

RELINK-2C/2S

USER'S MANUAL

VOSTERMANS VENTILATION B.V. WARRANTY CONDITIONS

The warranty conditions stated below concern article 14 of the standard conditions of delivery and payment issued by Vostermans Companies, filed at the commercial register of the Chamber of Commerce in Venlo.

May 2003

Article 14: Warranty

14.1 The manufacturer guarantees the validity of the delivered goods concerning material- and production faults during warranty period.

The warranty period starts the day of delivery. The warranty period lasts:

- for fans smaller than 1m diameter and a speed lower than 2800 RPM: 3 years
- for other fans: 1 year
- for equipment and spare-parts to control and secure fans and motors (built-in and independent) : 1 year
- for motors and impellers which were not built-in: 1 year
- for other spare-parts and repaired parts: 6 Months

14.2 If delivered goods (or parts of them) appear to be malfunctioning because of material- and /or production faults, the manufacturer has the exclusive obligation to repair or replace the goods according to the choice of the manufacturer. He is obligated to do this within the mentioned conditions of this article (article 14). The parts or goods that were replaced or repaired by the manufacturer have to be send to the manufacturer free of charge but they will be returned on the principals' account.

14.3 The costs for repair or replacement are for the party that ordered the repair or replacement according to the following conditions:

- during the warranty period: free of charge
- after the warranty period: based on the repair costs

14.4 The manufacturer authorized person(s) have to be able if the manufacturer thinks it's necessary to research the defects without obstructions.

14.5 The principal has to give at all times to the manufacturer the possibility to repair a possible defect.

14.6 The principal can only refer to these warranty conditions if and to what extent the principal has met all obligations against the manufacturer.

14.7 The principal can not refer to these warranty conditions if and to what extent:

- the delivered goods were used injudiciously
- the delivered goods were not, were injudiciously or wrongly maintained
- the delivered goods were injudiciously installed, mounted, changed or repaired by a third party.
- the delivered goods were not treated according to the instructions given by the manufacturer.
- the defect is a consequence of normal usage
- the data shield or serial number has been removed from the goods
- delivered goods were exposed to aggressive substances or gasses.

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- 14.8 The manufacturer can never guarantee that the delivered goods are suited for the principals' application goal.
- 14.9 The manufacturer is only responsible to the principal if and to what extent this follows up to article 13 and or this article 14 and or if this follows up to a court order. All other responsibilities of the manufacturer are explicitly excluded. If the manufacturer meets up to the warranty obligations as mentioned in article 14.2 that will be the only and total compensation.
- 14.10 The obligations of the manufacturer as mentioned in this article (article 14.1 - 14.10) are only to be followed up towards the first principal.

EU Declaration of Conformity

(according to Annex IV of the Low Voltage Directive 2014/35/EU)

The manufacturer: **Vostermans Ventilation B.V.** *Telephone:* +31 (0) 77 389 32 32
Visiting address: Industrial Zone Venlo 5082 *Fax:* +31 (0) 77 382 08 93
Parlevinkerweg 54
NL-5928 NV Venlo *Internet:* www.vostermans.com
The Netherlands *E-mail:* ventilation@vostermans.com
Postal address: P.O. Box 3025
NL-5902 RA Venlo
The Netherlands

declares under sole responsibility that the following electrical equipment:

Name / description: Controller

Article numbers: RELINK-2C/2S



is in conformity with the relevant Union harmonisation legislation and fulfils all the relevant provisions of the following directives and regulations:

2014/35/EU	(including modifications)	(EU) 2019/1781
2014/30/EU	(including modifications)	
2011/65/EU	(including modifications)	
2012/19/EU	(including modifications)	

on which the following harmonised standards were used:

EN 60204-1:2018	EN 61000-6-2:2005/AC:2005
	EN 61000-6-4:2007/A1:2011
	EN 61800-3:2004/A1:2012
	EN 50581:2012

and on which the following other technical specifications were used, in relation to which conformity is declared:

Cenelec Guide 32:2014	EN 61000-6-2:2019
EN 60204-1:2006/AC:2010	EN 61000-6-4:2019
EN ISO 13732-1:2008	EN 61800-3:2018
ISO 9001:2015	EN 63000:2018

Signed for and on behalf of: **Vostermans Ventilation B.V.**

Place: Venlo – The Netherlands

Date: 2020/05/01

Identities and signatures: **P.W. Provó Kluit**, R&D Manager
(authorised to compile the technical file)

H.L.J. Vostermans, C.E.O.

