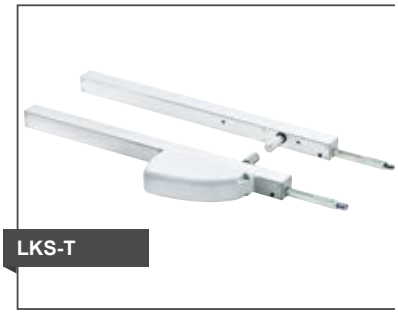


LKS RACK AND PINION DRIVES

Model	24V DC, S2
Pulling/Pushing force	550 N
Stroke length	100 – 1000 mm
Speed	6,0 mm/s
Housing (WxH)	30 x 30 mm x length depending on stroke
Motor-gear-unit	40 x 113 x 156 mm
Opening mechanism	Chromated stainless steel rack
Version	Solo
Protection rating	IP54

LKS



LKS-T RACK AND PINION DRIVES

Model	24V DC, S2
Pulling/Pushing force	550 N
Stroke length	300 – 1000 mm
Speed	6,0 mm/s
Housing (WxH)	30 x 30 mm x length depending on stroke
Opening mechanism	Chromated stainless steel rack
Version	Solo with follower and connection shaft
Protection rating	IP54

LKS T



LKS-TV RACK AND PINION DRIVES

Model	24V DC, S2
Pulling/Pushing force	1100 N
Stroke length	300 – 1000 mm
Speed	6,0 mm/s
Housing (WxH)	30 x 30 mm x length depending on stroke
Opening mechanism	Chromated stainless steel rack
Version	Tandem with connection shaft
Protection rating	IP54

LKS TV

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RACK AND PINION DRIVES

Type	Form	Model		Stroke (Factory setting)	Force		Speed (Factory setting)		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	RWA	NRWG	Facade	Roof	Run monitoring	Synchronised run	Sequence control
			[VDC]	[mm]	[N]	[N]	[mm/s]	[mm/s]	[mm]	[A]								
LKS	LKS (SOLO)	S2	24	100–1000	550	550	6,0	6,0	350	0,8	●	●		●	●	○		○
	LKS-T			300–1000	550	550				0,8	●	●		■	●		●	○
	LKS-TV			300–1000	1100	1100				1,6	●	●		■	●		●	○

LEGEND

● suitable ■ not recommended

S2 internal load dependend cut-off switch

○ only with external control module USKM

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SPECIAL FEATURES LKS

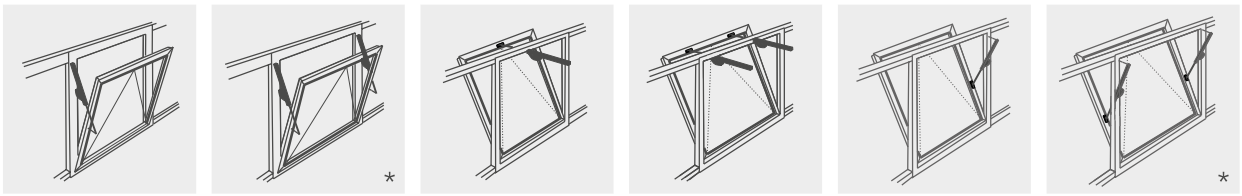
- For natural ventilation and smoke and heat exhausting
- Robust corrosion-resistant design
- Slim natural anodysed aluminium housing (30 x 30 mm)
- Grey plastic housing for motor-gear unit
- Easy installation due to adjustuple clamp ring as well as front and rear suspension
- Chromated stainless steel rack with end position dampening

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**.

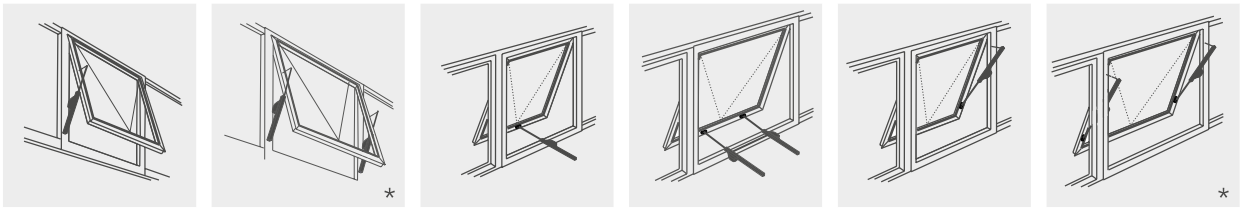
VENTIO by hsl SOLUTIONS Str. Sinaia, Nr. 25-29, Ștefănești de Jos, Jud. Ilfov · contact@ventio.ro · www.ventio.ro · 0762.921.795

