IMSG-UC-2H
Motor control unit

Technical specifications and installation instructions

Item number 70455

1. Description

The **Motor control unit IMSG-UC-2H** allows two 230V drives to be controlled. The unit offers the possibility of operating the connected motors via integrated buttons or manually via up/down hand switches.

Functions:
- For **two 230V drives** (Up/Down)
- With **key pad** (manual operation) and status LEDs
- **2 hand switch connections (extension inputs)** for unlocked double button (manual operation on the spot, can be set to Standard or Comfort mode)
- **Central and extension inputs** with variable voltage (12…80 V DC, 12…240 V AC)
- Setting the central control unit to "Deadman" or "Latch"
- The central command (continuous voltage) has priority over a movement command from the extension inputs
- **Storing one movement position** per drive
- Pause to reverse direction 1 second, motor runtime 240 seconds
- Connect through clamps
- Potential-free relays

1.1. Deliverables

- Motor control unit

1.2. Technical specification

Housing:	Plastic
Colour:	White
Installation:	Series installation on mounting rails
Protection rating:	IP 20
Dimensions:	approx. 53 x 88 x 60 (W x H x D, mm), 3 modules
Weight:	approx. 190 g
Ambient temperature:	Operation -20…+45°C, storage -55…+90°C
Ambient humidity:	max. 95% rH, avoid dew
Auxiliary voltage:	230 V AC, 50 Hz
Maximum load:	Each terminal contact may be loaded with a maximum of 10 A.
Inputs:	• Central (Up/Down) • 2 x hand switches (Up/Down buttons)
Outputs:	• 2 x Drive 230 V (PE/N/Down/Up), each 4 A • Auxiliary voltage for push-butttons 12 V DC (usage see "Connection diagrams" on page 1)

The product conforms with the provisions of EU directives.

2. Installation and commissioning

2.1. Installation notes

Installation, testing, operational start-up and troubleshooting should only be performed by an electrician.

⚡ **DANGER!**
Risk to life from live voltage (mains voltage)!
There are unprotected live components within the device.
- VDE regulations and national regulations are to be followed.
- Ensure that all lines to be assembled are free of voltage and take precautions against accidental switching on.
- Do not use the device if it is damaged.
- Take the device or system out of service and secure it against unintentional use, if it can be assumed, that risk-free operation is no longer guaranteed.

The device is only to be used for the intended purpose described in this manual. Any improper modification or failure to follow the operating instructions voids any and all warranty and guarantee claims.

After unpacking the device, check it immediately for possible mechanical damage. If it has been damaged in transport, inform the supplier immediately.

The device may only be used as a fixed-site installation; that means only when assembled and after conclusion of all installation and operational start-up tasks and only in the surroundings designated for it.

Elsner Elektronik is not liable for any changes in norms and standards which may occur after publication of these operating instructions.

2.2. Safety notice for automatic functions

⚠ **WARNING!**
Risk of injury from automatically moving components!
Parts of the system can be started by the automatic controls and be a danger to persons.
- No persons may remain in the travelling range of parts driven by an electric motor.
- Adhere to the relevant building regulations.
- Ensure that the return path/access to the building is not blocked if spending time outside the building (danger of being locked out).
- Correctly decommission the system for maintenance and cleaning work.

If there is a power outage, the system does not work. Therefore, shadings should be moved to a save position if there are anticipated weather conditions, for example, if this has not already been done by the automatic function (product protection).

If the power supply is removed, the connected drive switches off. When the power is restored, the consumer remains switched off until a new movement command is received by the actuator.

