

MBM || MAB



# Produktkatalog

Kædemotorer KS4

Oktober 2020

OVERVIEW OF CHAIN DRIVES																		
Type	Form	Model		Stroke	Force		Speed		Stroke in	Cut-off current	Use			Loca- tion	Functions			
		Type of cut-off	Rated voltage	Range	Pushing force	Pulling force	OPEN	CLOSE	60 s	Max.	Natural ventilation	SHEV	NSHEV	Facade	Roof	Run monitoring	Synchronised run	Sequence control
			[V]	[mm]	[N]	[N]	[mm/s]	[mm/s]	[mm]	[A]								
KS2	SOLO	S2	24	50 – 800	200 – 50	200	10,0	10,0	600	0,7	●	■	●					
			230	50 – 800	200 – 50	200	10,0	10,0	600	0,7	●	■	●					
		S12	24	50 – 1000	250 – 50	250	8,0 – 13,5	8,0	800	1,0	●	●	●	●	■	■	●	●
			230	50 – 1000	250 – 50	250	8,0	8,0	450	0,2	●			●	■	■	●	■
	TWIN	S12	24	50 – 1000	500 – 100	500	8,0 – 13,5	8,0	600	1,4	●	●		●	■	■	●	●
	KS4	Solo	S12	24	50 – 1000	400 – 50	400	8,0 – 13,5	8,0	800	1,2	●	●	●	●	■	■	●
KSA	SOLO	S12	24	250 – 1500	600 – 50	600	8,0 – 13,5	8,0	800	1,2	●	●	●	●	■	■	●	●
			230	250 – 1500	600 – 50	600	8,0	8,0	800	0,2	●			●	■	■	●	●
	TWIN	S12	24	400 – 600	1200 – 600	1200	8,0 – 12,0	8,0	600	2,4	●	●		●	■	■	●	●
	D	S12	24	400 – 800	1200 – 400	1200	8,0 – 13,5	8,0	800	2,4	●	●		●	■	■	●	●

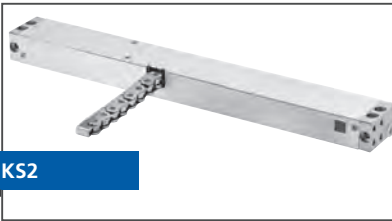
### LEGEND

● suitable    ■ not recommended

S2 internal load dependend cut-off switch

S12 internal Intelligent Control Electronics for synchronised run and programmable functions

force and speed depend on the stroke



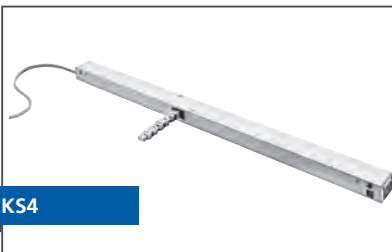
KS2

**KS2 CHAIN DRIVES**

- Model 24V DC, S2/S12 and 230V AC, S12
- Pulling/Pushing force max. 250 N (TWIN 500 N)
- Stroke length 50 – 800 mm – programmable (with S2)  
50 – 1000 mm – programmable (with S12)
- Speed 5 – 14 mm/s – programmable
- Housing (WxH) 42 x 26 mm, Length depending on stroke
- Opening mechanism Rigid back stainless steel sidebow roller chain
- Version R (Right), L (Left), TWIN, Z, Set 230V/24V
- Protection rating IP 32



KS2 TWIN



KS4

**KS4 CHAIN DRIVES**

- Model 24V DC, S12
- Pulling/Pushing force max. 400 N
- Stroke length 50 – 1000 mm – programmable
- Speed 5 – 14 mm/s – programmable
- Housing (WxH) 35 x 24 mm, Length depending on stroke
- Opening mechanism Rigid back stainless steel roller chain without protruding rivet heads
- Version R (right)
- Protection rating IP 32