FACADE

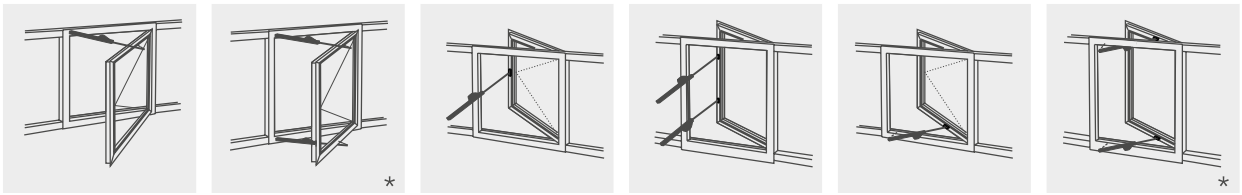
Bottom-hung



Top-hung

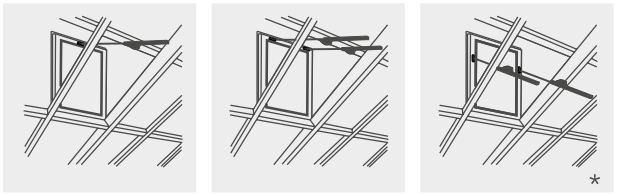


Side-hung

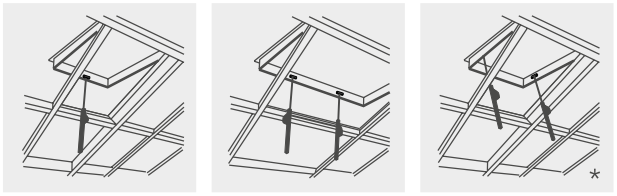


ROOF

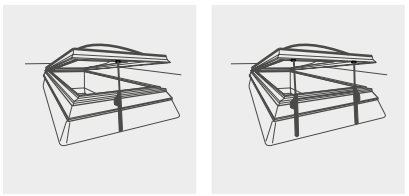
Bottom-hung



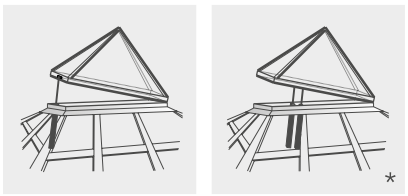
Top-hung



Sky light



Glass pyramid



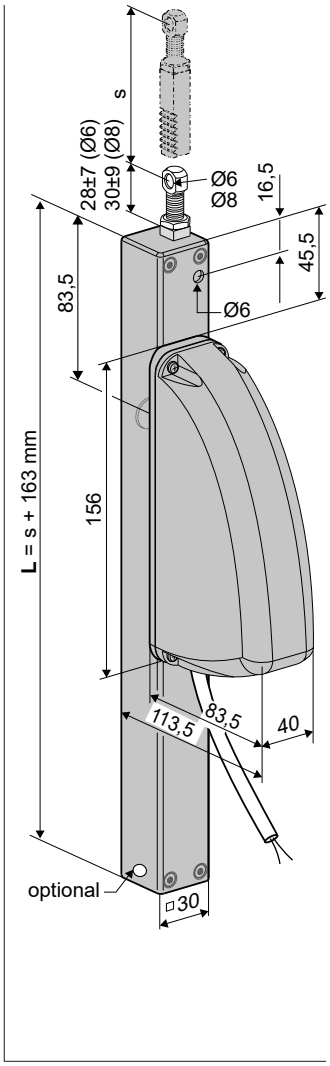
*Monitored motion run up to s = 300 mm with USKM (Controll modul Part.-No.: 512140)

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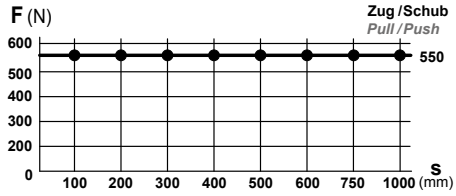
- Application: natural ventilation and RWA as single-drive
- Internal load dependend cut-off switch S2

