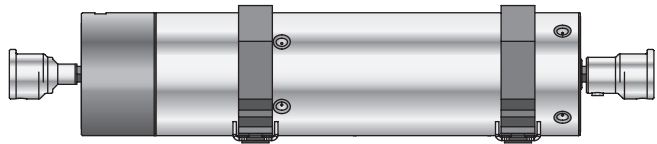


Venetian blind motor:

**GEIGER-GJ56..e with electronic end stop**

For Venetian blinds and exterior blinds



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**Original assembly and  
operating instructions**

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## 1. General information

Dear customer,

By purchasing a GEIGER motor you have decided on a quality product from GEIGER.

Thank you very much for your decision and the confidence placed in us.

Before you put this drive into operation please observe the following safety instructions. It serves for the prevention of danger and for the avoidance of personal injury and damage to property.

The installation and operating instructions contain important information for the installer, the specialist electrician and the user. Please pass on these instructions if you transfer the product. These instructions should be kept by the user.

## 2. Guarantee

In the case of incorrect installation contrary to the installation and operating instructions and/or constructional modification, the legal and contractual guarantee for property damage and product liability lapses.

## 3. Intended use

The motors of the model range GJ56..e with electronic end stop are designed exclusively for the operation of Venetian blinds.

The motors may not be used for the operation of roller grilles, garage doors, furniture and lifting tools.

GJ 56 xx x  
| | | |  
| | | | Design options  
| | | | Torque in Nm  
| | | | For head rails at least 56 mm  
| | | | GEIGER Venetian blinds motor

## 4. Safety instructions



**ATTENTION: Important safety instructions. For personal safety, it is important to follow these instructions. Please keep these instructions for future reference.**

- ▶ Do not allow children to play with stationary controls. Keep remote controls away from children.
- ▶ The installation is to be checked regularly for defective balance, signs of wear or damaged cables and springs, if relevant.
- ▶ Do observe the moving sun protection system and keep persons away until it has closed completely.
- ▶ When operating the manual release with the sun protection system open, please be cautious as it can fall down quickly if springs or tapes wear off or are broken.
- ▶ Do not operate the device if operations such as, for example, window cleaning are to be carried out in the vicinity.
- ▶ Disconnect the automatic controlled device from the mains power supply if operations such as, for example, window cleaning are being carried out in the vicinity.
- ▶ During operation observe the danger zone.
- ▶ Do not use the installation if people or objects are in the danger zone.
- ▶ Urgently shut down damaged installations until repair.
- ▶ Unconditionally shut down the unit during maintenance and cleaning operations.
- ▶ Pinching and shearing points are to be avoided and must be secured.
- ▶ This appliance can be used by children aged 8 and above and persons whose physical, sensorial or mental capacities are impaired, or who have no experience or know-how if they have been supervised or been given instructions on the use of the appliance and if they understand the possible resulting dangers. Children are not permitted to play with the device. Cleaning and maintenance should not be carried out by children.
- ▶ The rated sound pressure level is less than 70 dB(A).
- ▶ Disconnect the device from the mains power supply for maintenance and replacement of parts.  
If the motor is disconnected via a plug connection the operator must be able to control - from any place to which it has access – that the plug is removed.  
If this is not possible - due to design or installation - the disconnection from the power supply must be ensured via locking in the disconnected position (e.g. isolator).
- ▶ The motor tube can get very hot during prolonged use.  
When working on the unit, do not touch the tube before it has cooled down.

## 5. Safety instructions for assembly



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

- ▶ When mounting the motor without any mechanical protection of the driven parts and of the tube which may become hot, the motor must be installed at a height of at least 2.5 m above the ground or of another level which provides access to the drive.
- ▶ Before the motor is installed, all cables which are not needed are to be removed and all equipment which is not needed for power-operated actuation is to be put out of operation.
- ▶ The actuating element of a manual release must be mounted at a height of less than 1.8 m.
- ▶ If the motor is controlled by a switch or pushbutton, the switch or pushbutton must be mounted within eyeshot of the motor. The switch or pushbutton must not be located in the vicinity of moving parts. The height of installation must be at least 1.5 m above the floor.
- ▶ Permanently installed control devices must be attached visibly.
- ▶ In case of devices extending horizontally, a horizontal distance of at least 0.4 m must be respected between the fully extended part and any other fixed element.

