

# GEIGER

#### **ANTRIEBSTECHNIK**

#### Contents

Problem and solution	1
Design and features	2
GEIGER Soft-functions	2
Functions	2
Setting the end positions:	3
Motor series SOLIDline	3
Technical data	4









### SOLIDline Easy - Easy installation and high level of comfort for rolling shutters

Commissioning of sun protection drives is now considerably simplified with the new Easy electronic limit stop from GEIGER. The well-known and reliable Easy technology has been further simplified. No need to have a special setting cable, no need to follow a specific sequence and two setting options are available: just Easy!

### **Problem and solution**

### Assembly efficiency

Problem: Because the end positions have to be adjusted again and again until they fit, the installation of rolling shutters often takes too much time.

### Lifetime of the rolling shutter system

Problem: Rolling shutter systems are exposed to extreme conditions such as sun, wind and temperature. Moreover many shutter drives set the curtain under permanent tensile stress: this can over time damage the whole system.

## **Everything from one source**

Problem: Motors and accessories are used from different manufacturers. In some cases this might lead to assembly problems, operational malfunction or even damage.

- Solution: The GEIGER SOLIDline Easy ensures an extremely fast and efficient programming: manual or automatic positioning (Plug & Play). This saves assembly time and money.
- ➤ Solution: The GEIGER SOLIDline Easy has an intelligent curtain protection function. It protects the curtain from unnecessary tension. The rolling shutter remains in shape much longer technically and optically.
- ➤ **Solution:** We provide you with a wide range of fixation solutions for the GEIGER SOLIDline Easy and on request with the appropriate GEIGER anti-lift device.



### Made by GEIGER

GEIGER relies on Germany as production location:
The GEIGER SOLIDline, like all GEIGER motors, is developed and produced in Germany.
This situation allows an optimal combination of R & D, manufacturing processes and quality management.

#### Our clients benefit from:

- Low noise motors
- Low energy consumption, a big plus factor today
- Low heating of the engine and therefore an unusual long running time

### **Design and features**

The SOLIDline Easy meets several market requirements in a quite unusual way:

- ► Installation with manual positioning or
- ▶ Installation with automatic position detection (Plug & Play)
- ▶ Protection of the rolling shutter system with Soft-functions
- ... a well-conceived system: GEIGER SOLIDline Easy

#### **GEIGER Soft-functions**

#### Soft motor intelligence

The GEIGER SOLIDline Easy has a very sensitive intelligence which provides the typical GEIGER "soft shutdown" in the end positions, in order to achieve optimal protection of the curtain.

#### **Soft Position**

Torque shutdowns stress the rolling shutter system more than position shutdowns. Therefore, the GEIGER SOLIDline Easy uses torque shutdowns only when absolute necessary. Torque shutdowns in the upper end position are only made for the programming run and the reference runs after 50 cycles. After installation, there are no further torque shutdowns in the lower end position.

When the end stops are reached, the curtain is no longer submitted to tensile loading - in 98% of the cases. Damages to the system are thus avoided. Moreover, a freezing over night of an angle end bar in the upper end position can also be prevented.

#### Synchronous position in the upper end position

It is a common problem: in case of motors that do not determine the upper end position with torque shutdown in each cycle, the end bars of the different rolling shutters are often positioned at different levels.

The GEIGER motor intelligence ensures that when rolling shutters of different sizes are mounted next to the other, the bottom laths are positioned on the same level. This is a really nice visual upgrade for the house facade for example on balconies with windows and patio doors.



#### **Functions**

#### Programming the end positions

The programming of the end positions is accomplished through a very sensitive torque shutdown or through fixed positioning.

#### Checking the end positions

The correction of the end positions is also accomplished through a sensitive torque shutdown with reference runs after the first 5 and 20 cycles and then after 50 cycles.

Between these reference runs the curtain stops a few millimetres before the shutter box is reached in the upper end position so that there is no permanent tensile load on the curtain.

