



# SMART HOME

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DRIVE SOLUTIONS  
WITH AIR

**GEIGER**  
ANTRIEBSTECHNIK



# SIMPLY SMART WITH AIR



*Automated sun protection makes life more comfortable and safer. The smart wireless AIR drives take away all the burden from you with a sun protection system that thinks for itself. For a full smart home, you can simply connect the AIR to a smart-home solution from GEIGER partner Loxone.*

<i>Loxone Smart Home</i>	—	<b>16</b>
The system with the highest IQ - Loxone connects all components and trades in your house to control the technology virtually on its own.		
<i>Mounting</i>	—	<b>18</b>
Ready for use in next to no time - AIR works wirelessly and is quick to install.		
<i>Wireless AIR technology</i>	—	<b>19</b>
No distance is too far - AIR will reach every nook and cranny and check every system command.		
<i>Smart Home Ready</i>	—	<b>19</b>
The gateway to the smart world - AIR can be connected with the entire building technology in the smart home.		
<i>Expandable system</i>	—	<b>20</b>
Equipped for the future - AIR can be expanded from mere motorised sun protection to a smart home.		
<i>Drive overview</i>	—	<b>21</b>



# LOXONE SMART HOME THE SYSTEM WITH THE HIGHEST IQ

*Life can be that simple: The Loxone smart home system connects sun protection with all components and systems in the house - like a human nervous system. Climate, temperature, shading, and lighting all adjust themselves without intervention. Comfort, feel-good atmosphere, and relaxation included.*

## 60,000 happy smart home owners

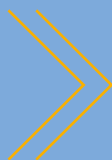
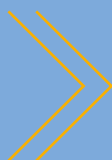
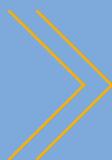
This encompasses the experience of Loxone to date. This also reflects just how well the smart home solution is received by building owners and residents. Their smart homes think just like them and adapt to their needs.

## 50,000 fewer actions to be taken

That's how much work a smart home from Loxone does for its residents. It remains active around the clock, working adjusted to season, weather, presence, and lifestyle. It frees up time for the nicer things in life.

## The best energy-cost brake

This is how well the Loxone smart home knows its residents: It will know when and where someone is in the house and switch off heating, lighting, etc. in unused rooms. The photovoltaic system supplies free energy while the sun is shining. The smart home uses this to run the washing machine, tumble dryer, or dishwasher, amongst other things.





## Real Smart Home

Not all smart homes are created alike: Far from being merely a technical gimmick, a smart home by Loxone offers tangible added value. The system connects all rooms and areas of life from the basement to the attic, from the front door to the garden, from mobility to relaxation. Whether access solution or smart garden, sauna, or pool, photovoltaics or e-mobility: Loxone integrates them all. The result is truly smart - the "Real Smart Home".



## My house, my data

Loxone preserves privacy. The smart home works outside of the cloud. Personal data are not stored online in a cloud somewhere in the world. They remain protected on the Loxone miniserver right there in your own home. Third parties have no access to them.