- ▶ The rated speed and the rated torque of the motor must be compatible with the device.
- ▶ The mounting accessories that are used must be designed in accordance with the selected rated torque.
- ▶ Good technical knowledge and good mechanical skills are necessary for the motor installation. Incorrect installation can lead to serious injury. Electrical work must be carried out by a qualified electrician in accordance with the regulations in force locally.
- ▶ Only use connecting cables that are suitable with the environmental conditions and which meet the construction requirements. (see accessories catalogue)
- ▶ If the device is not equipped with a connecting cable and a plug, or other means for disconnecting from the mains with a contact opening on each pole according to the conditions of the overvoltage category III for full disconnection, a disconnecting device of this type must be incorporated into the permanently installed electrical installation according to the wiring rules.
- ▶ Do not mount the connecting cables near hot surfaces.
- ▶ A plug for the disconnection of the motor from the power supply must be accessible after installation.
- ▶ Damaged connecting cables must be replaced by GEIGER connecting cables of the same type.
- ▶ The device must be mounted as described in the installation instructions. Fixations shall not be made with adhesives since they are regarded as unreliable.

## 6. Assembly note

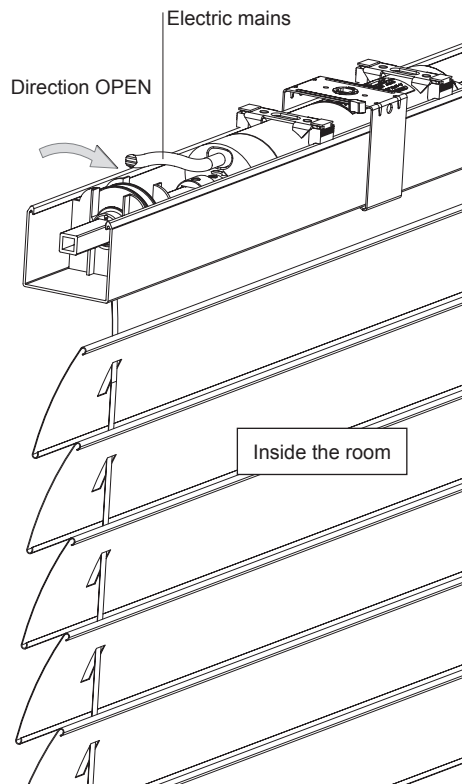
When viewed from inside the room, the power supply connection of the GJ56..e is located on the left side. The straps are wound on the winding rollers from the outside.

The GJ56..e must be installed in alignment with the turning bars.

It is important that the GJ56..e is installed centrally. Please make sure that the load is evenly distributed.

### Inclined installation:

The inclined installation is permitted till 45° maximum to level.



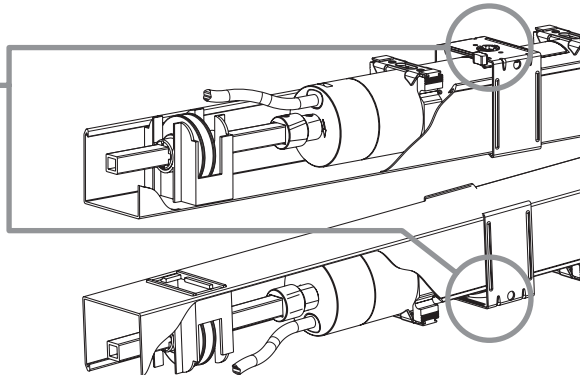
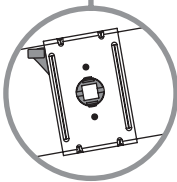
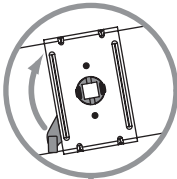
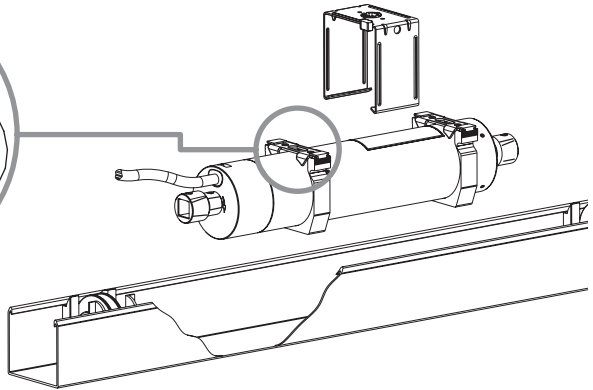
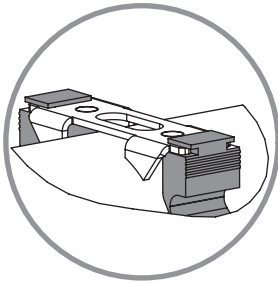
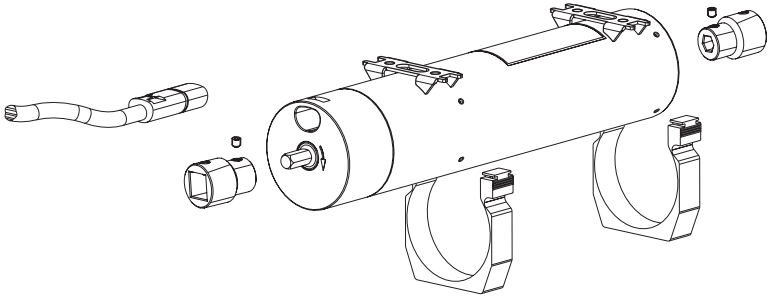
## 7. Installation instructions



