

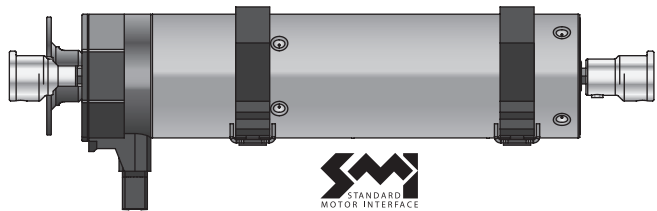
GEIGER

ANTRIEBSTECHNIK

Blind drive:

GEIGER GJ56.. E17 SMI 3.0

for blinds and venetian blinds



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Original assembly and operating instructions

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1. General

Dear customer, by purchasing a GEIGER motor you have chosen a quality product from GEIGER.

Thank you for your decision and the trust you have placed in us.

Before you put this drive into operation, please observe the following safety instructions. These serve to prevent hazards and to avoid personal injury and property damage.

The installation and operating instructions contain important information for the installer, the qualified electrician, and the user. Please pass on the instructions accordingly.

This manual must be kept by the user.

2. Warranty

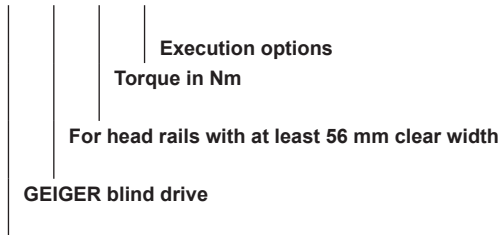
In the event of improper installation contrary to the installation and operating instructions and/or structural modifications, the statutory and contractual warranty for material defects and product liability shall lapse.

3. Intended use

The motors of the **GJ56.. series E17 SMI 3.0** with electronic limit switch-off are intended for the operation of blinds and venetian blinds.

The drives must not be used for: grille drives, gate drives, furniture drives, lifting tools.

GJ 56 xx x



4. Safety instructions



Warning: Important safety instruction. For the safety of persons, it is important to follow this instruction. The instructions must be kept.

- ▶ Do not allow children to play with stationary controls. Remote controls must be kept away from children.
- ▶ The system should be frequently checked for poor balance or signs of wear or damaged cables and springs, if applicable.
- ▶ Observe the moving curtain and keep people away until the curtain is fully closed.
- ▶ Exercise caution when operating the manual release with the curtain open, as it can fall quickly if springs or straps are loose or damaged.
- ▶ Do not operate the system when work such as window cleaning is being carried out nearby.
- ▶ Disconnect automatically controlled systems from the power supply when work such as window cleaning is being carried out nearby.
- ▶ Observe the danger area during operation.
- ▶ If people or objects are in the danger area, do not use the system.
- ▶ Urgently shut down damaged systems until they are repaired.
- ▶ Always shut down the system during maintenance and cleaning work.
- ▶ Pinch and shear points must be avoided and secured.
- ▶ This device can be used by children aged 8 years and above as well as by persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge, if they are supervised or have been instructed regarding the safe use of the device and understand the resulting hazards. Children must not play with the device. Cleaning and maintenance must not be carried out by children.
- ▶ The rated emission sound pressure level is below 70 dB(A)
- ▶ For maintenance and replacement of parts, the drive must be disconnected from the power supply. If the drive is disconnected via a plug connection, the operator must be able to check from every accessible location that the plug is still removed. If this is not possible due to the design or installation, separation must be ensured with a lock in the disconnected position.
- ▶ The drive housing tube can become very hot during prolonged operation. When working on the system, the housing tube may only be touched after it has cooled down.

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5. Safety instructions for installation



Warning: Important safety instructions. Follow all installation instructions, as incorrect installation can lead to serious injuries.