A blue ink signature of P.W. Provó Kluit, written in a cursive style.

A blue ink signature of H.L.J. Vostermans, written in a cursive style.

Original EU Declaration of Conformity
Controller – DoC 2014_35_EU – v1.4 en

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1 PRECAUTIONS



Read the following instructions carefully before connecting or operating the unit. Failure to comply with the instructions in this booklet may result in a malfunction or injury.

The contents of this manual are believed to be correct at the time of printing. In the interest of a policy of continuous development and improvement, the manufacturer reserves the right to change the specification of the drive or its performance, or the contents of this manual without notice.

Although protection at the outputs of the controller protects its circuits in case of an overload or overvoltage, we recommend installing an additional protection device on the controller's supply circuit.

To avoid exposing the controller to harmful gases or excessive humidity, it is preferable to install it in a corridor.

All cables must pass through watertight connectors through the bottom plate. Do NOT drill extra holes in the enclosure, as this may render the enclosure non-IP54 compliant.

Do NOT spray the controller with water.

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2 TERMS AND SYMBOLS

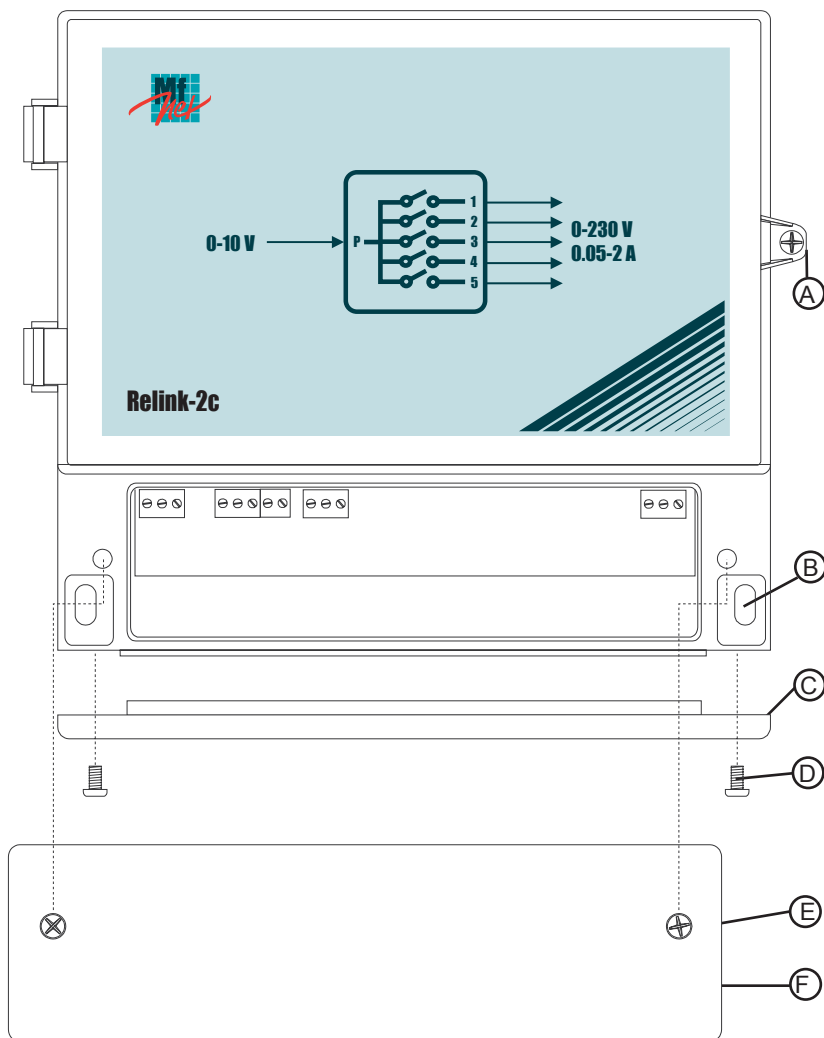


Fig. 1 – Exploded view of the Relink-2c/2s

2.1 IMPORTANT TERMS

- A **Top Cover Fastening screw.** (M4x8 mm)
- B **Wall Mounting Holes.** Maximum screw diameter is 5mm
- C **Punch-hole Plate.** This is the plate through which ALL cables must pass. There is a provision for up to 3 M16 and 4 M20 watertight connectors.
- D **Mounting Screws for Punch-hole Plate** (M4x8 mm).
- E **Mounting Screws for Connection Compartment Cover** (M4x8 mm).
- F **Connection Compartment Cover.**

2.2 Key to Symbols in the Manual



Danger.