Options

- Drillings for front / rear suspension
- Monitored motion run of 2 drives up to s = 300 mm via USKM



TECHNICAL DATA

U_N	Rated voltage	24 V DC (19 V ... 28 V)
I_N	Rated current	0,6 A
I_A	Cut-off current	0,8 A
P_N	Rated power	15 W
DC	Duty cycle	5 cycles (ED 30 % - ON: 3 min./OFF: 7 min.)
	Protection rating	IP 54
	Ambient temperature range	-5 °C ... +60 °C
F_Z	Pulling force max.	550 N
F_A	Pushing force max.	
F_H	Pullout force	1.800 N (fastening depended)
	Rack	stainless steel
	Connecting cable	non-halogen, grey 2 x 0,75 mm², ~ 1 m
v	Speed	6,0 mm/s 6,0 mm/s
s	Stroke	see order data
L	Length	s + 163 mm (see order data)
	Sound pressure level	≤ 70 dB (A)

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ORDER DATA

s [mm]	L [mm]	Version	Finish	PU/pcs.	Part.-No.
100	263	LKS 100 S2	E6/C-0	1	**513100.N**
200	363	LKS 200 S2	E6/C-0	1	**513200.N**
300	463	LKS 300 S2	E6/C-0	1	**513300.N**
400	563	LKS 400 S2	E6/C-0	1	**513400.N**
500	663	LKS 500 S2	E6/C-0	1	**513500.N**
600	763	LKS 600 S2	E6/C-0	1	**513600.N**
750	913	LKS 750 S2	E6/C-0	1	**513800.N**
1000	1163	LKS 1000 S2	E6/C-0	1	**513805.N**

OPTIONS

Special model	PU/pcs.	Part.-No.
Drive housing painted/powder coated in other RAL colours		
Lump sum for coating		**516030**
Specify at order stage:	1 – 20	**516004**
	21 – 50	**516004**
	51 – 100	**516004**
	from 101	**516004**
Extra length connecting cable:		
3 m – non-halogen, grey – 2 x 0,75 mm²		**501023**
5 m – non-halogen, grey – 2 x 0,75 mm²		**501024**
10 m – non-halogen, grey – 2 x 0,75 mm²		**501026**
Accessories for fron / rear suspension		
2 additional holes Ø6 mm in the bottom of of housing for rear suspension with K28, K29	1	**520901**
Mechanic stroke reduction		
Stroke reduction without construction length - mechanically	1	**516000**
Other lengths available on request		

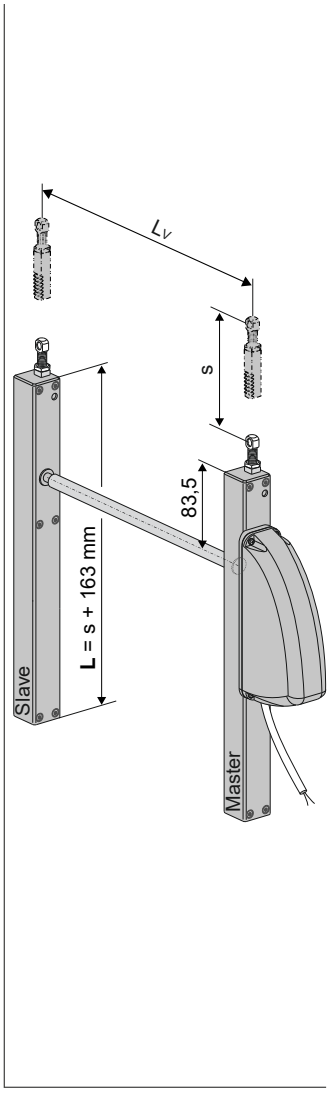
Tandem control with or without sequence control	PU/pcs.	Part.-No.
Connection shaft		
USKM (s ≤ 300mm)	1	**512140**

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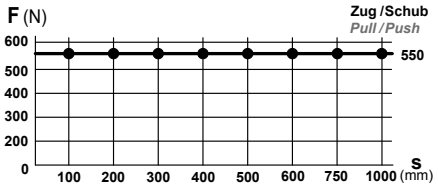
- Application: natural ventilation and RWA as single-drive
- Internal load dependend cut-off switch S2
- Drive with follower operated by the connection shaft to divide the force on 2 points