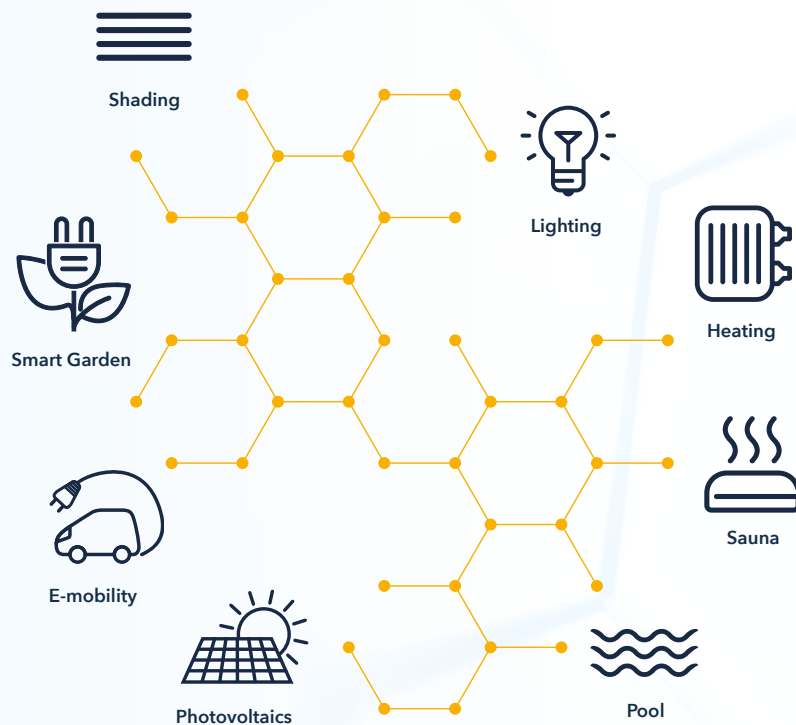
## Automatic or self-operated

The Loxone smart home can do all the work automatically while the residents can sit back and relax. Where necessary, control can be taken over via the convenient keypads in the house - for example, to control sun protection in the child bedroom. Another option is simply using a smartphone app to pre-heat the sauna while on the way home.



## Looking to the future

New products are constantly being developed in Loxone's "Future Lab". Constant updates keep every smart home up to date and new functions are added free of charge every year.





# FEATURES

## MOUNTING

*Quick and easy to use - simple handling is a matter of course for a GEIGER drive. We know how to make installation, maintenance, and operation of our products easier for our customers.*

### Wireless communication

AIR works wirelessly, which makes it quick to install and retrofit. No bus line is required for communication between the components. There is no opening of walls for renovations, barely any dirt, and virtually no effort. This not only saves time, but also reduces costs.

### Plug-in cables and tool-free mounting

Our drives have plug-in connection cables. Their motors can be connected to or disconnected from the mains in the blink of an eye during retrofitting or replacement. Many of our fixation kits can be inserted and attached tool-free. Our installation accessories are developed in close cooperation with the sun protection manufacturers. We keep subsequent installation in mind from the development stage, customising our mounting accessories precisely to any requirements our customers may have.

### Simple end position adjustment

End position programming is an important and sometimes complicated part of commissioning. We have, therefore, made setting the end positions as simple as possible.

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## WIRELESS AIR TECHNOLOGY

*No distances too far - the wireless AIR technology checks every single system command for safety while also covering long distances or houses with many nooks and crannies.*



### MESH technology

No matter how big the house or how thick the wall: AIR will reach everywhere. This is because all AIR drives are equipped with MESH technology. This means that each drive not only receives signals, but also passes them on to its neighbours as an amplifier via the fastest possible route.



### Secure communication

AIR drives are equipped with bidirectional radio. Commands are thus not only received, but also confirmed after execution; otherwise, an error message will be returned. This means that the system and user both know what is happening with every individual sun protection element.




### Grouping

AIR can combine multiple blinds into a group - for example grouping all rolling shutters in the living room. They will be controlled simultaneously to do exactly the same thing. This is not only easier and safer to use, it also looks better.

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## SMART HOME READY

*The gateway to the smart world - AIR can be connected with the entire building technology in the smart home.*



### Integration into a future-proof smart home control

The innovative wireless AIR technology makes your sun protection **smart home ready**. Connecting AIR to the Loxone miniserver will integrate the sun protection system into a full smart home control system. This communication with other smart home technology such as heating, lighting, security technology, and ventilation. All components speak the same language and complement each other in their functions - for more convenience, greater energy efficiency, and improved security.

# FEATURES

## EXTENSIBLE SYSTEM

*Ready for the future - a single AIR drive can be expanded from motorised sun protection with radio control to fully connected shading in the smart home.*

### GEIGER mode

AIR drives, handheld transmitters and weather station form a stand-alone system in **GEIGER mode**. They are controlled manually or with the AIR weather station. Sensors register wind, sun, and rain, using them to control sensitive textile blinds and external Venetian blinds. Awnings, for example, are ideally protected from environmental influences.

### Loxone mode

The AIR drives and the AIR weather station become a fully connected sun protection system when docked to the Loxone miniserver. Solar energy is optimally utilised by combining it with other building technology. This increases a building's energy efficiency to save costs for heating and cooling. The precisely tuned light control also ensures a pleasant room climate and a comfortable atmosphere.

