GEOVENT

INSTRUCTION MANUAL

HOSE REEL GTE-250

Dimension: ø 250 mm

Version 1.0 01.12.2023

www.geovent.com

Contents

1.0 Introduction

This manual is made and designed in order to facilitate the best and most secure interaction with the product. The manual is relevant for people involved in transportation, stocking, installation, using, maintaining and all other thinkable interaction with the product.

The manual must be read in full and understood before interacting with the product.

When the manual has been read and understood in full, the table of contents can be used to find the relevant information in each case.

The product is manufactured by:

Geovent A/S
Hovedgaden 86
DK-8861 Løgstrup
DENMARK

Tel.: (+45) 86 64 22 11
E-mail: salg@geovent.dk
www.geovent.com

This manual is to be used for all interactions with the product including: Transportation, stocking, installation, operation and maintenance.

This product is marked with: (example)

2.0 Safety

2.1 General safety

Carefully read this manual before use and observe the safety instructions in order to avoid injuries!
Keep this manual in a safe place!

Secure that all users of the product have read this manual and that they follow the instructions as described.
Observe all instructions marked on the product!
Observe the indications of the manufacturer.
Never use the product if you are in doubt about how it works or what you should do.

When doing maintenance follow the instructions in chapter 7.0.

Do not modify the product or use spare parts from other suppliers than Geovent, as this may hamper the product and the function.

2.2 Danger

You must wear safety gloves when handling or using the product to protect your hands from scratches etc.

Be aware that the product may tilt when you move it.
You must handle the product with care and tie it safely to the truck or the fork lift when it is in transport.

Follow the instructions in chapter 7.0 when the product is maintained.

When handling the product be sure that the there is no risk for the installer, and secure that there are no people around the product, secure that the product cannot fall down risking to injure persons or subjects.

The product is not to be used in areas categorised as ATEX zones, e.g. with dust from aluminium, flour, wood, and other mediums that present an explosion hazard.

If a repair is not possible you should dispose of the product. Please follow the instruction for disposal in chapter 10.0.

3.0 Machine overview

3.1. Description

Geovent hose reel for use for extraction of exhaust gas or equivalent gas and polluted air.

3.2 Intended use

The Geovent hose reels are suitable for the extraction of exhaust gasses, welding smoke and grinding dust, etc. Do not use hose reels in areas categorized as ATEX-zones, e.g. for the extraction of aluminium dust, flour, textile dust, nor for sawdust or other media, which are connected with danger of explosion.

3.3 Machine specifications

3.3.1 Design

End plates: Coated RAL 7015
Discharge: ø250 mm nozzle
Frame: Galvanized steel frame.
Bearing by the drive side: Spherical ball bearing. The bearing is maintenance-free.
Hose guide: Black PVC pipe.

GTE - motor - technical data:
• Motor: 230V/50Hz 410W 1,79A.
• Torque: 120Nm
• Speed: 9 rpm
• Max. No. of coils: 27 revs.
• Max. power time: 4 min.
• Motor diameter: 45 mm
• Length of cable: 190 cm
• Temperature protection: ~ 140 °C
• Temperature area: -15 / +80 °C

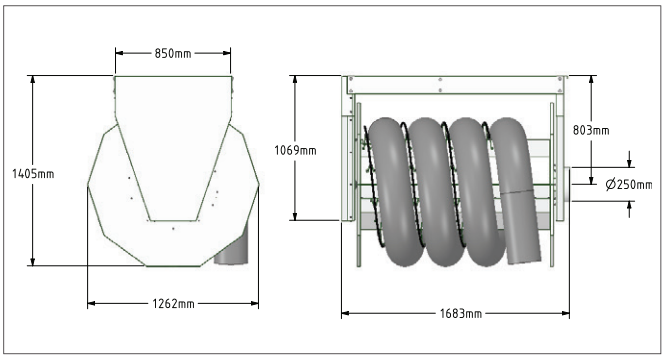
Remote control:
The frequency of transmission is at 868MHz.
Battery: 3V CR2430 H