Prior to installation please check to ensure there is no visible damage to the motor like cracks or open cables.



Before fixing please check the strength of the masonry and of the surface.



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## 8. Information for the specialist electrician



**Caution: Important installation instructions. Please follow all installation instructions since incorrect installation can lead to the destruction of the motor and the switching unit.**

**e1-e4:** the setting of the end stops requires a GEIGER setting switch

**e5:** the setting can be realized with any switch allowing simultaneous UP and DOWN controls.

**e1-e4:** a non-locking switch (series switch) is needed in order to reach the shade position. See point 10 "Operation".

**e5:** a locking switch is here necessary (no simultaneous UP and DOWN commands)

The operations with the service clamps may be accomplished only by an electrical specialist.

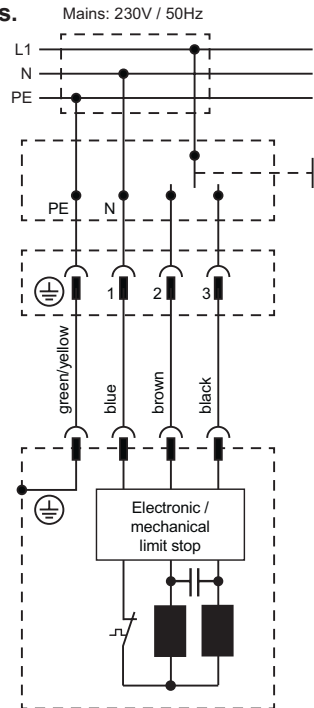
Motors with electronic limit stops can be connected in parallel. In this case the maximum load of the switching unit must not be exceeded.

When changing the running direction the switchover must be effected through an off-position.

When changing the running direction the switchover time must be at least 0.5 s.

With a three-phase network, please use the same external conductor in order to control the UP and DOWN directions.

Connecting cables with plug connectors of the Hirschmann Company are tested and approved with couplings of the Hirschmann Company.



## 9. Control features

Electronic motor controls features					
	e1	e2	e3	e4	e5
<b>Indirect shade position</b> The blind always moves to the lower end position first, turns round there and moves to the shade position.		■	■	■	
<b>Direct shade position</b> The blind moves directly to the shade position	■				
<b>Preset shade position</b> 0,5 rotations over the lower end position	■	■			
<b>Antifreeze protection</b> 2 rotations from the lower end position			■	■	■
<b>Torque shut-down in UP direction</b>				■	
<b>Set up in learning mode</b> Only the upper end position has to be learned			■	■	
<b>A GEIGER setting switch is required</b>	■	■	■	■	
<b>External setting switch</b> A switch which allows simultaneous UP and DOWN commands is necessary					■

## 10. Setting of the end stops



**Motors GF56..e1 – e4: a GEIGER setting switch is required for the setting of the end stops**

**Motors GF56..e5: the setting can be realized with any switch allowing simultaneous UP and DOWN commands.**

Part-Nr. / GEIGER setting switch	
<b>M56K144</b>	With Hirschmann STAK3 connector (D)
<b>M56F150</b>	With Hirschmann STAK3 connector (CH)
<b>M56F151</b>	With terminal (D)
<b>M56B265</b>	Adaptation cable with terminal and STAS3
<b>M56E399</b>	Adaptation cable with STAK3 and open cable ends

### Readjustment of the end stops

The readjustment of the end stops can be carried out at any time in accordance with the instructions given above.

### Shade position/working position (only e1 – e4)

The shade position/working position can be reached by actuating both direction keys at the same time

### Overload recognition

The overload recognition is adapted to the given torque (+ safety margin) of the Venetian blind system by carrying out the complete adjustment procedure.