There is a risk of electrical shock or hazard if the following instructions are not followed.



Caution!

Carefully read the following text for it contains important information which, if ignored, may cause the controller to operate improperly.



Pay attention.

The following text contains very useful information.

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3 INSTALATION

3.1 Unpacking the controller

The following items should be in the box when you receive the controller:

- 1 Relink-2c/2s relay output module
- 1 Instruction manual

Inspect the controller carefully. If it is damaged or any items are missing, contact your distributor.



Do NOT install or use a damaged controller. Contact your distributor to obtain another unit.



Take a few moments to write the complete serial number found on the side of the controller on page 4 of this manual. This will be useful for future reference..

3.2 Installing the Controller on the Wall

The controller should be mounted on a wall indoors, preferably in a corridor or where the humidity and dirt levels are not too high. Do not mount the controller above a heater and prevent covering the heatsink. It should be mounted in such a way that the display is at eye level and the punch hole plate (Fig. 1, Item C) is facing the ground. There should be no objects or wall at least 26 cm from the left side of the controller to allow enough room for the cover to open (see Fig. 2).

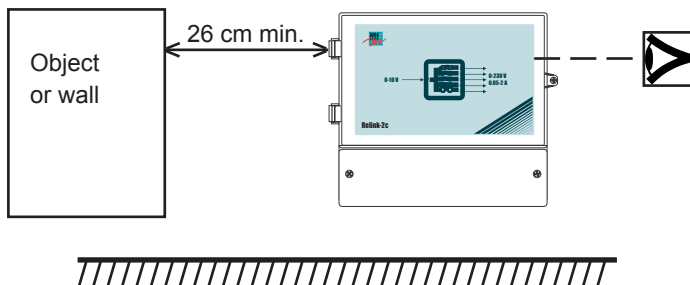


Fig. 2 – Installation of the controller

Relink-2c/2s

Open the controller's cover by removing the top cover screw (see Fig.1, Item A). Remove the connection compartments cover (Fig. 1, Item F) by removing the 2 retaining screws. There are 4 mounting holes: 2 in the upper corners of the box and 2 near the bottom (Fig. 1, Item B). These holes accept screws with a maximum diameter of 5mm. The following diagram gives the mounting hole pattern:

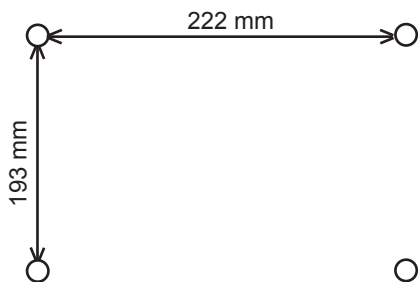


Fig. 3 Mounting Hole Pattern



Never mount the controller near water or rain pipes, as failure of these pipes may cause strong water jets to reach the controller.

3.3 Connecting the Controller

To connect the controller, refer to the wiring diagram on section 8 of this manual, which comes with the controller. Make sure the power supply is suitable for the controller (see technical specifications at the end of this manual)..



WARNING. All wiring must be done by an authorized electrician according to all applicable codes, laws and regulations. Make sure power is off before doing any wiring or opening the controller to avoid electrical shocks and equipment damage.



Pass all wiring through the punch hole plate (Fig. 1, Item C), located at the bottom of the enclosure. Do not drill holes on the side or the top of the enclosure as this may allow water to enter the enclosure.

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3.4 Connecting the input cable

The module must be connected to the main controller according to the wiring diagram in section 8. Since the input is insulated from the mains supply, the cable may be a shielded 2-core low voltage cable and may be extended up to 300 meters (if the wire diameter is at least .64 mm)..



- When extending an input wire, solder all connections.
- Never run low voltage cables parallel to high voltage wires to prevent interference.
- Input cables must cross power cables at a 90°

3.5 Setting the DIP Switches

The Relink-2c/2s has 1 DIP-switch, which determine whether the input is 0-10V or 10-0V. These switches are located on the circuit board inside the enclosure..



By preference switch OFF the power to the controller before changing the DIP switches. **Use an insulated screwdriver and never touch any parts in the unit!!!!**

Close the controller immediately after changing the settings!