- ▶ When installing the drive without mechanical protection for the moving parts and the heating housing tube, the drive must be installed at a height of at least 2.5 m above the floor or another level that provides access to the drive.
- ▶ Before installing the motor, all unnecessary cables must be removed and any devices not required for powered operation must be deactivated.
- ▶ The operating element of a manual release must be installed at a height below 1.8 m.
- ▶ If the motor is controlled by a switch or button, the switch or button must be installed within sight of the motor. The switch or button must not be located near moving parts. The installation height must be at least 1.5 m above the floor.
- ▶ Permanently installed control devices must be installed visibly.
- ▶ For horizontally extending systems, a horizontal distance of at least 0.4 m must be maintained between the fully extended driven part and any fixed object.
- ▶ The rated speed and rated torque of the drive must be suitable for the system.
- ▶ The mounting accessories used must be designed for the selected rated torque.
- ▶ Good technical knowledge and good mechanical skills are required for the installation of the drive. Incorrect installation can lead to serious injuries. Electrical work must be carried out by a qualified electrician in accordance with local regulations.
- ▶ Only connection cables suitable for the environmental conditions and meeting the structural requirements may be used (see accessories catalog).
- ▶ If the device is not equipped with a connection cable and a plug or other means of disconnecting from the mains, which provides a contact opening width in each pole according to the conditions of overvoltage category III for full disconnection, such a disconnecting device must be installed in the fixed electrical installation according to the installation regulations.
- ▶ The connection cables must not be installed on hot surfaces.
- ▶ A plug for disconnecting the drive from the mains must be accessible after installation.
- ▶ Damaged connection cables must be replaced with a GEIGER connection cable of the same type.
- ▶ The device must be mounted as described in the installation instructions. Fastenings must not be made with adhesives, as these are considered unreliable.

6. Identification number

The **GJ56.. E17 SMI 3.0** has four removable ID stickers on the connection cable.

The printed SMI-KEY-ID number is used for the unique identification of the motor in the bus system.

The stickers and/or the connection cable must not be interchanged.

Using the stickers, you can note the installation location for the later bus integration of each motor (see "For your notes").



7. Installation note

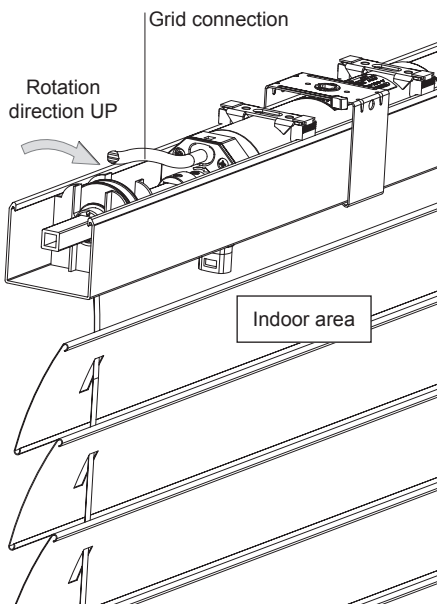
Viewed from inside the room, the mains connection of the **GJ56..** is located. **E17 SMI 3.0** on the left side. The blind tapes are wound onto the winding rollers from the outside.

The **GJ56.. E17 SMI 3.0** must be installed aligned with the turning rods.

The **GJ56.. E17 SMI 3.0** must be installed centrally. Ensure an even load distribution!

Angled installation:

Angled installation is permitted up to a maximum of 45° to the horizontal.