### Setting GJ56..e1, e2 and e3



**The order of the adjustment process must be strictly adhered to and the adjustment must always be completely implemented (all steps).**



**The motor GJ56..e3 is set up with a learning mode. During assembly please begin the setting with step 1 and then go over to step 7.**

1. Connect the setting switch to the GJ56..e and then plug in power supply
2. Press the programming button till the LED flashes (1 flash light, break, 1 flash light, break,...) then release the programming button.
3. **Setting of the lower end stop:** press the direction keys to exactly run the GJ56..e to the desired lower end position.
4. Press the programming button till the LED flashes (2 flash lights, break, 2 flash lights, break,...) then release the programming button
5. **Setting of the shade position/working position:** press the direction keys to exactly run the GJ56..e to the desired position.
6. Press the programming button till the LED flashes (3 flash lights, break, 3 flash lights, break,...) then release the programming button
7. **Setting of the upper end position:** press the direction keys to exactly run the GJ56..e to the desired upper end position.
8. Press the programming button till the LED keeps lighting. The adjustment procedure is completed.

## Setting GJ56..e4



The order of the adjustment process must be strictly adhered to and the adjustment must always be completely implemented (all steps).



The motor GJ56..e4 is set up with a learning mode. During assembly please begin the setting with step 1 and then go over to step 7.

1. Connect the setting switch to the GJ56..e and then plug in power supply
2. Press the programming button till the LED flashes (1 flash light, break, 1 flash light, break,...) then release the programming button.
3. **Setting of the lower end position:** press the direction keys to exactly run the GJ56..e to the desired lower end position.
4. Press the programming button till the LED flashes (2 flash lights, break, 2 flash lights, break,...) then release the programming button
5. **Setting of the shade position:** press the direction keys to exactly run the GJ56..e to the desired position.
6. Press the programming button till the LED flashes (3 flash lights, break, 3 flash lights, break,...) then release the programming button
7. Run the blind to the upper end position. The motor turns off via torque recognition.
8. Press the programming button till the LED keeps lighting. The adjustment procedure is completed.

## Setting GJ56..e5



The order of the adjustment process must be strictly adhered to and the adjustment must always be completely implemented (all steps).

1. Connect the setting switch to the GJ56..e and then plug in power supply
2. Press the programming button till the LED flashes (1 flash light, break, 1 flash light, break,...) then release the programming button.
3. **Setting of the lower end position:** press the direction keys to exactly run the GJ56..e to the desired lower end position.
4. Press the programming button till the LED flashes (2 flash lights, break, 2 flash lights, break,...) then release the programming button
5. **Setting of the upper end position:** press the direction keys to exactly run the GJ56..e to the desired upper end position.
6. Press the programming button till the LED keeps lighting. The adjustment procedure is completed.



When using an external setting switch, the UP and DOWN keys must be activated simultaneously – instead of the programming key. Instead of the lighting up of the LED, the motor reacts with a short back and forth movement.



## 11. Operation

If the shade position/working position is not used, the GJ56...e can be operated with a standard locked Venetian blind switch.

If the shade position/working position is used (**e1-e4**) a series switch which allows simultaneous UP and DOWN commands is necessary.

**The operation is effected as described below:**

Actuate the key UP to run the motor to the upper end position



Actuate the keys UP and DOWN at the same time to run the motor to the shade position/working position (**e1-e4**)



Actuate the key DOWN to run the motor to the lower end position



## 12. What to do if...

Problem	Solution
<b>Motor does not run.</b>	<ul style="list-style-type: none"> <li>• Motor not plugged in. Please check the plug connection.</li> <li>• Check connecting cable for possible damage.</li> <li>• Check the mains voltage and allow the cause of the voltage breakdown to be tested by a specialist electrician.</li> </ul>
<b>Instead of in the upwards direction, motor runs downwards.</b>	<ul style="list-style-type: none"> <li>• The control leads are interchanged. Exchange black/brown control leads.</li> </ul>
<b>Motor only runs in one direction.</b>	<ul style="list-style-type: none"> <li>• Motor in the end position. Run motor in the opposite direction. Readjust the end positions, if necessary.</li> </ul>
<b>After running several times, the motor breaks down and no longer responds.</b>	<ul style="list-style-type: none"> <li>• The motor became too hot and has switched off. Try it again after a cooling time of about 15 min.</li> </ul>
<b>After setting of the lower end position the blind only runs in DOWN direction.</b>	<ul style="list-style-type: none"> <li>• The motor has been installed upside down (see assembly note).</li> </ul>

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## 13. Maintenance

The drive is maintenance-free.

