

GEIGER
Antriebstechnik
LOXONE

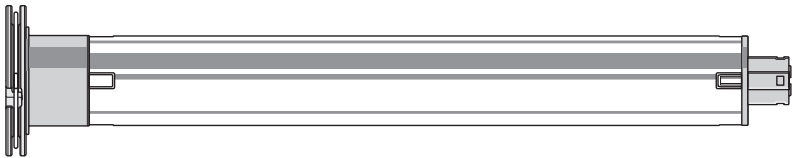
Tubular motor:

GEIGER-SOLIDline (GU45.. F04)

Motor control:

AIR

for rolling shutters, screens and open style folding arm awnings



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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.

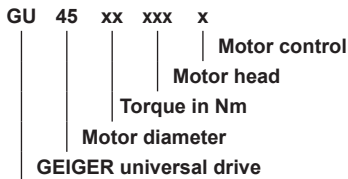
2. Guarantee

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 SOLIDline with AIR radio technology are designed exclusively for the operation of rolling shutters, screens and open style folding arm awnings.

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.

6. Installation instructions



Before fixing, the strength of the masonry or of the subsurface is to be checked.



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



Caution: If the tube is screwed/riveted to the drive, the measure must be taken from the tube end to the center of the drive and marked on the tube.

When drilling the winding shaft never drill into the area of the tubular motor!

When inserting into the shaft, the tubular motor must not be struck and must not be allowed to fall into the shaft.

Installation into the rolling shutter:

Fix motor support to available stud bolts or in the side frame.

Insert motor into the shaft with a suitable adapter and drive up to the stop of the shaft adapter.

Insert roller capsule on the opposite side.

Put shaft with motor on motor support or on pivoting engine bearer. On the opposite side pull out roller capsule until bolt fits into ball bearing.

Screw together roller capsule with shaft.
Screw together shaft with tubular carrier.

Fix rolling shutter casing to shaft.

Alternative: Use fixation plates for front-mounted elements. Attach motor. The bearing locks in.
To loosen: rotate spring ring.

Installation into awnings and screens:

Insert motor with a suitable adapter and drive into the shaft up to the stop of the shaft adapter.

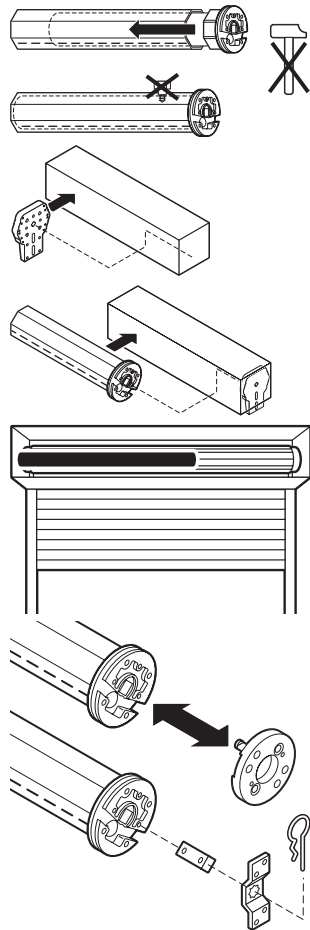
Fix the motor support on the awning. Fix the motor together with the shaft on the motor support. The bearer locks into place.

Depending on the selected motor head, different fixation systems can be used:

- Place the motor with square insert in the star-shaped bearer and lock with pin
- Place the motor into the existing engine bearer and lock
- Place the motor in a compatible engine bearer with clip system and lock with spring or rotating lever



The GEIGER SOLIDline motor is suitable for shaft diameters from 50 mm!



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7. Information for the specialist electrician



CAUTION / IMPORTANT NOTE

- The black wire of the connecting cable can be under power.
- The black wire must be fully insulated for touch-safe operations.
- The connecting cable may be shortened. A minimum length of 20 cm must be respected.
- The open end of the black wire must be insulated with an insulated clamp or other insulated material.
- When replacing the connecting cable, please use the cable type M56E699 and respect the connecting instructions.



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

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.

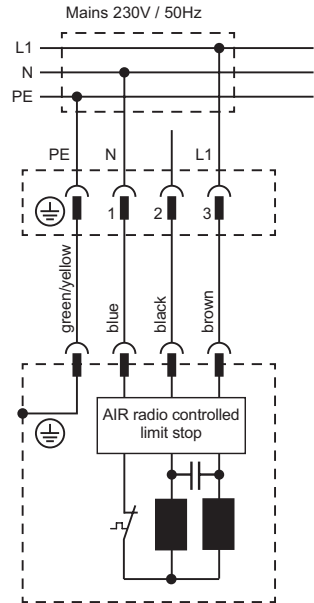
When changing the running direction the switchover must be effected through an off-position.

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.

PVC cables are not suitable for equipment used outdoors or exposed to prolonged high levels of UV radiation. These cables should not be used if they are likely to touch metal parts that can heat up to temperatures exceeding 70°C.

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



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8. Operating modes of the GEIGER SOLIDline AIR

The motor can be operated in two ways:

- Individual control: the motor is operated with a handheld or wall transmitter
- Smart Home control: the motor is connected, configured and operated with a Loxone Miniserver or a Loxone Miniserver Go.

A subsequent change between individual control and Smart Home control is possible by repeated teaching in of the motor.

Please find below the commissioning/ operating instructions concerning the individual control with handheld or wall transmitter.

9. Connect to the Miniserver

Conditions

In order to integrate the SOLIDline AIR in your Loxone system, a Miniserver Go or a Miniserver with Air Base Extension must be operational.

