VENETIAN BLINDS & EXTERNAL BLINDS

MECHANICAL
DRIVE SOLUTIONS

GEIGER
ANTRIEBSTECHNIK

External drives series 434F6..

The crank gearbox for demanding customers

The advantages of external blinds in technical sun protection have become established worldwide. GEIGER has developed the 434F6.. gearbox series to meet the increased requirements in this area.

High degree of operating convenience

- Optimised gearing and state-of-the-art materials contribute to reduce significantly the operating force. The 434F6.. gearbox is much easier to operate than the conventional gears used up to now. Crank operation requires up to 30% less effort.

High strength and durability

- Both the **gearing of the drive** and the **brake** are designed for resilience and a long service life. We guarantee this with a manufacturer's declaration for 10,000 cycles in accordance with the DIN EN 14203 standard.
- A **new braking system** ensures that the external blinds are reliably held in position in the event of high wind loads or continuous moderate wind loads and slight jolting movements.

Broad product range

- GEIGER offers the right input and output profiles for all products – some of which were installed decades ago.
  We have fastening systems for all external blind top boxes used worldwide.
- You only need one supplier in the field of drive technology thanks to GEIGER's broad product range.

Colour specifications and print presentation

The colours specified and shown in the catalogue are only reference values. RAL colours may deviate from the RAL specifications depending on the surface or base material. The colour fields shown in the tables may be displayed differently due to printing-related deviations.

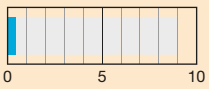
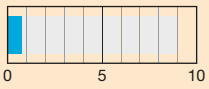
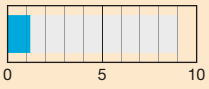
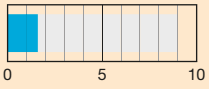
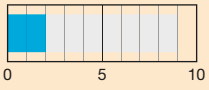
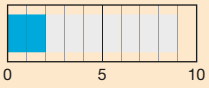
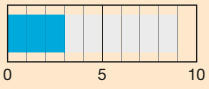
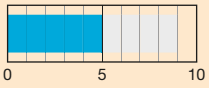
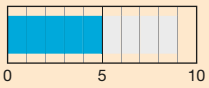
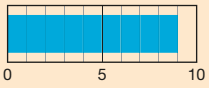
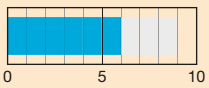
Drawings and dimensions

The technical drawings shown in this catalogue refer to a product from a series.
Dimensions from the drawings cannot be used for all items in some cases.

If required, please request exact dimensional drawings for the selected item.

Technical changes and errors excepted

Drive overview

		Top box	Gear reduc-tion	Efficien-cy	Max. output torque	
	**427F6.. | Chain gear 3:1** **P. 196**	25 mm	3:1	0.81	0.40 Nm	
	**429F... | Bevel gearbox 1:1** **P. 199**	25 mm	1:1	0.67	0.75 Nm	
	**427F... | Cord drive 2.6:1** **P. 197**	40 mm > 50 mm	2.6:1	0.64	1.20 Nm	
	**427F2.. | Cord drive 3.25:1** **P. 197**	40 mm	3.25:1	0.64	1.60 Nm	
	**431F5.. | Bevel gearbox 1.2:1** **P. 200**	40 mm	1.2:1	0.72	2.00 Nm	
	**431F1.. | Bevel gearbox 1.2:1** **P. 200**	40 mm	1.2:1	0.55	2.00 Nm	
	**434F3.. | Bevel gearbox 2:1** **P. 202**	> 50 mm	2:1	0.57	3.00 Nm	
	**434F39. | Driver inserts for bevel gearboxes 433F.../434F...** **P. 202203**	> 50 mm	2:1	0.72	5.00 Nm	
	**434F6.. | Bevel gearbox 2:1 with mounted extension** **P. 203**	> 50 mm	2:1	0.72	5.00 Nm	
	**433F... | Bevel gearbox 3:1** **P. 201**	> 50 mm	3:1	0.76	9.00 Nm	
	**430F5.. | Angle gear** **P. 207**	-	1:1 1.5:1 1:1.5	0.83	6.00 Nm	

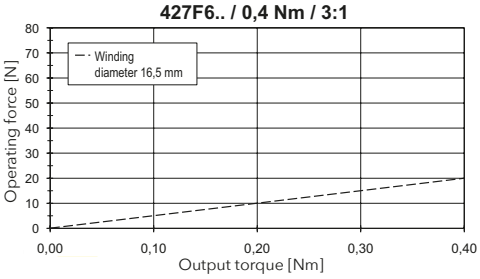
427F6.. | Chain gear 3:1

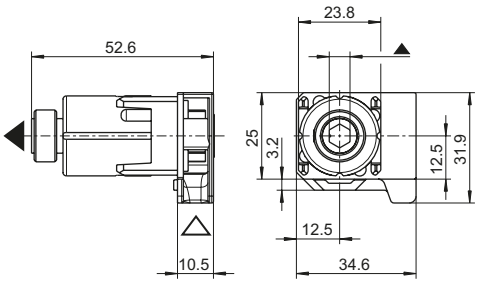
Application: **Venetian blinds, plissé blinds with 25 mm top box**

