



GEIGER SOLIDline AIR VW

The all-rounder – Smart Home Ready

Problem and solution



Customer Benefits

- ▶ Invest in future-proof sun protection.
- ▶ Start with a small solution and extend at any time with the Smart Home extensible solutions.
- ▶ No dependence on sun protection manufacturers and their Smart Home solutions.
- ▶ Broad approach with the comprehensive Smart Home concept.

Assembly efficiency

PROBLEM:

Radio motors offer much flexibility. And yet the different installation situations may require to use different types of motors.

SOLUTION:

The all-rounder **SOLIDline AIR VW** solves this problem!

It is optimally suited for operation with rolling shutters, folding arm awnings and screens and provides another substantial increase in flexibility.

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.

SOLUTION:

The **SOLIDline AIR VW** has an intelligent curtain protection function. It protects the curtain from unnecessary tension. The rolling shutter remains in shape much longer – technically and optically.

One motor for all situations

PROBLEM:

Each rolling shutter is different: either with upper and lower stop or without stops or with one stop only. Awnings generally have no stops for the the extended position. Various types of motors are required to cover the different situations.

SOLUTION:

The **SOLIDline AIR VW** is best suited for all situations. Stops and anti-lift device can be used – but are not obligatory. Maximum versatility is guaranteed.

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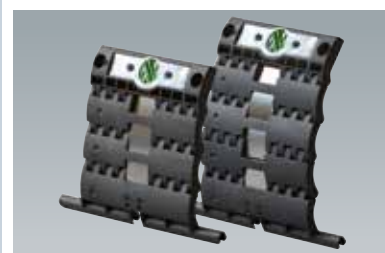
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GEIGER SOLIDline AIR VW

Application fields

- Rolling shutters with and without stoppers / anti-lift device
- Open style folding arm awnings
- Facade awnings
- Screens

GEIGER anti-lift device



Available with 2 or 3 elements for mini and maxi profiles

■ Design and features

The **SOLIDline AIR VW** 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 and awning systems with Soft-functions**
- ... a well-conceived system: **SOLIDline AIR VW**

■ GEIGER Soft-functions

Plug & Play

The **SOLIDline AIR VW** simplifies the installation significantly: only one operation to the upper and the lower end stop for the rolling shutters with stops and anti-lift device. Done! Plug & Play!

Soft motor intelligencez

The **SOLIDline AIR VW** 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 **SOLIDline AIR VW** 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.

■ 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 millimeters before the shutter box is reached in the upper end position so that there is no permanent tensile load on the curtain.

Intermediate position

An intermediate position can be used with the **SOLIDline AIR VW**. The customer can set it or change it in a very easy way with the remote control.

Antifreeze protection

The **SOLIDline AIR VW** 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 **SOLIDline AIR VW** has a sensitive obstacle detection in UP direction and a blocking detection in DOWN direction.

■ Setting the end stops

The **SOLIDline AIR VW** gives the technician the opportunity to react flexibly to the assembly situation on site.

The **SOLIDline AIR VW** always fits – whether open style folding arm awnings or rolling shutters.

The rolling shutter or screen is equipped with:

- End bar with stopper with anti-lift device
- End bar without stopper with anti-lift device
- End bar with stopper without anti-lift device
- End bar without stopper without anti-lift device

The awning is equipped with:

- Awning arm used as stop
- No stops are used (arms cannot be used as stoppers)



The GEIGER motors, series SOLIDline AIR, are compatible

What means Smart Home Ready?

at each expansion level with the LOXONE Miniserver-based Smart Home System. The motors can be connected via radio at any time with a Miniserver.

No time-consuming and labour-intensive laying of control lines is needed. The GEIGER AIR products and all Loxone products such as heating regulators, smoke

detectors, radio sockets and lighting controls (and many more) can be combined together to create a Smart Home Control.

Extension levels – Modular system

The stand-alone-solution with classic operation.

GEIGER AIR

The new radio concept GEIGER AIR has been designed for the integration of the sun protection drive. GEIGER AIR is a bidirectional radio system.