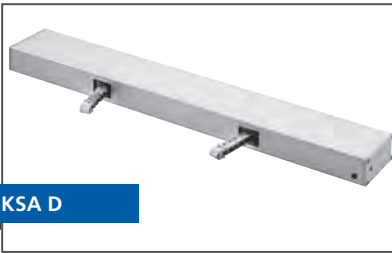
KSA

**KSA CHAIN DRIVES**

- Model 24V DC, S12 and 230V AC, S12
- Pulling/Pushing force max. 600 N (TWIN 1200 N)
- Stroke length 250 – 1500 mm – programmable (KSA)  
400 – 600 mm – programmable (KSA TWIN)  
400 – 800 mm – programmable (KSA D)
- Speed 5 – 14 mm/s – programmable
- Housing (WxH) 56 x 40 mm (D: 104 x 50 mm), Length depending on stroke
- Opening mechanism Rigid back stainless steel roller chain
- Version SOLO, TWIN, D, Z
- Protection rating IP 32



KSA TWIN



KSA D



### PRODUCT FEATURES KS4

- For natural ventilation, smoke and heat exhausting systems and ferralux® NSHEV (EN12101-2)
- Aluminium housing anodized or optionally in RAL colors
- High-quality stainless steel sidebow roller chain, without protruding rivet heads
- Slim line body that suits concealed fitting within profiles
- Rigid drive mounting on frame without brackets
- Feedback limit position „CLOSE“ (max. 24 V, 500 mA)
- Programmable parameters of Intelligent Control Electronics S12:
  - Feedback limit position „OPEN“ (max. 24V, 500 mA)
  - Synchronised multi-operation and sequence control without add. devices
  - Electronic soft-start, soft-close and soft-stop at end of stroke control
  - Stroke, force, speed
  - Rebate control
- Integrated plug solution
- Compatible with the plug-in configuration module M-COM® Click

For this product series, a Type III Environmental Product Declaration (EPD) was issued according to ISO 14025 and EN 15804.

The LCA results of the different product types are listed at the end of this product catalogue.

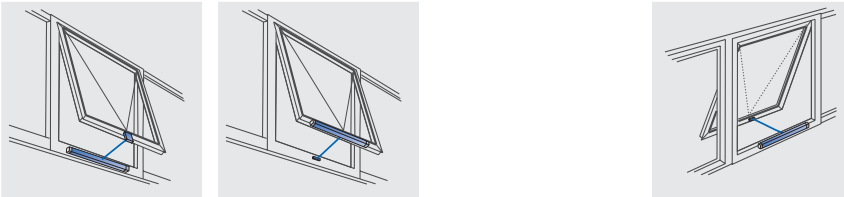
The EPD documents can be viewed or downloaded from our homepage [www.aumueller-gmbh.de](http://www.aumueller-gmbh.de).

**FACADE**

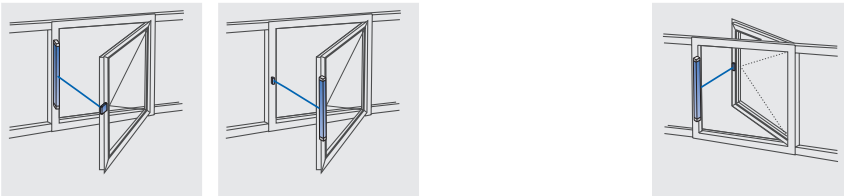
Bottom-hung



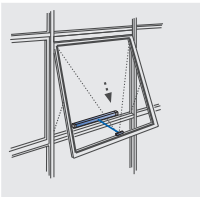
Top-hung



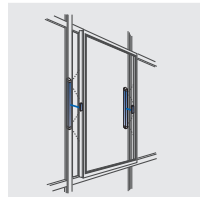
Side-hung



Friction hinged



Parallel outward opening



- Application: natural ventilation, SHEV, ferralux®-NSHEV
- Internal Intelligent Control Electronics S12
- Feedback limit position „CLOSE“ (max. 24 V, 500 mA)

### Equipment

- Additional universal plug set for multi-drive operation

### Options

- Programmable special functions
- Programmable feedback limit position „OPEN“ (max. 24V, 500 mA)
- M-COM for automatic synchronised run of multi drive systems and automatic sequence control with locking drives (S3 / S12)