Max. output torque	**0.4 Nm**
Gear reduction	**3:1**
Efficiency	**0.81**

Characteristics

- The entire glass dimension can be utilised for window shading by deflecting the bead chain on the room side
- For chains with 4.5 mm bead diameter and 6 mm spacing
- Left and right gearbox version





Part no.	Colour	Output ▼	Installation side	Fixation
427F600	RAL 9016	6 mm	right	without cord guide
427F601	RAL 9016	6 mm	left	without cord guide
427F606	RAL 9016	5 mm	right	without cord guide
427F607	RAL 9016	5 mm	left	without cord guide
427F615	RAL 7001	6 mm	left	without cord guide
427F616	RAL 9005	6 mm	left	without cord guide
427F617	RAL 9005	6 mm	right	without cord guide
427F618	RAL 7001	6 mm	right	without cord guide
427F660	RAL 9016	6 mm	right	cord guide
427F661	RAL 9016	6 mm	left	cord guide
427F662	RAL 7001	6 mm	right	cord guide
427F663	RAL 7001	6 mm	left	cord guide
427F664	RAL 9005	6 mm	right	cord guide
427F665	RAL 9005	6 mm	left	cord guide
427F666	RAL 9016	5 mm	right	cord guide
427F667	RAL 9016	5 mm	left	cord guide

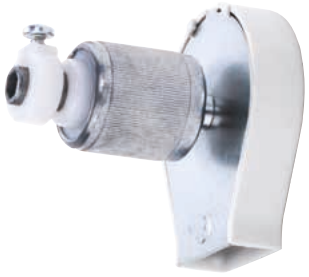
427F... | Cord drive 2.6:1

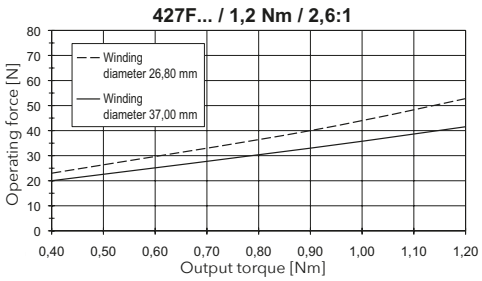
Application: **Venetian blinds with 40 mm top box**

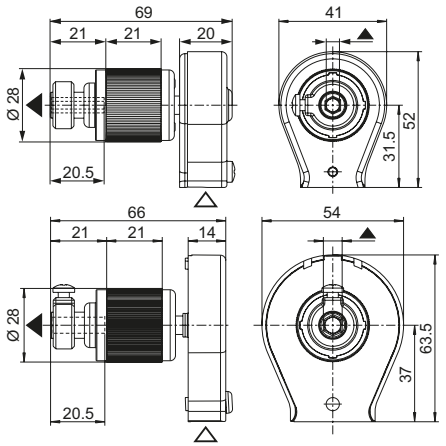
Max. output torque	**1.2 Nm**
Gear reduction	**2.6:1**
Efficiency	**0.64**

Characteristics

- Tried and tested and reliable
- Two cord wheel diameters available (see drawing)
- For cords with a diameter of 4.5 mm
- One gearbox version for left or right-hand installation
- See 427F... for matching gearbox holders for various top box dimensions. Gearbox holder







Part no.	Colour	Drive △	Output ▼	Comment
427F105	RAL 7035	small cord wheel	5 mm	Plastic fixation ring
427F106	RAL 7035	small cord wheel	6 mm	Plastic fixation ring
427F107	RAL 7035	small cord wheel	7 mm	Plastic fixation ring
427F108	RAL 7035	Large cord wheel	6 mm	Plastic fixation ring
427F109	RAL 7035	Large cord wheel	7 mm	Plastic fixation ring
427F118	RAL 7035	Large cord wheel	5 mm	Plastic fixation ring

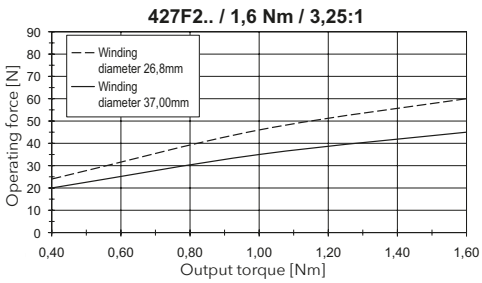
427F2.. | Cord drive 3.25:1

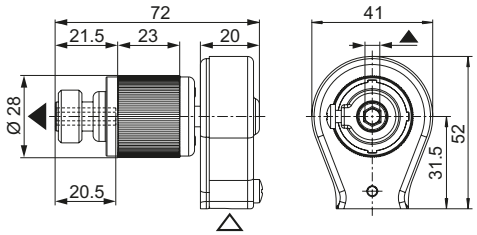
Application: **Venetian blinds with 40 mm top box**