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8. Installation instructions

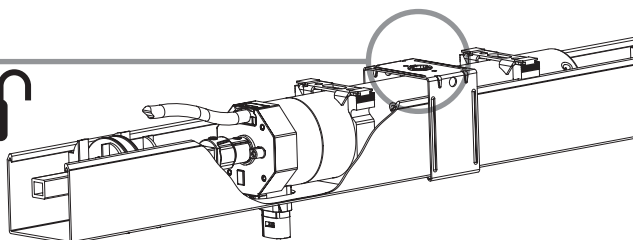
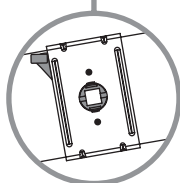
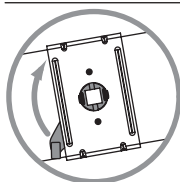
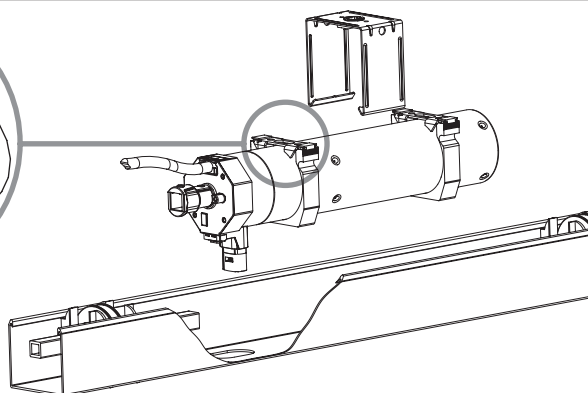
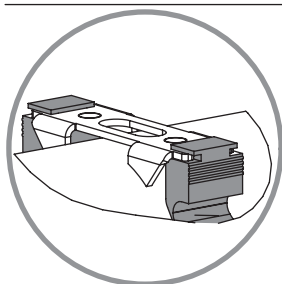
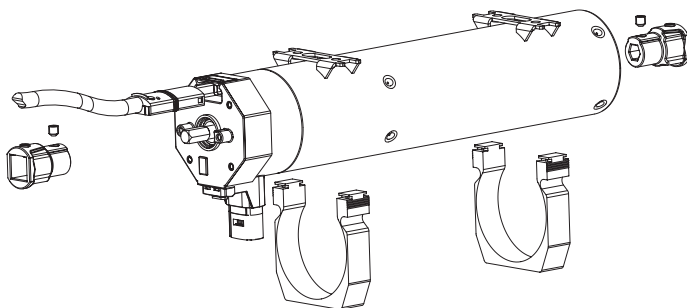


Before fastening, the strength of the masonry or the substrate must be checked!



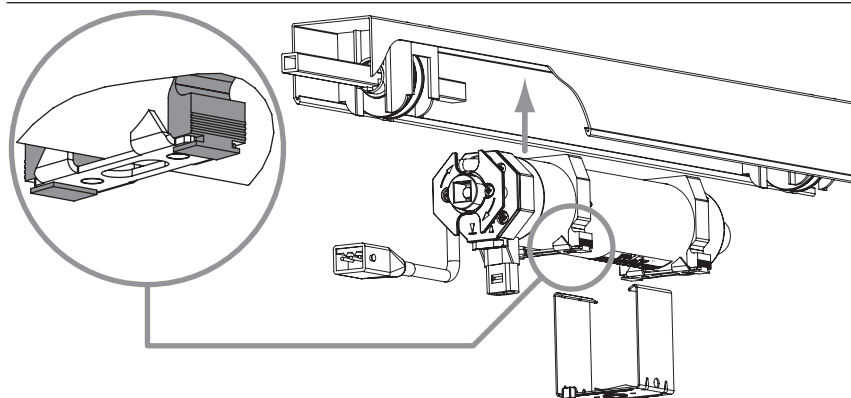
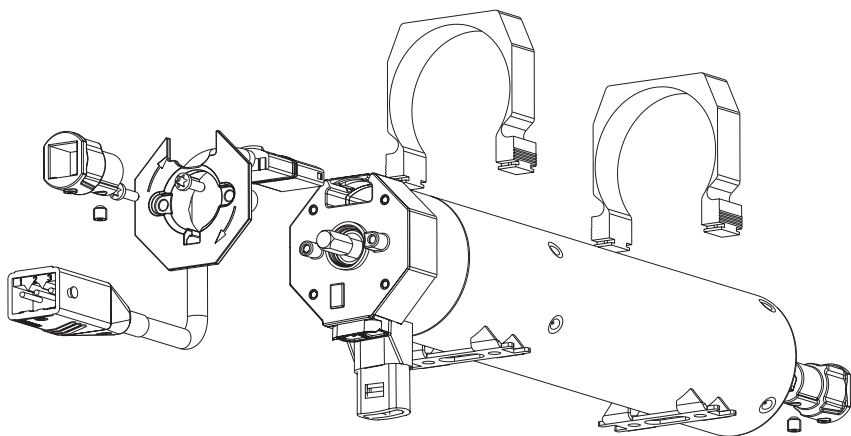
Before installation, always check the motor for visible damage such as fractures or exposed wires!