Pay attention when setting DIP switches. Since they are very close to each other, it is easy to switch 2 switches at the same time.

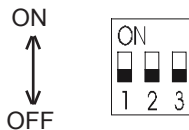


Fig. 4 DIP Switch ON and OFF Position

Relink-2c/2s

Schakelaar nr.	OFF (uit)	ON (aan)
1	Control 10-0V	Control 0-10V
2	Not used	Not used
3	Not used	Not used

Table 1 DIP switch functions



When the controller is shipped, all DIP switches are set to the ON position.

4 USING THE CONTROLLER

4.1 Description of the Relink-2c

The Relink-1c is an electronic device which controls 5 relays in cascading fashion according to a low voltage 0-10V input.

The Relink-2c has one input:

- 1 input for a 0-10V or 10-0V control signal

And the following outputs:

- 5 230V 2A relay contacts for connecting 5 ON/OFF stages



If the Relink-2c is driving heaters, we recommend using it in 10-0V mode (if the main controller supports it).

The 5 relay contacts are arranged in such a way that terminal P is connected in sequence to terminals 1, then 1 and 2, then 1 to 3, and so on. When power to the controller is OFF, terminals P and 2 are connected together to ensure minimum ventilation.

4.2 How to use the Relink-2c

Simply connect the Relink-2c to a 0-10V or 10-0V source and connect the outputs to a step-transformer and the load you wish to control (contactor coils). The contacts of the Relink-2c are designed specifically for controlling contactor coils (max. 2A). For safety reasons, Points P and 2 are connected together when power fails to ensure minimum ventilation or heating.

Relink-2c/2s

4.3 Description of the Relink-2s

The Relink-2s is an electronic device which controls 5 relays in sequence according to a low voltage 0-10V input.

The Relink-2s has one input:

- 1 input for a 0-10V or a 10-0V control signal

and the following outputs:

- 5 230 V 10A relay contacts for connection to a 5-step transformer

The 5 relay contacts are arranged in such a way that terminal P is connected in sequence to terminals 1, then 2,3, and so on. When power to the control is OFF, terminals P and 2 are connected together to ensure minimum ventilation..

4.4 How to use the Relink-2s

Simply connect the Relink-2s to a 0-10V or 10-0V source and connect the outputs to a step-transformer and the load you wish to control (lights or single phase fans). For safety reasons, Points P and 2 are connected together when power fails to insure minimum ventilation.

4.5 When to use the 10-0V-mode?

If the main controller gives a 10-0V instead of a 0-10V signal, set DIP switch #1 to the OFF position (see section 3.5). This mode of operation is useful for safety reasons: if the main controller loses power and its 0-10V outputs fall to 0 V, then output 5 of the Relink-2s will be closed (meaning that the load will be fully on).



If the Relink-2c/2s is driving fans used for minimum ventilation, we recommend using it in 10-0V mode (if the main controller supports it).

5 OPERATION OF THE RELINK-2c

5.1 Operation of the 0-10V

The following diagrams show how the outputs respond to the input voltage..

