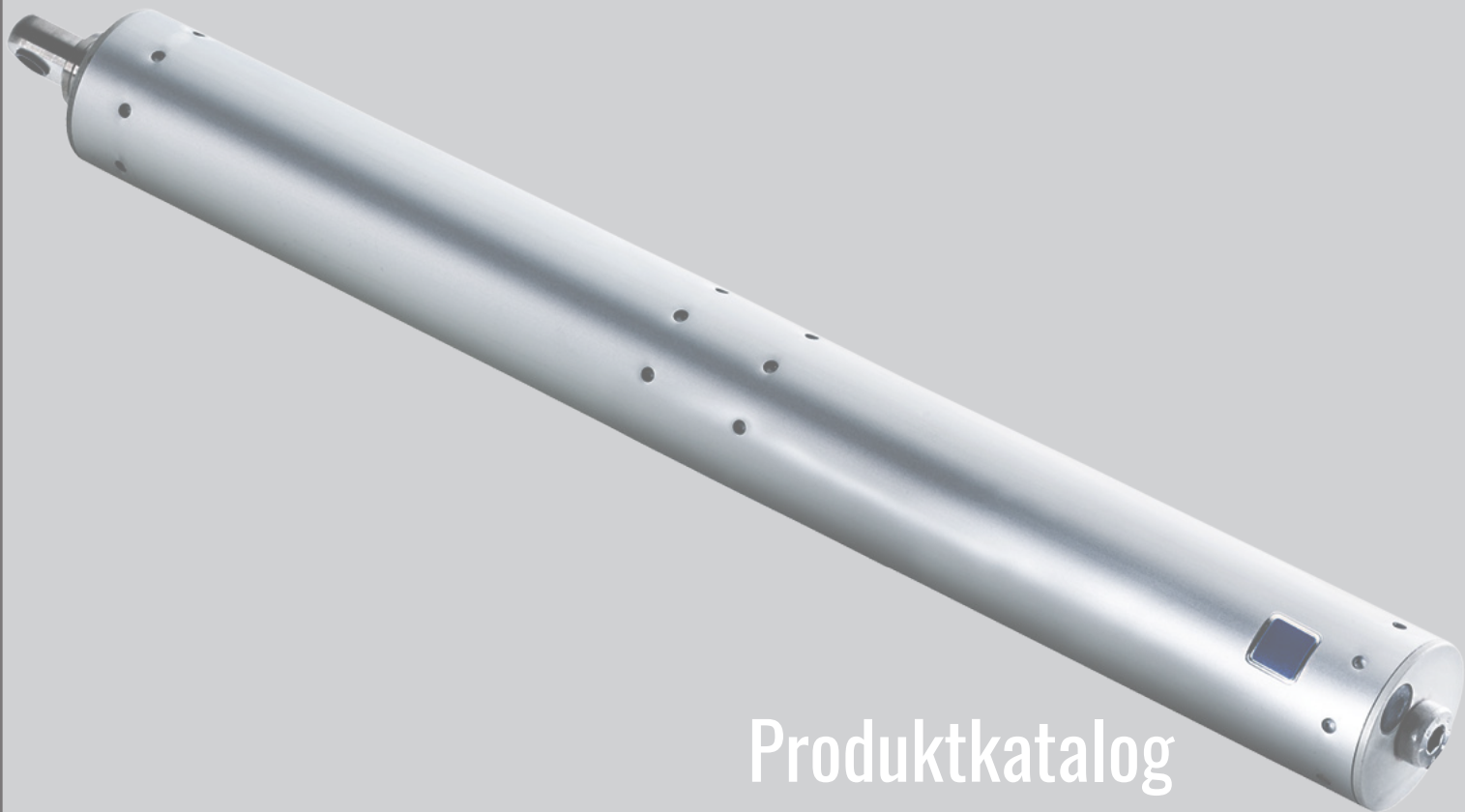


MBM || MAB



Produktkatalog

Spindelmotorer PLx

Oktober 2020

OVERVIEW OF SPINDLE DRIVES																		
Type	Form	Model		Stroke	Force		Speed		Stroke in	Cut-off current	Use			Location	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
			[VDC]	[mm]	[N]	[N]	[mm/s]	[mm/s]	[mm]	[A]								
PLA	PLA6	S3	24	100–1000	600	600	6,0	6,0	350	0,8	●	●	●	■	●	●	●	●
		S12		100–1000	600	600	6,0	6,0	350	0,8	●	●	●	■	●	●	●	●
	PLA8	S3	24	100–1000	800	800	10,0	10,0	600	1,4	●	●	●	■	●	●	●	●
		S12		100–1000	800	800	10,0	10,0	600	1,4	●	●	●	■	●	●	●	●
	PLA10	S12	24	100–1000	1000	1000	12,6	12,6	750	2,5	●	●	●	■	●	●	●	●
	PLA101	S3	24	100–1000	1000	1000	4,6	4,6	250	1,0	●	●	●	■	●	●	●	●
		S12		100–1000	1000	1000	4,6	4,6	250	1,0	●	●	●	■	●	●	●	●
	PLA16	S12		100–1000	1600	1600	7,0	7,0	400	2,5	●	●	●	■	●	●	●	●
PLA116	S3	24	100–750	1600	1600	4,0	4,0	240	1,2	●	●	●	■	●	●	●	●	
	S12		100–750	1600	1600	4,0	4,0	240	1,2	●	●	●	■	●	●	●	●	
PLS	PLS15	S12	24	300–1000	1500	1500	16,0	16,0	950	4,0	●	●	●	■	●	●	●	●
	PLS30	S12	24	300–1000	3000	2000	7,8	7,8	450	5,0	●	●	●	■	●	●	●	●
	PLS50	S12	24	200–750	5000	5000	4,0	4,0	240	4,2	●	●	●	■	●	●	●	●
SP	SP8	S2	24	100–750	800	800	7,0	7,0	400	1,0	●	●		■	●	○		○
		S2	230	300–750	800	800	7,0	7,0	400	0,2	●			■	●			

LEGEND

- suitable ■ not recommended
- S2 internal load dependend cut-off switch
- S3 internal load dependend cut-off switch, post cycle resistant, programmable for motion monitoring (up to 300 mm stroke) and sequence control
- S12 internal Intelligent Control Electronics for synchronised run and programmable functions
- only with external modules (cut-off switch system, synchronisation module, sequence control module)



PLA

PLA SPINDLE DRIVES

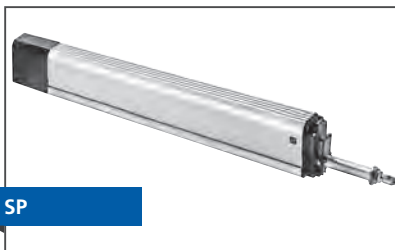
- Model 24V DC, S3 und S12
- Pulling force 600–1600 N (type depending)
- Stroke length 100–1000 mm
- Speed 4,0–12,5 mm/s (type depending)
- Housing (DxL) D=36 mm, length depends on stroke
- Opening mechanism stainless steel spindle tube
- Versions SOLO, Tandem, Synchro
- Protection rating IP65