2.3. Connection diagrams

When making connections please note:
- Mixing different control voltages for central and on-the-spot operation is not permitted for IMSG-UC
- If two motor control units are switched in series behind one another (central commands Up and Down are looped through), the -/N connections must be bridged for equipotential bonding
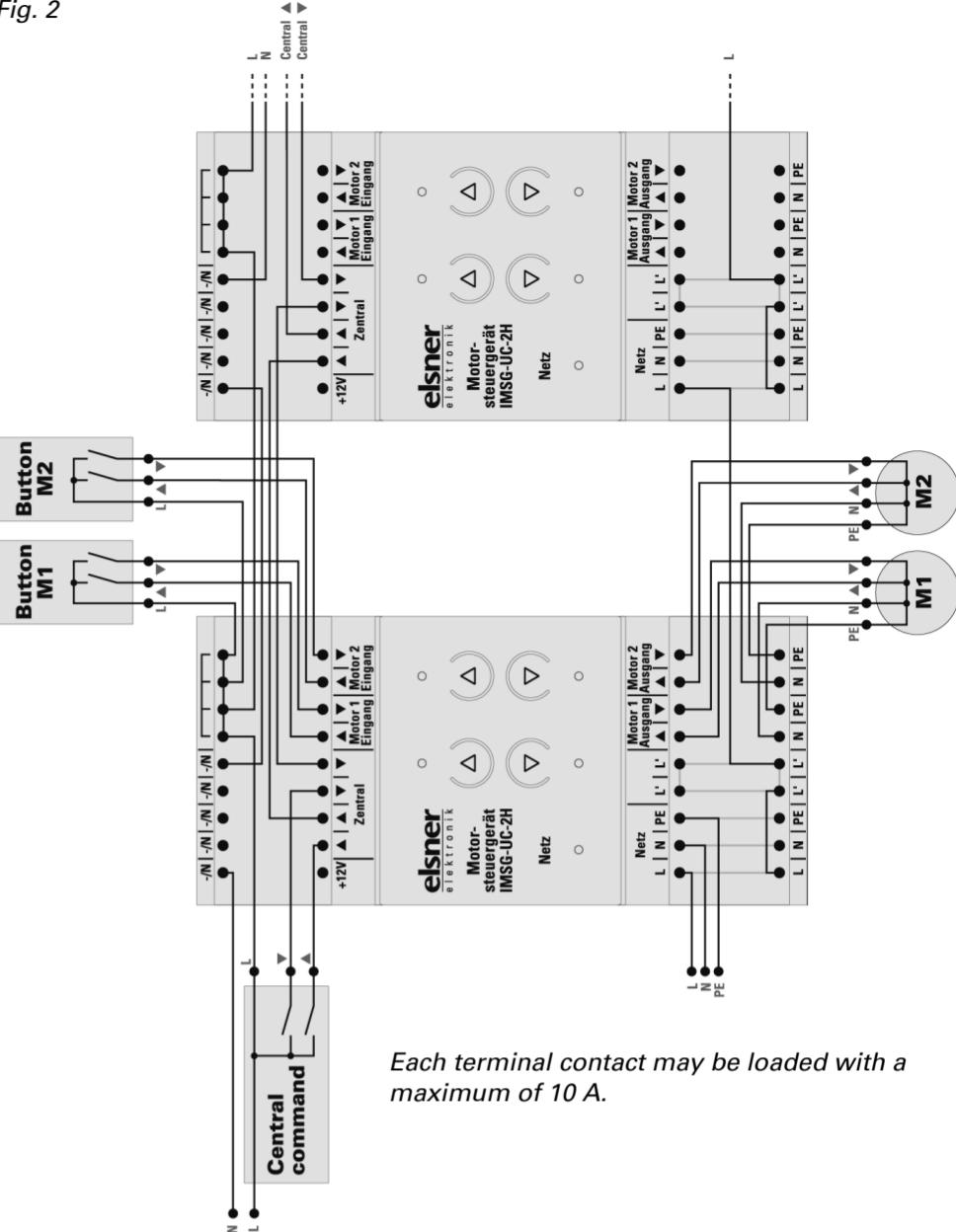- Cable length for inputs max. 200 m