Relink-2c/2s

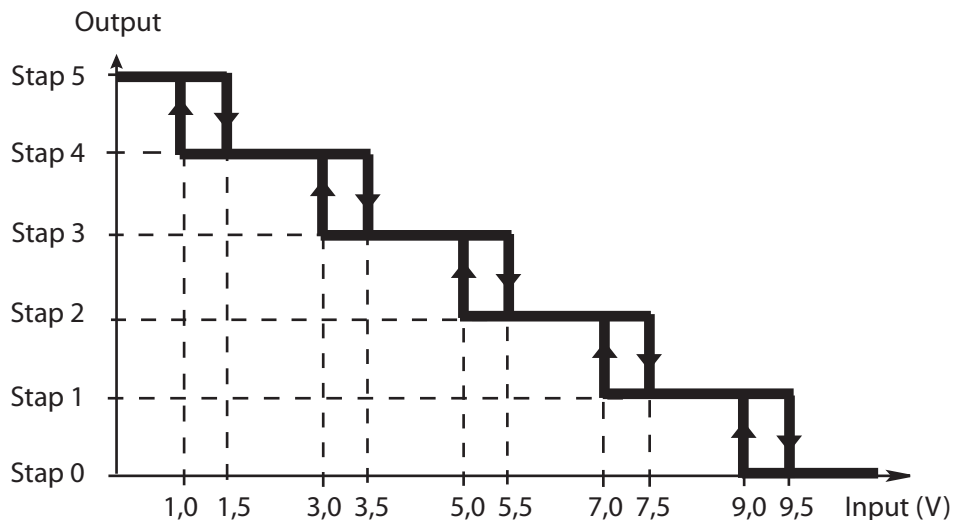


Fig. 5 Operation of the Relink-2c/2s in 0-10V mode

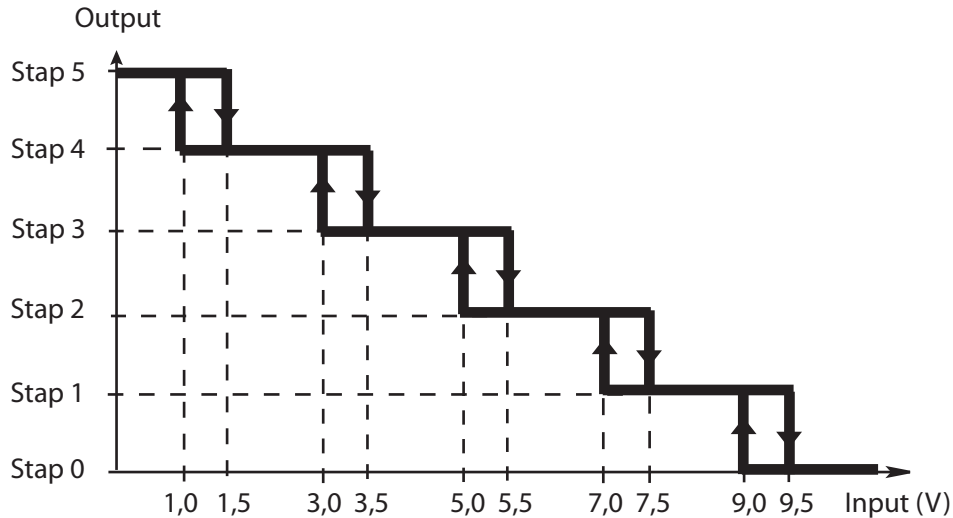


Fig. 6 Operation of the Relink-1c in 10-0V mode

Relink-2c/2s

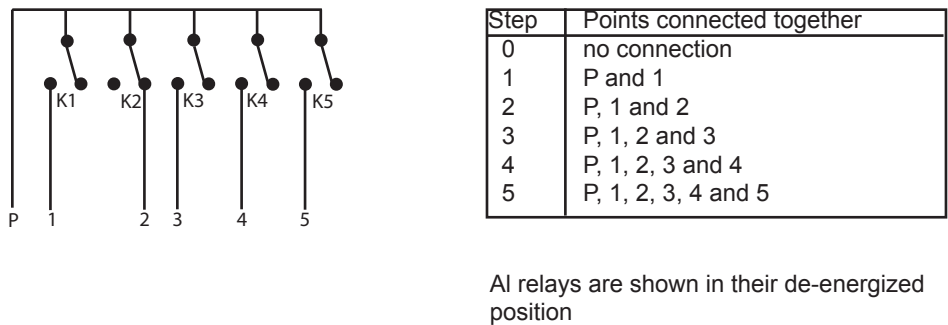


Fig. 7 Internal connection diagram Relink-2c



There is a 5 second built-in delay before the Relink-1c switches a relay on. This prevents overloading the supply circuit at startup.

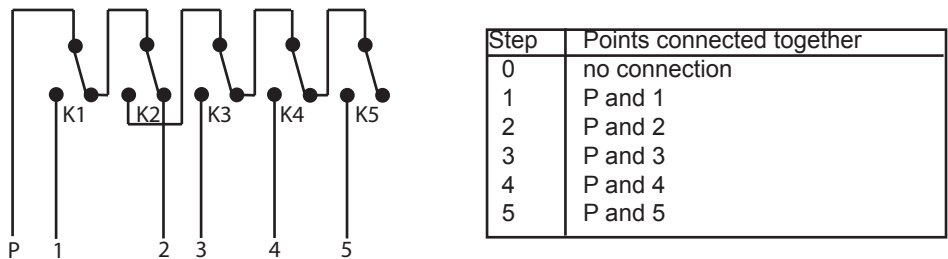


Fig. 8 Internal connection diagram Relink-2s



There is a 1 second built-in delay before the Relink-2s switches a relay on. This prevents overloading the supply circuit at startup.