Max. output torque	**1.6 Nm**
Gear reduction	**3.25:1**
Efficiency	**0.64**

Characteristics

- Easier operation due to larger gear reduction
- For cords with a diameter of 4.5 mm
- One gearbox version for left or right-hand installation
- See 427F... for matching gearbox holders for various top box dimensions. Gearbox holder



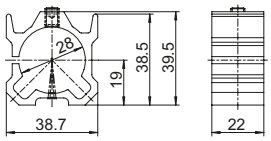


Part no.	Colour	Drive △	Output ▼	Comment
427F209	RAL 7035	small cord wheel	5 mm	Plastic fixation ring
427F206	RAL 7035	small cord wheel	6 mm	Plastic fixation ring
427F207	RAL 7035	small cord wheel	7 mm	Plastic fixation ring
427F208	RAL 7035	small cord wheel	6 mm	Steel set collar

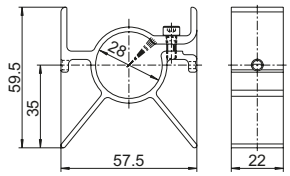
427F... | Gearbox holder

Characteristics

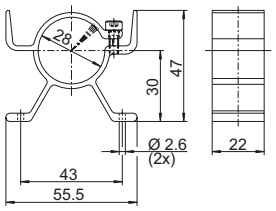
- For 427F cord gearbox...
- For chain gearbox 427F...
- For bevel gearbox 431F1..
- Made of extruded aluminium profile or high-strength plastic



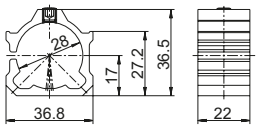
Part no.	Material	Outer dimension	Axle height
427F150	Aluminium	38.7 X 38.5 mm	19 mm



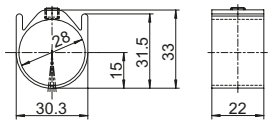
Part no.	Material	Outer dimension	Axle height
427F152	Aluminium	57.5 X 59.5 mm	35 mm



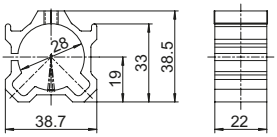
Part no.	Material	Outer dimension	Axle height
427F157	Aluminium	55.5 X 47 mm	30 mm



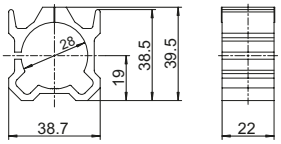
Part no.	Material	Outer dimension	Axle height
427F159	Aluminium	36.8 X 27.2 mm	17 mm



Part no.	Material	Outer dimension	Axle height
427F160	Aluminium	30.3 X 35.5 mm	15 mm



Part no.	Material	Outer dimension	Axle height
427F180	Plastic	38.7 X 33 mm	19 mm



Part no.	Material	Outer dimension	Axle height
427F181	Plastic	38.7 X 38.5 mm	19 mm

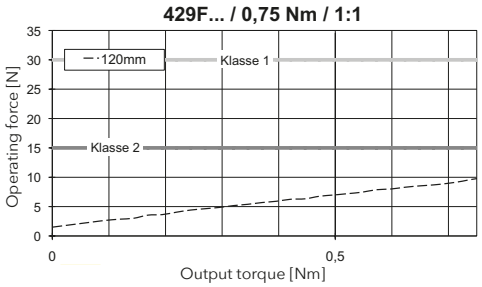
429F... | Bevel gearbox 1:1

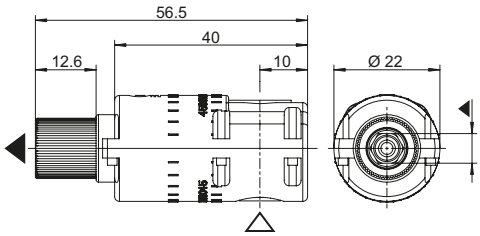
Application: **Venetian blinds with 25 mm top box**

Max. output torque	**0.75 Nm**
Gear reduction	**1:1**
Efficiency	**0.67**

Characteristics

- Zinc die-cast housing
- Push-through inner profile on the drive, therefore only one gearbox version for the same direction of rotation for left-hand or right-hand installation
- Alternatively also with mounted universal joint
- Without end stop (AB)
- Matching gear holder 429F100



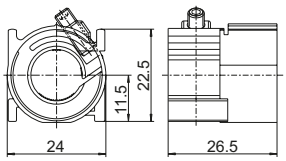


Part no.	Drive △	Output ▼	Installation side
429F027	○ 6 mm	○ 5 mm	-
429F028	○ 6 mm	○ 6 mm	-
429F030	○ 6 mm	□ 5 mm	-
429F031	▮ 6.8 mm	□ 5 mm	left
429F033	▮ 9.9 mm	○ 6 mm	right
429F034	▮ 9.9 mm	○ 6 mm	left
429F037	▮ 6.8 mm	○ 6 mm	right
429F045	▮ 6.8 mm	○ 5 mm	left
429F051	▮ 9.9 mm	□ 5 mm	right

429F1.. | Gearbox holder

Characteristics

- Made from high-strength plastic



Part no.	Material	Outer dimension	Axle height
429F100	Plastic	24.0 X 22.5 mm	11.5 mm