PLS

PLS SPINDLE DRIVES

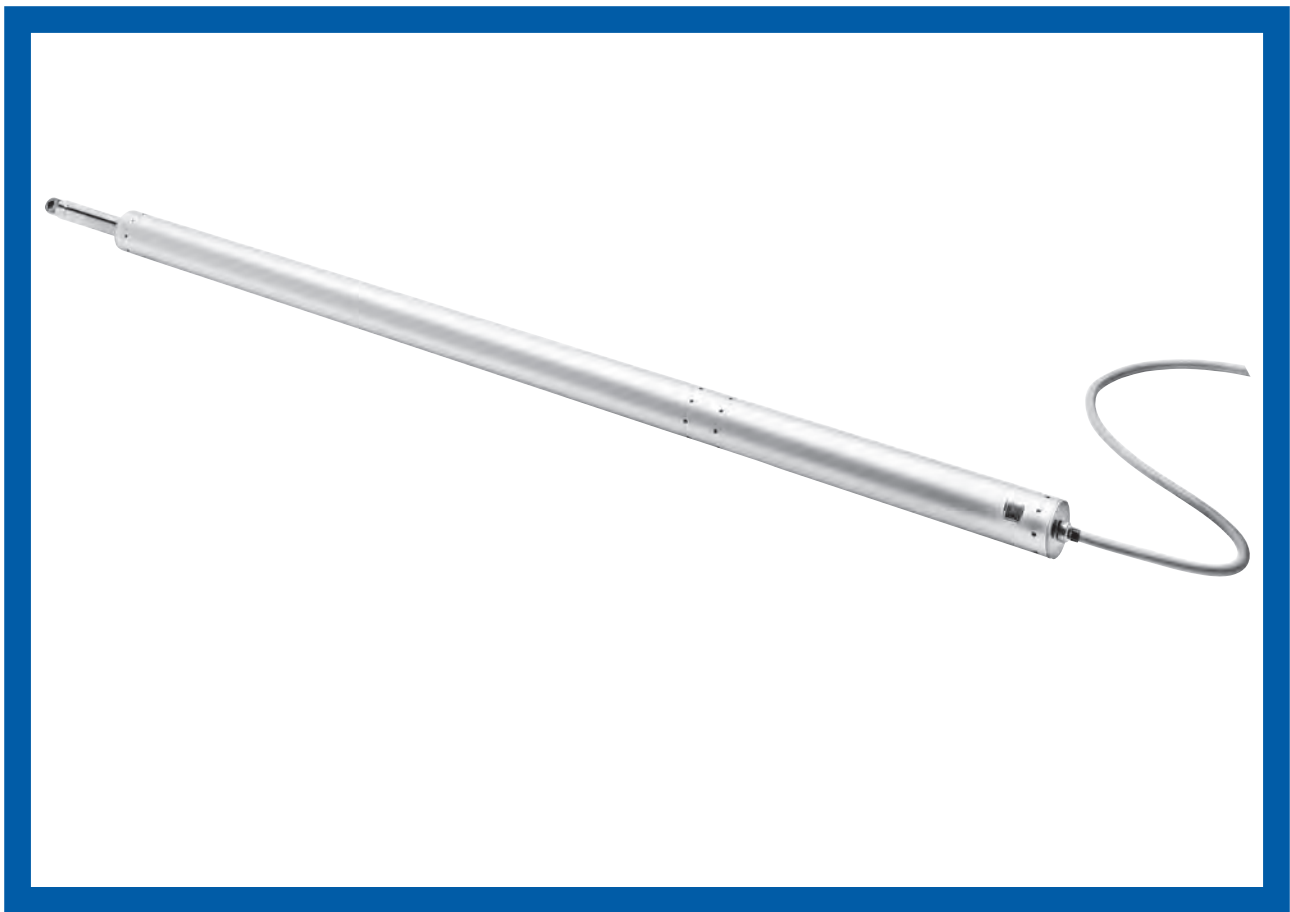
- Model 24V DC, S12
- Pulling force 1500–5000 N
- Stroke length 300–1200 mm
- Speed 4,0–17,0 mm/s (type depending)
- Housing (DxL) D=50/(60) mm, length depends on stroke
- Opening mechanism stainless steel spindle tube
- Versions SOLO, Tandem, Synchro
- Protection rating IP54



SP

SP SPINDLE DRIVES

- Model 24V DC, S2/230V AC, S2
- Pulling force 800 N
- Stroke length 100–750 mm (230V AC: 300–750)
- Speed 8,5 mm/s
- Housing (DxL) 43x76 mm, length depends on stroke
- Opening mechanism aluminium spindle tube
- Versions SOLO, Z with feedback contact
- Protection rating IP54/IP65



SPECIAL FEATURES PLA

- For natural ventilation, smoke and heat exhausting and ferralux® NSHEV (EN12101-2)
- Robust corrosion-resistant design in a slim aluminium housing (D = 36 mm), optionally in RAL colors
- Easy installation due to adjustable clamp ring and rear suspension
- Stainless steel spindle and spindle tube, ball beared with end position dampening
- Programmable parameters of Intelligent Control Electronics S12
 - 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
- Protection rating IP 65
- With GoreTex membrane
- Suitable for operation with M-COM for the automatic configuration of synchronised run of multi drive systems and sequence control

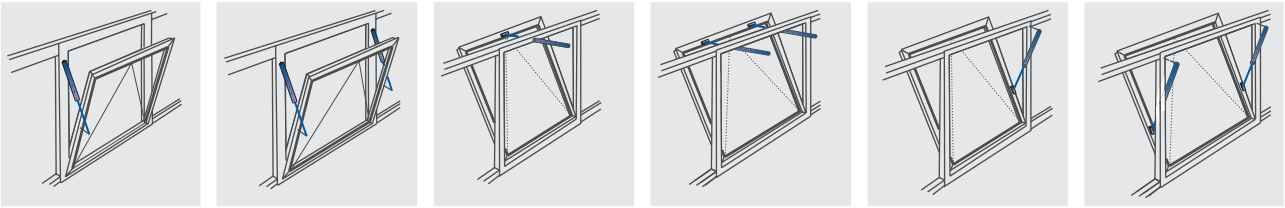
For this product series, a Type III Environmental Product Declaration (EPD) was issued according to ISO 14025 and EN 15804.

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

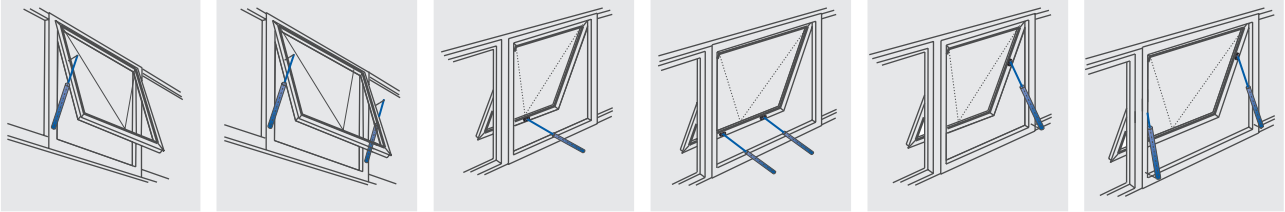
The EPD documents can be viewed or downloaded from our homepage www.aumueller-gmbh.de.