#### Antifreeze protection

The GEIGER SOLIDline Easy is equipped with an antifreeze protection in UP direction. The situation «curtain frozen to the window sill overnight» is recognized by the system and the curtain will not be damaged. The GEIGER Soft position also prevents the contact between bottom bar and box so that a freezing problem in the DOWN direction is excluded.

#### Obstacle detection

The GEIGER SOLIDline Easy has a sensitive obstacle detection in UP direction.

### Setting the end positions

Note: when setting the end positions with a torque shutdown, stoppers (upper end position) and anti-lift device (lower end position) are necessary.

The motor is preset at the factory with + / - 2,5 rotations. You can begin with the upper or lower end position.

Connect drive connecting cable with a setting cable:

- Press UP and DOWN keys at the same time (motor jerks 1 x)
- 2 Move curtain to the upper end position (alternative to the upper stop. Step 3 is omitted)
- 3 Press UP and DOWN keys at the same time (motor jerks 2 x)
- Move curtain to the lower end position (alternative to the lower stop.
   Step S is omitted)
- Press UP and DOWN keys at the same time (motor jerks 3 x) Ready! the setting process is completed.



The GEIGER SOLIDline motors have been developed for the specific needs of the sun protection industry and the craft trade.

The motor is characterized by:

- Low noise emissions and extremely smooth operation
- Low power consumption and reduced operating costs
- Long service life and high reliability

#### **SOLIDline motor heads**

All SOLIDline motors are available with 2 different motor heads:

- The SOC motor head is optimally designed for installation with star shaped fixation systems. The motor head is universally applicable in the rolling shutter area also together with traditional fastening systems.
- The extremely thin **COM motor head** offers the possibility to optimize the fabric width for screens and facade awnings. The sun protection system can be designed independently from the selected drive. Light slots should be minimized or avoided altogether as in ZIP screens.



SOLIDline-SOC



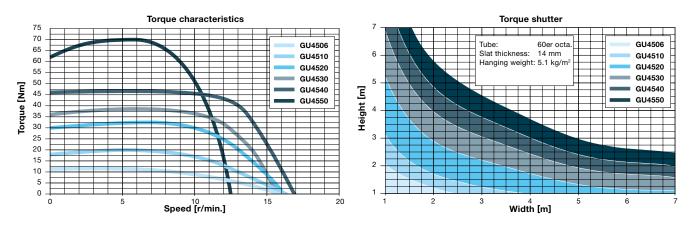
SOLIDline-COM

#### **GEIGER** anti-lift device



Available with 2 or 3 elements for mini and maxi profiles.

### **Technical data**



Technical data of tubular motor SOLIDline-SOC (GU45)							
	GU4510	GU4520	GU4530	GU4540	GU4550		
Voltage	230V~/50Hz						
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 length [I] <sup>1)</sup>	519,5 mm	549,5 mm	569,5 mm	589,5 mm	589,5 mm		
Operating mode	S2 4 min	S2 5 min	S2 4 min	S2 4 min	S2 4 min		
Sound pressure level <sup>2)</sup>	39 dB(A)	41 dB(A)	41 dB(A)	43 dB(A)	-		
Diameter	45 mm						
Weight	ca. 1,90 kg	ca. 2,20 kg	ca. 2,40 kg	ca. 2,70 kg	ca. 2,70 kg		
Air humidity	dry and non-condensing place						
Storage temperature	T = -15°C +70°C						

<sup>1)</sup> SOLIDline-COM + 0,5 mm

Subject to technical modifications. Please find information to the ambient temperature range of our GEIGER motors under www.geiger.de.



The name GEIGER Antriebstechnik is synonymous worldwide for drive solutions in the sun protection area.

Today we are with about 250 employees one of the leading manufacturers of mechanical and electrical drives for Venetian blinds, awnings and rolling shutters. GEIGER is a well-known, mid-sized company which offers worldwide drive components for the sun protection systems.



<sup>&</sup>lt;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.