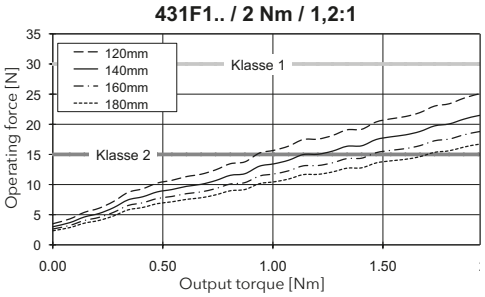
431F1.. | Bevel gearbox 1.2:1

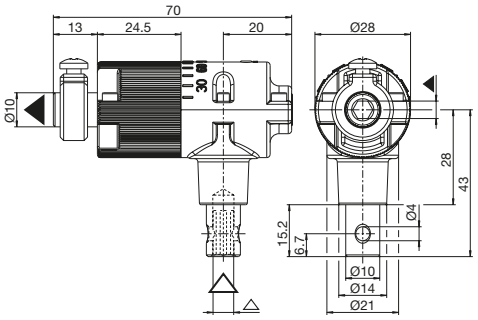
Application: **Venetian blinds with 40 mm top box**

Max. output torque	**2.0 Nm**
Gear reduction	**1.2:1**
Efficiency	**0.55**

Characteristics

- Zinc die-cast housing
- Continuous inner profile on the output drive, therefore centre installation also possible
- Left-hand and right-hand gearbox version, for the same direction of rotation with left-hand or right-hand installation
- Alternatively also with mounted universal joint
- Without end stop (AB)
- See 427F... for matching gearbox holders for various top box dimensions. Gearbox holder





Part no.	Drive △	Output ▼	Installation side
431F100	○ 6 mm	○ 5 mm	right
431F101	○ 6 mm	○ 6 mm	right
431F103	□ 6 mm	○ 6 mm	right
431F106	○ 6 mm	○ 6 mm	left

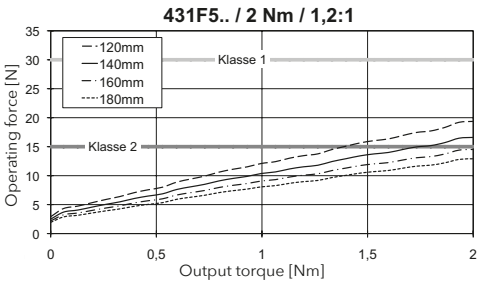
431F5.. | Bevel gearbox 1.2:1

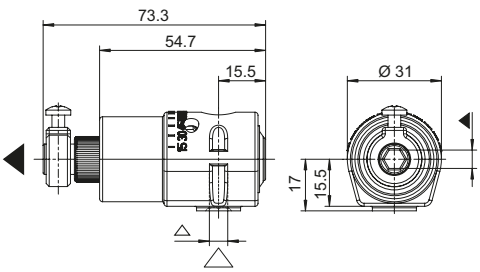
Application: **Venetian blinds with 40 mm top box**

Max. output torque	**2.0 Nm**
Gear reduction	**1.2:1**
Efficiency	**0.72**

Characteristics

- Housing of high-strength plastic
- Continuous inner profile on the output drive, therefore centre installation also possible
- Push-through inner profile on the drive, therefore only one gearbox version for the same direction of rotation for left-hand or right-hand installation
- Alternatively also with mounted universal joint
- Without end stop (AB)
- See 431F... for matching gearbox holders for various top box dimensions. Gearbox holder





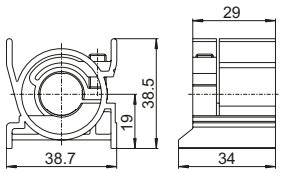
Part no.	Drive △	Output ▼	Installation side
431F550	○ 6 mm	○ 6 mm	left/right
431F555	⬮ 9.9 mm	○ 6 mm, not continuous	left
431F557	⬮ 9.9 mm	○ 6 mm, not continuous	right
431F559	□ 6 mm	○ 6 mm	left/right

Gerhard Geiger GmbH & Co. KG | 100W9013 EN 1125 | Figures similar. Subject to technical changes.

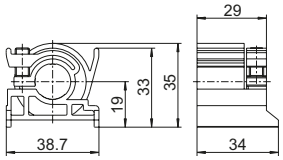
431F... | Gearbox holder

Characteristics

- Made from high-strength plastic



Part no.	Outer dimension	Axle height
431F507	38.7 X 38.5 mm	19 mm



Part no.	Outer dimension	Axle height
431F508	38.7 X 33 mm	19 mm

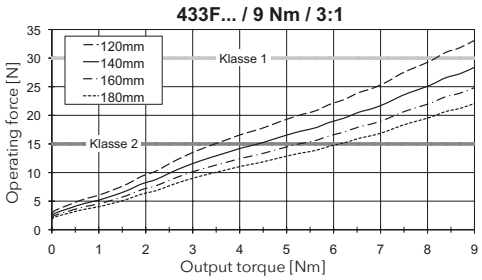
433F... | Bevel gearbox 3:1

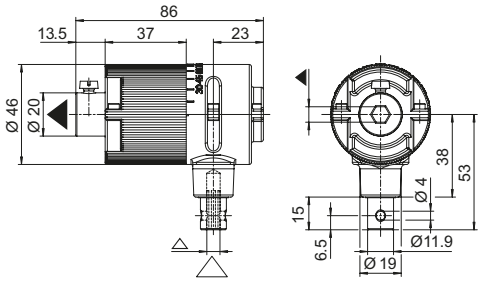
Application: **Venetian blinds and external blinds with 50 mm top box**