With this system it is not only possible to send orders from the transmitter to the motor but also to receive and evaluate feedback from the motor. Each wireless command is acknowledged when executed, which eliminates sources of error. You can also control the position of the sun protection and check the possible presence of an obstacle.

Moreover, each motor serves as amplifier (Mesh technology). The use of mesh networking means that you have a much larger coverage area than other wireless standards. Commands and messages are sent from the sender to each available AIR

motor which can act as a router and pass the signal on to other devices. The range of the radio system increases by a multiple.



For building renovation.

Miniserver GO + GEIGER AIR

The easy solution for the modernization or retrofitting of buildings. Along with Smart sockets, smoke detectors and heating valves from the Loxone AIR range, up to 126 GEIGER AIR motors can be connected and controlled through the integration of a Loxone Miniserver GO for a compact Smart Home Control.

Energy for heating and air conditioning can be saved depending on the season and the sunlight. At the same time by using the LOXONE Miniserver GO the sun protection can be operated via Smartphone, Tablet or PC - even if the customer is not at home.



For new buildings or comprehensive building renovation.

Miniserver + AIR Base Extension + GEIGER AIR

At this configuration level, just everything is possible.

The Smart Home automatically detects situations such as presence, temperature, weather, fire, intrusion, sunset and even more. It knows autonomously what to do and makes your home intelligent.

When nobody is home, the Smart home is still busy: switching off energy guzzlers, turning down the temperature, activating the alarm in case of burglary or fire, shading by hot weather. It helps - without assistance - to save energy: for example, lowering the temperature in rooms that are not being used, switching off the light automatically after some time, turning off energy guzzlers etc. ...

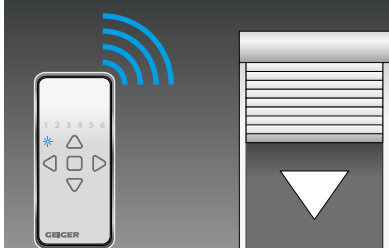
At the same time by using the LOXONE Miniserver with the AIR Base Extension the complete Smart Home can be operated

via Smartphone, Tablet or PC – even if the customer is not at home.



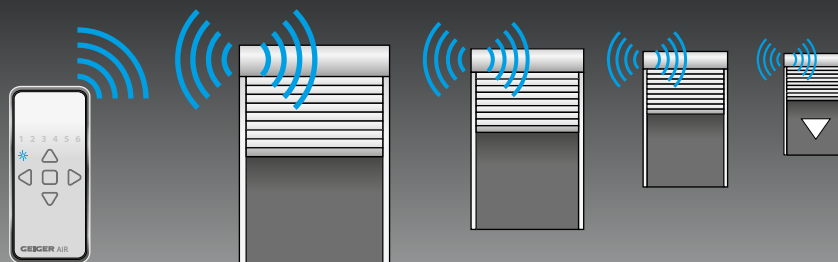
Bi-Directional

Unidirectional radio



The new radio system GEIGER AIR is a bidirectional radio system with Mesh technology. The orders sent to a motor are confirmed after execution.

GEIGER AIR: bidirectional radio with mesh technology



Errors that may occur are also reported. Each motor also works as a wireless signal repeater. This means that having multiple motors guarantees a wireless

coverage across the whole house, which makes it easy to overcome construction-related constraints such as thick concrete walls.

Technical Data

Technical data of tubular motor SOLIDline-KS (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 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
Ambient temperature / humidity	Operation: T = -10°C .. +60°C / H max. 90% Storage: 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



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

Today we are with more than 320 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.

Loxone Electronics, founded in 2009, has revolutionized with his green Miniserver the Smart Home market. Located in Kollerschlag, Austria, Loxone today counts with more than 250 employees at 12 locations to one of the fastest growing companies in the sector.

With the Miniserver-based home automation, the Loxone Smart Home provides hardwired and radio-controlled components in order to monitor and control the house.