not avoided, death or very severe injuries will result.

CAUTION

Easy injuries / property damage

Stands for a possibly dangerous situation.
 If it is not avoided, minor injuries or material damages will result.



Hazardous to the environment

The symbol stands for important information for the proper handling with materials that are hazardous to the environment.
 Ignoring these notes can lead to heavy damages to the environment.

Note

This symbol stands for tips for users or especially useful information. This is no signal word for a dangerous or harmful situation.

5 For your safety

5.1 Basic information

The operating instructions serve for information and avoidance of dangers when installing the products into the machine as well as information and references for transport, storage and maintenance.

Only in strict compliance with these operating instructions, accidents and property damages can be avoided as well as trouble-free operation of the products can be guaranteed.

Furthermore, the consideration of the operating instructions will:

- avoid injuries
- reduce down times and repair costs,
- increase the service life of the products.

5.2 Safety instructions

WARNING

Injury / burning due to contact with energized parts!

- Before working on electric equipment, the energized parts must be de-energized and secured.
- Do not open protection covers at electric parts.
- All electrical works must only be realised by electricians.

Injuries, material damages or malfunctions!

Modifications can lead to weakening of the components, reduction in strength or malfunctions.

- Do not modify the product!

Injuries due to non-compliance of the operating instructions!

- The product may only be operated, if the operating instructions - especially the chapter "Safety instructions" have been read and understood.

Injuries due to misuse, incorrect operation or abuse!

Injuries can occur if the product is not used within the intended use and the technical performance data.

- Before start up, read the operating instructions!

CAUTION

Fixing the connecting cable

- The cables must be fixed by the user so that no bending and tensile stress will act and the cable cannot be damaged in any way.

Material damage, damage or functional failure

Aggressive cleaning agents can cause damage, especially to seals.

The product must not be cleaned with:

- corrosive or caustic substances or
- organic, solvents such as halogenated or aromatic hydrocarbons and ketones (cellulose thinner, acetone, etc.).

All work by service personnel only!

- All works only to be effected by ROEMHELD service staff.

5.3 Product-specific safety instructions

5.3.1 Safety hazards

- If the product or one of the associated components are visibly impaired in their function or if external damage is visible, the equipment must no longer be operated. In this case, the product should be immediately disconnected from the mains!
- The system must only be operated if the rotating and lifting modules and the load are securely fixed!
- Consider the admissible maximum load!
- The housing of the control module may only be opened to fix the housing and to connect the power supply line and in compliance with the safety instructions!
- The plug-type connectors must only be connected and disconnected in idle mode of the control module!
- In the case of opened plug-type connectors, the precautions against electrostatic discharge (ESD) must be taken. Open plug contacts must not be touched.

6 Application

6.1 Intended use

The products are used in industrial applications, they are used for power supply and control of electrical modu-log rotating and lifting modules.

In addition, use in compliance with the intended purpose includes:

- Use only within closed, low-dust rooms
- Use within the capacity indicated in the technical data sheets.
- Use as described in this operating manual.
- Qualified and trained personnel for the corresponding activities.
- Mounting of spare parts only with the same specifications as the original part.

6.2 Misapplication

WARNING

Injuries, material damages or malfunctions!

Modifications can lead to weakening of the components, reduction in strength or malfunctions.

- Do not modify the product!

The use of these products is not admitted:

- For domestic use.

- On pallets or machine tool tables in primary shaping and metal forming machine tools.
- In areas for which special guidelines apply, especially in installations and machines:
 - For the use on fun fairs and in amusement parks.
 - In food processing or in areas with special hygiene regulations.
 - In mines.
 - In explosive and aggressive environments (e.g. ATEX).
- For other operating and environmental conditions.

Special solutions are available on request!