Max. output torque	9.0 Nm
Gear reduction	3:1
Efficiency	0.76

Characteristics

- Our most powerful gearbox in the Venetian blind sector
- Zinc die-cast housing
- Continuous inner profile on the output drive, therefore centre installation also possible
- Left-hand and right-hand gearbox version, for the same direction of rotation with left-hand or right-hand installation
- See 432F... for matching gearbox holders for various top box dimensions. Gearbox holder
- Without end stop (AB)





Part no.	Drive △	Output ▼	Version
433F001	6 mm, trunnion Ø 11.9 mm	7 mm	right
433F002	6 mm, trunnion Ø 11.9 mm	7 mm	left
433F003	6 mm, trunnion Ø 11.9 mm	14 mm	right
433F004	6 mm, trunnion Ø 11.9 mm	14 mm	left
433F011	6 mm, trunnion Ø 11.9 mm	6 mm	right
433F012	6 mm, trunnion Ø 11.9 mm	6 mm	left
433F025	6 mm, trunnion Ø 11.9 mm	12 mm	right
433F026	6 mm, trunnion Ø 11.9 mm	12 mm	left

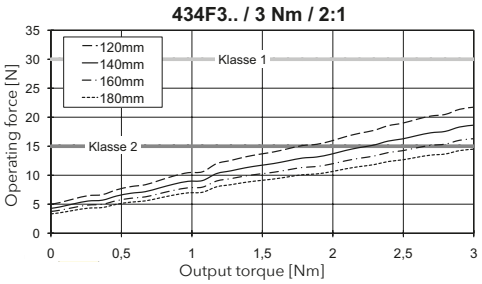
434F3.. | Bevel gearbox 2:1

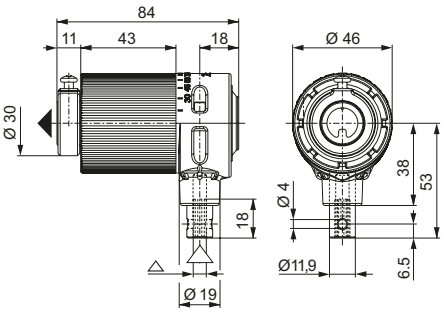
Application: **Venetian blinds and external blinds with 50 mm top box**

Max. output torque	**3.0 Nm**
Gear reduction	**2:1**
Efficiency	**0.57**

Characteristics

- Housing of high-strength plastic
- Continuous inner profile on the output drive, therefore centre installation also possible
- Left-hand and right-hand gearbox version, for the same direction of rotation with left-hand or right-hand installation
- Without end stop (AB)
- See 432F... for matching gearbox holders for various top box dimensions. Gearbox holder



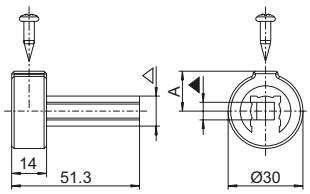


Part no.	Drive △	Output ▼	Version
434F314	6 mm, trunnion Ø 11.9 mm	14 mm	left
434F315	6 mm, trunnion Ø 11.9 mm	14 mm	right
434F360	6 mm, trunnion Ø 11.9 mm	12 mm	right
434F361	6 mm, trunnion Ø 11.9 mm	12 mm	left
434F364	6 mm, trunnion Ø 11.9 mm	7 mm	right
434F366	6 mm, trunnion Ø 11.9 mm	7 mm	left
434F369	6 mm, trunnion Ø 11.9 mm	7 mm	left
434F370	6 mm, trunnion Ø 11.9 mm	7 mm	right

434F39. | Driver inserts for bevel gearboxes 433F.../434F...

Characteristics

- Made from high-strength plastic



Part no.	Drive △	Output ▼	[A]
434F390	12 mm	6 mm	16 mm
434F391	12 mm	7 mm	16 mm
434F392	12 mm	7 mm	16 mm
434F393	12 mm	10 mm	18 mm
434F394	12 mm	8 mm	18 mm

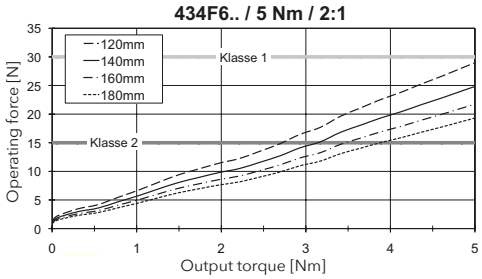
434F6.. | Bevel gearbox 2:1

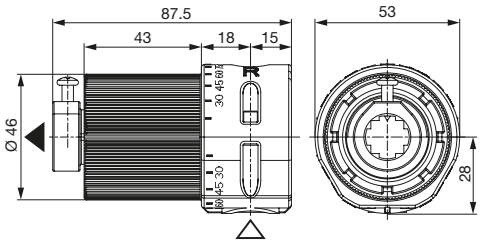
Application: **Venetian blinds and external blinds with 50 mm top box**

