

## General

Application: Drive for roller shutters and textile sun protection

Power supply: Direct current (DC) 12 V (e.g. elero energy unit)

Limit switch: Mechanical limit switches

Special feature: Noiseless soft brake

Shaft size: From Ø 50 mm

### Standard scope of delivery

- 3 m plug-in connecting cable, assembly instructions

**Accessories** (not included in the scope of delivery)

- Adapter sets, motor bearing, couplings, setting tool, energy unit

## Safety instructions



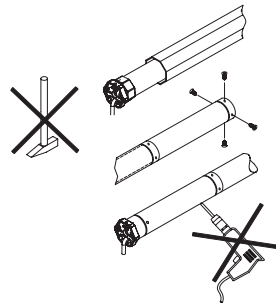
General safety instructions for use including installation of drives for roller shutters, awnings, textile sun protection and venetian blinds can be found in the "Safety instructions" leaflet supplied with each drive. Please read the general safety instructions and this installation manual carefully as the procedure in this manual is a prerequisite for correct use of the product. Any intervention by unqualified personnel or failure to comply with warnings may lead to personal injuries or material damage.

Figures included are for illustration purposes only. The illustrations may differ from your product with respect to minor details and are provided for general information only.

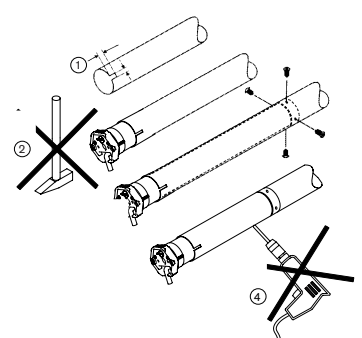
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No claims can be derived from the technical data, images and information provided in this manual.

## Installation in profile tubes



## Installation in round tubes



## Connection example



### Pin assignment for the power supply or for interlocked venetian blind push button or switch

Function	Wire colour
UP ▲ or DOWN/CLOSE ▼	brown
+ 12 V (positive terminal)	white
DOWN/CLOSE ▼ or UP ▲	red
- 0 V (negative terminal)	black

### NOTE:

The motor controls in UP/DOWN direction must be interlocked with one another.

A reversing delay of at least 0.5 seconds must be ensured.

Take account of voltage drops with longer line lengths.

## Assembly

- Only connect the drive with the power turned off.
- The limit switch only functions if the drive has been installed properly in the winding shaft.
- Never adjust the end position to a mechanical stop.
- The length of the winding shaft is to be determined for each individual installation depending on the drive head and motor bearing used at the installation site.

### Installation in profile tubes (see Figure)

- Push the drive with relevant adapter and limit switch crown into the profile tube.
- Secure the drive in the motor bearing.
- Secure the counterpart support to prevent axial movement (screw on the idler or rivet it on).
- Attach the blind to the winding shaft.

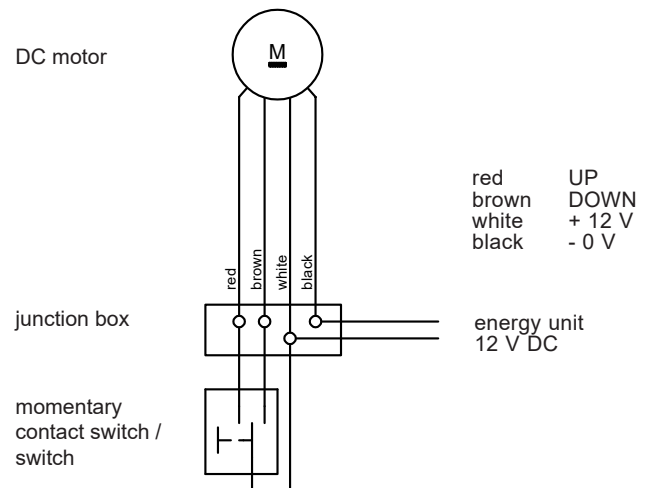
Do not drill holes in the area of the drive.

### Installation in round tubes (see Figure)

- On the round tube, cut a slot in the end of the tube on the drive side (width 4 mm, length 16 mm).
- Push the drive into the round tube so that the drive lug of the limit switch crown engages in the slot.
- Screw or rivet the adapter onto the winding shaft.
- Secure the counterpart support to prevent axial movement (screw on the idler or rivet it on).
- Attach the blind to the winding shaft.

Do not drill holes in the area of the drive.

DC motor



## Setting tool for adjustment of the end positions



**NOTE:** For activation of the limit switch setting screws, use the setting tool or a 4 mm hexagon socket tool. Never use an electric screwdriver!

## Adjustment of end positions



**Important:** The limit switch setting screws for the upper end position and lower end position are assigned depending on the parallelism of the rotating limit switch crown with the running direction arrow (see Figure).

The basic factory setting when delivered is centrally set at 5 revolutions.