5.2 Control by a Potentiometer

A potentiometer can be connected on the Relink-2c/2s for manual control. The preferred value is 10 KOhm. (See connection diagram page 17,18)

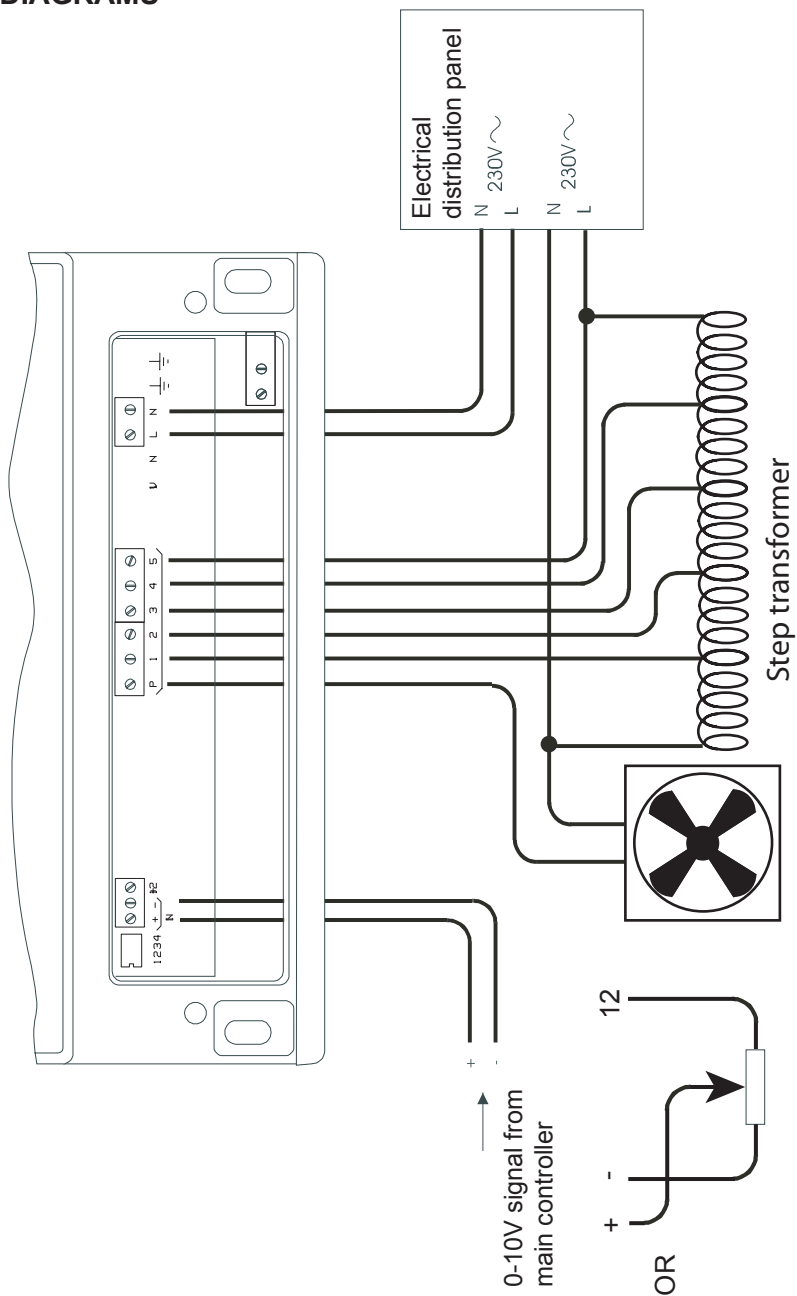
6 TROUBLESHOOTING

Problem	Probable cause(s)	Solution
The output is always at 0 V	<ul style="list-style-type: none"> - There is a problem with the 0-10V input wiring - The controller has no power 	<ul style="list-style-type: none"> - Check wiring. Make sure there is more than 0V on the input and the polarity is correct. - Check breaker, supply voltage and wiring
The output is always step 2	<ul style="list-style-type: none"> - The controller has no power 	<ul style="list-style-type: none"> - Check breaker, supply voltage and wiring
The output increases when it should decrease and vice versa	<ul style="list-style-type: none"> - DIP switch 1 is in the incorrect position 	<ul style="list-style-type: none"> - Change the position of DIP-switch 1.