### Regular system enhancements

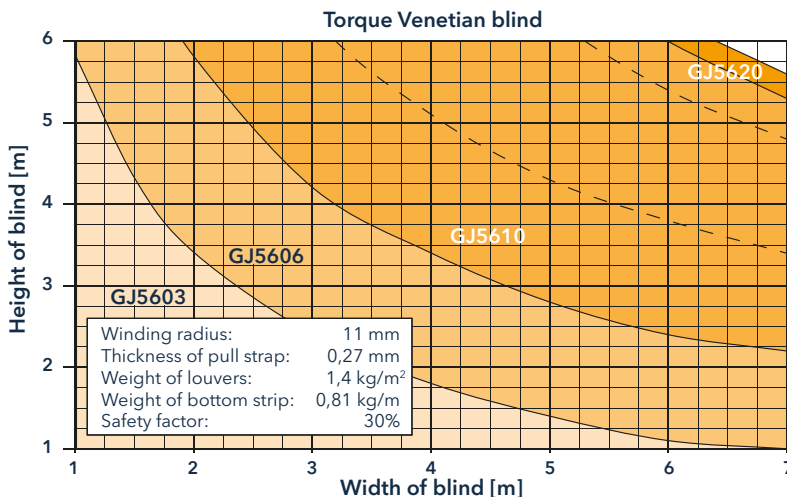
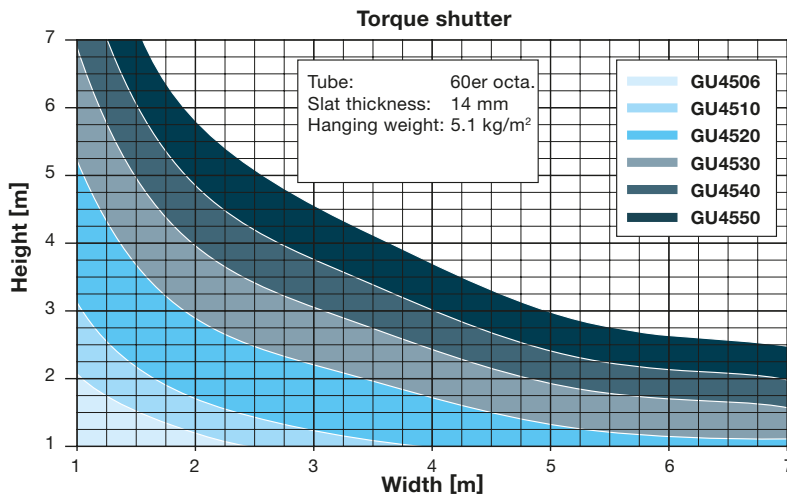
GEIGER will continue to expand the AIR product family in the future to make sun protection even smarter. The smart home solution by Loxone also integrates numerous partners from all areas of home technology. New devices and functions are regularly added to the system. Updates and easy integration of accessories turn the smart home just as individual and flexible as its residents.

# LOXONE

# MOTOR MATRIX AIR

	Flex AIR	Sun AIR	Zip AIR	GJ56... AIR	Accessories AIR
	Page 22	Page 24	Page 26	Page 28	Page 30
<b>AIR radio system</b>					
MESH system	■	■	■	■	■
Bidirectional radio system	■	■	■	■	■
<b>Smart Home Ready</b>					
Selectable GEIGER mode	■	■	■	■	■
Selectable Loxone mode	■	■	■	■	■
<b>Modular system</b>					
Updatable*	■	■	■	■	■
Easy integration of accessories	■	■	■	■	■
<b>Mounting</b>					
Plug-in cables	■	■	■	■	
Tool-free mounting	■	■	■	■	
Easy end position setting	■	■	■	■	

\* if connected to the Miniserver or Miniserver Go



## SOLIDline Flex AIR

Tubular motor with AIR  
radio system Ø 45 mm



### Application:



Rolling shutters



Open style folding arm awnings



Screens

### Characteristics:

#### AIR



With the AIR portfolio, we offer a bidirectional radio solution that is already **Smart Home Ready**. All AIR drives can be easily and intelligently integrated into the building control system of our exclusive development partner Loxone.

#### MESH technology



All AIR drives are equipped with MESH technology. This means that every drive acts as an amplifier of the radio signal.

#### Soft position



The hanging stops before reaching its upper end position to protect the materials.

#### Burglary resistance



A constant torque cut-off in the DOWN direction allows the rolling shutter to develop its burglary-resistant effect. (Only possible in combination with anti-lifting devices.)

#### Plug & Play



Autonomous detection of the end positions without time-consuming adjustment work in the installation procedure. Done in only one up and down movement. Quick and precise adjustment of the end positions (when used with stoppers and anti-lift devices).