Options

- Drillings for front / rear suspension
- Connection shaft with different lengths



TECHNICAL DATA

U_N	Rated voltage	24 V DC (19 V ... 28 V)
I_N	Rated current	0,6 A
I_A	Cut-off current	0,8 A
P_N	Rated power	15 W
DC	Duty cycle	5 cycles (ED 30 % - ON: 3 min./OFF: 7 min.)
	Protection rating	IP 54
	Ambient temperature range	-5 °C ... +60 °C
F_Z	Pulling force max.	550 N
F_A	Pushing force max.	
F_H	Pullout force	1.800 N (fastening depended)
	Rack	stainless steel
	Connecting cable	non-halogen, grey 2 x 0,75 mm², ~ 1 m
v	Speed	6,0 mm/s 6,0 mm/s
s	Stroke	see order data
L	Length	s + 163 mm (see order data)
L_V	Connection shaft	Standard length see order data
	Sound pressure level	≤ 70 dB (A)

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ORDER DATA

s [mm]	L [mm]	Version	Finish	PU/pcs.	Part.-No.
300	463	LKS T 300 S2	E6/C-0	1	**513300.T**
500	563	LKS T 500 S2	E6/C-0	1	**513500.T**
600	663	LKS T 600 S2	E6/C-0	1	**513600.T**
750	913	LKS T 750 S2	E6/C-0	1	**513800.T**
1000	1163	LKS T 1000 S2	E6/C-0	1	**513805.T**

OPTIONS

Special model	PU/pcs.	Part.-No.
Drive housing painted/powder coated in other RAL colours		
Lump sum for coating		**516030**
Specify at order stage:	1 – 20	**516004**
	21 – 50	**516004**
	51 – 100	**516004**
	from 101	**516004**
Extra length connecting cable:		
3 m – non-halogen, grey – 2 x 0,75 mm²		**501023**
5 m – non-halogen, grey – 2 x 0,75 mm²		**501024**
10 m – non-halogen, grey – 2 x 0,75 mm²		**501026**
Accessories for fron / rear suspension		
2 additional holes Ø6 mm in the bottom of of housing for rear suspension with K28, K29	1	**520901**
Mechanic stroke reduction		
Stroke reduction without construction length - mechanically	1	**516000**
Other lengths available on request		

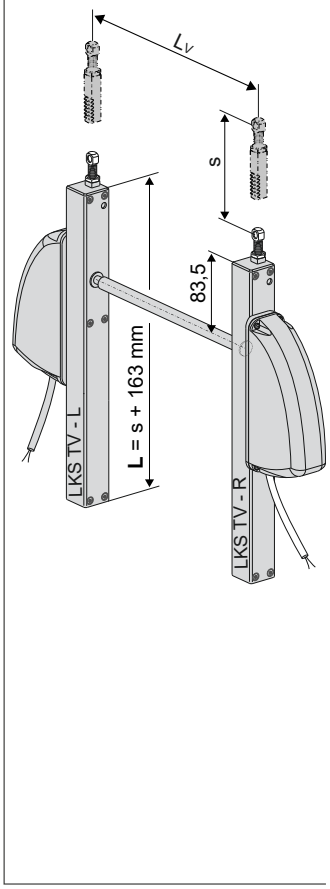
Accessories	Lv [mm]	PU/pcs.	Part.-No.
Connection shaft			
B17-1	1000	1	**513050**
B17-2	1500	1	**513052**

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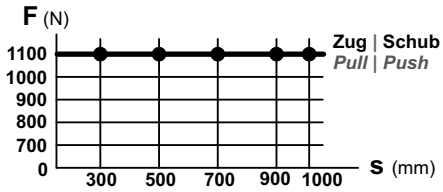
- Application: natural ventilation and RWA as single-drive
- Internal load dependend cut-off switch S2
- 2 drives mechanical sinchronised by the connection shaft

Options

- Drillings for front / rear suspension
- Connection shaft with different lengths