## TECHNICAL DATA

$U_N$  Rated voltage 24V DC ( $\pm 20\%$ ), max. 2 Vpp

$I_N$  Rated current 0,9 A

$I_A$  Cut-off current 1,2 A

$P_N$  Rated power 22 W

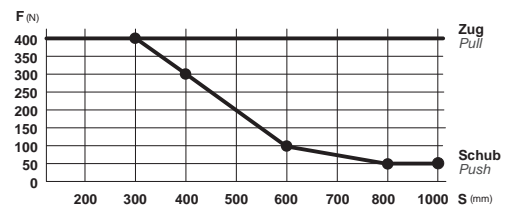
ED Duty cycle 30 % (ON: 3 min./OFF: 7 min.)

Protection rating IP 32

Ambient temperature range  $-5\text{ °C} \dots +75\text{ °C}$

$F_Z$  Pulling force max. 400 N

$F_A$  Pushing force



$s > 600$  mm only for pulling application

$F_H$  Pullout force 1.800 N (fastening depended)

Chain  
Stainless steel, without protruding rivet heads. Simple connection to casement brackets. Small bending radii allow maximum opening angles of small windows.

Connecting cable non-halogen, grey 5 x 0,5 mm<sup>2</sup>, ~ 2 m

$v$  Speed

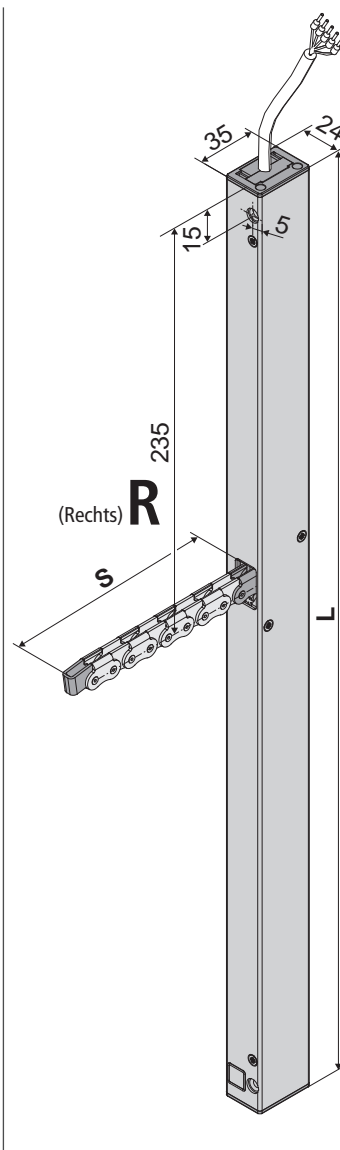
$s < 400$	8,0 mm/s	8,0 mm/s
$s 500 - 600$	12,0 mm/s	8,0 mm/s
$s > 600$	13,5 mm/s	8,0 mm/s

$s$  Stroke 50 – 1000 mm ( $\pm 5\%$ )

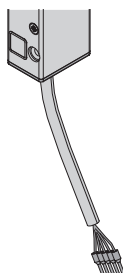
$L$  Length see order data

Feedback contact limit position „CLOSE“ (max. 24V, 500 mA)

Sound pressure level A  $\leq 70$  dB (A)



### OPTION



AUMÜLLER chain drives have an integrated cable routing with connection sockets on both housing ends. This enables the following options:

- Aumüller-Click plug solution with various cable lengths  
Part.-No.: 501250 - 1 m cable length / 501258 - 2 m cable length / 501251 - 3 m cable length / 501252 - 5 m cable length / 501253 - 10 m cable length
- Series connection of several drives into multi drive systems
- Power supply from both sides

