

## GEIGER System INline GSI56..e5

with electronic end stop for the facade technology



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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.

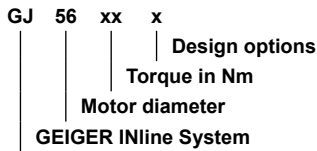
## 2. Guarantee

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 GSI 56..e5 series with electronic end stop are designed for operation with Venetian blinds that are within a façade whereas the motor is outside the cavity.

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



### 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.

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## 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.

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## 6. Assembly instructions



A prerequisite for a safe functioning of our system components is a proper assembly taking into account the relevant standards and guidelines in the production of element facades.



The system components supplied by GEIGER may not be reprocessed or altered, otherwise the warranty expires.



Before installation, the motor and the other system parts should be checked for visible damage.

### Connecting element:

The connecting element must be screwed at right angles to the mounting surface. It is important to ensure that the mounting surface is cleaned and the seal of the connecting element fits cleanly and evenly on the mounting surface.

Please make sure that the connecting element and the facade element are firmly and durably connected. Tightening torques depend on the facade element and must be determined by the facade manufacturer.

The tightness of the connection between the connecting element and the facade element must be checked on site during installation.

A centering bore optionally used for double-walled profiles may not be larger than + 0.3 mm compared to the centering collar.

### Cavity gear:

The cavity gear must be fixed within the cavity in such a way that the hexagonal rod of the connecting element can be inserted without tension into the hexagonal holding of the gear.

The screws must be secured with a screw-lock.

The hexagonal rod of the connecting element must fit exactly into the hexagonal housing of the flanged gear and must not be subject to tension during operation.

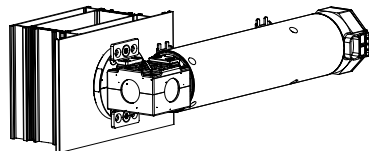
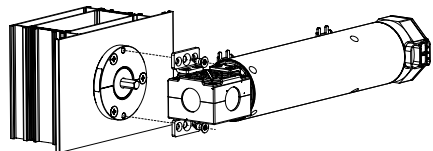
### Motor with flanged gear – Parallel mounting:

#### Screw mounting

For parallel mounting (radial), the drive is placed on the 7 mm hexagonal rod of the connecting element. The drive is attached to the fixing bracket on the angle gear using 2 galvanized countersunk head screws DIN-EN-ISO 14581 8.8 M5 x 10 and a tightening torque  $M = 2\text{Nm}$ .

The screws must be secured with a high-strength screw-lock.

The hexagonal rod of the connecting element must fit exactly into the hexagonal housing of the flanged gear and must not be subject to tension during operation.



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## 7. 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.**

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.

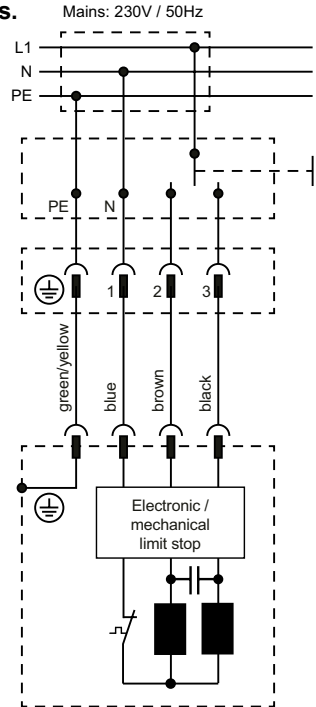
Motors with electronic limit stops can be connected in parallel. In this case the maximum load of the switching unit must not be exceeded.

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.

In order to prevent a malfunction caused by coupling, the supply line (ref. NYM) from the actuator/switch to the motor must not exceed 100m in case of motors with electronic end stops.



## 8. Setting of the end stops



The setting of the motor GF56..e5 can be realized with any switch allowing simultaneous UP and DOWN commands.

Part-Nr. / GEIGER setting switch	
M56K144	With Hirschmann STAK3 connector (D)
M56F150	With Hirschmann STAK3 connector (CH)
M56F151	With terminal (D)
M56B265	Adaptation cable with terminal and STAS3
M56E399	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 below. If there is no running of the blind by the operation points 3 and 5 the end stops have kept the same position as before.