TECHNICAL DATA

U_N	Rated voltage	24 V DC (19 V ... 28 V)
I_N	Rated current	1,2 A
I_A	Cut-off current	2 x 0,8 A
P_N	Rated power	30 W
DC	Duty cycle	5 cycles (ED 30 % - ON: 3 min./OFF: 7 min.)
	Protection rating	IP 54
	Ambient temperature range	-5 °C ... +60 °C
F_Z	Pulling force max.	1100 N
F_A	Pushing force max.	
F_H	Pullout force	2 x 1.500 N (fastening depended)
	Rack	stainless steel
	Connecting cable	non-halogen, grey 2 x 0,75 mm², ~ 1 m
v	Speed	6,0 mm/s 6,0 mm/s
s	Stroke	see order data
L	Length	s + 163 mm (see order data)
L_V	Connection shaft	Standard length see order data
	Sound pressure level	≤ 70 dB (A)

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ORDER DATA

s [mm]	L [mm]	Version	Finish	PU/pcs.	Part.-No.
300	463	LKS TV 300 S2	E6/C-0	1	**513300.TV**
500	563	LKS TV 500 S2	E6/C-0	1	**513500.TV**
600	463	LKS TV 600 S2	E6/C-0	1	**513600.TV**
750	913	LKS TV 750 S2	E6/C-0	1	**513800.TV**
1000	1163	LKS TV 1000 S2	E6/C-0	1	**513805.TV**

OPTIONS

Special model	PU/pcs.	Part.-No.
Drive housing painted/powder coated in other RAL colours		
Lump sum for coating		**516030**
Specify at order stage:	1 – 20	**516004**
	21 – 50	**516004**
	51 – 100	**516004**
	from 101	**516004**
Extra length connecting cable:		
3 m – non-halogen, grey – 2 x 0,75 mm²		**501023**
5 m – non-halogen, grey – 2 x 0,75 mm²		**501024**
10 m – non-halogen, grey – 2 x 0,75 mm²		**501026**
Accessories for fron / rear suspension		
2 additional holes Ø6 mm in the bottom of of housing for rear suspension with K28, K29	1	**520901**
Mechanic stroke reduction		
Stroke reduction without construction length - mechanically	1	**516000**
Other lengths available on request		

Accessories	Lv [mm]	PU/pcs.	Part.-No.
Connection shaft			
B17-1	1000	1	**513050**
B17-2	1500	1	**513052**

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OVERVIEW OF BRACKETS

					1	2	3	4	5	6
Typical applications										
Frame bracket					K5, K82	K5	K28	K29	K29	K41
Mounting aid						K21	K15, K16		K21	
Bracket accessories					B7		Rear holes	Front holes	Front holes	Front holes
Casement bracket					F1, F1V, F1.1, F2.1, F10.6		F1, F1V, F2.1, F10.6			F12
Special use										Sky light Essmann
Space requirement			min.	[mm]	50	40 – 50	40	40	40 – 50	90
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						
	Roof	outward	HSK	RM		●			●	
				PR	●			●		
			NSK	RM		●			●	
				PR	●			●		
	Skylight	outward	HSK	RM	●			●		●
			NSK	RM						
FAB*1			Solo	[mm]	700 – 1300					
			Sync2	[mm]	1200 – 2500					
FAH*1			Solo	[mm]	450 – 1500					
			Sync2	[mm]	450 – 2500					

LEGEND

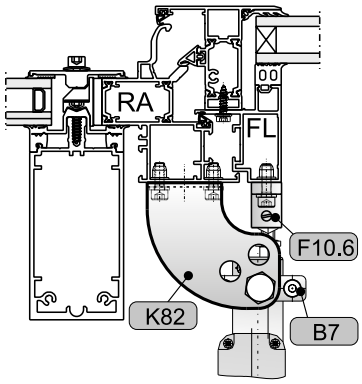
● suitable ■ not recommended

*1 Sample value of the casement dimensions. The actuell casement dimensions depend on the stroke and the position of the drives to the hinges. The values of FAB/FAH are to be used analogue for side hung windows.

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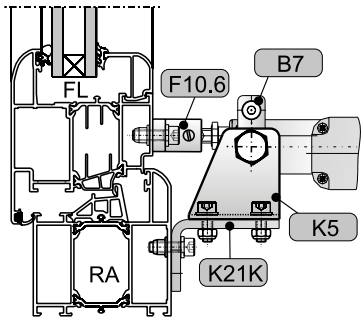
TYPICAL APPLICATIONSE