3.3.2 Technical data

Dimensions

Model/Dimension	Height [mm]	Width [mm]	Depth [mm]
GTE-1700-xx-250	1405	1683	1262

Model/Dimension	Weight [kg]	Ø [mm]
GTE-1700-xx-250	174	250



Temperature extracted air: Depending on the hose used.
Temperature surroundings: 0 - 50°C

Noise data

The hose reel itself does not emit any noise (however, it may emit a little noise during coiling). The noise level primarily depends on the relation between the diameter of the hose and the volume of the extracted air (wind roar).

Optimum air volume

Several factors are important when selecting the correct hose reel. Depending on the application, use the table below as a guideline for the volume of air, requested for various requirements.

Type of vehicle	Recommended air volume	Recomm. hose dimen.
Train / Large vehicles	2000-3000 m³/h	ø250 mm

The details of the table above apply to idle running and are only intended as a guideline. Various applications may involve situations in which deviations from the table occurs.

Circuit breaker max. 13A

4.0 Transport, handling and storage

During transport in a truck or in another means of transportation the product must be securely packed in a box or a pallet and covered with a water proff material.
The product must be securely stowed in the truck so that it will neither tilt nor shift during transport.

During transport over a short distance e.g. in a stock or a factory, the product can be moved by means of a forklift or a stabeler.
When moved it must be secured that the product does not tilt or shift. And it must be secured that the limitations of the means of transportation is not exceeded.

Secure that there are no people around the product, when the product is moved.

The product must be placed in a dry place and covered securely, in order to secure that moist, metal parts or other substances do not damage the product.
It is not allowed to place anything on top of the product.

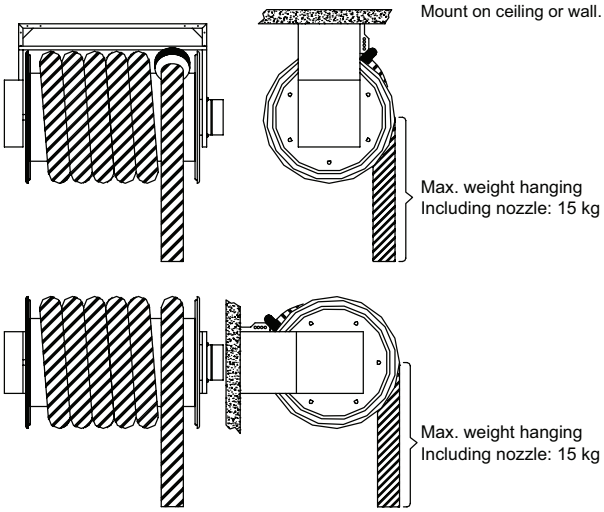
5.0 Assembly, installation and start of operation

5.1 Location

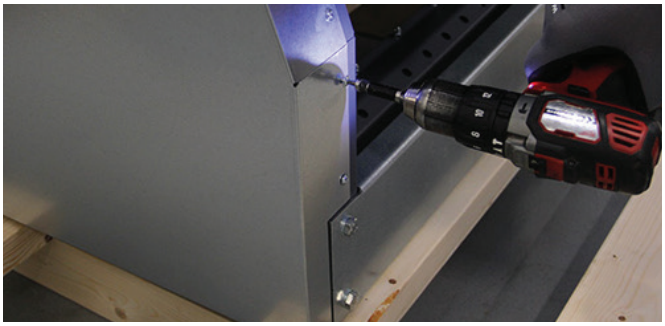
The hose reel is suitable both for mounting in the ceiling as well as on the wall. Ceiling mounting is the best option, if possible, since this position secures the optimum operation of the hose reel.

5.2 Installation

When the product is installed it is important that there is space for
• Assembly and servicing of the hose reel.
• Connections for piping and automation.