Box open at the top:

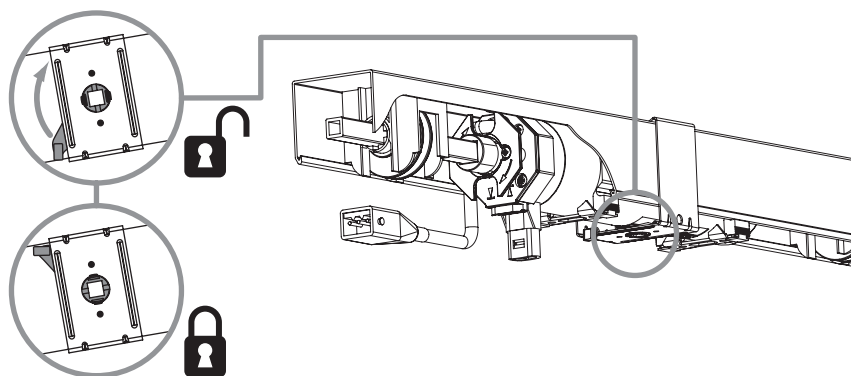


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Box open at the bottom:



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9. Notes for the qualified electrician



Attention: Important installation instructions. Follow all execution instructions, as incorrect execution will lead to destruction of the drive and the switching device.



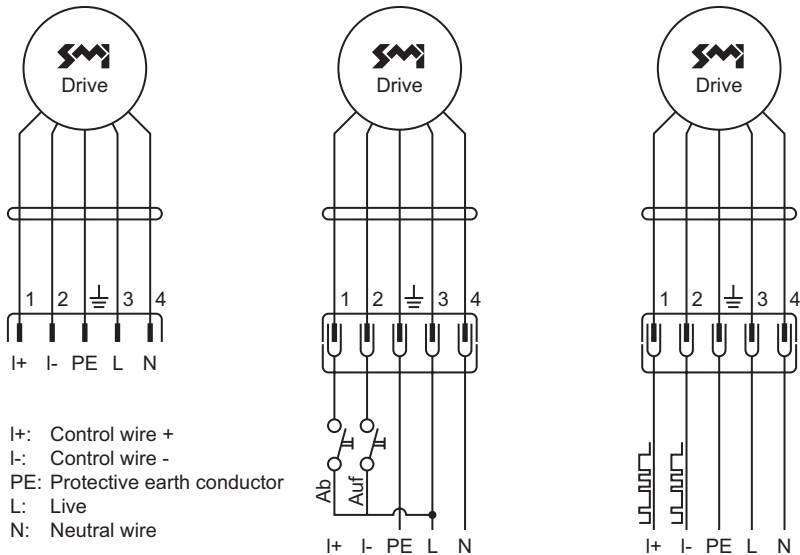
Caution! The bus voltage is not a safe low voltage. The bus is not galvanically isolated from the supply voltage.



The motor may only be used with SMI-certified actuators.