FACADE

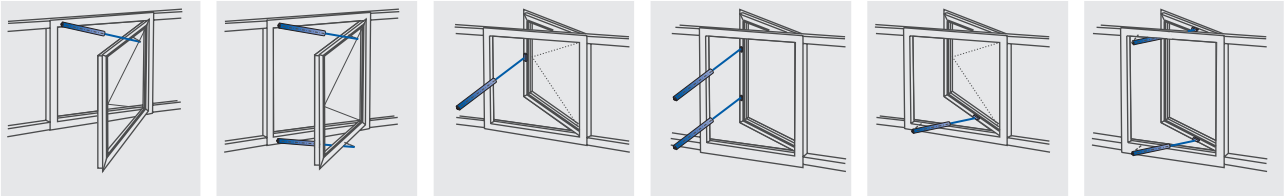
Bottom-hung



Top-hung

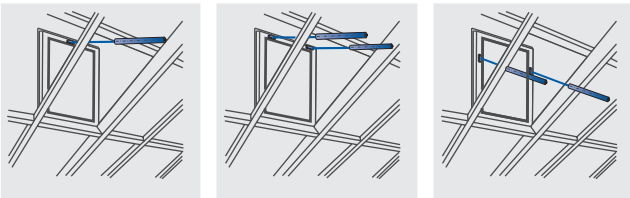


Side-hung

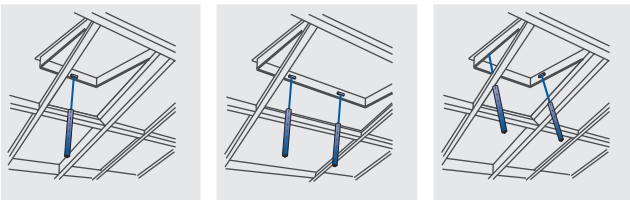


ROOF

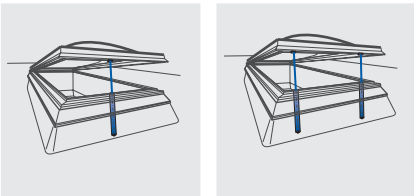
Bottom-hung



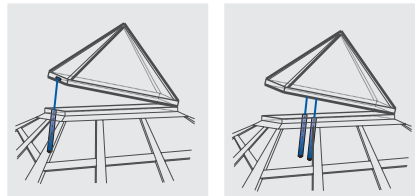
Top-hung

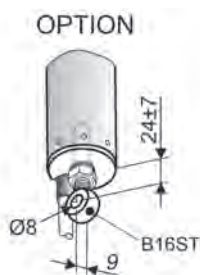
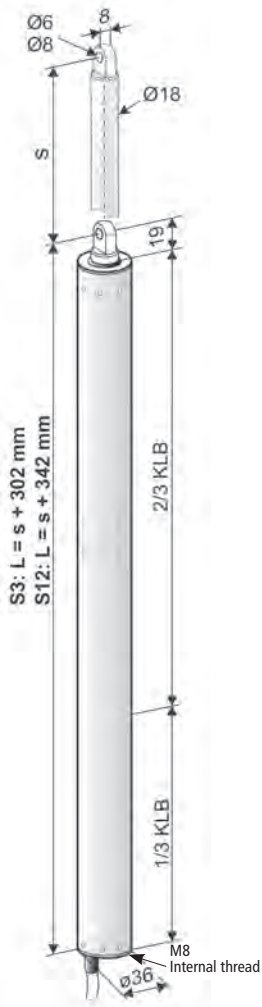
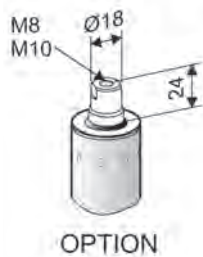


Sky light



Glass pyramid





- Application: natural ventilation, SHEV, ferralux®-NSHEV
- Options**
- Spindle tube end with interior thread for clevis
- Eyebolt and clevis for rear suspension

S3

- Internal load dependend cut-off switch, post cycle resistant S3
- Programmable motion monitored run (up to 300 mm stroke)
- Programmable sequence control with Locking drives (S3 / S12)

S12

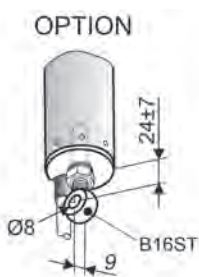
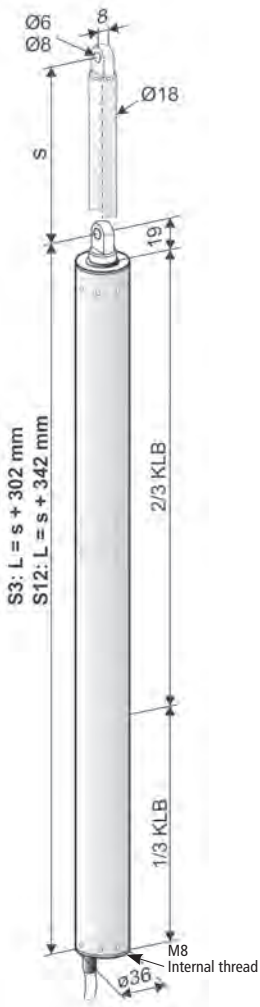
- Internal Intelligent Control Electronics S12
- Options**
- Programmable synchronised run (max. 4 drives) and special functions
- M-COM for automatic synchronised run of multi drive systems and automatic sequence control with locking drives (S3 / S12)

TECHNICAL DATA

U_N	Rated voltage	24V DC ($\pm 20\%$), max. 2 Vpp
I_N	Rated current	0,6 A
I_A	Cut-off current	0,8 A
P_N	Rated power	15 W
ED	Duty cycle	30 % (ON: 3 min. / OFF: 7 min.)
	Protection rating	IP 65
	Ambient temperature range	-5 °C ... +75 °C
F_Z	Pulling force max.	600 N
F_A	Pushing force	
F_H	Pullout force	5000 N (fastening depended)
	Spindle tube	stainless steel
	Connecting cable	non-halogen, grey 3 x 1,0 mm ² , ~ 3 m
v	Speed	6,0 mm/s 6,0 mm/s
s	Stroke	100 – 1200 mm ($\pm 5\%$)
L	Length	(S3): s + 302 mm (S12): s + 342 mm see order data
	Sound pressure level A	≤ 70 dB (A)

ORDER DATA							
s [mm]	L [mm]	Version	Finish	PU/pcs.	Part.-No.		
100	402	PLA6 100 S3	E6/C-0	1	564110		
	442	PLA6 100 S12		1	546310		
200	502	PLA6 200 S3	E6/C-0	1	564121		
	542	PLA6 200 S12		1	546320		
300	602	PLA6 300 S3	E6/C-0	1	564130		
	642	PLA6 300 S12		1	546330		
400	702	PLA6 400 S3	E6/C-0	1	564140		
	742	PLA6 400 S12		1	546340		
500	802	PLA6 500 S3	E6/C-0	1	564150		
	842	PLA6 500 S12		1	546350		
600	902	PLA6 600 S3	E6/C-0	1	564160		
	942	PLA6 600 S12		1	546360		
750	1052	PLA6 750 S3	E6/C-0	1	564175		
	1092	PLA6 750 S12		1	546375		
1000	1302	PLA6 1000 S3	E6/C-0	1	564200		
	1342	PLA6 1000 S12		1	546400		