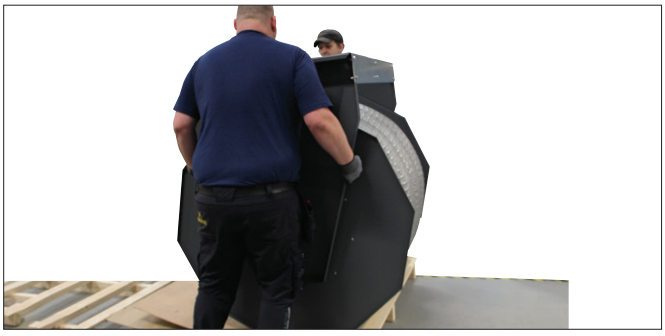


Procedure:

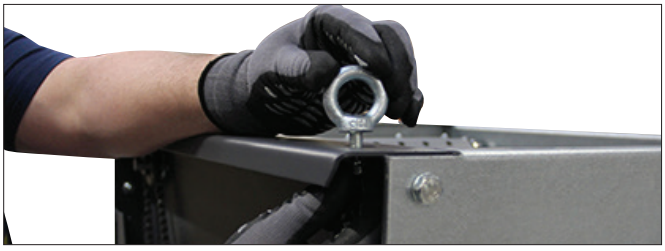


1. Wear gloves. Remove the shield on the side of the hose reel.

2. Loosen the hose reel from the pallet.



3. Carefully roll the hose reel onto another pallet covered with cardboard or similar.



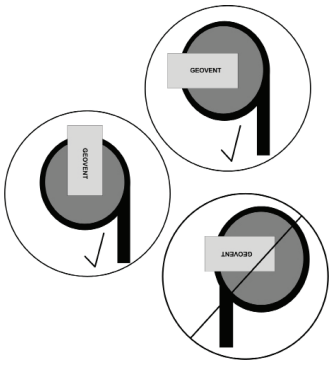
4. If necessary, use eye bolts when craning the hose reel.

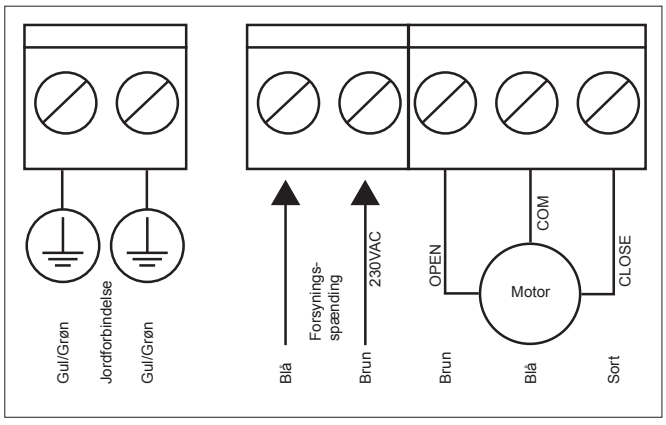
1. Firmly attach the hose reel to the ceiling or on the wall. The wall or the ceiling must be capable of withstanding a pull of at least 500 kg in order to prevent a collapse. It must be ensured that the number of bolts and the strength of the bolts are sufficient to keep the hose reel clamped.

2. **Important!** Mount the hose reel on a plane and stable installation surface and ensure that the reel/mounting frame is not twisting. I.e. it must be able to rotate almost without friction around its own shaft. If the reel twists, it may reduce the functionality or the service life of the hose reel.

3. Connect the piping to the hose reel.
   Since the inlet of the hose reel is a ø250 mm nipple, use a ø250 mm coupling. Make sure not to twist the hose reel, since it could damage the bearings.

4. Nozzle and automatics are factory-mounted optional extras. Please order these parts when ordering the hose reel.





A supply cable with plug for 230V / 50 Hz is supplied from the factory.
There must be possible for the power supply for each hose reel to be interrupted individually.

The remote control is programmed for each hose reel.