- For operation with a setting switch, a locked switch (no simultaneous UP/DOWN command) must be used.
- Work with the service terminals may only be carried out by a qualified electrician.
- The number of drives that can be connected to an actuator depends on the actuator. Please observe the specifications of the actuator manufacturer!
- When connecting in parallel, the maximum load of the electrical installation must be observed.
- The switching in push-button operation must be carried out via a release.
- The switching time in push-button operation must be at least 0.2 s.
- Connection cables with plugs from Hirschmann have been tested and approved with couplings from Hirschmann.
- For SMI drives, a 5-pole connection cable with continuous power supply must be used (GEIGER Flat5 with dark blue ring).
- To avoid malfunctions due to coupling, for motors with electronic limit switches, the supply line (reference NYM) from the actuator/switch to the motor may be a maximum of 100m.

10. Connection assignment for SMI drives with mains voltage



I+: Control wire +
I-: Control wire -
PE: Protective earth conductor
L: Live
N: Neutral wire

Names Push button operation Telegram operation

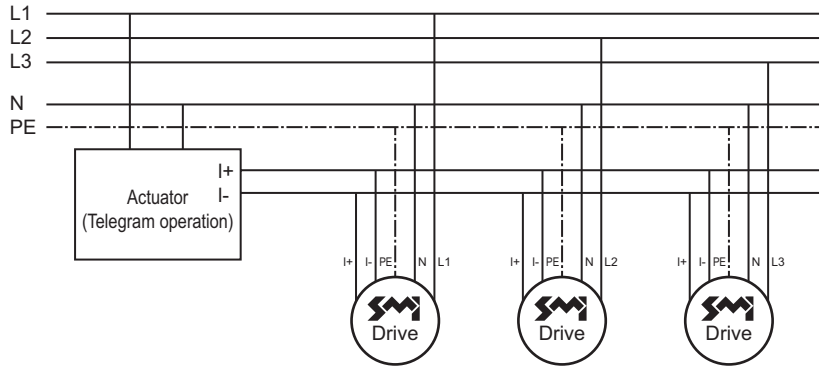
The change of operating mode from telegram operation to push-button operation is carried out by switching the supply voltage off and on. Afterwards, operation must be carried out via a switch. After that, the drive is in push-button operation.

Plug connection on drive cables	The STAS4 connector from Hirschmann is recommended.		
Wire connections and plug assignment for plug system STAS4/ STAK4 for cables with wires black, grey, brown, blue and yellow-green	STAS 4 / STAK 4	Wire color	Description
	1 2 3 4 5 (Earth)	black grey brown blue green-yellow	I+ I- L N PE
Wire connections and plug assignment for plug system STAS4/STAK4 for cables with 2 black wires	STAS 4 / STAK 4	Wire color	Description
	1 2 3 4 5 (Earth)	black 1 black 2 brown blue green-yellow	I+ I- L N PE
Notes on laying SMI wires in separate cables	Definition of the black wires: black 1: between blue and green-yellow black 2: between brown and green-yellow		
	The SMI wires I+ and I- can be routed in the motor connection cable of the SMI drive (as above) or in a separate cable. Combining SMI wires together with wires of foreign signals in one cable is not permitted.		

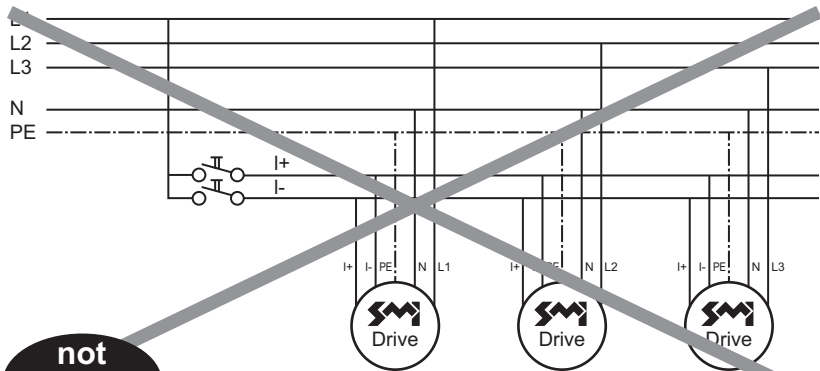
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11. SMI drives on different AC voltage phases

The parallel connection of control wires I+ and I- and when supplying power to the drives from different phases is only permitted in telegram operation.



permitted Telegram operation with power supply from different phases



not permitted

Push button operation with power supply from different phases

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12. For your notes ...