7 Installation

7.1 Design

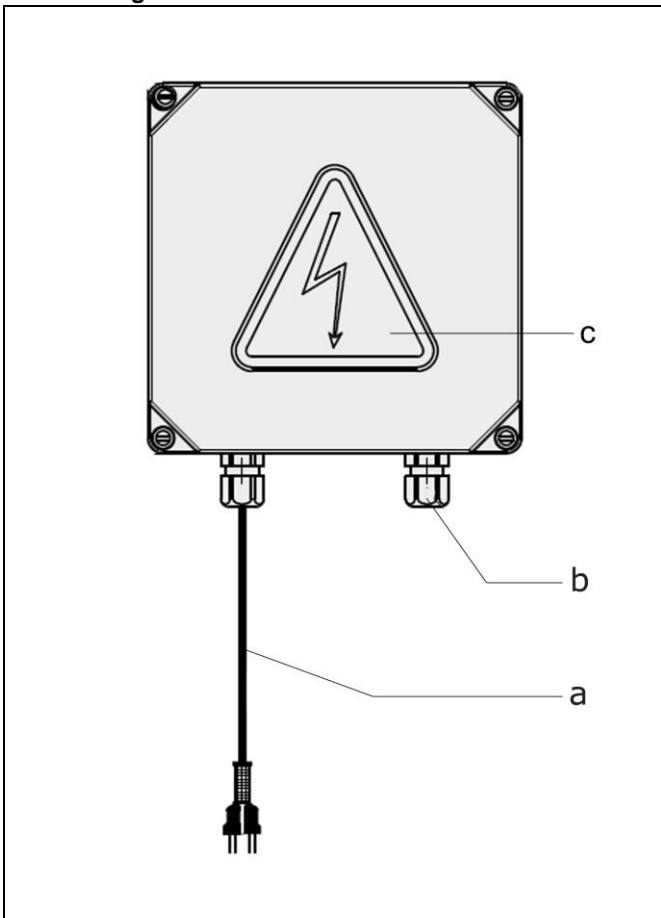


Figure 1: Control module 24 VDC

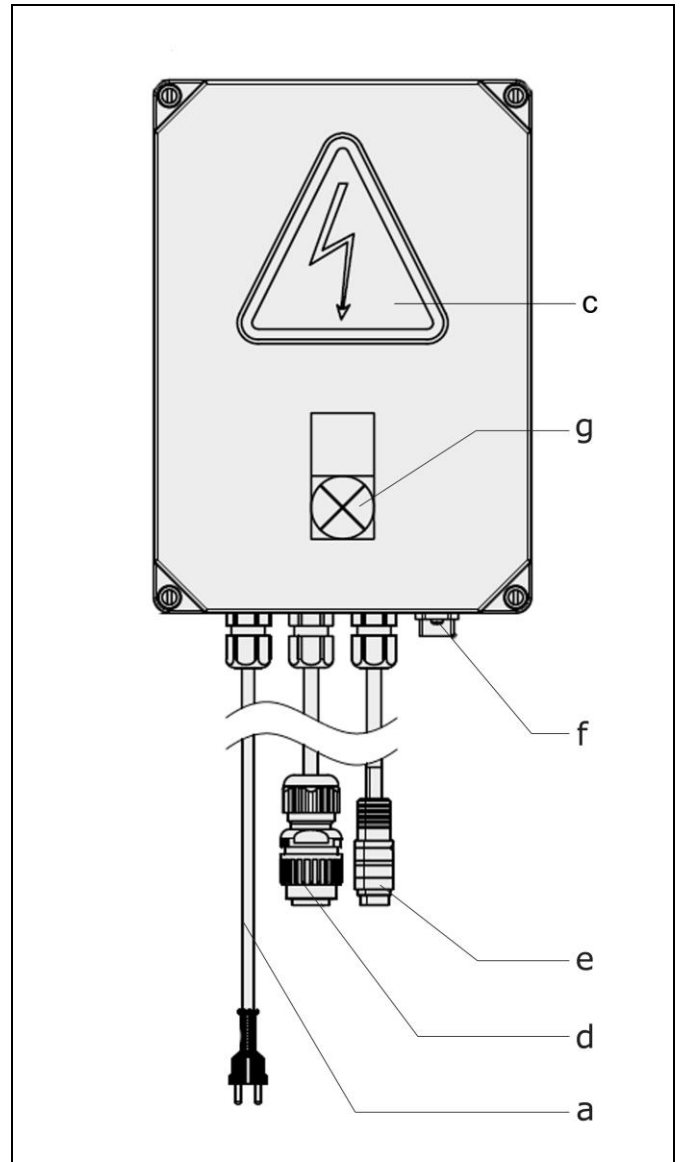


Figure 2: Control module 48 VDC

a	Supply cable with earthed plug 230 V (3 m long)
b	Entry for power supply rotating module
c	Warning of dangerous electrical voltage
d	Power supply rotating module/lifting module (cable approx. 1.8 m long)
e	Control rotating module/lifting module (cable approx. 1.8 m long)
f	Plug connector for control element
g	Luminous push-button red "error/acknowledge error"

7.2 Fixing of the product

To fix the control box to the customer's connecting construction with 4 socket head cap screws M4, the 4 cover screws (Pos. b) must be loosened and the cover (Pos. a) removed. The control box can then be fixed with the mounting holes (Pos. c1). Alternatively, 4 socket head cap screws M5 can be used with the mounting holes (Pos. c2).