Only activate the hose reel, when you can see that there is no obstacles and it has been adjusted correctly.

We recommend assigning a permanent place to keep the remote control, e.g. on the wall or on the lift by the individual workstation.

Programming remote

New remote

When programming a new remote control, it is important that only the respective hose reel is turned on.

Read all stages through to start programming.

1.

Press the button on the back of the new remote control once with the programming key.

2.

When the controller howls, press the middle button once within 5 seconds, and the controller beeps briefly.

Adding an extra remote control

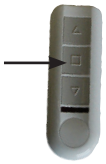
Code an additional remote control with the existing remote control.

Read all stages through before you start programming.

1.

Press the button on the back of the new remote control once with the programming key.

2.



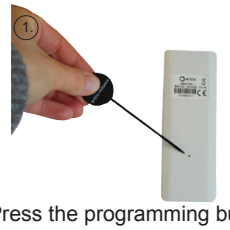
When the controller howl, press the centre button of the existing remote control to activate the programming.
The controller howls for 5 seconds. Press the middle button on the new remote control within the 5 seconds.

Delete remote

It is important that the hose reels that you want to remove the remote control from are on.

Read all stages through before you start programming.

1.



Press the programming button on the back of the remote control 3 times.

2.

Within 5 seconds, press once on the existing remote
centre button. When cleared, the controller will beep constantly.

5.3 Control and test of the security system

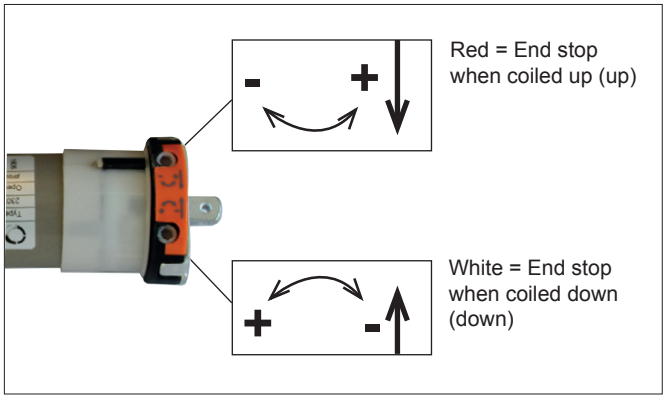
Always check whether the fan supplies the volume of air, for which the equipment was dimensioned. If the correct suction is not present, then there is an increased risk of the hose melting, when extracting warm exhaust gasses.

GTE – electrical motor

As standard, the hose reel GTE with electrical motor and remote control comes pre-programmed ready for use. **Please note: Always adjust the hose reel to the working area by fine-tuning it.**

Adjustment of end stop:

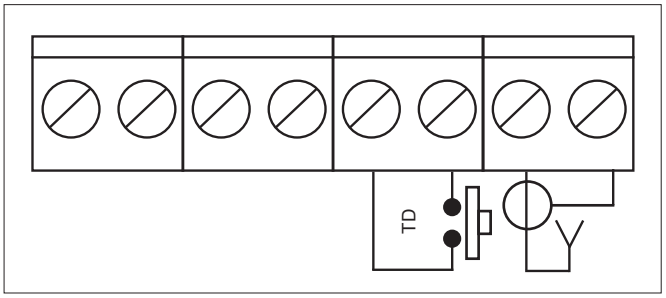
Adjust stop by means of a screwdriver.



The remote control will be programmed from the factory.

Connection of wall-mounted control (via cable)

On the TD terminal there is a cable for the one-pole toggle switch (automatic reset).
Such switches are available in various shapes and variations
Function: The first push activates the reel, the second push stops it. The third push starts the reel again, however, the drive reverses, etc.