SMI-KEY-ID (sticker)	Installation location e.g.: 1st floor, left side, third room, 1. Window left

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13. Setting the end positions

General

For setting the end positions on motors of the **GJ56.. series**. For **E17 SMI 3.0**, any setting switch can be used that has a programming button or allows a simultaneous UP/DOWN command and has a permanent power supply. In this case, instead of the programming button, the UP and DOWN buttons must be pressed simultaneously.

Article number of the GEIGER setting switches	
M56F152	with service terminal (D), 5-core, SMI-compatible
M56F153	with service terminal (CH), 5-core, SMI-compatible



Important: Observe the wiring diagram on the back of the setting switch!

Factory setting

- The drive is set to the lower end position at the factory. The upper end position is at the maximum distance from it. (at least LE + 200 output revolutions of the drive).
- The motor control is in normal operation.
- Referencing is enabled at the factory.



Note: If the drive is installed in a lowered blind and the limit switch is used, the drive can be operated without further settings.



If the factory setting has been carried out and the learning mode activated, a maximum of 100 revolutions can be made downwards. For further downward movement, the factory setting must be performed again.

14. Quick setup for SMI operation

To be able to use SMI runs, you can move to the limit switch once. This simulates an upper end position and SMI saves the position as 0%. SMI runs are now possible and the drive can be operated without further settings. During further operation, the motor always moves to the limit switch.

15. Activate learning mode



Requirement: The drive is between the upper and lower end positions. The limit switch must not be pressed.

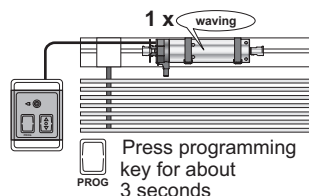


The GJ56.. E17 SMI 3.0 can be set with any setting switch that allows a simultaneous UP/DOWN command. In this case, instead of the programming button, the UP and DOWN buttons must be pressed simultaneously.

Activate learning mode via setting switch

To activate the learning mode, the motor must be connected according to the "push-button operation" wiring diagram (see chapter 10).

The learning mode is activated by pressing the PROG button or the UP and DOWN buttons simultaneously on the setting switch until, after about 3 seconds, the drive confirms with the feedback (1 x UP-DOWN) "Learn end positions activated." Then release the button.



16. Learning/correction of end positions



Learning and referencing is possible both on the limit switch and—on systems specially designed for this—on torque. Parts of the system are subjected to very high stress in the process! Learning or referencing on torque must be specially checked and approved by the system manufacturer.

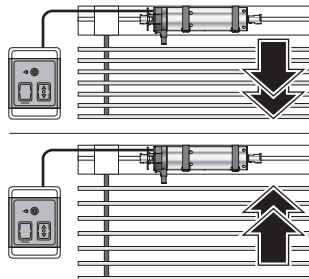
An upper and a lower end position can be learned or corrected independently of each other.

- Activate learning mode.
- Move in the direction of the desired end position. The motor briefly interrupts the movement to indicate that it is in learning mode:
- The direction in which the drive moves after the movement interruption* determines the end position to be learned (UP = upper end position, DOWN = lower end position).
- Once the desired end position is reached, move in the opposite direction until 2 short movement interruptions* indicate that the last position has been saved.
- Learning is complete.

** As long as the movement interruption has not yet occurred, corrections can still be made.*

To set another end position, start the setting process from the beginning!

If the upper end position is learned, referencing is automatically enabled! Note: During referencing, the drive moves past the set upper end position to the limit switch or to torque.