OPTIONS							
Special model				PU/pcs.	Part.-No.		
Front Fixing							
Spindle tube end with interior thread M8				1	515061		
Spindle tube end with interior thread M10				1	515060		
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		
				up 101	516004		
Extra length connecting cable:							
5 m – non-halogen, grey – 3 x 1,0 mm ²					501037		
10 m – non-halogen, grey – 3 x 1,0 mm ²					501039		
Mechanic stroke reduction S3							
Stroke reduction without construction length - mechanically				1	516000		
Accessories for front / rear suspension							
B16ST Eyebolt Ø8 mm, galvanized				1	100044		
B16VA Eyebold Ø8 mm, stainless steel				1	100144		
B27ST Clevis M8x16 mm, galvanized, thread M8x45 mm				1	105510		
B28ST Clevis M10x20 mm, galvanized, thread M10x50 mm				1	105520		
Microprocessor programming S3							
Motion monitored run / sequence control				1	524181		
Microprocessor programming S12							
Electronic stroke reduction 24V S12				1	524190		
Programming drives 24V / 230V S12				1	524180		
Other lengths available on request							
Optional accessories				PU/pcs.	Part.-No.		
M-COM Configuration module for synchronised multi-drive systems				1	524177		



- Application: natural ventilation, SHEV, ferralux®-NSHEV
- Options**
- Spindle tube end with interior thread for clevis
- Eyebolt and clevis for rear suspension

S3

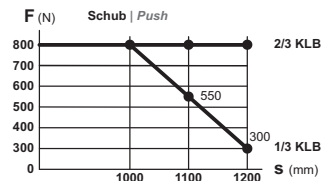
- Internal load dependend cut-off switch, post cycle resistant S3
- Programmable motion monitored run (up to 300 mm stroke)
- Programmable sequence control with locking drives (S3 / S12)

S12

- Internal Intelligent Control Electronics S12
- Options**
- Programmable synchronised run (max. 4 drives) and special functions
- 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	1,0 A
I_A	Cut-off current	1,4 A
P_N	Rated power	24 W
ED	Duty cycle	30 % (ON: 3 min. / OFF: 7 min.)
	Protection rating	IP 65
	Ambient temperature range	-5 °C ... +75 °C
F_Z	Pulling force max.	800 N
F_A	Pushing force	



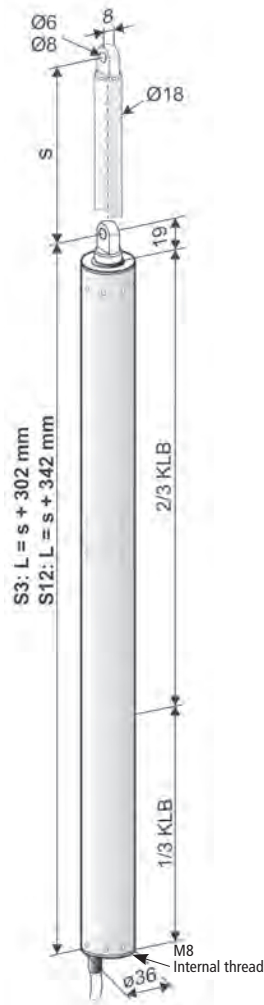
F_H	Pullout force	5000 N (fastening depended)
	Spindle tube	stainless steel
	Connecting cable	non-halogen, grey 3 x 1,0 mm ² , ~ 3 m
v	Speed	10,0 mm/s 10,0 mm/s
s	Stroke	100 – 1200 mm ($\pm 5\%$)
L	Length	(S3): s + 302 mm (S12): s + 342 mm see order data
	Sound pressure level A	≤ 70 dB (A)

ORDER DATA						
s [mm]	L [mm]	Version	Finish	PU/pcs.	Part.-No.	
100	402	PLA8 100 S3	E6/C-0	1	523710	
	442	PLA8 100 S12		1	515210	
200	502	PLA8 200 S3	E6/C-0	1	523720	
	542	PLA8 200 S12		1	515220	
300	602	PLA8 300 S3	E6/C-0	1	523730	
	642	PLA8 300 S12		1	515230	
400	702	PLA8 400 S3	E6/C-0	1	523740	
	742	PLA8 400 S12		1	515240	
500	802	PLA8 500 S3	E6/C-0	1	523750	
	842	PLA8 500 S12		1	515250	
600	902	PLA8 600 S3	E6/C-0	1	523760	
	942	PLA8 600 S12		1	515260	
750	1052	PLA8 750 S3	E6/C-0	1	523775	
	1092	PLA8 750 S12		1	515275	
1000	1302	PLA8 1000 S3	E6/C-0	1	523800	
	1342	PLA8 1000 S12		1	515295	

OPTIONS						
Special model				PU/pcs.	Part.-No.	
Front Fixing						
Spindle tube end with interior thread M8				1	515061	
Spindle tube end with interior thread M10				1	515060	
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	
				up 101	516004	
Extra length connecting cable:						
5 m – non-halogen, grey – 3 x 1,0 mm ²					501037	
10 m – non-halogen, grey – 3 x 1,0 mm ²					501039	
Mechanic stroke reduction S3						
Stroke reduction without construction length - mechanically				1	516000	
Accessories for front / rear suspension						
B16ST Eyebolt Ø8 mm, galvanized				1	100044	
B16VA Eyebold Ø8 mm, stainless steel				1	100144	
B27ST Clevis M8x16 mm, galvanized, thread M8x45 mm				1	105510	
B28ST Clevis M10x20 mm, galvanized, thread M10x50 mm				1	105520	
Microprocessor programming S3						
Motion monitored run / sequence control				1	524181	
Microprocessor programming S12						
Electronic stroke reduction 24V S12				1	524190	
Programming drives 24V / 230V S12				1	524180	
Other lengths available on request						
Optional accessories				PU/pcs.	Part.-No.	
M-COM Configuration module for synchronised multi-drive systems				1	524177	

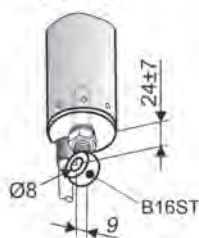


OPTION



S3: L = s + 302 mm
S12: L = s + 342 mm

OPTION



- Application: natural ventilation, SHEV, ferralux®-NSHEV

Options

- Spindle tube end with interior thread for clevis
- Eyebolt and clevis for rear suspension

S3

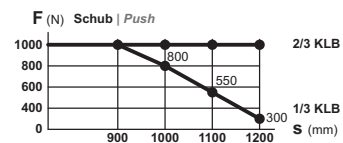
- Internal load dependend cut-off switch, post cycle resistant S3
- Programmable motion monitored run (up to 300 mm stroke)
- Programmable sequence control with locking drives (S3 / S12)

S12

- Internal Intelligent Control Electronics S12
- Options
 - Programmable synchronised run (max. 4 drives) and special functions
 - 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	0,8 A
I_A	Cut-off current	1,0 A
P_N	Rated power	19 W
ED	Duty cycle	30 % (ON: 3 min. / OFF: 7 min.)
	Protection rating	IP 65
	Ambient temperature range	-5 °C ... +75 °C
F_Z	Pulling force max.	1000 N
F_A	Pushing force	



F_H	Pullout force	5000 N (fastening depended)
-------	---------------	-----------------------------

Spindle tube stainless steel

Connecting cable non-halogen, grey 3 x 1,0 mm², ~ 3 m

v Speed \rightarrow 4,6 mm/s \leftarrow 4,6 mm/s

s Stroke 100 – 1200 mm ($\pm 5\%$)