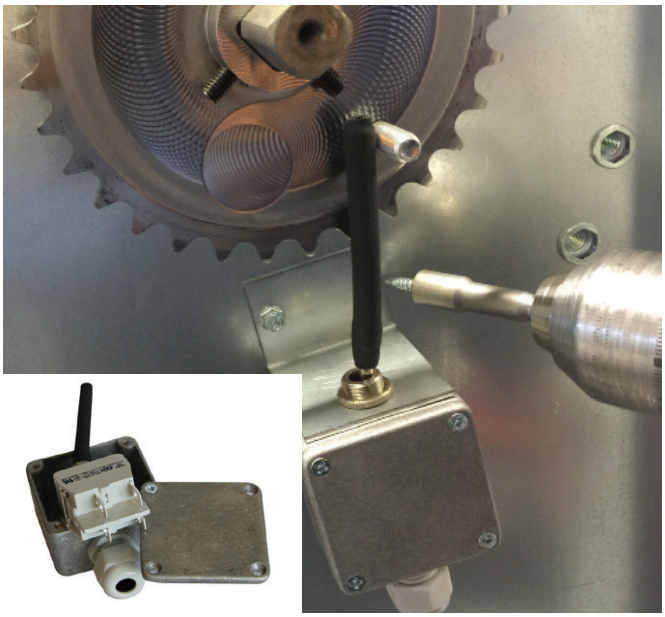


Mounting of automatic start/stop

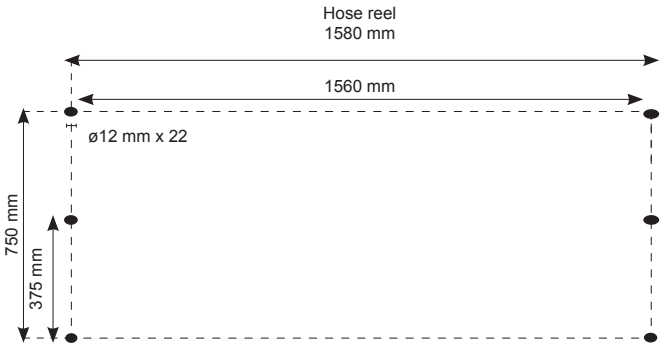
The switch for automatic start/stop (max. 250V 10A) (if ordered, it is factory-mounted) must be mounted under the protection shield. The two-pole switch sends a signal to the control panel LWS/Multibox when activated and/or a fast action motor damper.

See wiring diagram on page 10

Installation of GTE - Motor



Mounting sketch



6.0 Commissioning

Never use the hose reel without connecting it to a switched-on fan (and an open damper). If there is no air present or if the volume of air is not correct (too low), then the hose will melt or become deformed (turn oval).

In cases where the exhaust gasses have a temperature higher than 150°C (e.g. if the motor starts running), then the hose may also melt and/or become deformed. In such cases, you must ensure to adapt the material/ solution to the job. Check the temperature of the exhaust gasses before commissioning. Do so by testing with a probe thermometer in the airflow.

It is important that the fan is always switched on during use of the hose reel. If you have automatics ensuring that the fan starts, when using the reel, it is important that the hose reel is not running in the opposite direction at the commissioning, so that the actuation lever tips back. If this happens, then the fan will be deactivated and the hose may melt.
Thus, always check that there is suction on the nozzle, when fixing it to the hose/upon commissioning.

IMPORTANT! WE SUPPLY HOSE REEL GTE PRE-PROGRAMMED. I.E. THE REMOTE CONTROL IS CODED FOR THE INDIVIDUAL HOSE REEL AND THE END STOP IS SET.

Using the remote control:

The top button (UP), coils up the hose. A push on the button (DOWN) coils the hose down. The button in the middle stops the hose. If you push the opposite directional button during operation, the drive will stop and then start turning in the opposite direction.

The hose reel is not functioning as intended, if:
• Unauthorized parts are mounted on the Hose reel.
• The total lifting capacity of 22 kg has been exceeded.
See section 5.2 for re-programming the roller.

Coiling up:

When coiling the hose up, it is important to guide the hose by hand.