ORDER DATA							
s [mm]	L [mm]	Version	Finish	PU / pcs.	Part.-No.		
200	455	KS4 200 S12 24V R	E6/C-0	1	522020		
300	551	KS4 300 S12 24V R	E6/C-0	1	522030		
400	551	KS4 400 S12 24V R	E6/C-0	1	522040		
500	665	KS4 500 S12 24V R	E6/C-0	1	522050		
600	665	KS4 600 S12 24V R	E6/C-0	1	522060		
800	755	KS4 800 S12 24V R	E6/C-0	1	522080		
1000	868	KS4 1000 S12 24V R	E6/C-0	1	522000		

OPTIONS							
Special model		PU / pcs.	Part.-No.				
<b>Drive housing painted/powder coated in other RAL colours</b>							
<b>Lump sum for coating</b>				516030			
Specify at order stage:		1 – 20		516004			
		21 – 50		516004			
		51 – 100		516004			
		up 101		516004			
<b>Microprocessor programming S12</b>							
Electronic stroke reduction 24V S12					524190		
Programming drives 24V / 230V S12					524180		
<b>Optional accessories</b>			PU / pcs.	Part.-No.			
M-COM® Click Konfigurationsmodul für Antriebs-Verbundsysteme				1	524167		
M-COM Configuration module for synchronised multi-drive systems				1	524177		

OVERVIEW OF BRACKETS								
Typical application			1	2	3			
Frame bracket			K134	K132	No			
Casement bracket			F41	F42	F42			
Space requirement	min.	[mm]	20	28	27			
Overlap thickness (*1)		[mm]	0 - 21	5 - 21	0 - 21			
Opening angle (*2)	max.	[DEG]	45	60	40			
Casement weight (*3)	max.	[Kg]	85	70	85			
Window material		Alu	●	●	●			
		Wood	●	●	●			
		PVC	●	●	●			
Type of window and mounting	Bottom hung	inward	HSK	FM	●	●		
				RM			●	
			NSK	FM	●	●		
		RM				●		
		outward	HSK	RM	●	●		
				PR				
	NSK			RM	●	●		
	PR							
	Top hung		inward	HSK	FM	■	■	
					RM			■
		NSK		FM	■	■		
			RM			■		
		outward	HSK	RM	■	●		
				PR				
	NSK		RM	■	■			
		PR						
	Side hung	inward	HSK	FM	●	●		
				RM			●	
			NSK	FM				
		RM						
		PR						
		Roof	outward	HSK	RM	■	■	
	PR							
	NSK			RM				
PR								
PAF			outward	RM	●	●		
Concealed								
FAB (*4)	Solo	[mm]	600 - 1200					
FAH (*4)	Solo	[mm]	250 - 1500					

### LEGEND

● suitable    ■ not recommended

(\*1) Window sizes and opening angles may be different.

(\*2) Sample values of the opening angle evaluated on the basis of FAB/FAH for inward opening windows with drives mounted at the main closing edge. For any other window heights, for outward opening windows and for windows with drives mounted at the side edges the opening angle will vary.

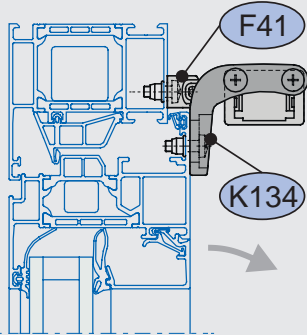
(\*3) Please respect the individual geometry of the different windows. The listed max. casement weight refers to a single drive on button hung window with a max. opening angle.

(\*4) Sample value of the casement dimensions for corner joints of 110 mm. The actual casement dimensions depend on length of the corner joints, profile dimensions, stroke and position of the drives. The values of FAB/FAH are to be used analogue for side hung windows.