After fixing, the cover (Pos. a) must be fixed again with the 4 cover screws (Pos. b).

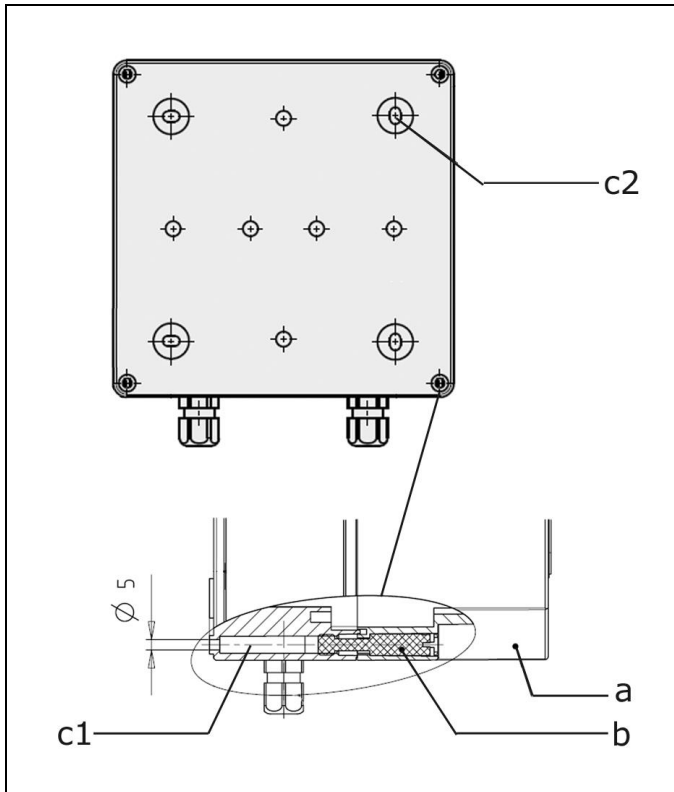


Figure 3: Mounting holes VDC 24

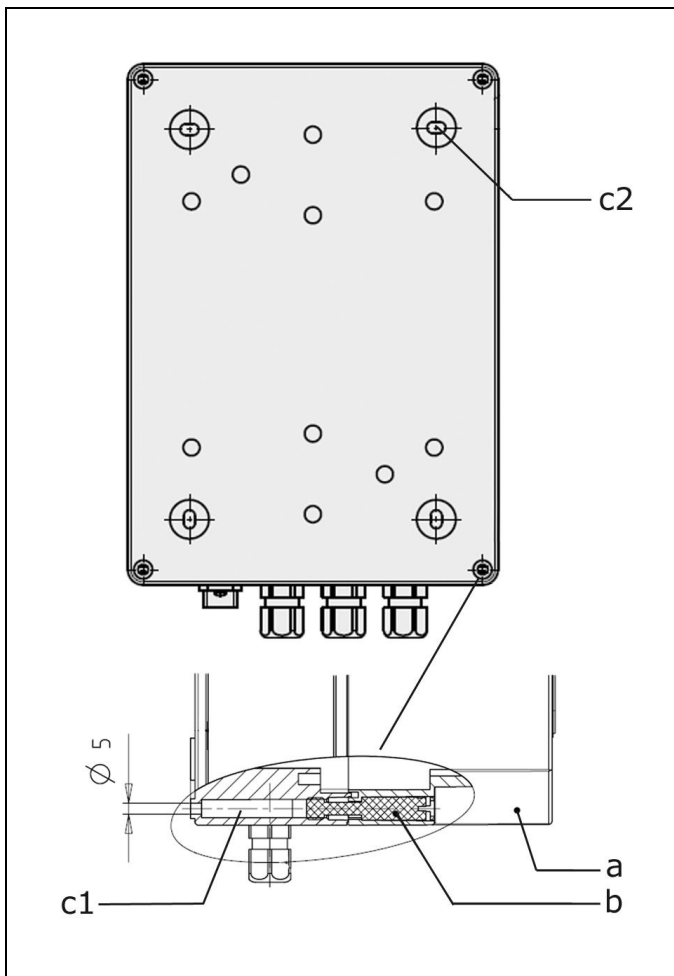


Figure 4: Mounting holes VDC 48

a Cover	c Mounting holes
b Cover screws	

⚠ CAUTION

Fixing the connecting cable

- The cables must be fixed by the user so that no bending and tensile stress will act and the cable cannot be damaged in any way.

8 Start up

📘 NOTE

Combinable with operating elements

- See data sheet M8.203

⚠ WARNING

Injury / burning due to contact with energized parts!