The hose must not be rolled up when it is hot

6.1 After installation

Check the installation according to chapter 5.3.

7.0 Control, test and maintenance

7.1 Control

Check the installation according to chapter 5.3.

7.2 Maintenance

Periodic maintenance:

- At least once every year, grease the V-ring of the hose reel in order to avoid deformation. Also, grease between pipes and connecting branch. Failing to maintain the hose reel will lead to squeaky noise coming from the hose reel.

- You cannot carry out maintenance on the hose, however. To secure a long service life, try to avoid running over the hose with vehicles etc., make sure to extract adequate volumes of air and ensure that the hose does not bend too much immediately after the exhaust pipe.

- Measure the volume of air on the hose reel at least once every year. If the volume of air is inadequate, it may result in burning a hole in the hose.

At least once every year, arrange for an authorized service engineer to carry out an inspection of the complete extraction system.

8.0 Cleaning

The outside of the product is cleaned with a vacuum cleaner or a cloth.

9.0 Troubleshooting

In case of problems with the hose reel, check the following:

Problems with the operation of the hose reel:

- The pawl of the hose reel will not engage. Typically, the pawl is worn or the spring for the pawl is defective. Exchange defective parts.
- The hose reel coils slowly. Perhaps it is mounted on an uneven surface, or the bracket of the hose reel is deformed. Rectify by mounting the hose reel on an even surface or by correcting the bracket.

Noise problems

- If the hose reel emits a squeaking noise, typically, the V-ring of the inlet bearing is defective or out of position. Rectify it by replacing the V-ring or by adjusting it.

Remember to grease it!
- The base on which the hose reel and the fan are mounted is unstable.
- More air is extracted than what the product has been dimensioned for. Use an adjusting damper.

Problems with the hose

- The hose cannot withstand high temperatures; therefore, holes may have been burnt into the hose. This happens if there is not sufficient suction in the system. Rectify by increasing the suction of air through the system or by extending the hose with 1 –2 m of high-temperature hose, or with a full-length high-temperature hose, depending on the temperature. Also you can add ”false air” in order to reduce the average temperature.