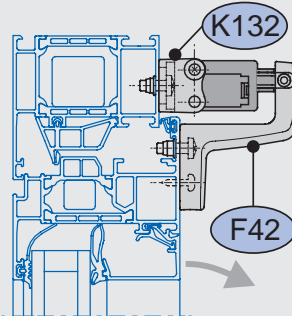
## TYPICAL APPLICATIONS

- 1 FM, bottom hung  
inward opening



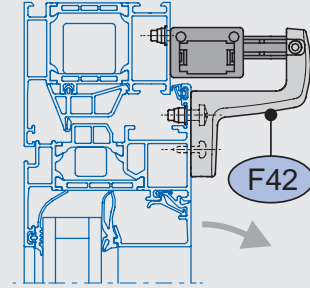
View on aluminium window

- 2 FM, bottom hung  
inward opening



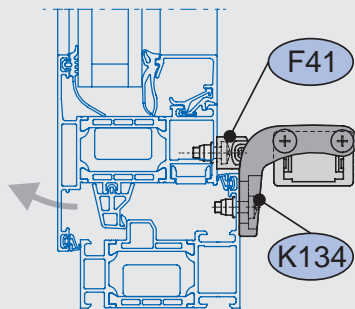
View on aluminium window

- 3 FM, bottom hung  
inward opening



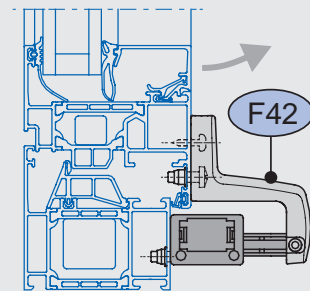
View on aluminium window

- 1 RM, top hung  
outward opening



View on aluminium window

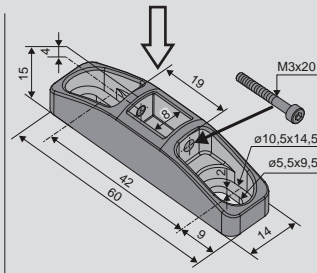
- 3 RM, top hung  
inward opening



View on aluminium window

### CASEMENT BRACKETS

F41



**Application**

Surface mounting on the casement profiles of inward opening windows, for swivelling fixing of drives KS4 with K132, K134

Chain fixing in direction of the arrow

Part-No. 151440

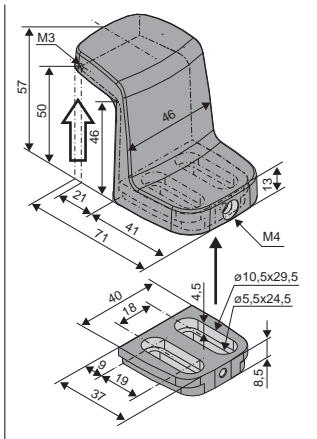
**Material / Finish**

Cast aluminum, bright chrome

**Feature / Equipment**

1x cylinder head screw M3x20  
Drilling template

F42



**Application**

Surface mounting on the casement profiles of inward opening windows, for surface mounted drives KS4

Chain fixing in direction of the arrow

Part-No. 151441

**Material / Finish**

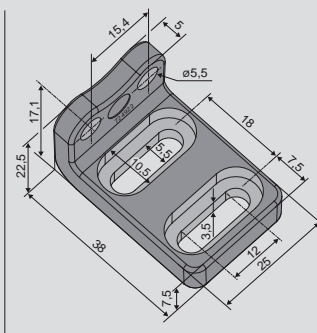
Cast aluminum, bright chrome

**Feature / Equipment**

1x baseplate  
1x countersunk screw M4x10  
1x cylinder head screw M3x25  
Drilling template

### FRAME BRACKETS

K132



**Application**

Surface mounting on the casement profiles of inward opening windows, for swivelling fixing of drives KS4 with F42

Part-No. 522940

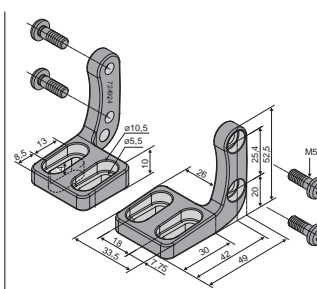
**Material / Finish**

Cast aluminum, bright chrome

**Feature / Equipment**

2x frame brackets  
2x screws M5x16

K134



**Application**

Surface mounting on the casement / window frame profiles of in- / outward opening windows, for rigid or swivelling fixing of drives KS4 with F41, F42