Control with 12V

Fig. 1
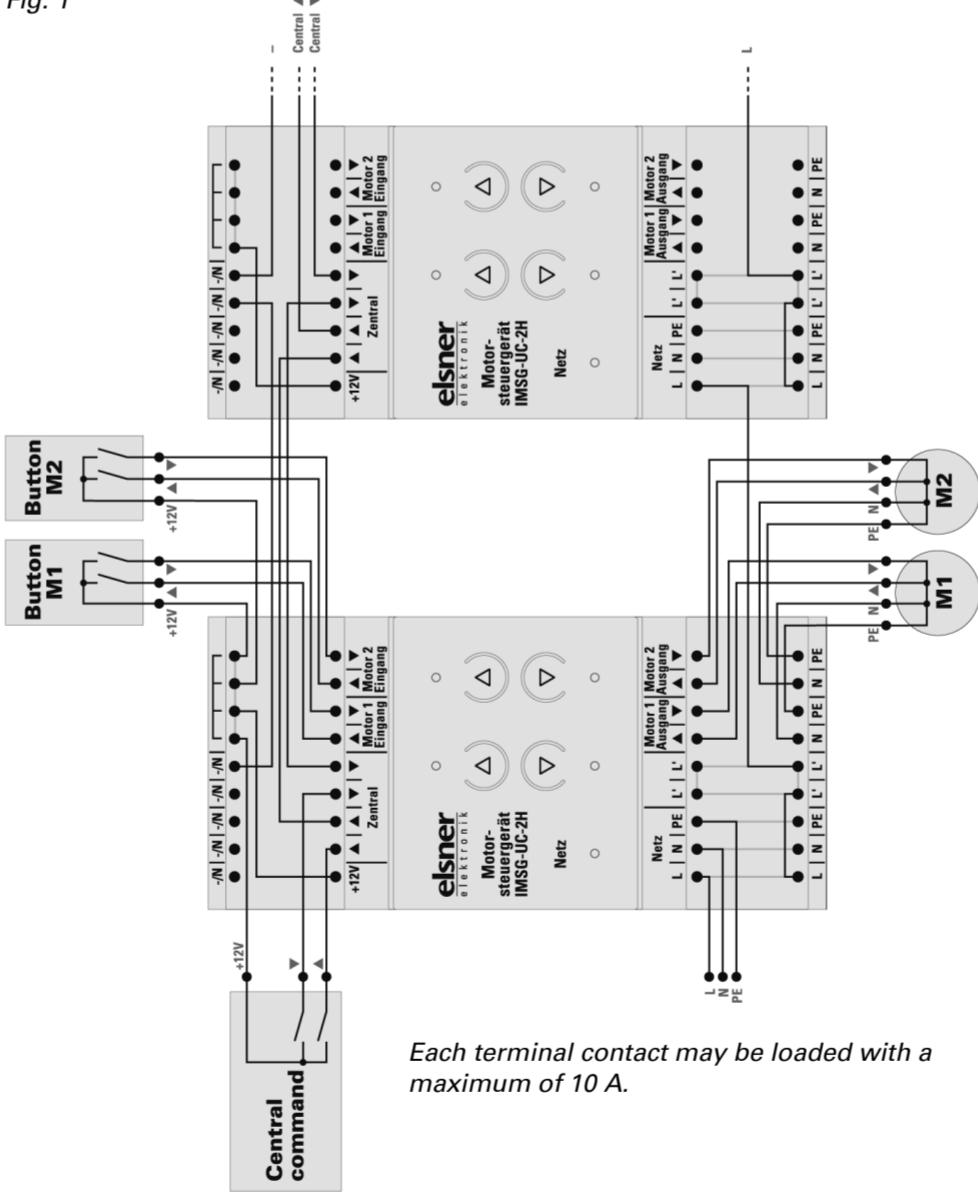