7 TECHNICAL SPECIFICATIONS

Type Mains supply/frequency Output 1-5 (relay contacts)_ IN-inputvoltage range IN- Input impedance Minimum potentiometervalue Maximum potentiometervalue Input accuracy Enclosure Weight Dimensions (L x B x H) Operating Temperature Storage temperature Ambient relative humidity	Relink-2c/2s 230V±10%, 50/60Hz 10A, 250V cosφ =1/ 6A, 250V cosφ =0,4 0-10V 10K 1K 50K ±1 % IP54, plastic enclosure 2,0 kg (unpacked) 267 x 225 x 104 mm 0 to 40°C -15 tot 50°C max. 95%
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8 WIRING DIAGRAMS



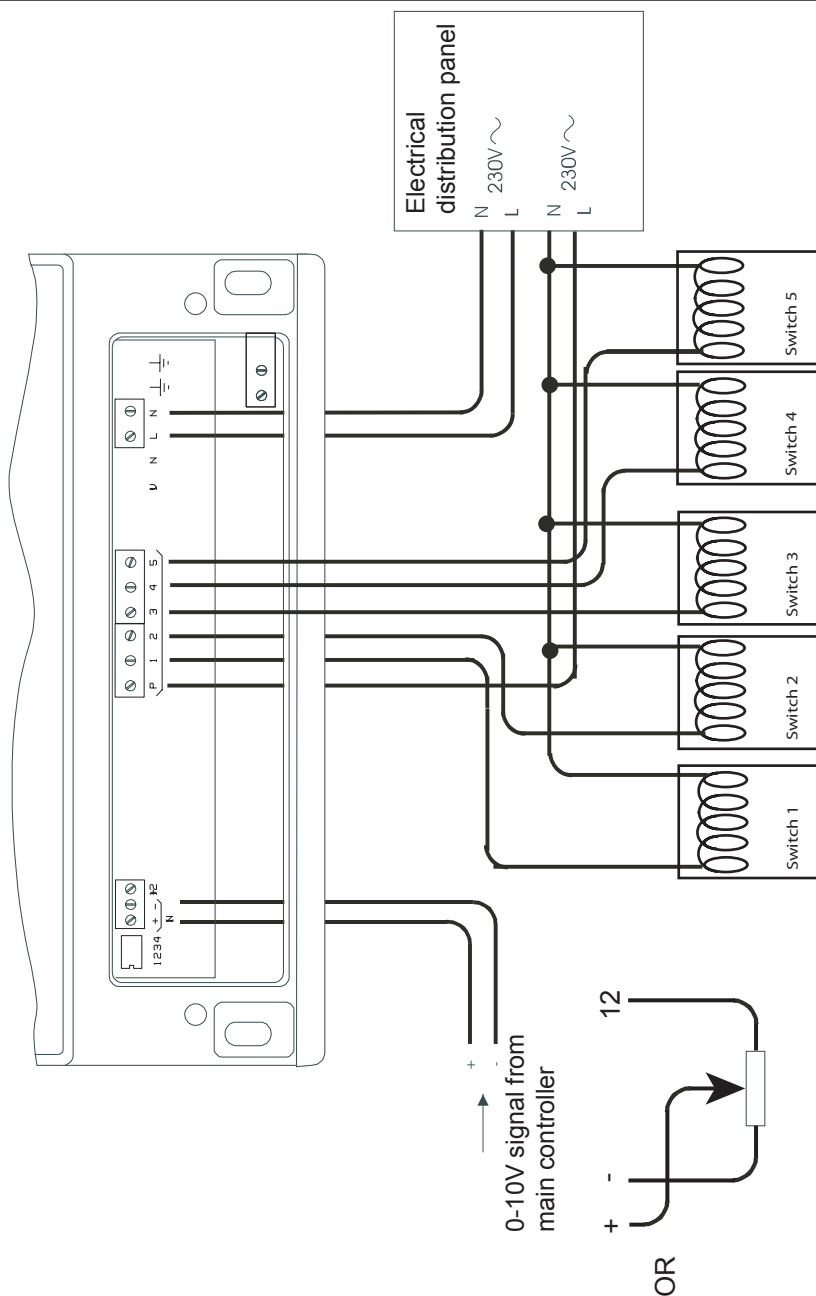


Fig. 7 Bedradingsschema voor Relink-2c
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