Max. output torque	**5.0 Nm**
Gear reduction	**2:1**
Efficiency	**0.72**

Characteristics

- Housing of high-strength plastic
- Continuous inner profile on the output drive, therefore centre installation also possible
- Push-through inner profile on the drive, therefore only one gearbox version for the same direction of rotation for left-hand or right-hand installation
- See 432F... for matching gearbox holders for various top box dimensions. Gearbox holder
- Without end stop (AB)





Part no.	Drive △	Output ▼
434F615	6 mm push-through	6 mm
434F625	6 mm push-through	12 mm
434F620	6 mm push-through	14 mm
434F606	6 mm push-through	12 mm
434F608	6 mm push-through	7 mm
434F607	6 mm push-through	14 mm
434F604	8 mm push-through	14 mm

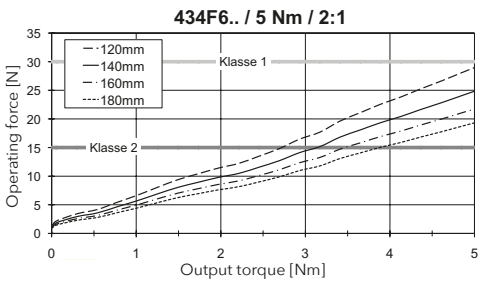
434F6.. | Bevel gearbox 2:1 with mounted extension

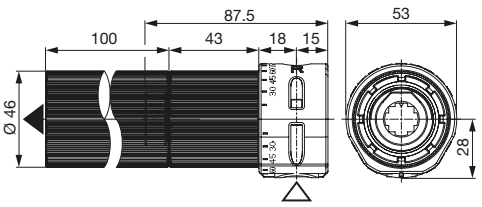
Application: **Venetian blinds and external blinds with 50 mm top box**

Max. output torque	**5.0 Nm**
Gear reduction	**2:1**
Efficiency	**0.72**

Characteristics

- Housing of high-strength plastic
- Continuous inner profile on the output drive, therefore centre installation also possible
- Push-through inner profile on the drive, therefore only one gearbox version for the same direction of rotation for left-hand or right-hand installation
- See 432F... for matching gearbox holders for various top box dimensions. Gearbox holder
- Without end stop (AB)



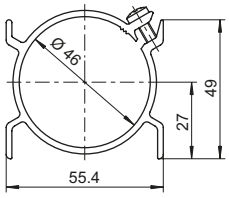


Part no.	Drive △	Output ▼
434F616	8 mm push-through	14 mm
434F630	6 mm push-through	14 mm

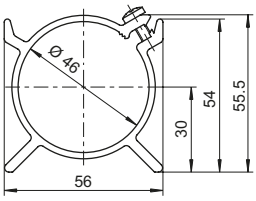
432F... | Gearbox holder

Characteristics

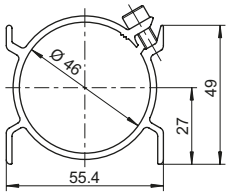
- Made from extruded aluminium or high-strength plastic
- Screws are supplied loose with 432F120 and 432F121



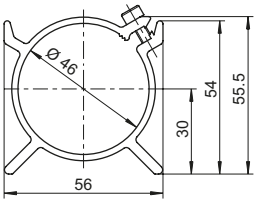
Part no.	Material	Outer dimension	Axle height
432F110	Aluminium	55.4 X 49 mm	27 mm



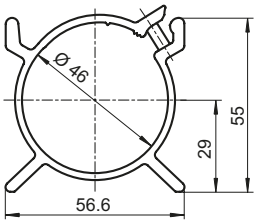
Part no.	Material	Outer dimension	Axle height
432F114	Aluminium	56 X 54 mm	30 mm



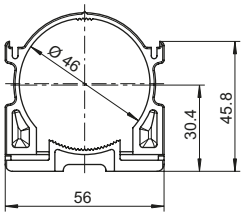
Part no.	Material	Outer dimension	Axle height
432F115	Aluminium	55.4 X 49 mm	27 mm



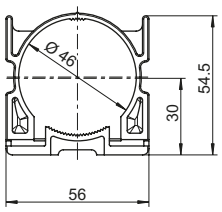
Part no.	Material	Outer dimension	Axle height
432F116	Aluminium	56 X 54 mm	30 mm



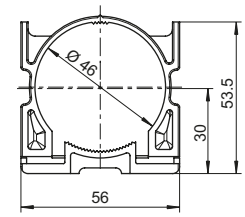
Part no.	Material	Outer dimension	Axle height
432F118	Aluminium	56.6 X 55 mm	29 mm