If the upper end position is relearned to a position after the end position was learned to the limit switch or to torque cut-off, referencing is automatically enabled! If the upper end position is learned to a position again, referencing remains disabled or enabled.

Limit switch/torque cut-off instead of upper end position

- If the UP rotation direction is to be switched off via the limit switch/torque, no upper end position is learned. The curtain always moves against the limit switch or switches off at the top via torque.
- If an upper end position has already been learned and should now be switched off via the limit switch/via torque, the learning mode must be activated and the drive must move against the limit switch/ torque. The lower end position remains unchanged and the learning process is complete.
- From now on, the motor always moves against the limit switch or switches off at the top via torque.

Canceling the learning mode:

To cancel the learning mode, keep the learning buttons (PROG button / UP and DOWN button / limit switch and DOWN button) pressed until the drive after approx. 3 sec. confirms the cancellation of the learning mode by 3 x UP&DOWN.

17. Referencing to limit switch/torque

By referencing the limit switch, drifting of the upper end position due to changed winding behavior of the lift tapes is compensated. If referencing has been activated (see below), the next UP run will go to the limit switch/torque cut-off. The distance difference between the upper end position and the limit switch is saved. After 1, 5, 20 and then every 50 runs to the upper end position, it is checked by driving again to the limit switch whether the distance difference has changed. If so, the upper end position will be corrected by the change. During the reference runs, the drive remains on the limit switch/at the top at the torque cut-off.

18. Activate/deactivate reference runs

The referencing is enabled by default. The referencing can only be effective if the upper end position is set.

Switching referencing on/off:

Press and hold the learning buttons (PROG button/UP and DOWN button/limit switch and DOWN button). The drive responds between 3 and 6 sec. (1 x UP-DOWN) and between 6 and 20 sec. with 3 x UP-DOWN. As soon as the drive starts the 3-times UP-DOWN, the learning buttons can be released. A subsequent UP command with 1 x UP-DOWN switches referencing on, a DOWN command with 2 x UP-DOWN switches it off.

Automatic activation of referencing

The referencing is automatically activated if the upper end position was previously learned to the limit switch and referencing was deactivated. If the upper end position is newly but again learned to position and referencing was not active, referencing remains deactivated.

19. Reset to factory settings

Press and hold the learning buttons (PROG button/UP and DOWN button/limit switch and DOWN button). The drive responds between 3 and 6 sec. (1 x UP-DOWN), between 6 and 20 sec. (3 x UP-DOWN) and after 20 to < 30 sec. with 4 x UP-DOWN. As soon as the drive starts the 4-times UP-DOWN, the learning buttons can be released. After that, the drive is reset to factory settings and referencing is enabled. Please note: The position in which the drive was reset to factory settings is now defined as the lower end position and can be changed by activating the learning mode.

20. Blockage detection and freeze protection

The motor has a blockage detection in the UP direction. After a blockage detection (e.g. due to the curtain freezing to the windowsill), the UP direction is locked.

By a short travel command in the DOWN direction, the UP direction is released again.

21. SMI travel to position

With SMI, precise positions (in percent) and degree-accurate slat angle positions can be approached. The SMI drives can send actual positions, error messages, and service information back to the SMI master terminal.

22. What to do if...

Problem	Solution
Motor does not run.	• Motor not plugged in. Please check the plug connection. • Check the connection cable for possible damage. • Check the mains voltage and have the cause of the power failure checked by a qualified electrician.
Motor moves upwards instead of downwards.	• The control wires are swapped. Swap control wires black/grey.
Motor only runs in one direction.	• Motor at end position. Move the motor in the opposite direction. Readjust end positions if necessary.
After several runs, the motor stops and no longer responds.	• The motor became too warm and has switched off. Try again after a cooling period of approx. 15 minutes.
The curtain is in the upper position, activates the limit switch, and can no longer be moved downwards.	• The motor was installed incorrectly or the lower end position was exceeded and the straps were wound incorrectly. Ensure free movement of the limit switch. Reset the end positions.