1 RM, HSK, roof



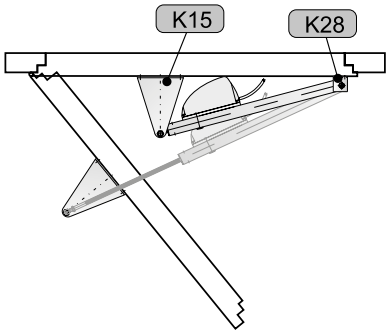
View on aluminium window

2 RM, HSK, top-hung outward opening



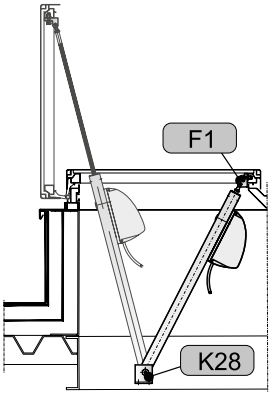
View on PVC-window

2 RM, NSK, side-hung inward opening



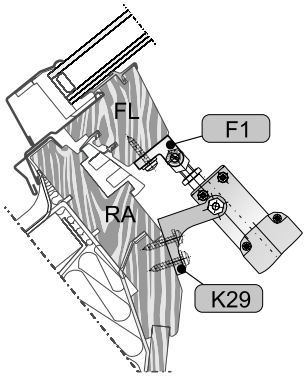
View for example

3 RM, HSK, roof



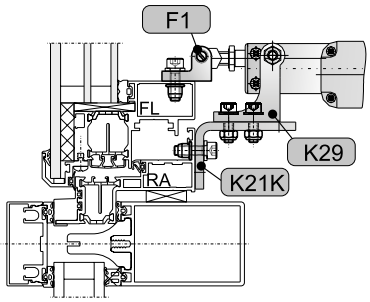
View on roof window

4 RM, HSK, roof



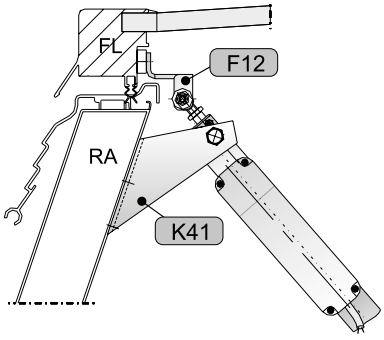
View on wooden window

5 RM, HSK, top-hung outward opening



View on aluminium window

6 RM, HSK, sky light

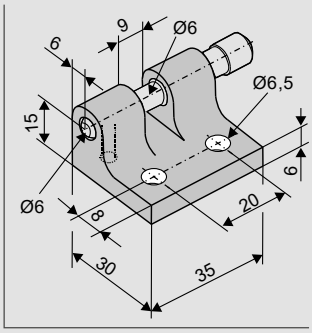


View on sky light Essmann

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CASEMENT BRACKETS

F1



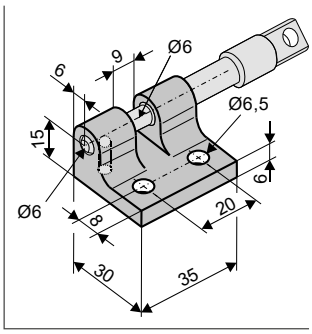
Application

Surface mounting on the **main closing edge** of casement profiles of outward opening windows or skylights, for drives with **front or rear suspension** with bore **Ø6 mm**, manual removal of the drive is possible

Part.-No. 150102

Material/Finish
aluminium, diecast
Feature/Equipment
1x Locking bolt Ø6 mm
Load
max. 1.000 N

F1.1



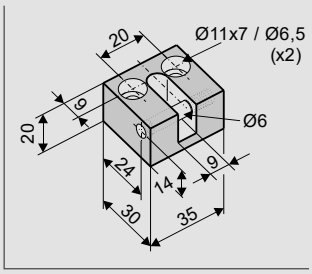
Application

Surface mounting on the **main closing edge** of casement profiles of outward opening windows or skylights, for drives with **front or rear suspension** with bore **Ø6 mm**, manual removal of the drive is possible

Part.-No. 150110

Material/Finish
aluminium, diecast
Feature/Equipment
1x Locking spring bolt Ø6 mm
Load
max. 600 N

F1V



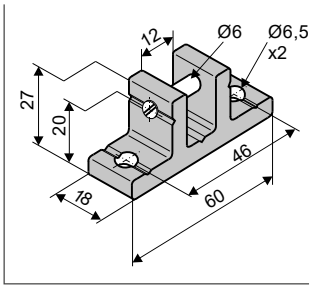
Application

Surface mounting on the **main closing edge** of casement profiles of outward opening windows or skylights, for drives with **front or rear suspension** with bore **Ø6 mm**