L Length
S3: s + 302 mm
S12: s + 342 mm
see order data

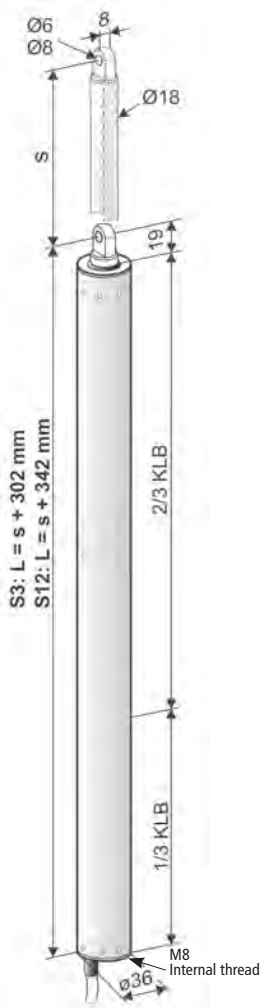
Sound pressure level A ≤ 70 dB (A)

ORDER DATA						
s [mm]	L [mm]	Version	Finish	PU/pcs.	Part.-No.	
100	402	PLA101 100 S3	E6/C-0	1	565110	
	442	PLA101 100 S12		1	564910	
200	502	PLA101 200 S3	E6/C-0	1	565120	
	542	PLA101 200 S12		1	564922	
300	602	PLA101 300 S3	E6/C-0	1	565130	
	642	PLA101 300 S12		1	564930	
400	702	PLA 01 400 S3	E6/C-0	1	565140	
	742	PLA101 400 S12		1	564940	
500	802	PLA101 500 S3	E6/C-0	1	565150	
	842	PLA101 500 S12		1	564950	
600	902	PLA101 600 S3	E6/C-0	1	565160	
	942	PLA101 600 S12		1	564960	
750	1052	PLA101 750 S3	E6/C-0	1	565175	
	1092	PLA101 750 S12		1	564975	
1000	1302	PLA101 1000 S3	E6/C-0	1	565200	
	1342	PLA101 1000 S12		1	565000	

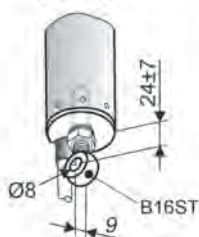
OPTIONS						
Special model				PU/pcs.	Part.-No.	
Front Fixing						
Spindle tube end with interior thread M8				1	515061	
Spindle tube end with interior thread M10				1	515060	
Drive housing painted/powder coated in other RAL colours						
Lump sum for coating					516030	
Specify at order stage:				1 – 20	516004	
				21 – 50	516004	
				51 – 100	516004	
				up 101	516004	
Extra length connecting cable:						
5 m – non-halogen, grey – 3 x 1,0 mm ²					501037	
10 m – non-halogen, grey – 3 x 1,0 mm ²					501039	
Mechanic stroke reduction S3						
Stroke reduction without construction length - mechanically				1	516000	
Accessories for front / rear suspension						
B16ST Eyebolt Ø8 mm, galvanized				1	100044	
B16VA Eyebold Ø8 mm, stainless steel				1	100144	
B27ST Clevis M8x16 mm, galvanized, thread M8x45 mm				1	105510	
B28ST Clevis M10x20 mm, galvanized, thread M10x50 mm				1	105520	
Microprocessor programming S3						
Motion monitored run / sequence control				1	524181	
Microprocessor programming S12						
Electronic stroke reduction 24V S12				1	524190	
Programming drives 24V / 230V S12				1	524180	
Other lengths available on request						
Optional accessories				PU/pcs.	Part.-No.	
M-COM Configuration module for synchronised multi-drive systems				1	524177	



OPTION



OPTION



- Application: natural ventilation, SHEV, ferralux®-NSHEV

Options

- Spindle tube end with interior thread for clevis
- Eyebolt and clevis for rear suspension

S3

- Internal load dependent cut-off switch, post cycle resistant S3
- Programmable motion monitored run (up to 300 mm stroke)
- Programmable sequence control with locking drives (S3 / S12)

S12

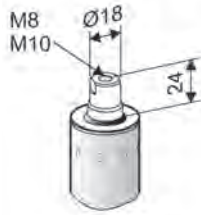
- Internal Intelligent Control Electronics S12
- Options
 - Programmable synchronised run (max. 4 drives) and special functions
 - M-COM for automatic synchronised run of multi drive systems and automatic sequence control with locking drives (S3 / S12)

TECHNICAL DATA

U_N	Rated voltage	24V DC ($\pm 20\%$), max. 2 Vpp
I_N	Rated current	1,0 A
I_A	Cut-off current	1,2 A
P_N	Rated power	24 W
ED	Duty cycle	30 % (ON: 3 min. / OFF: 7 min.)
	Protection rating	IP 65
	Ambient temperature range	-5 °C ... +75 °C
F_Z	Pulling force max.	1600 N
F_A	Pushing force	
F_H	Pullout force	5000 N (fastening depended)
	Spindle tube	stainless steel
	Connecting cable	non-halogen, grey 3 x 1,0 mm ² , ~ 3 m
v	Speed	$\nabla = 4,0$ mm/s $\curvearrowright = 4,0$ mm/s
s	Stroke	100 – 1200 mm ($\pm 5\%$)
L	Length	S3: s + 302 mm S12: s + 342 mm see order data
	Sound pressure level A	≤ 70 dB (A)

ORDER DATA						
s [mm]	L [mm]	Version	Finish	PU/pcs.	Part.-No.	
100	402	PLA 116 100 S3	E6/C-0	1	565310	
	442	PLA 116 100 S12		1	565510	
200	502	PLA 116 200 S3	E6/C-0	1	565320	
	542	PLA 116 200 S12		1	565520	
300	602	PLA 116 300 S3	E6/C-0	1	565330	
	642	PLA 116 300 S12		1	565530	
400	702	PLA 116 400 S3	E6/C-0	1	565340	
	742	PLA 116 400 S12		1	565540	
500	802	PLA 116 500 S3	E6/C-0	1	565350	
	842	PLA 116 500 S12		1	565550	
600	902	PLA 116 600 S3	E6/C-0	1	565360	
	942	PLA 116 600 S12		1	565560	
750	1052	PLA 116 750 S3	E6/C-0	1	565375	
	1092	PLA 116 750 S12		1	565575	

OPTIONS						
Special model				PU/pcs.	Part.-No.	
Front Fixing						
Spindle tube end with interior thread M8				1	515061	
Spindle tube end with interior thread M10				1	515060	
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	
				up 101	516004	
Extra length connecting cable:						
5 m – non-halogen, grey – 3 x 1,0 mm ²					501037	
10 m – non-halogen, grey – 3 x 1,0 mm ²					501039	
Mechanic stroke reduction S3						
Stroke reduction without construction length - mechanically				1	516000	
Accessories for front / rear suspension						
B16ST Eyebolt Ø8 mm, galvanized				1	100044	
B16VA Eyebold Ø8 mm, stainless steel				1	100144	
B27ST Clevis M8x16 mm, galvanized, thread M8x45 mm				1	105510	
B28ST Clevis M10x20 mm, galvanized, thread M10x50 mm				1	105520	
Microprocessor programming S3						
Motion monitored run / sequence control				1	524181	
Microprocessor programming S12						
Electronic stroke reduction 24V S12				1	524190	
Programming drives 24V / 230V S12				1	524180	
Other lengths available on request						
Optional accessories				PU/pcs.	Part.-No.	
M-COM Configuration module for synchronised multi-drive systems				1	524177	