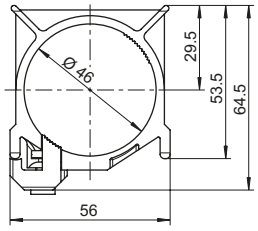
Part no.	Material	Outer dimension	Axle height
432F120	Plastic	56 X 45.8 mm	30.4 mm



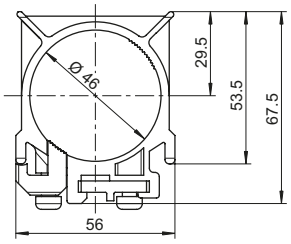
Part no.	Material	Outer dimension	Axle height
432F121	Plastic	56 X 54.5 mm	30 mm



Part no.	Material	Outer dimension	Axle height
432F124	Plastic	56 X 53.5 mm	30 mm



Part no.	Material	Outer dimension	Axle height
432F130	Plastic	56 X 53.5 mm	29.5 mm

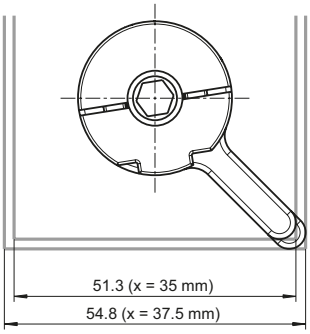


Part no.	Material	Outer dimension	Axle height
432F132	Plastic	56 X 53.5 mm	29.5 mm

with cord guide

712F... | Aluminium spindle locks

Application: **Venetian blinds and external blinds with 30 mm/55 mm top box**

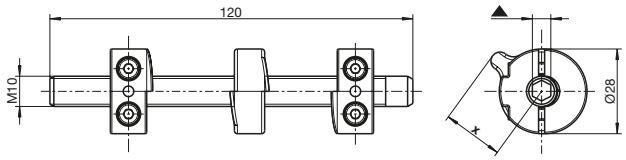


Characteristics

- Limits the up and down movement of the Venetian blind, thereby preventing damage in the event of improper operation
- Drive by reversing rod, see table for profiles (other profiles on request)
- Two variably adjustable end stops
- Max. stop torque 5.0 Nm with a tightening torque of 3.0 Nm for the stop screws
- Maximum 50 revolutions from stop to stop
- Spindle made of aluminium, stops and running nut made of die-cast zinc
- Stainless steel

Note

- Recommended for gearboxes 431F1.. and 431F5..
- Only suitable for manual operation
- Use with third-party products and electric drives must be checked by the customer



Part no.	Interior profile ▲	Driving nut [x]
712F635	○ 6 mm	Tab holder 35 mm
712F735	○ 7 mm	Tab holder 35 mm
712F637	○ 6 mm	Tab holder 37.5 mm

712F65. | Spindle stops

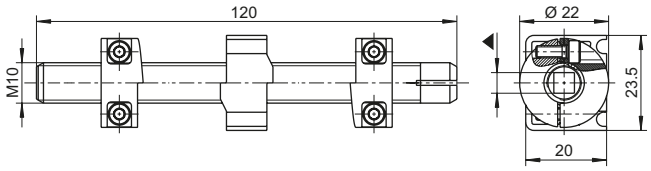
Application: **Venetian blinds with 25 mm top box (e.g.: 25 x 25 mm)**

Characteristics

- Limits the up and down movement of the Venetian blind, thereby preventing damage in the event of improper operation
- Drive by reversing rod, see table for profiles (other profiles on request)
- Two variably adjustable end stops
- Max. stop torque 2.5 Nm with a tightening torque of 1.5 Nm for the stop screws
- Max. 50 revolutions from stop to stop
- Spindle made of aluminium, stops made of die-cast zinc, barrel nut made of plastic
- Stainless steel

Note

- Recommended for gearboxes 429F0..
- Only suitable for manual operation
- Use with third-party products and electric drives must be checked by the customer



Part no.	Interior profile ▲	Driving nut
712F651	5 mm	23.5 X 20 mm
712F652	5 mm	23.5 X 20 mm
712F653	6 mm	23.5 X 20 mm

712F2.. | Plastic spindle stop

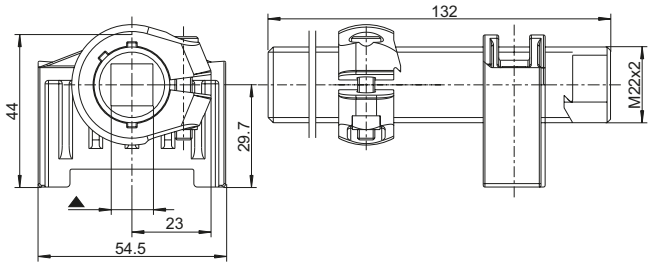
Application: **Venetian blinds and external blinds with 50 mm top box (e.g.: 57 x 51 mm, 58 x 56 mm)**

Characteristics

- Drive by reversing rod, see table for profiles (other profiles on request)
- Limits the up and down movement of the Venetian blind, thereby preventing damage in the event of improper operation
- A variably adjustable end stop
- Max. stop torque 16.0 Nm (tested in accordance with DIN 14203 7/c) with a tightening torque of 4.5 Nm for the stop screws
- Maximum 42 revolutions from stop to stop
- Spindle, fixed stop, and stop ring made of high-strength plastic
- Stainless steel