Part.-No. 150101

Material/Finish
aluminium
Feature/Equipment
1x grubscrew Ø 6 mm
Load
max. 1600 N

F10.6



Application

Surface mounting on **main closing edge** of casement profiles of outward opening windows or skylights, for drives with **front or rear suspension** with bore **Ø6 mm**, threaded stud bolt

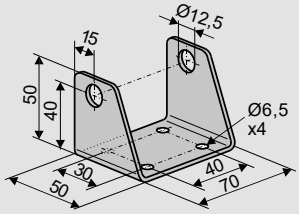
Part.-No. 151000

Material/Finish
aluminium
Feature/Equipment
1x stud bolt Ø6 mm
Load
max. 1600 N

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CASEMENT BRACKETS

K5



Application

Surface mounting on the **main closing edge** of window frame profiles or on the mullion/transom of outward opening (roof-)windows, for **swivelling suspension** of drives
PLA with **B4**,
SP with **B13,**
LKS with **B7**

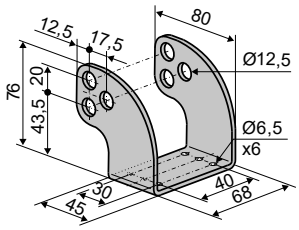
Part.-No. 155800

Material/Finish
stainless steel
Feature/Equipment
bore holes Ø12,5 mm

Accessories

B7 clamp ring LKS (30 x 30 mm, G1/8)	**Part.-No. 513900**
K21K Frame bracket	**Part.-No. 159900**
K21L Frame bracket	**Part.-No. 159905**

K82



Application

Surface mounting on the **main closing edge** of window frame profiles or on the mullion/transom of outward opening (roof-)windows, for **swivelling suspension** of drives
PLA with **B4**,
SP with **B13,**
LKS with **B7**

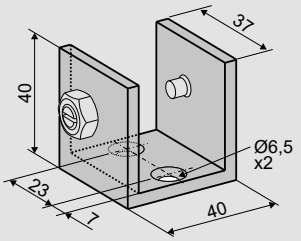
Part.-No. 151320

Material/Finish
stainless steel
Feature/Equipment
bore holes Ø12,5 mm

Accessories

B7 clamp ring LKS (30 x 30 mm, G1/8)	**Part.-No. 513900**

K28



Application

Surface mounting on the **main closing egde** of window frame profiles (or on the mullion/transom) of outward opening (roof-) windows, for **swivelling suspension** of drives **LKS** with **front or rear** bore **Ø6,0 mm**

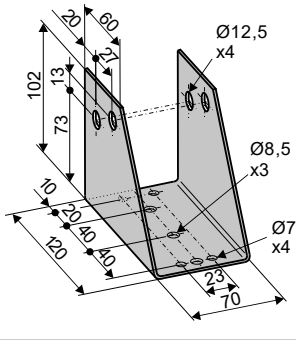
Part.-No. 160800

Material/Finish
aluminium, nature
Feature/Equipment
2x grubscrew M8,
2x nut M8
Load
max. 600 N

Accessories

2 rear holes Ø6 mm	**Part.-No. 520901**

K7



Application

Surface mounting on the **main closing edge** of the upstand of skylight domes **Essmann 810** for **swivelling suspension** of drives
PLA with **B4**,
SP with **B13,**
LKS with **B7**

Part.-No. 157500

Material/Finish
steel galvanized
Feature/Equipment
drilled holes Ø12,5 mm

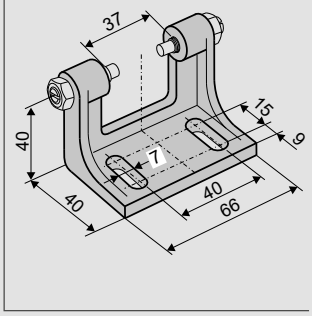
Accessories

B7 clamp ring LKS (30 x 30 mm, G1/8)	**Part.-No. 513900**

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CASEMENT BRACKETS

K29



Application

Surface mounting on the **main closing egde** of window frame profiles (or on the mullion/transom) of outward opening (roof-) windows, for **swivelling suspension** of drives **LKS** with **front or rear** bore **Ø6,0 mm**