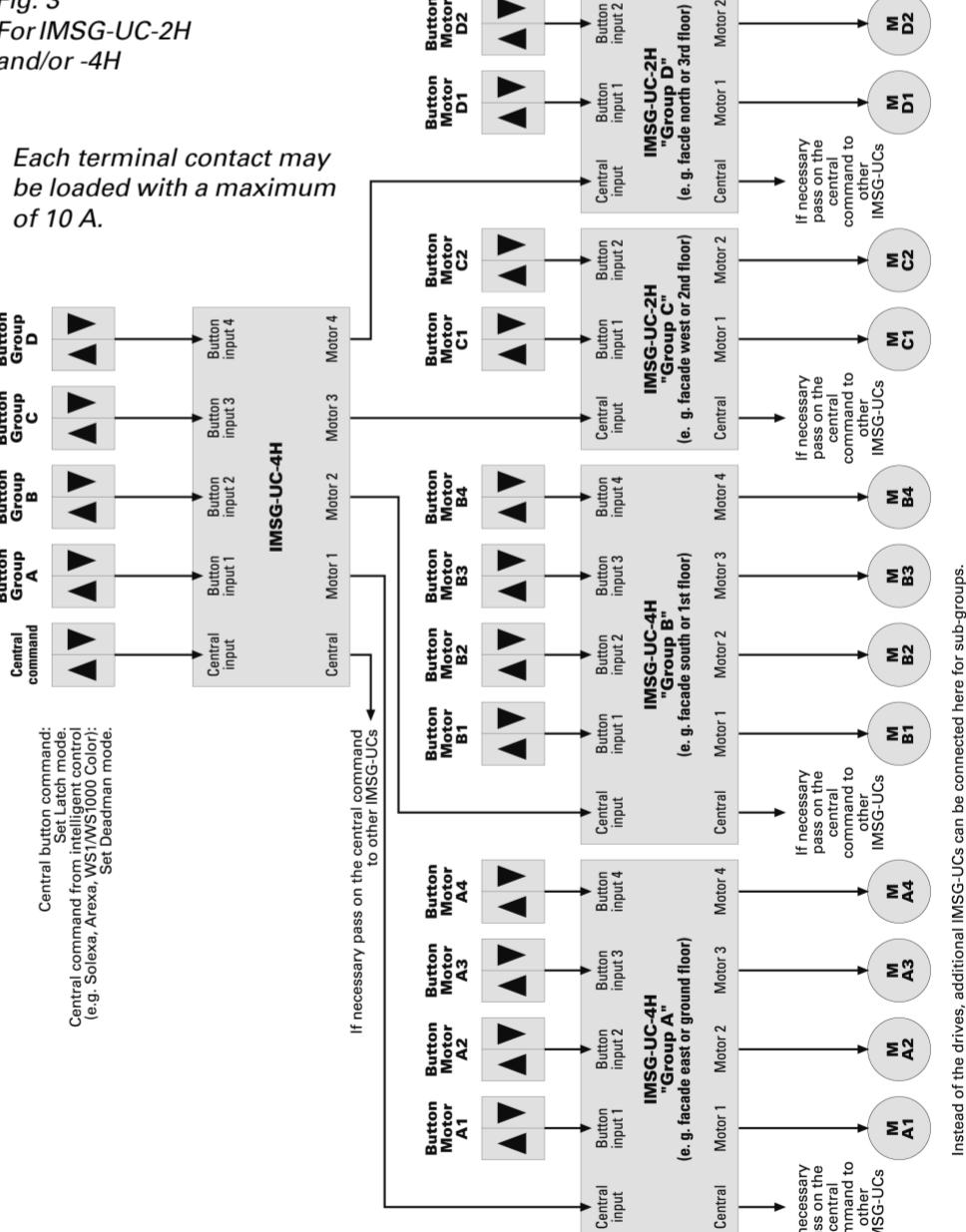*Each terminal contact may be loaded with a maximum of 10 A.*