Note

- Recommended for gearboxes 434F3.. and 434F6..
- Only suitable for manual operation
- Use with third-party products and electric drives must be checked by the customer



Part no.	Interior profile ▲	Driving nut
712F200	12 mm	54.5 x 29.7 mm
712F201	14 mm	54.5 x 29.7 mm
712F203	8 mm	54.5 x 29.7 mm
712F210	7 mm	54.5 x 29.7 mm

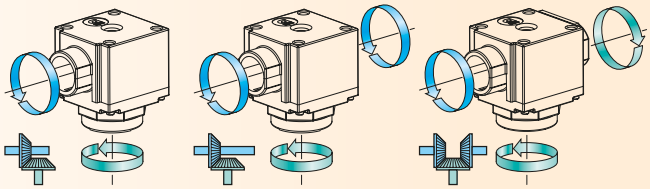
Gerhard Geiger GmbH & Co. KG | 100W9013 EN 1125 | Figures similar. Subject to technical changes.

Angle gear 430F5..

Universal angle gear for a wide range of applications.

The compact gearbox is available with two or three drives and outputs. Any internal profile can be used as an input or output drive. The die-cast zinc housing is stainless. The durable steel gear wheels are mounted in plastic bushes as standard. A attachment plate with 2 holes (pitch circle Ø 51.5 mm) is optionally available.

Made of high-quality materials, very robust and wear-free, they offer the usual GEIGER quality with the greatest possible ease of use.



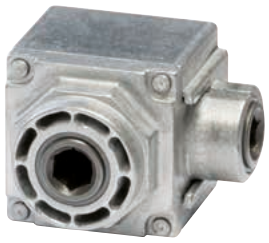
Angle gear with one drive and one output.

A continuous drive rod makes it possible to drive two Venetian blinds with the same direction of rotation, for example.

Angle gear with one drive and two outputs or two drives and one output.

430F5.. | Angle gear

Max. output torque	**6 Nm**
Transmission	**1:1 1.5:1 1:1.5**
Efficiency	**0.83**

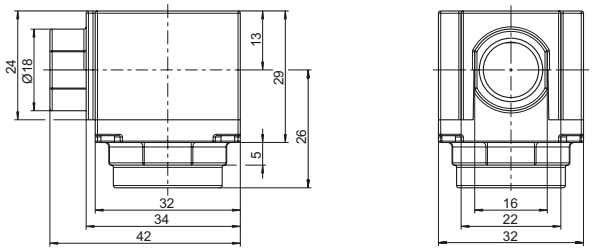


Characteristics

- Housing made of die-cast zinc, toothing made of steel
- Bearing points are filled with plastic
- With one drive and one output

Note

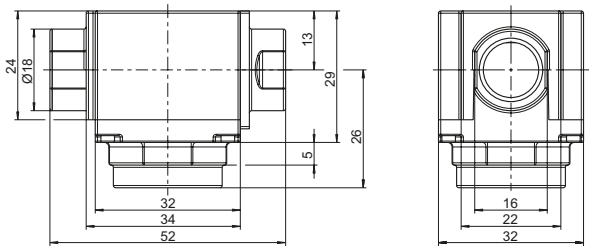
- Other drive/output combinations on request
- Also available as angle gear for emergency operation (max. 10 Nm)



Part no.	Drive/output profile	Transmission	Drive/output(s)
430F550	○ 7 mm	1 : 1	2
430F551	○ 7 mm	1.5 : 1	2
430F552	○ 7 mm	1 : 1.5	2

Characteristics

- As before, but with one drive and two outputs or two drives and one output

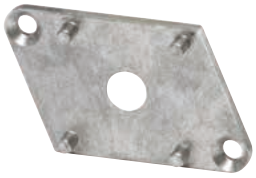


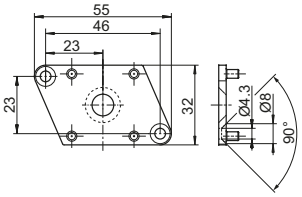
Part no.	Drive/output profile	Transmission	Drive/output(s)
430F553	○ 7 mm	1 : 1	3
430F554	○ 7 mm	1.5 : 1	3
430F555	○ 7 mm	1 : 1.5	3

430F503 | Attachment plate

Characteristics

- Incl. countersunk screw (M6 x 16 mm, galvanised, with screw lock) for fixation to the gearbox
- For horizontal and vertical mounting
- Suitable for 430F5.. angle gears





Part no.	
430F503	

Gerhard Geiger GmbH & Co. KG
Schleifmühle 6 | D-74321 Bietigheim-Bissingen
T +49 (0) 7142 9380 | **F** +49 (0) 7142 938 230
info@geiger.de | www.geiger.de

GEIGER ANTRIEBSTECHNIK

Gerhard Geiger GmbH & Co. KG | 100W9013 EN 1125 | Figures similar. Subject to technical changes.