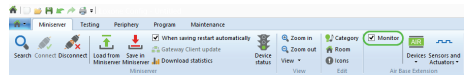
More information under: www.loxone.com/help/miniserver

Commissioning in Loxone Config

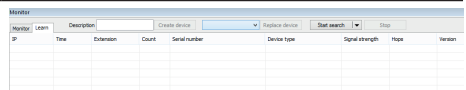
In order to learn the GEIGER SOLIDline AIR, the learning mode must be activated. The learning mode is automatically activated for 30 minutes when the power supply is switched off and then on again.

The current Loxone Config software is available for download here:
www.loxone.com/download

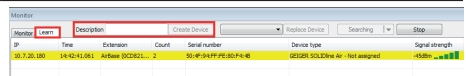
Connect with your Miniserver and switch on the Air Monitor. Click on the Air Base Extension and activate the “Air Monitor” checkbox.



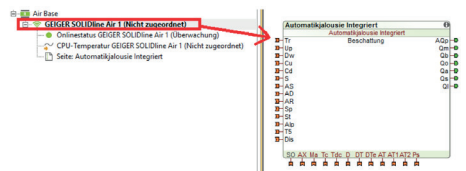
With one click on “start search” search for Air devices in learning mode. All Air devices that are in the learning mode will be listed.



Select the requested device, enter a name and finally click on “create device”.



The device is now shown in the peripheral window. The module “automatic blinds integrated” is automatically created by drag and drop on the respective page. This module is automatically connected to the selected motor.



Configuration in Loxone Config

For configuration, operation and visualization of the GEIGER SOLIDline AIR with Loxone please use the module “automatic blinds integrated”. You can assign it to the motors that are already learnt under block properties “assigned motors”. This occurs automatically if, as mentioned above, the motor has been moved by drag & drop on the configuration page. Please visit our website www.loxone.com/help/solidline for more information on configuration of the GEIGER SOLIDline AIR with Loxone Miniserver.

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10. Obstacle recognition

If a travel movement in UP direction is blocked by an obstacle, the motor switches off and a small return motion takes place.

The running direction in which the obstacle was recognized is blocked.

The block is removed if the motor has been operated in the opposite direction for a certain time. An obstacle must thus first be released before the motor can be operated again in the direction of the obstacle.

11. End position correction



The engine needs to be taught with the end stops (stopper and anti-lift device).

After the setting of the end stops, the motor stops before reaching the upper limit stop in order to avoid a mechanical load of the sun protection.

Checking of the end position, and if appropriate an end position correction, takes place after 5, 20, and then every 50 cycles.

Should a hangings elongation have resulted, due to temperature changes, this is corrected at the next end position correction.

If, due to temperature changes, modified winding behaviour should arise and the hangings should run against the stop, an immediate end position correction takes place. In addition, the counter for the end position correction is started afresh.

12. What to do if...

Problem	Solution
Motor does not run.	<ul style="list-style-type: none">• Motor not plugged in. Please check the plug connection.• Check connecting cable for possible damage.• Check the mains voltage and allow the cause of the voltage breakdown to be tested by a specialist electrician.
Motor runs upwards, rather than downwards.	<ul style="list-style-type: none">• End position order was not observed.• Reset end stops
After several runs, the motor remains still and no longer reacts.	<ul style="list-style-type: none">• The motor has become too hot and has turned itself off. Try again after a cooling period of approx. 15 min.
Motor is not shown in Air Monitor.	<ul style="list-style-type: none">• The learning mode time (30 minutes) is over. Disconnect the motor and repeat the operation
No possible learning of the end positions.	<ul style="list-style-type: none">• The learning mode time (30 minutes) is over. Disconnect the motor and repeat the operation

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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:

GJ56..
GR45..
GU45..
GSI56..

Applied directives:

2006/42/EC
2014/30/EU
2014/53/EU
2011/65/EU

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):2010-07; EN 60335-2-97:2006+A11:2008+A2:2010
EN 60335-2-97:2006/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 55014-2:2009-06; EN 55014-2:1997 + A1:2001 + A2:2008
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, 13.06.2017

Dr. Marc Natusch (General Manager)

100M1518 en 0617

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Current declarations of conformity are available under www.geiger.de

14. Technical data

Technical data of tubular motor SOLIDline-KS (GU45..)					
	GU4510	GU4520	GU4530	GU4540	GU4550
Voltage	230 V~/50 Hz				
Current	0,47 A	0,63 A	0,8 A	1,0 A	1,0 A
Cos Phi (cosφ)	>0,95				
Inrush current (factor)	x 1,2				
Power	105 W	140 W	180 W	220 W	220 W
Torque	10 Nm	20 Nm	30 Nm	40 Nm	50 Nm
Speed	16 rpm	16 rpm	16 rpm	16 rpm	12 rpm
Protection class	IP 44				
Total length¹⁾	516,5 mm	546,5 mm	566,5 mm	586,5 mm	586,5 mm
Operating mode	S2 4 min	S2 5 min	S2 4 min	S2 4 min	S2 4 min
Sound pressure level²⁾	39 dB(A)	41 dB(A)	41 dB(A)	43 dB(A)	-
Diameter	45 mm				
Weight	approx 1,90 kg	approx 2,20 kg	approx 2,40 kg	approx 2,70 kg	approx 2,70 kg
Storage temperature/ Humidity	T = -15°C .. +70°C / dry and non-condensing place				

¹⁾ **SOLIDline-COM** + 3,5 mm / **SOLIDline-SOC**: + 3 mm / **SOLIDline-SIL**: ± 0 mm (without trunnion)

²⁾ 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



15. Maintenance

The drive is maintenance-free.

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 further information and documentation please visit:
www.loxone.com/help/blindmotor-gj56-air

LOXONE

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