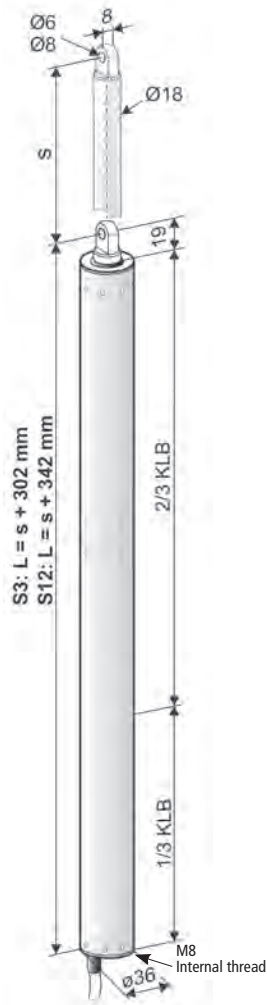


OPTION

- Application: natural ventilation, SHEV, ferralux®-NSHEV
- Internal Intelligent Control Electronics S12

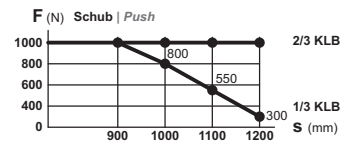
Options

- Programmable synchronised run (max. 4 drives) and special functions
- M-COM for automatic synchronised run of multi drive systems and automatic sequence control with locking drives (S3 / S12)
- Spindle tube end with interior thread for clevis
- Eyebolt and clevis for rear suspension



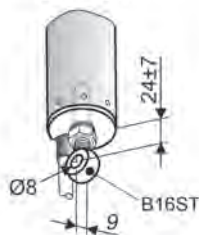
TECHNICAL DATA

U_N	Rated voltage	24V DC ($\pm 20\%$), max. 2 Vpp
I_N	Rated current	1,9 A
I_A	Cut-off current	2,5 A
P_N	Rated power	45 W
ED	Duty cycle	30 % (ON: 3 min / OFF: 7 min.)
	Protection rating	IP 65
	Ambient temperature range	-5 °C ... +75 °C
F_z	Pulling force max.	1000 N
F_A	Pushing force	



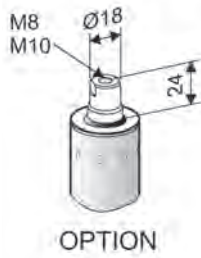
F_H	Pullout force	5000 N (fastening depended)
	Spindle tube	stainless steel
	Connecting cable	non-halogen, grey 3 x 1,0 mm ² , ~ 3 m
v	Speed	$\omega = 12,6$ mm/s $\rightarrow 12,6$ mm/s
s	Stroke	100 – 1200 mm ($\pm 5\%$)
L	Length	s + 342 mm see order data
	Sound pressure level A	≤ 70 dB (A)

OPTION

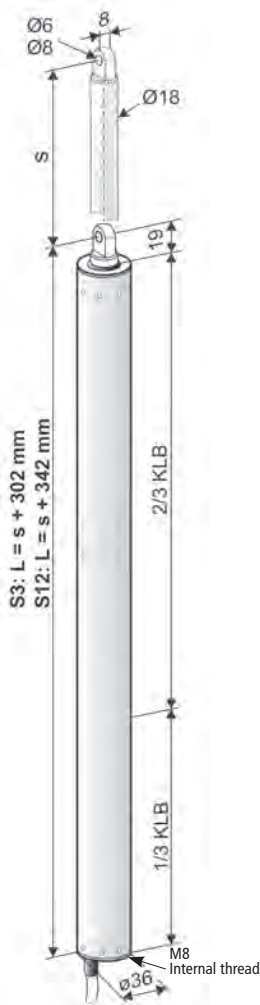


ORDER DATA						
s [mm]	L [mm]	Version	Finish	PU/pcs.	Part.-No.	
100	442	PLA 10 100 S12	E6/C-0	1	523610	
200	542	PLA 10 200 S12	E6/C-0	1	523620	
300	642	PLA 10 300 S12	E6/C-0	1	523630	
400	742	PLA 10 400 S12	E6/C-0	1	523640	
500	842	PLA 10 500 S12	E6/C-0	1	523650	
600	942	PLA 10 600 S12	E6/C-0	1	523660	
750	1092	PLA 10 750 S12	E6/C-0	1	523675	
1000	1342	PLA 10 1000 S12	E6/C-0	1	523700	

OPTIONS						
Special model		PU/pcs.	Part.-No.			
Front Fixing						
Spindle tube end with interior thread M8		1	515061			
Spindle tube end with interior thread M10		1	515060			
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			
	up 101		516004			
Extra length connecting cable:						
5 m – non-halogen, grey – 3 x 1,0 mm ²			501037			
10 m – non-halogen, grey – 3 x 1,0 mm ²			501039			
Mechanic stroke reduction S3						
Stroke reduction without construction length - mechanically		1	516000			
Accessories for front / rear suspension						
B16ST Eyebolt Ø8 mm, galvanized		1	100044			
B16VA Eyebold Ø8 mm, stainless steel		1	100144			
B27ST Clevis M8x16 mm, galvanized, thread M8x45 mm		1	105510			
B28ST Clevis M10x20 mm, galvanized, thread M10x50 mm		1	105520			
Microprocessor programming S12						
Electronic stroke reduction 24V S12		1	524190			
Programming drives 24V / 230V S12		1	524180			
Other lengths available on request						
Optional accessories						
M-COM Configuration module for synchronised multi-drive systems		1	524177			

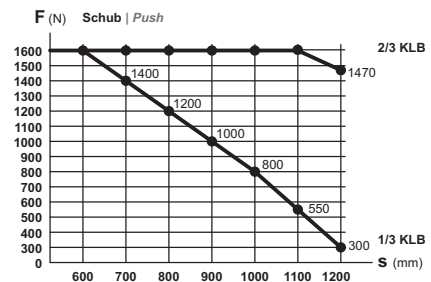


- Application: natural ventilation, SHEV, ferralux®-NSHEV
 - Internal Intelligent Control Electronics S12
- Options**
- Programmable synchronised run (max. 4 drives) and special functions
 - M-COM for automatic synchronised run of multi drive systems and automatic sequence control with locking drives (S3 / S12)
 - Spindle tube end with interior thread for clevis
 - Eyebolt and clevis for rear suspension



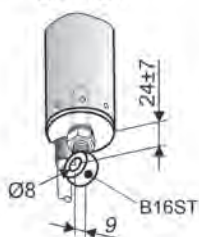
TECHNICAL DATA

U_N	Rated voltage	24V DC ($\pm 20\%$), max. 2 Vpp
I_N	Rated current	1,9 A
I_A	Cut-off current	2,5 A
P_N	Rated power	45 W
ED	Duty cycle	30 % (ON: 3 min / OFF: 7 min.)
	Protection rating	IP 65
	Ambient temperature range	-5 °C ... +75 °C
F_Z	Pulling force max.	1600 N
F_A	Pushing force	



F_H	Pullout force	5000 N (fastening depended)
	Spindle tube	stainless steel
	Connecting cable	non-halogen, grey 3 x 1,0 mm ² , ~ 3 m
v	Speed	7,0 mm/s 7,0 mm/s
s	Stroke	100 – 1200 mm ($\pm 5\%$)
L	Length	s + 342 mm see order data
	Sound pressure level A	≤ 70 dB (A)