#### Hanging protection

The integrated sensitive motor intelligence ensures that ...

##### ■ Antifreeze protection

... the hangings that are frozen to the windowsill are detected and not torn off.



##### ■ Obstacle detection in UP direction

... the system is protected during retraction.



#### Referencing



Every 50 cycles, a reference run is carried out to check whether the end positions are right. For this purpose the hanging moves to the upper end position until the drive switches off to torque. The end positions are checked and corrected if necessary.

#### Intermediate position



An additional desired position can be taught in at any time.

### Product advantages:

- Electronic limit stop
- Automatic detection left and right installation
- Can be connected in parallel
- Plug-in connection cable in different lengths

### Notices:

- Setting the end positions via handheld or wall-mounted transmitters

### Options:

- Available with SOC or COM head
- Available with faster motor upon request

### End position adjustment:

TOP	*Stop on torque	BOTTOM	*Stop on torque
	Stop on free position		Stop on free position

\* Stopper and anti-lift device/rigid tube connector

## Technical data:

Technical data 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
Limit switch-off range	> 200 revolutions				
Protection class	IP 44				
Total length [l] <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	approx. 1.90 kg	approx. 2.20 kg	approx. 2.40 kg	approx. 2.70 kg	approx. 2.70 kg
Humidity	dry, non-condensing				
Storage temperature	T = -15 °C ... +70 °C				

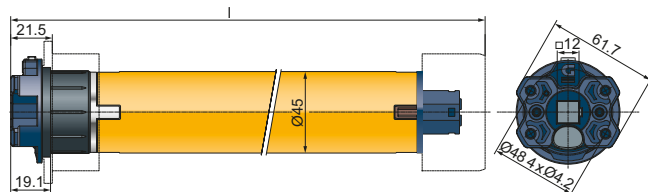
1) SOLIDline-COM + 0.5 mm

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.

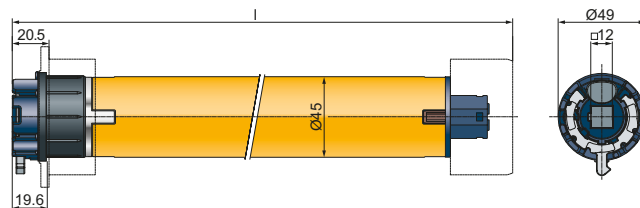
Subject to technical changes. Find information to the ambient temperature range of our GEIGER motors under [www.geiger.de](http://www.geiger.de).

## Drawings:

### SOC:



### COM:



## Accessories:

	Engine bearer	124		Anti-lift device	136
	Adaptor/driver	130		Accessories AIR	30
	Connection cables	134			

## SOLIDline Sun AIR

Tubular motor with AIR  
radio system Ø 45 mm



# LOXONE

### Application:



Cassette awnings

### Characteristics:

#### AIR



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#### MESH technology



All AIR drives are equipped with MESH technology. This means that every drive acts as an amplifier of the radio signal.

#### Plug & Play



Autonomous detection of the end positions without time-consuming adjustment work in the installation procedure. Done in only one up and down movement. Quick and precise adjustment of the end positions (when used with stoppers and anti-lift devices).

#### Hanging protection

The integrated sensitive motor intelligence ensures that ...

##### ■ Antifreeze protection

... the hangings that are frozen on the windowsill are detected and not torn off.



##### ■ Obstacle detection in UP direction

... the system is protected during retraction.



#### Intermediate position



An additional desired position can be taught in at any time.

### Product advantages:

- Electronic limit stop
- Automatic detection left and right installation
- Can be connected in parallel
- Plug-in connection cable in different lengths

### Notices:

- Setting the end positions via handheld or wall-mounted transmitters

### Options:

- Available with SOC or COM head
- Available with faster motor upon request

### End position adjustment:

TOP	Stop on torque	BOTTOM	Stop on free position
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\* Stopper and anti-lift device/rigid tube connector

## Technical data:

Technical data 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
Limit switch-off range	> 200 revolutions				
Protection class	IP 44				
Total length [l]1)	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 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
Humidity	dry, non-condensing				
Storage temperature	T = -15 °C ... +70 °C				

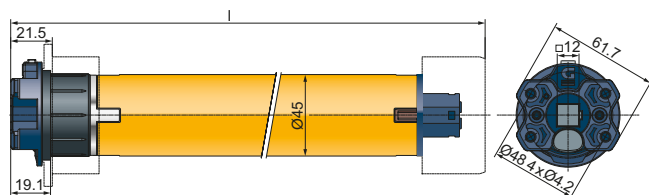
1) SOLIDline-COM + 0.5 mm

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.