23. Declaration of conformity

You can find current declarations of conformity at www.geiger.de

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EU Declaration of Conformity

Gerhard Geiger GmbH & Co. KG
Antriebstechnik
Schleifmühle 6
D-74321 Bietigheim-Bissingen

Product designation:

Venetian blinds motor, motor for rolling shutters, motor for awnings

Type designation:

GJ56.., GR45.., GU45.., GB35.., GB45.., GB59..

Applied directives:

2006/42/EG
2014/53/EU
2011/65/EU+(EU)2015/863+(EU)2017/2102
(EU)2023/826

Applied standards:

EN 60335-1:2012
EN 60335-1:2012/AC:2014
EN 60335-1:2012/A11:2014
EN 60335-1:2012/A13:2017
EN 60335-1:2012/A1:2019
EN 60335-1:2012/A14:2019
EN 60335-1:2012/A2:2019
EN 60335-1:2012/A15:2021
EN 60335-1:2012/A16:2023
EN 60335-2-97:2006+A11:2008+A2:2010+A12:2015
EN 62233:2008+Ber.1:2008+Cor.:2008
EN IEC 55014-1:2021
EN IEC 55014-2:2021
EN IEC 61000-3-2:2019+EN IEC 61000-3-2:2019/A1:2021
EN 61000-3-3:2013+EN 61000-3-3:2013/A1:2019+EN 61000-3-3:2013/A2:2022
ETSI EN 301 489-1 V2.2.3 (2019-11)
ETSI EN 301 489-3 V2.1.1(2019-03)
ETSI EN 300 220-2 V3.2.1 (2018-06)

Authorized representative for technical data:

Gerhard Geiger GmbH & Co. KG

Address:

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Bietigheim-Bissingen, 19.05.2025


Roland Kraus (General Manager)

Gerhard Geiger GmbH & Co. KG

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Komplementär: Geiger Verwaltungs-GmbH | Sitz Bietigheim-Bissingen | Amtsgericht Stuttgart HRB 300481
Geschäftsführer: Roland Kraus, Dr. Bertram Melzig-Thiel | WEEE-Reg.-Nr. DE47902323

24. Maintenance

The drive is maintenance-free.

25. Technical Data

Technical data GJ56.. E07 with electronic limit switch-off				
	GJ5606k	GJ5606 ¹⁾	GJ5610	GJ5620
Voltage	230 V~/50 Hz			
Current	0.40 A	0.40 A	0.60 A	0.85 A
Cos Phi (cos φ)	> 0.95			
Inrush current (factor)	x 1,2			
Performance	93 W	90 W	135 W	190 W
Torque	6 Nm	6 Nm	10 Nm	2 x 10 Nm
Speed	26 rpm			
Protection class	IP 54			
Limit switch range	200 rev.			
Operating mode	S2 4 min.	S2 6 min.	S2 4 min.	S2 4 min.
Total length (incl. complete set)	371 mm	376 mm	381 mm	408 mm
Diameter	55 mm			
Weight	approx. 1.50 kg	approx. 1.60 kg	approx. 1.70 kg	approx. 2.20 kg
Ambient humidity	dry, non-condensing			
Storage temperature	T = -15°C .. +70°C			

¹⁾ Runtime-optimized motor

Technical changes reserved. Information about the ambient temperature range of GEIGER motors can be found at www.geiger.de

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26. Disposal information

Disposal of packaging materials

Packaging materials are raw materials and therefore reusable. Please dispose of them properly in the interest of environmental protection!

Disposal of electrical and electronic equipment.

Electrical and electronic equipment must be collected and disposed of separately in accordance with EU directives.

Bei technischen Fragen steht Ihnen unser Service-Team
unter +49 (0) 7142 938 333 gerne zur Verfügung.

GEIGER
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