### 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. The blind must be moved by steps 3 and 5.

### Setting GSI56..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 GSI56..e5 and then plug in power supply
2. Press the programming key till the LED flashes (1 flash light, break, 1 flash light, break,...) then release the programming key.
3. **Setting of the lower end position:** press the direction keys to exactly run the GSI56..e5 to the desired lower end position.
4. Press the programming key till the LED flashes (2 flash lights, break, 2 flash lights, break,...) then release the programming key
5. **Setting of the upper end position:** press the direction keys to exactly run the GSI56..e5 to the desired upper end position.
6. Press the programming key 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.

## 9. Operation

The GSI56..e5 can be operated with a standard locked Venetian blind switch.  
Actuate the key UP to run the motor to the upper end position.



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



## 10. 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>

## 11. Maintenance

The drive is maintenance-free.



## 12. Technical data

Technical data GSI56..e5 with electronic end stop (standard electronic)		
	GSI5606e5	GSI5610e5
<b>Voltage</b>	230 V~/50 Hz	
<b>Current</b>	0,40 A	0,60 A
<b>Cos Phi (cos<math>\varphi</math>)</b>	> 0,95	
<b>Inrush current (factor)</b>	x 1,2	
<b>Power</b>	93 W	135 W
<b>Torque</b>	6 Nm	10 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>1)</sup></b>	34 db(A)	35 db(A)
<b>Length<sup>2)</sup></b>	301 mm	311 mm
<b>Diameter</b>	55 mm	
<b>Weight<sup>2)</sup></b>	ca. 1,50 kg	ca. 1,70 kg
<b>Storage temperature/ Humidity</b>	T = -15°C .. +70°C / dry and non-condensing place	

<sup>1)</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.

<sup>2)</sup> With angel gear GSI1...: total length + 52 mm / weight + 0,4 kg

Subject to technical modifications. Please find information to the ambient temperature range of our GEIGER motors under [www.geiger.de](http://www.geiger.de)



# 13. Declaration of conformity



## 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:

GR45..	GJ56..
GS45..	GS56..
GU45..	GS156..
GB45..	

### Applied directives:

2006/42/EC  
2014/30/EU  
2014/53/EU  
2011/65/EU + (EU)2015/863 + (EU)2017/2102

### Applied standards:

DIN EN 60335-1 (VDE 0700-1):2012-10; EN 60335-1:2012  
DIN EN 60335-1 Ber.1 (VDE 0700-1 Ber.1):2014-04; EN 60335-1:2012/AC:2014  
EN 60335-1:2012/A11:2014  
DIN EN 60335-2-97 (VDE 0700-97):2017-05; EN 60335-2-97:2006+A11:2008+A2:2010  
+A12:2015  
DIN EN 62233 (VDE 0700-366):2008-11; EN 62233:2008  
DIN EN 62233 Ber.1 (VDE 0700-366 Ber.1):2009-04; EN 62233 Ber.1:2008  
DIN EN ISO 12100:2011-03; EN ISO 12100:2010  
  
DIN EN 55014-1:2012-05; EN 55014-1:2006 + A1:2009 + A2:2011  
DIN EN 55014-2:2016-01; EN55014-2:2015  
DIN EN 61000-3-2:2015-03; EN 61000-3-2:2014  
DIN EN 61000-3-3:2014-03; EN 61000-3-3:2013  
ETSI EN 301 489-1 V1.9.2(2011-09)  
ETSI EN 301 489-3 V1.6.1(2013-08)  
ETSI EN 300 220-2 V3.1.1(2017-02)

### Authorized representative for technical data:

Gerhard Geiger GmbH & Co. KG

### Address:

Schleifmühle 6, D-74321 Bietigheim-Bissingen

Bietigheim-Bissingen, 25.06.2019

Roland Kraus (General Manager)

100W1578 en 0920

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

Current declarations of conformity are available under [www.geiger.de](http://www.geiger.de)

## 14. 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.

**For technical questions, please call our service team at: +49 (0) 7142 938 333.  
They will be happy to assist you.**

**GEIGER**  
**ANTRIEBSTECHNIK**

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