- Before working on electric equipment, the energized parts must be de-energized and secured.
- Do not open protection covers at electric parts.
- All electrical works must only be realised by electricians.

9 Maintenance

9.1 Plan for maintenance

Maintenance works	Interval	by...
Visual inspection and cleaning	daily	operator
The electrically connected components must be checked by an expert at regular intervals, but at least once a year.	yearly checks	expert
Repair	in case of damages	ROEMHELD service staff

📘 NOTE

Qualification of the personnel

- Pay attention to the qualification of the personnel.

The product cannot be repaired. In the event of an error it must be replaced.

9.2 Cleaning

⚠ CAUTION

Material damage, damage or functional failure

Aggressive cleaning agents can cause damage, especially to seals.

The product must not be cleaned with:

- corrosive or caustic substances or
- organic, solvents such as halogenated or aromatic hydrocarbons and ketones (cellulose thinner, acetone, etc.).

The following cleaning works have to be effected daily at the components.

- Clean with cleaning clothes or cleaning rags.

9.2.1 Daily checks

WARNING

Injury due to a lifting or lowering movement!

- Before cleaning switch off power supply.

- Visual inspection of all parts

9.2.2 Yearly checks

WARNING

Injury due to a lifting or lowering movement!

- Before cleaning switch off power supply.

The electrically-connected components must be checked by an expert at regular intervals, but at least once a year.

The check has to include:

- Perfect functioning
- The condition of the components
- Test as per DGUV regulation 3

9.3 Repair

WARNING

Injury / burning due to contact with energized parts!

- Before working on electric equipment, the energized parts must be de-energized and secured.
- Do not open protection covers at electric parts.
- All electrical works must only be realised by electricians.

CAUTION

All work by service personnel only!

- All works only to be effected by ROEMHELD service staff.

10 Technical characteristics

Variant 24 VDC	
Operating voltage	24 VDC
Supply voltage	200-240 VAC, 50/60 Hz
Rating	480 W (720 W for 4 s)
Code class	IP 54
Protection class	I
Duty cycle	100 %
Output current	20 ADC

Variant 48 VDC	
Operating voltage	48 VDC
Supply voltage	200-240 VAC, 50/60 Hz
Rating	960 W (1440 W for 4 s)
Code class	IP 54
Protection class	I
Duty cycle	100 %
Output current	20 ADC

NOTE

Further information

- For further technical data see ROEMHELD data sheet. M8202

11 Accessory

NOTE

Accessories

- See data sheet.

12 Disposal



Hazardous to the environment

Due to possible environmental pollution, the individual components must be disposed only by an authorised expert company.

The individual materials have to be disposed as per the existing regulations and directives as well as the environmental conditions.

For the disposal of electrical and electronic components (e.g. stroke measuring systems, proximity switches, etc.) country-specific legal regulations and specifications have to be kept.

13 Declaration of incorporation

Manufacturer

Römheld GmbH Friedrichshütte
Römheldstraße 1-5
35321 Laubach, Germany
Tel.: +49 (0) 64 05 / 89-0
Fax: +49 (0) 64 05 / 89-211
E-mail: info@roemheld.de
www.roemheld.com

Responsible person for the documentation:
Dipl.-Ing. (FH) Jürgen Niesner, Tel.: +49(0)6405 89-0.

This declaration of incorporation applies to the following products:

Power supply for rotating and lifting modules of data sheet M8.202. The following types or part numbers are concerned:

Control module 24 VDC

- 6863 020

Control module 48 VDC

- 6862 914

The listed products are designed and manufactured in line with the relevant versions of the directives **2006/42/CE** (EC-MSRL) and in compliance with the valid technical rules and standards. In accordance with EC-MSRL, these products are not yet ready for use and are exclusively designed for the installation in a machine, a fixture or a plant.

The following additional EU directives were applied:

- **2006/42/EC**, Machinery directive [www.eur-lex.europa.eu]

The following harmonised standards have been applied:


DIN EN 60204-1; 2007-06, Safety of machinery - Electrical equipment of machines, Part 1: General requirements

DIN EN 61000-6-4; 2007, Electromagnetic compatibility, generic standards - emission standard for industrial environments

The products may only be put into operation after it was assessed that the machine, in which the product shall be installed, corresponds to the machinery directives (2006/42/EC).

The manufacturer commits to transmit the special documents of the products to state authorities on request.

The technical documentation as per appendix VII part B was prepared for the products.

i.V. 

Ralph Ludwig
Head of Research and Development

Römheld GmbH
Friedrichshütte

Laubach, 13.01.2022