OPTION



ORDER DATA						
s [mm]	L [mm]	Version	Finish	PU/pcs.	Part.-No.	
100	442	PLA16 100 S12	E6/C-0	1	565710	
200	542	PLA16 200 S12	E6/C-0	1	565720	
300	642	PLA16 300 S12	E6/C-0	1	565730	
400	742	PLA16 400 S12	E6/C-0	1	565740	
500	842	PLA16 500 S12	E6/C-0	1	565750	
600	942	PLA16 600 S12	E6/C-0	1	565760	
750	1092	PLA16 750 S12	E6/C-0	1	565775	
1000	1342	PLA16 1000 S12	E6/C-0	1	565800	

OPTIONS			
Special model	PU/pcs.	Part.-No.	
Front Fixing			
Spindle tube end with interior thread M8	1	515061	
Spindle tube end with interior thread M10	1	515060	
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	
	up 101	516004	
Extra length connecting cable:			
5 m – non-halogen, grey – 3 x 1,0 mm ²		501037	
10 m – non-halogen, grey – 3 x 1,0 mm ²		501039	
Mechanic stroke reduction S3			
Stroke reduction without construction length - mechanically	1	516000	
Accessories for front / rear suspension			
B16ST Eyebolt Ø8 mm, galvanized	1	100044	
B16VA Eyebold Ø8 mm, stainless steel	1	100144	
B27ST Clevis M8x16 mm, galvanized, thread M8x45 mm	1	105510	
B28ST Clevis M10x20 mm, galvanized, thread M10x50 mm	1	105520	
Microprocessor programming S12			
Electronic stroke reduction 24V S12	1	524190	
Programming drives 24V / 230V S12	1	524180	
Other lengths available on request			
Optional accessories	PU/pcs.	Part.-No.	
M-COM Configuration module for synchronised multi-drive systems	1	524177	

OVERVIEW OF BRACKETS													
Typical applications			1	2	3	4	5	6	7	8	9	10	
Frame bracket			K5	K5	K5	K17	K82	K122	K127	K122-1	K122-1	K7	
Mounting aid					K21								
Bracket accessories			clamping ring B4 (36 mm-G1/8)										
Casement bracket			F29-1	F1, F1V, F1.1, F10.6, F10.8S, F11, F13, F40				F29	F11	F36	F30	F12	
Special application			Heroal 085D					Heroal 085 D	Wing 105D	AWS 57RO	Witect 50	Sky light Essmann	
Space requirement		min. [mm]	50	50	40 – 50	70	45	60	35	68	68	120	
Window material		Alu	●	●	●	●	●	●	●	●	●		
		Wood		●	●	●	●						
		PVC		●	●	●	●					●	
Type of window and mounting	Bot-tom hung	in-ward	HSK	FM			■		■				
				RM									
			NSK	FM									
		out-ward	HSK	RM			●		●				
				PR		●		●					
			NSK	RM									
	Top hung	in-ward	HSK	FM			■		■				
				RM									
			NSK	FM									
		out-ward	HSK	RM			●		●				
				PR		●		●					
			NSK	RM									
	Side hung	in-ward	HSK	FM			■		■				
				RM									
			NSK	FM									
		Roof	out-ward	HSK	RM	●		●		●			
					PR		●		●				
				NSK	RM			●			●	●	●
	Sky-light	out-ward	HSK	RM		●		●	●				
				NSK	RM							●	
	FAB(*1)		Solo	[mm]					450 – 1300				600 – 1200
			Sync2	[mm]					1200 – 2400				1200 – 2400
	FAH(*1)		Solo	[mm]					450 – 1500				600 – 1200
			Sync2	[mm]					450 – 2500				1200 – 1500

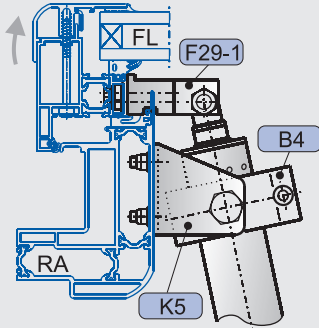
LEGEND

- suitable ■ not recommended

(*1) Sample value of the casement dimensions. The actual 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.