GTE – electrical motor

Troubles with the remote control

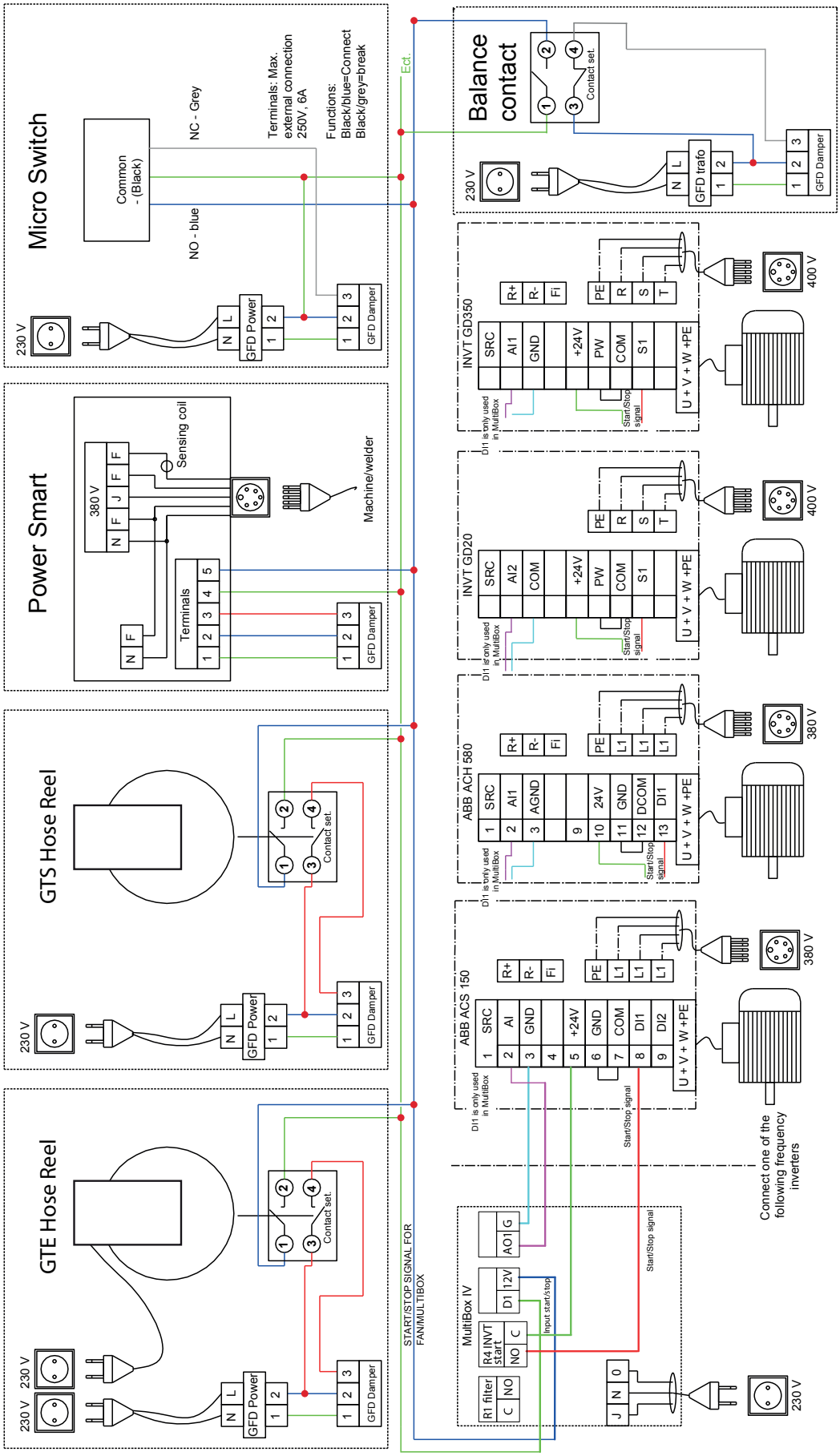
The range is too short:

- Roll out the aerial.
- Do not twist the aerial around the power supply cable.
- Reposition the aerial (do not extend it).
- Avoid placing it close to products emitting radio interference (e.g. overhead travelling cranes). Large volumes of electromagnetic noise may result in reduced range/function.
- If the LED is lit, normally, the battery in the remote control is sufficiently charged.
- If during the past few weeks the range has become shorter, replace the battery.

The range is subject to serious periodic variation/ fluctuation:
- The remote control operates at the frequency of 433 MHz. In case other signals are using the same frequency, it may reduce the signal significantly, since the receiver/motor will block the signals for security reasons.
- For example, weather stations or radio-controlled temperature sensors typically emit signals in cycles of 30-90 seconds lasting approx.1 second.
- Headsets can also emit radio signals, just as airports and military zones may have equipment causing noise.
- Try testing another position – or deactivate all other equipment.
- Weak battery? Exchange it.

Change to a cables connection, there is too much electronic noise..

Multicoupling diagram for switches, MultiBox IV and frequency inverters



Adjusting frequency inverter:
See manual - important parameters, must be adjusted:

Adjusting Multibox IV:
Quickguide - also see manual

Setpunkt 1
Min. alarm
Max. alarm

10.0 Dismantling, disabling and scrapping

Deactive the product by disconnection the electrical mains.

Dismantle compressed air pipes and other pipes or wires etc.

The inside of the product must be cleaned by means of a vacuum cleaner with a filter which suits the purpose.

The inside of the product must be cleaned by means of a vacuum cleaner with a filter which suits the purpose.