6 revolutions of one of the two limit switch setting screws corresponds to 1 revolution of the winding shaft.

Turning the limit switch setting screw from negative to positive causes the travel path of the blind to increase.

### Upper end position

1. Let the drive (with no connection to the blind) run in the DOWN/CLOSE direction until it switches off automatically.
2. Attach the rolled-down blind to the shaft.
3. Push the **UP** button and keep this held down.
4. If the drive switches off before it reaches the desired end position, turn the limit switch setting screw towards positive until the desired blind position has been reached.
5. If the drive does not switch off automatically when the desired end position has been reached, release the button. Run the blind slightly in the other direction. Turn the corresponding setting screw towards negative and approach the end position again. Repeat this process until the desired end position has been reached.

### Lower end position

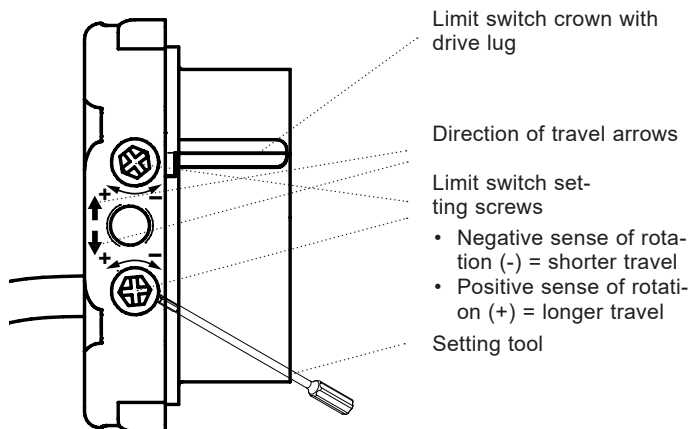
1. Push the **DOWN/CLOSED** button and keep this held down.
2. If the drive switches off before it reaches the desired end position, turn the limit switch setting screw towards positive until the desired blind position has been reached.
3. If the drive does not switch off automatically when the desired end position has been reached, release the button. Run the blind slightly in the other direction. Turn the corresponding setting screw towards negative and approach the end position again. Repeat this process until the desired end position has been reached.

### Checking the end positions

Allow the drive to run alternately in both directions until the limit switch switches off. The electric cut-out must take place before the blind has reached the end position of its mechanical travel path.

If the blind is constantly operated as far as its end position, there is a risk that the drive and/or blind will be damaged or destroyed.

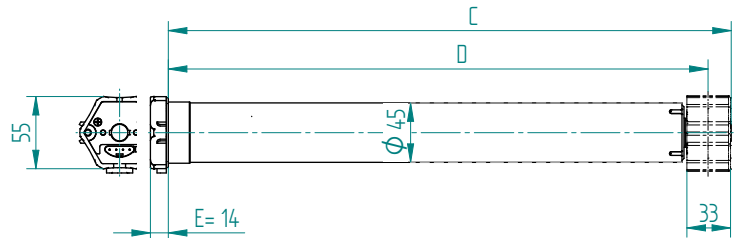
**NOTE:** The limit switch only functions if the drive has been installed properly in a winding shaft (profile tube or round tube).



## Technical data and dimensions

The technical data specified is subject to tolerance factors (according to applicable standards).

Size / Type	VariEco M10 DC	VariEco M12 DC
Rated voltage [V]	12 (DC)	12 (DC)
Noiseless soft brake	✓	✓
Rated torque [Nm]	10	12
Rated speed [rpm]	16	16
Rated current [A]	4.0	3.5
Rated power consumption [W]	48	42
Shaft diameter [mm]	50	50
Protection class (IP)	44	44
Limit switch range (revolutions)	35	35
Operating time (min S2)	10	10
Length C [mm]	477	497
Length D [mm]	460	480
Length E [mm]	14	14
Weight [kg]	1.6	1.7
Ambient operating temperature [°C]	-20 ... 60	-20 ... 60
Conformity	CE	CE
Protection class II	✓	✓
Plug-in connecting cable [m]	3.0	3.0
Item number	34 621.0101	34 611.0101



## Notes on troubleshooting

Fault	Cause	Remedy
• The drive does not switch off in the end positions via the limit switches	• The limit switch crown is not being driven	• Readjust installation and limit switches via the limit switch setting screws
• Drive does not react	• Temperature limiter has triggered • Incorrect connection	• Allow drive to cool down. Temperature limiter is self-resetting. • Readjust connection

## Manufacturer's address

elero GmbH  
73278 Schlierbach  
GERMANY  
www.elero.de

## Service

If malfunctions have occurred or the device has been damaged despite proper handling, contact your contractor or dealer.

## EU Conformity



elero hereby declares that this device is in compliance with all applicable regulations of the Machinery Directive 2006/42/EC. The full text of the EU Declaration of Conformity is available at the following Internet address: [www.elero.de/downloads-service/](http://www.elero.de/downloads-service/)