## 14. Technical data

Technical data GJ56..e with electronic end stop (standard electronic)				
	GJ5603ke	GJ5606ke	GJ5610e	GJ5618e
<b>Voltage</b>	230 V~/50 Hz			
<b>Current</b>	0,40 A	0,40 A	0,60 A	0,80 A
<b>Cos Phi (cos<math>\varphi</math>)</b>	> 0,95			
<b>Inrush current (factor)</b>	x 1,2			
<b>Power</b>	90 W	93 W	135 W	180 W
<b>Torque</b>	3 Nm	6 Nm	10 Nm	2 x 9 Nm
<b>Speed</b>	26 rpm			
<b>Protection class</b>	IP 54			
<b>Limit switch range</b>	200 rotations			
<b>Operating mode</b>	S2 4 min			
<b>Sound pressure level<sup>2)</sup></b>	34 db(A)	34 db(A)	35 db(A)	40 db(A)
<b>Length</b>	301 mm	301 mm	311 mm	338 mm
<b>Diameter</b>	55 mm			
<b>Weight</b>	approx 1,50 kg	approx 1,50 kg	approx 1,70 kg	approx 2,20 kg
<b>Ambient temperature / humidity</b>	Operation: T = -10°C .. +60°C / H max. 90% Storage: T = -15°C .. +70°C / dry and non-condensing place			

Subject to technical modifications



Technical data GJ56..e with electronic end stop (run-time optimized version)		
	GJ5606e	GJ5616e
<b>Voltage</b>	230 V~/50 Hz	
<b>Current</b>	0,40 A	0,70 A
<b>Cos Phi (cos<math>\varphi</math>)</b>	> 0,95	
<b>Inrush current (factor)</b>	x 1,2	
<b>Power</b>	90 W	150 W
<b>Torque</b>	6 Nm	2 x 8 Nm
<b>Speed</b>	26 rpm	
<b>Protection class</b>	IP 54	
<b>Limit switch range</b>	200 rotations	
<b>Operating mode</b>	S2 6 min	
<b>Sound pressure level<sup>2)</sup></b>	34 db(A)	40 db(A)
<b>Length</b>	306 mm	338 mm
<b>Diameter</b>	55 mm	
<b>Weight</b>	approx 1,60 kg	approx 2,20 kg
<b>Ambient temperature / humidity</b>	Operation: T = -10°C .. +60°C / H max. 90% Storage: T = -15°C .. +70°C / dry and non-condensing place	

<sup>2)</sup> The average sound pressure level data are intended for guidance only. The values were determined by GEIGER at a distance of 1 m, with a hanging motor at idle speed and averaged over 10 seconds. There is no reference to any specific test standard.

Subject to technical modifications



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# 15. Declaration of conformity



## EC Declaration of Conformity

Gerhard Geiger GmbH & Co. KG  
Antriebstechnik  
Schleifmühle 6

D-74321 Bietigheim-Bissingen

Product: Venetian blind motor, motor for rolling shutter, motor for awnings

Type designation: GJ56..  
GR45..  
GU45..

The designated product is in conformity with the European Directive:

**2006/42/EC**

**"Directive 2006/42/EC of the European Parliament and of the Council of 17 May 2006 for the approximation of laws, regulations and administrative provisions of the Member States concerning machinery".**

**2004/108/EC**

**"Directive 2004/108/EC of the European Parliament and of the Council of 15 December 2004 on the approximation of the laws of the Member States relating to electromagnetic compatibility and repealing Directive 89/336/EEC"**

The conformity of the designated product with the provisions of the directives is proved in particular by full compliance with the following standards:

DIN EN 60335-1	DIN EN 55014-1	EN301 489-03
DIN EN 60335-2-97	DIN EN 55014-2	EN300 220-3
DIN EN 62233	DIN EN 61000-3-2	
	DIN EN 61000-3-3	

The accredited VDE Testing and Certification Institute (EU Identification No. 0366) Merianstr. 28, D-63069 Offenbach, tests and certifies for the company Gerhard Geiger GmbH & Co. KG.

Authorised representative for technical data: Gerhard Geiger GmbH & Co. KG  
Address: Schleifmühle 6, D-74321 Bietigheim-Bissingen

Bietigheim-Bissingen, 15.02.2013

  
Hans-Michael Dangel (General Manager)

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## 16. Notes on waste disposal

### Recycling of packaging materials

In the interest of environmental protection, please contact your local government's recycling or solid waste management department to learn more about the services it provides.

### Waste disposal of electric and electronic equipment

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

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**For technical questions, please call our service team at: +49 (0) 7142 938-300. They will be happy to assist you.**



**GEIGER**  
Antriebstechnik

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