Control with 230V

Fig. 2

Each terminal contact may be loaded with a maximum of 10 A.

Connection example with several groups

Fig. 3
For IMSG-UC-2H and/or -4H

Each terminal contact may be loaded with a maximum of 10 A.

2.4. Notes on mounting and commissioning

Device must not be exposed to water (rain). This could result in the electronic being damaged. A relative air humidity of 95% must not be exceeded. Avoid bedewing.

Pay attention to the correct connection. An incorrect connection can lead to damage to the motor control unit or to any electronic device connected to it.

3. Operation

3.1. Central operation

The central input of the **IMSG-UC-2H** allows, for example, an automatic control unit, a timeswitch or a normal, unlocked double button (Up/Down) to be connected. The central command (continuous voltage) always has priority over a movement command from the extension inputs.

LED signals during central control (continuous voltage):

During movement:	Channel LEDs in the direction of movement flash every 2 seconds
Runtime reached:	Channel LEDs in the direction of movement continue to flash every 2 seconds

If there are "Up" and "Down" movement commands at the central input at the same time, the drive moves up (secure position).

Set operating mode

The central control unit can be set to the operating modes "Latch" (defaulft) or "Deadman". You can switch between the operating modes using the following buttons integrated on the device:
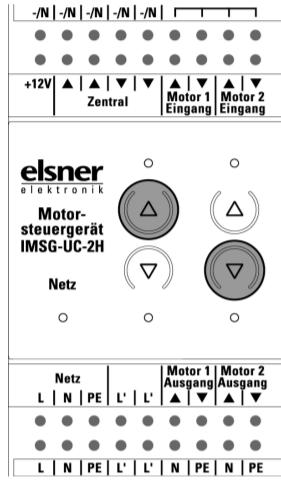

Fig. 4
Press the △ button of channel 1 and the ▽ button of channel 2 for 5 seconds at the same time

If the **Latch mode** is active, the **Network LED is on**.
If the **Deadman mode** is active, the **Network LED flashes** every second.
Change the operating mode by pressing △ (channel 1) and ▽ (channel 2) again.

3.2. Individual operation

Manual individual operation of the drives can take place via the integrated Up/Down buttons at the device or via unlocked double buttons (extension inputs). The movement mode can be stopped via both buttons (△ or ▽), regardless of the current direction of movement.

LED signals during manual control:

During movement:	Channel LED in the direction of movement flashes every second
Runtime reached without interruption:	LED for the direction travelled remains on
Intermediate position reached:	LEDs off

Manual operation can be set to "Standard mode" or "Comfort mode":

3.2.1. Standard mode (default)

• If a button is pressed for less than 1 second, the drive will move in a step-by-step fashion. This allows, for example, slats to be positioned precisely.
• If a button is held for longer than 1 second, the drive moves to its final position (switching off after 240 seconds of maximum runtime)

This is how you set the Standard mode:

• Press the △ button on the channel to be set for 5 seconds and then additionally the ▽ button for longer than 1 second
• To confirm the On LED on the channel flashes 5 times

3.2.2. Comfort mode

• If a button is held for less than 0.3 seconds, the drive moves to its final position (switching off after 240 seconds of maximum runtime)
• If a button is held for longer than 0.3 seconds, but less than 2 seconds, the drive moves only while the button is pressed and stops immediately when it is released (deadman function)
• If a button is held for longer than 2 seconds, the drive moves to its final position (switching off after 240 seconds of maximum runtime)

This is how you set the Comfort mode:

• Press the ▽ button on the channel to be set for 5 seconds and then additionally the △ button for longer than 1 second
• To confirm the Off LED on the channel flashes 5 times

3.3. Individual movement position

The **IMSG-UC-2H** can store one movement position for each connected drive. This allows fast and uncomplicated movement to a position that is needed often (e.g. a shutter position or the partial opening of a window).

3.3.1. Storing a movement position

Storing a position is carried out as follows:

• Move the drive to the starting/zero position, i.e. close the window, retract the awning or raise the blinds

• Press the △ and ▽ buttons for three seconds at the same time
• As feedback the drive moves briefly up and down. You are in now Programming mode
• Move to the desired position
• Store the position by pressing the △ and ▽ buttons for 1 second long at the same time
• As feedback the drive moves briefly up and down
• With blind slats, now open the slats to the desired angle. With awnings, tighten the canvas with △. For windows, you can skip this point.
• Store by again pressing the △ and ▽ buttons for 1 second long at the same time
• As feedback the drive moves briefly up and down. The storage is complete and the **IMSG-UC-2H** is again in normal mode

Note: As soon as a central command arrives (e.g. because of a wind or rain alarm), the Programming mode will be interrupted! In this case, please carry out the position storage again when the central command is no longer present.

3.3.2. Calling up a movement position

The stored position can be called up by pressing the ▽ button of the appropriate channel for 3-6 seconds.

The drive will move to the movement position directly if it is in a secure position and the runtimes of previous commands have expired. If the drive is in an intermediate position, it will move initially to the secure position and then to the stored position after expiry of the runtime.

4. Disposal

After use, the device must be disposed of or recycled in accordance with the legal regulations. Do not dispose of it with the household waste!