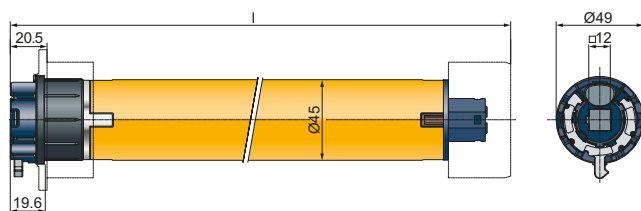
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## Drawings:





SOC:



COM:



## Accessories:

	Engine bearer	124		Connection cables	134
	Adaptor/driver	130		Accessories AIR	30

## SOLIDline Zip AIR

Tubular motor with  
AIR radio system Ø 45  
mm



### Application:



ZIP screens

### Characteristics:

#### AIR



With the AIR portfolio, we offer a bidirectional radio solution that is already **Smart Home Ready**. All AIR drives can be easily and intelligently integrated into the building control system of our exclusive development partner Loxone.

#### MESH technology



All AIR drives are equipped with MESH technology. This means that every drive acts as an amplifier of the radio signal.

#### Soft position



The hanging stops before reaching its upper end position to protect the materials.

#### DualStop control



If the system detects an obstacle, the motor moves the hanging in the opposite direction at a fixed value. After two further unsuccessful attempts, the system moves to its safety position (upper end position). This applies in UP and DOWN direction.

#### Intermediate position



An additional desired position can be taught in at any time.

#### Plug & Play



Autonomous detection of the end positions without time-consuming adjustment work in the installation procedure. Done in only one up and down movement. Quick and precise adjustment of the end positions (when used with stoppers and anti-lift devices).

#### Hanging protection

The integrated sensitive motor intelligence ensures that ...

##### ■ Antifreeze protection

... the hangings that are frozen to the windowsill are detected and not torn off.



##### ■ Obstacle detection in UP direction

... the system is protected during retraction.



##### ■ Blockage detection in DOWN direction

... the system is protected when extending.



#### Referencing



Every 50 cycles, a reference run is carried out to check whether the end positions are right. For this purpose the hanging moves to the upper end position until the drive switches off to torque. The end positions are checked and corrected if necessary.

### Product advantages:

- Electronic limit stop
- Automatic detection left and right installation
- Can be connected in parallel
- Plug-in connection cable in different lengths

### Notices:

- Setting the end positions via handheld or wall-mounted transmitters

### Options:

- Available with SOC or COM head
- Available with faster motor upon request

### End position adjustment:

TOP	*Stop on torque Stop on free position	BOTTOM	*Stop on torque Stop on free position
-----	--	--------	--

\* Stopper and anti-lift device/rigid tube connector

## Technical data:

Technical data tubular motor SOLIDline-SOC (GU45..)					
	GU4510	GU4520	GU4530	GU4540	GU4550
Voltage	230V~/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
Limit switch-off range	> 200 revolutions				
Protection class	IP 44				
Total length [l] <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	approx. 1.90 kg	approx. 2.20 kg	approx. 2.40 kg	approx. 2.70 kg	approx. 2.70 kg
Humidity	dry, non-condensing				
Storage temperature	T = -15 °C ... +70 °C				

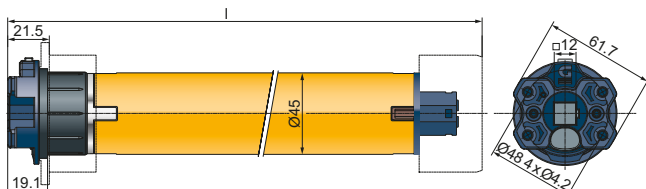
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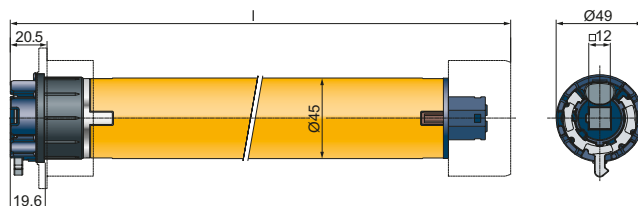
Subject to technical changes. Find information to the ambient temperature range of our GEIGER motors under [www.geiger.de](http://www.geiger.de).