Part-No. 522941


**Material / Finish**


Cast aluminum, bright chrome


**Feature / Equipment**

4x screw M5x10

OPTIONAL ACCESSORIES

Main control unit			
<p><b>M-COM</b></p> 	<p><b>Application</b>                      Configuration module for automatic configuration and surveillance of max. 6 opening or locking drives version S12 / S3 in synchronised multi-drive systems</p> <p><b>Rated voltage:</b>                      24 V DC +/- 20%, (max. 2 Vss)</p> <p><b>Current consumption:</b> &lt;12 mA</p> <p><b>Drive type:</b> S12</p> <p><b>Protection rating</b>                      IP30 rubber envelope</p>	<p><b>Part.-No. 524177</b></p> <p><b>Ambient temperature range:</b> 0 °C ... + 70 °C</p> <p><b>Dimensions</b>                      45 x 17 x 6 mm</p> <p><b>Connecting wires</b>                      3 wires 0,5 mm<sup>2</sup> x 50 mm</p> <p><b>Feature/Equipment</b>                      Printed circuit board with components and connection wires to be installed in connection box to be supplied on site</p>	

<p><b>M-COM® Click</b></p> 	<p><b>Application</b>                      Configuration module for automatic configuration and surveillance of max. 6 opening or locking drives version S12 / S3 in synchronised multi-drive systems</p> <p><b>Rated voltage:</b>                      24 V DC +/- 20%, (max. 2 Vss)</p> <p><b>Current consumption:</b> &lt;12 mA</p> <p><b>Drive type:</b> S12</p> <p><b>Protection rating</b>                      IP30 rubber envelope</p>	<p><b>Part.-No. 524167</b></p> <p><b>Ambient temperature range:</b> -5 °C ... +70 °C</p> <p><b>Dimensions:</b>                      40 x 26 x 15 mm</p> <p><b>Connection:</b>                      for AUMÜLLER chain drives with AUMÜLLER-Click plug solution</p> <p><b>Equipment</b>                      Tongs for removing the M-COM® Click</p>	
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Plug solution			
<p><b>Aumüller-Click plug solution</b></p> 	<p><b>Application</b>  <b>Aumüller-Click plug solution:</b> Unified plug solution for all AUMÜLLER chain drives and AUMÜLLER folding arm drives.</p> <p><b>Rated voltage:</b>                      24 V DC +/- 20 %, (max. 2 Vss)</p> <p><b>Connecting cable:</b>                      non-halogen, grey 5 x 0,5 mm<sup>2</sup></p> <p><b>Terminal:</b> to 1,5 mm<sup>2</sup></p>	<p><b>Feature/Equipment</b></p> <ul style="list-style-type: none"> <li>• Flexible cable length</li> <li>• Connect multiple drives in series connection</li> <li>• Torsion-plug</li> <li>• Locking hooks prevent withdrawal of the plug under tensile load</li> <li>• Strain relief according DIN EN 60335-1 by screwing the housing halves</li> </ul>	
<b>VARIANTEN:</b>			
	1 m cable length - 24 V DC	<b>Part.-No. 501250</b>	
	2 m cable length - 24 V DC	<b>Part.-No. 501258</b>	
	3 m cable length - 24 V DC	<b>Part.-No. 501251</b>	
	5 m cable length - 24 V DC	<b>Part.-No. 501252</b>	
	10 m cable length - 24 V DC	<b>Part.-No. 501253</b>	

Special model	PU / pcs.	Part.-No.		
<b>Casement brackets painted / powder coated in other RAL colours</b>				
<b>Lump sum for coating</b>		<b>516030</b>		
Specify at order stage:	1 – 20	<b>516032</b>		
	21 – 50	<b>516032</b>		
	51 – 100	<b>516032</b>		
	up 101	<b>516032</b>		
<b>Frame brackets painted / powder coated in other RAL colours</b>				
<b>Lump sum for coating</b>		<b>516030</b>		
Specify at order stage:	1 – 20	<b>516031</b>		
	21 – 50	<b>516031</b>		
	51 – 100	<b>516031</b>		
	up 101	<b>516031</b>		

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