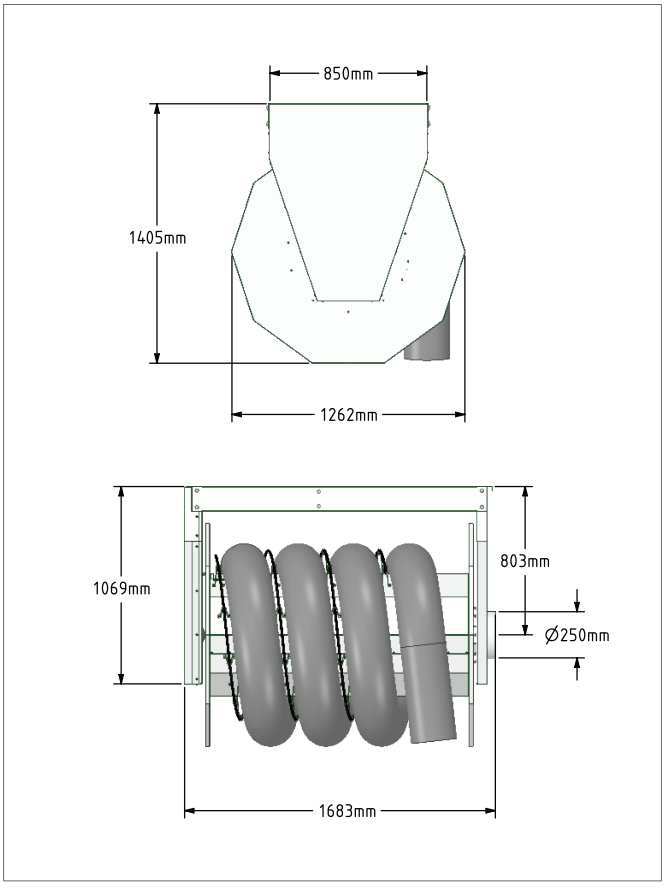
Dismantle plastic parts and dispose of it according to local regulations.

Dismantle the metallic parts by unscrewing screws and bolts. Afterwards cut the larger pieces into smaller pieces and dispose of it according to local regulation.

The packing material must be sorted according to local regulation in order to be able to reuse the material.

11.0 Dimensions

Hose reel ø250 mm



12.0 Liability

Warranty
Geovent A/S grants a warranty for products, which are defective, when it can be proved that the defects are due to poor manufacture or materials on the part of Geovent. The warranty comprises remedial action (repair or exchange) until one year after the date of shipment.

No claims can be made against Geovent A/S in relation to loss of earnings or consequential loss as a result of defects on products from Geovent.

Wear on parts such as filter cartridges and hose is not included in the warranty.

User liability

In order for Geovent to be capable of granting the declared warranty, the user/fitter must follow this instruction manual in all respects.

Under no circumstances may the products be changed in any way, without prior written agreement with Geovent A/S.

Please refer to the current sales and delivery conditions at www.geovent.com

13.0 Declaration of conformity

The manufacturer: GEOVENT A/S
HOVEDGADEN 86
DK-8831 LØGSTRUP

Hereby declares that:

The product: Hose reel
Model: Hose reel 1700 mm ø250 mm

Complies with the relevant parts of the following directives and standards:

Directive 2006/42 / EC of the European Parliament and of the Council of 17 May 2006 on machines and amending directives 95/16 / EC.

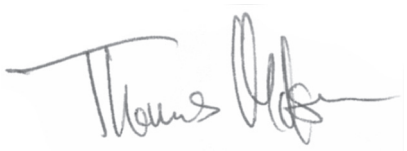
This declaration is no more valid if changes are made to the product by others than the manufacturer.

Authorized to collect the technical file:

Lise Cramer

Date: 01.12.2023

Position: Director
Name: Thomas Molsen

Signature: 

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14.0 Spare part list

Art. No.	Description
09-156	GeoFlex Exhaust HT ø254 mm
09-135	GeoFlex Exhaust HT-450 ø254 mm

GEOVENT

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