## Drawings:

### SOC:



### COM:

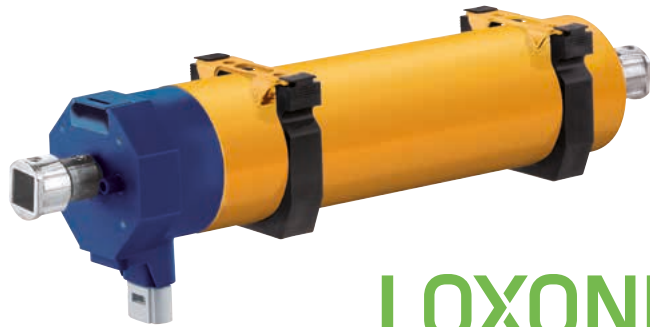


## Accessories:

	Engine bearer	124		Connection cables	134
	Adaptor/driver	130		Accessories AIR	30

## GJ56.. AIR

AIR radio system  
Venetian blind motor



# LOXONE

### Application:



Venetian blinds

### Characteristics:

#### AIR



With the AIR portfolio, we offer a bidirectional radio solution that is already **Smart Home Ready**. All AIR drives can be easily and intelligently integrated into the building control system of our exclusive development partner Loxone.

#### MESH technology



All AIR drives are equipped with MESH technology. This means that every drive acts as an amplifier of the radio signal.

#### Dynamic torque cut-off



The self-learning torque shutdown detects changes in the blind and adapts itself accordingly to ensure constant movement behaviour.

#### Referencing



Optional referencing makes it possible to compensate for changes in winding behaviour. A reference run is performed every 50 cycles. The function can be deactivated using handheld and wall-mounted transmitters.

#### Hanging protection

##### ■ Antifreeze protection

external blinds that are, for example, frozen to the end rails are detected and not torn off.



##### ■ Obstacle detection in the UP direction

Protection of the system during retraction.



##### ■ Safety shutdown

The GJ56.. The F03 series has an overrun limit switch. It serves as an "emergency button" and protects the system from damage.



#### Intermediate position



An additional desired position can be taught in at any time.

#### Adjustable slat base angle



The adjustable slat base angle is important to ensure a uniform approach to the intermediate position with the set slat angle. Slats have different angles when the hanging is opened and closed. The drive must know by how many degrees it must turn in the opposite direction to compensate for this behaviour in an intermediate position so that the slats have the same angle.

### Product advantages:

- Electronic limit stop
- Start-up time approx. 100 ms
- Can be connected in parallel
- Plug-in connection cable in different lengths
- Overrun limit switch for safety shutdown
- Secure mounting in all standard head rails
- Proven motor and brake concept

### Notices:

- Setting the end positions via handheld or wall-mounted transmitters

### Options:

- Available as **SILENT** drive up to 10 Nm, for indoor use only
- Extensible overrun limit switch possible

### End position adjustment:

TOP	*Stop on torque Stop on free position	BOTTOM	Stop on free position
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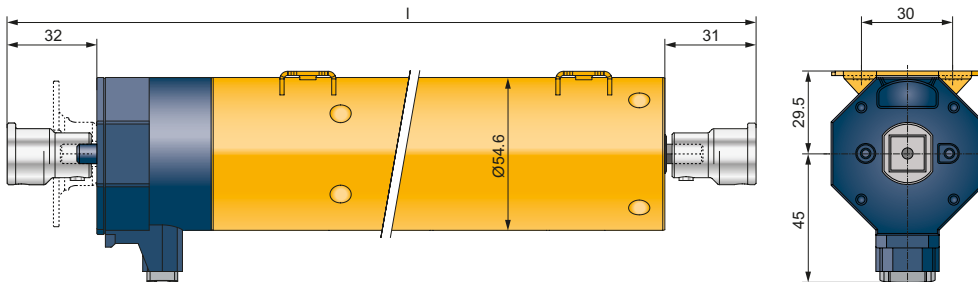
\*Hitting of the overrun limit switch