Part.-No. 160900

Material/Finish
aluminium, nature
Feature/Equipment
2x grubscrew M8,
2x nut M8
Load
max. 600 N

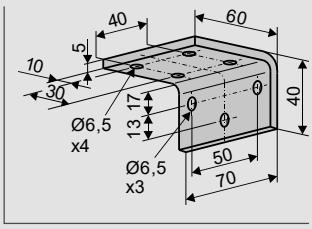
Accessories

2 rear holes Ø 6 mm	**Part.-No. 520901**
K21K Frame bracket	**Part.-No. 159900**
K21L Frame bracket	**Part.-No. 159905**

ACCESSORIES

Frame bracket

K21K



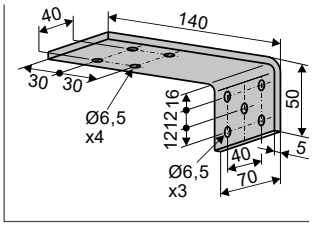
Application

Shift the fastening level of the frame brackets **K5, K29** from the horizontal to the vertical position of the **main closing edge** of window frame profiles

Part.-No. 159900

Material/Finish
steel, galvanized

K21L



Application

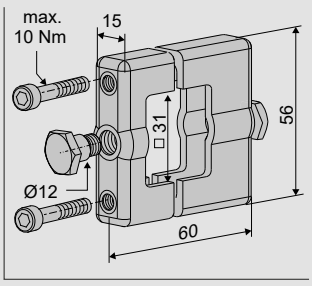
Shift the fastening level of the frame brackets **K5, K29** from the horizontal to the vertical position of the **main closing edge** of window frame profiles

Part.-No. 159905

Material/Finish
steel, galvanized

Clamp ring

B7



Application

Adjustable clamping of the **LKS** drive housing, for surface mounting with **swivelling suspension** on **K5, K7, K82**, (preferuply on outward opening windows)

Part.-No. 513900

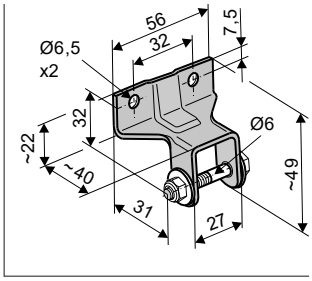
Material/Finish
aluminium (E6/C-0),
stainless steel
Feature/Equipment
2x B8 collar screw Ø12mm, G1/8
2x cylinder head screw M6x50

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SPECIFIC APPLICATIONS

SKY-LIGHT ESSMANN TYP 810

F12



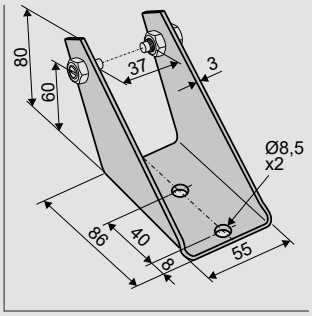
Application

Surface mounting on the **main closing edge** of the casement profiles of skylight domes **Essmann 810** for drives with **front suspension** with bore **Ø6 mm**

Part.-No. 151500

Material/Finish
steel, galvanized
Feature/Equipment
1x screw M6,
1x washer,
1x nut
Load
max. 800 N

K41



Application

Finish mounting on the main closing edge **(HSK)** of the upstand of skylight domes **Essmann 810** for **swivelling suspension** of drives **LKS**

Part.-No. 160910

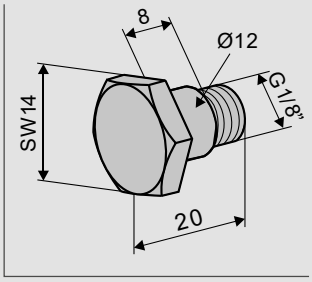
Material/Finish
steel, galvanized
Feature/Equipment
2x grubscrew M8,
2x nut M8

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OPTIONAL ACCESSORIES

Collar screw

B8



Application

Swivelling suspensin
of the clamp rings
B4 for **PLA**
B7 for **LKS**
or of the clamping blocks
B11, **B13** for **SP**
for U-shaped frame brackets
with bore **Ø12 mm**

Part.-No. 172800

Material/Finish
stainless steel (1.4305)
Feature/Equipment
collar Ø12 mm, G1/8"

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

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