## Technical data:


Technical data GJ56... F03			
	GJ5606k F03	GJ5610 F03	GJ5620 F03
Voltage	230V~/50Hz		
Current	0.40 A	0.60 A	0.85 A
Cos Phi (cosφ)	>0.95		
Inrush current (factor)	x 1.2		
Power	93 W	135 W	190 W
Torque	6 Nm	10 Nm	2 x 10 Nm
Speed	26 rpm		
Protection class	IP 54		
Limit switch-off range	200 rev.		
Operating mode	S2 4 min.		
Total length [l] (with cpl.)	319.5 mm	329.5 mm	356.7 mm
Diameter	55 mm		
Weight	approx. 1.50 kg	approx. 1.70 kg	approx. 2.20 kg
Humidity	dry, non-condensing		
Storage temperature	T = -15 °C ... +70 °C		

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

## Drawings:



## Accessories:

	Connection cables	175		Coupling pieces	170
	Fixing systems	172		Accessories AIR	30

## Weather station AIR



# LOXONE

### Characteristics:

#### Ambient Light Sensor



Assigned drives move to their shading or protection position when the preset brightness values are reached.

#### Windmill



The targeted drives move into their protection positions when the set wind speed is reached.

#### Rain sensor



The drives move to their protection positions when rain is detected.

#### Temperature sensor (Loxone mode)



The drives react to the individually stored command in conjunction with the Loxone miniserver when a set temperature is reached.

#### Alive function



The Alive signal is an integrated early warning system that moves all AIR drives connected to the weather station to their safety positions in the event of a power failure.

#### MESH technology



Communication between the weather station and all drives takes place via MESH technology when powered by a 24V power supply unit. This bidirectional radio system confirms commands sent to a drive after they have been executed or reports any errors that have occurred.

### Product advantages:

- Detection of external environmental influences: Sun, wind, rain, and temperature
- Wind speed measurable up to 145 km/h (Loxone mode)
- Heated rain sensor (24V)
- Battery and mains operation (24V) possible
- Can be used with all GEIGER AIR drives
- Incl. batteries and mounting accessories for wall and pole mounting (max. ø 50 mm)

#### Application

- Weather-dependent, automatic control of the sun protection system
- Textile sun protection (screens, ZIP screens, and awnings)
- Rolling shutters and Venetian blinds

Part no.	Colour	Number of channels	Automatic sun control
GF3000	<input type="checkbox"/> white	-	-

### Technical data:

Technical data weather station AIR	
Power supply	24 V DC or 2x1.5 V AA batteries
Power consumption	70 mW max. 1.1 W (24 V DC), 14 µW / 39 mW (battery operation)
Transmission frequency	868 MHz (SRD Band Europe), 915 MHz (ISM Band Region 2)
Range	up to 30 metres (battery operation), up to 145 metres (24 V DC)
Ambient temperature	-20 °C ... 54 °C (battery operation), -30 °C ... 85 °C (24 V DC)
Wind measuring range	20 ... 65 km/h (in Loxone mode 9 ... 145 km/h)
Brightness measuring range	0 ... 188,000 lux
Temperature measuring range	-40 °C ... 125 °C (Loxone mode)
Protection class	IP44

Subject to technical changes.

## AIR radio accessories

### Your options

#### Handheld and wall transmitters LC AIR

##### GF2900 | Handheld transmitter Remote AIR



#### Characteristics

- 3 channels
- Feedback from the drive via a coloured LED
- Control of the sun control system

#### Application

- Setting and operating the sun protection system

#### Note

- Can only be operated in GEIGER mode!

Part no.	Colour	Number of channels	Automatic sun control
GF2900	<input type="checkbox"/> white	3	yes

##### GF230. Handheld transmitter LC AIR



#### Characteristics

- 6 channels with channel display on the transmitter
- Feedback from the drive via coloured LEDs
- Control of the sun control system
- Wipeable SoftTouch surface
- Incl. magnetic holder (handheld transmitter) and mounting material

#### Application

- Setting and operating the sun protection system

Part no.	Colour	Number of channels	Automatic sun control
GF2300	<input type="checkbox"/> grey/white	6	yes
GF2301	<input checked="" type="checkbox"/> grey/black	6	yes

##### GF280. Wall transmitter LC AIR



#### Characteristics

- 6 channels with channel display on the transmitter
- Feedback from the drive via coloured LEDs
- Control of the sun control system
- Wipeable SoftTouch surface

#### Application

- Setting and operating the sun protection system

Part no.	Colour	Number of channels	Automatic sun control
GF2800	<input type="checkbox"/> grey/white	6	yes
GF2801	<input checked="" type="checkbox"/> grey/black	6	yes