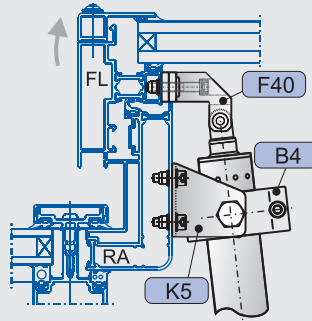
TYPICAL APPLICATIONS

1 RM, HSK, roof



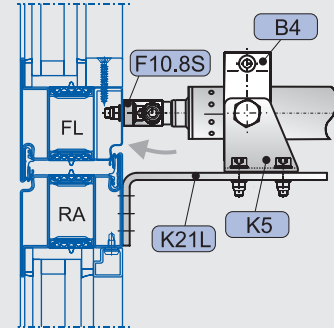
View on aluminium window

2 RM, HSK, roof



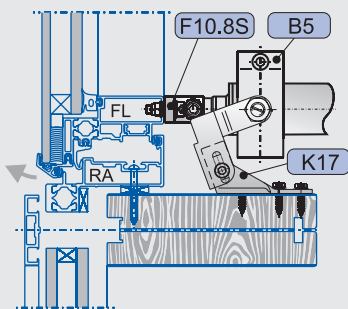
View on aluminium window

3 RM, HSK, top hung outward opening



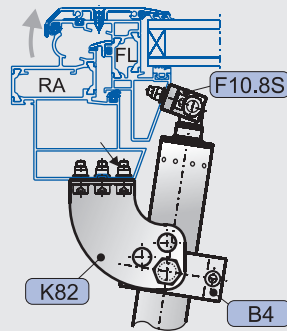
View on aluminium window

4 RM, HSK, top hung outward opening



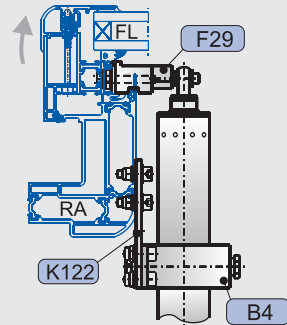
View on aluminium window

5 RM, HSK, roof



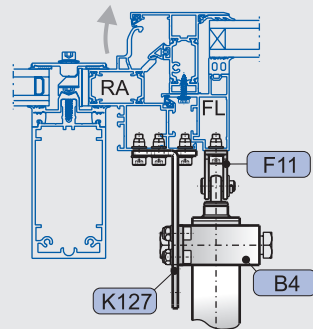
View on aluminium window

6 RM, NSK, roof



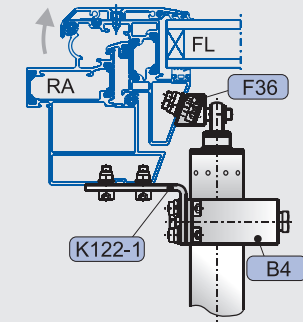
View on aluminium window

7 RM, NSK, roof



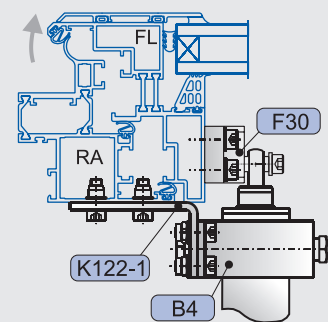
View on aluminium window

8 RM, NSK, roof



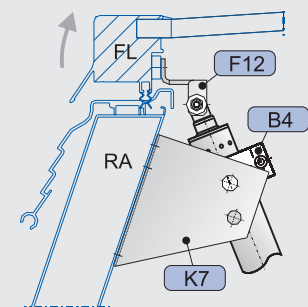
View on aluminium window

9 RM, NSK, roof



View on aluminium window

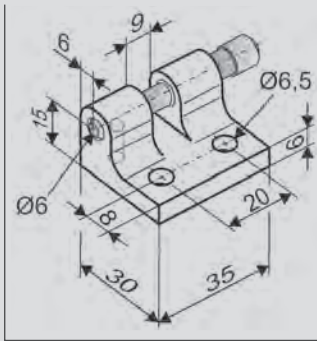
10 RM, HSK, sky-light



View on sky light

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 drive possible

Part.-No. 150102

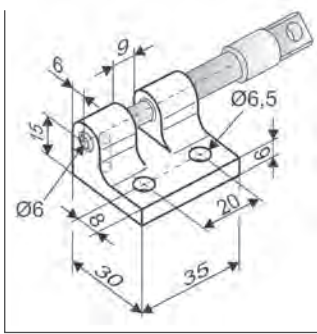
Material/Finish
aluminium, diecast

Feature/Equipment

1x locking bolt
Ø6 mm

Load
max. 1000 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 drive possible

Part.-No. 150110

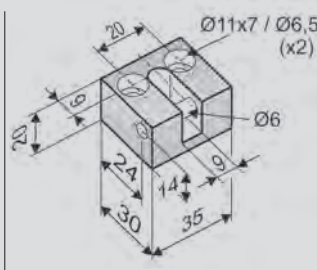
Material/Finish
aluminium, diecast

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

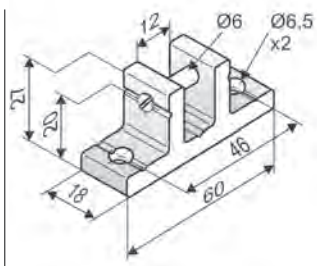
Material/Finish
aluminium

Feature/Equipment

1x grubscrew Ø6 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

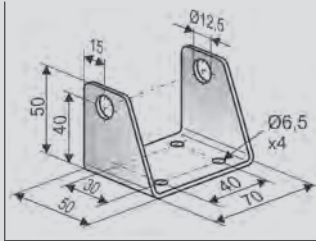
Load
max. 1600 N

CASEMENT BRACKETS

F10.8S		<p>Application Surface mounting on the main closing edge of casement profiles of outward opening windows, for drives with front or rear suspension with bore Ø8 mm</p>	<p>Part.-No. 151105 Material/Finish aluminium Feature/Equipment 1x nut M8, 1x screw M8x35 Load max. 5000 N</p>			
F11ST		<p>Application Surface mounting on the side closing edge of casement/ window frame profiles of in-/outward opening windows or on skylights, for drives with front or rear suspension with bore Ø8 mm, mounting holes aligned with central axis of drive</p>	<p>Part.-No. 151400 Material/Finish steel galvanized Feature/Equipment 1x bolt Ø8 mm, washer, cotter pin Load max. 3000 N</p>			
F11VA			<p>Part.-No. 151401 Material/Finish stainless steel</p>			
F13		<p>Application Surface mounting on the side closing edge of casement/ window frame profiles of in-/outward opening windows or on skylights, for drives with front or rear suspension with bore Ø8 mm, mounting holes not aligned with the central axis of drive</p>	<p>Part.-No. 151405 Material/Finish steel galvanized Feature/Equipment 1x bolt Ø8 mm, washer, cotter pin Load max. 1600 N</p>			
F40		<p>Application Surface mounting on the main closing edge of the casement profiles of outward opening roof windows, for drives with front or rear suspension with bore Ø8 mm</p>	<p>Part.-No. 155172 Material/Finish aluminium Feature/Equipment 1x screw M8x35, nut M8</p>			
Optional accessories						
	B2 Base Plate F39/F49	Part.-No. 155173				

FRAME 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
 steel galvanized
Feature/Equipment
 drilled holes Ø12,5 mm

Accessories

B4 clamp ring PLA
 (Ø36 mm, G1/8)

Part.-No. 515900

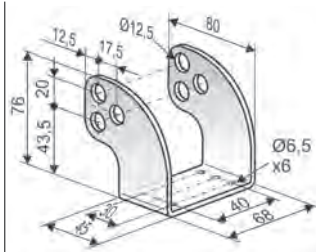
K21K Frame bracket

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

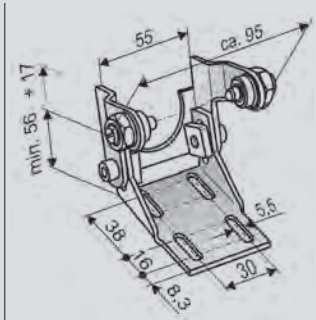
Material/Finish
 stainless steel
Feature/Equipment
 drilled holes Ø12,5 mm

Accessories

B4 clamp ring PLA
 (Ø36 mm, G1/8)

Part.-No. 515900

K17



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 B5,
 SP with B12

Part.-No. 159200

Material/Finish
 steel galvanized
Feature/Equipment
 adjustable height

Accessories

B5 clamp ring PLA
 (Ø36 mm, Ø8 mm)

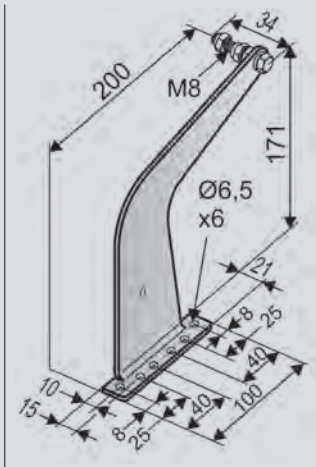
Part.-No. 515825

FRAME BRACKETS

K15		<p>Application Surface mounting on the side closing edge of window frame profiles of in-/outward opening windows, by obliquely arranged drives with rear suspension with bore Ø8 mm Required space on the frame 40 mm</p>	<p>Part.-No. 307000 Material/Finish steel galvanized Feature/Equipment H=150 mm, t=4 mm</p>			
Optional accessories						
B16ST Eyebolt (Ø8 x 40 mm ST)		Part.-No. 100044				
B16VA Eyebolt (Ø8 x 40 mm VA)		Part.-No. 100144				
K15-Set		<p>Application Surface mounting on the side closing edge like RWA-1000/1100 hardware sets Required space on the frame 40 mm</p>	<p>Part.-No. 517590 Material/Finish steel galvanized Feature/Equipment Set: 1x K15 1x F11ST 1x B16ST</p>			
K37		<p>Application Surface mounting on the side closing edge of window frame profiles of in-/outward opening windows, by obliquely arranged drives with rear suspension with bore Ø8 mm Required space on the frame 40 mm</p>	<p>Part.-No. 307500 Material/Finish steel galvanized Feature/Equipment H=250 mm, t=5 mm</p>			
Optional accessories						
B16ST Eyebolt (Ø8 x 40 mm ST)		Part.-No. 100044				
B16VA Eyebolt (Ø8 x 40 mm VA)		Part.-No. 100144				

FRAME BRACKETS

K97L



Application

Surface mounting on the side closing edge of window frame profiles of inward opening side hung windows, by obliquely arranged drives with rear suspension with bore Ø8 mm. Required space on the frame 20 mm

Part.-No. 160938

Material/Finish

stainless steel, vibratory grinding

Feature/Equipment

left hand

Optional accessories

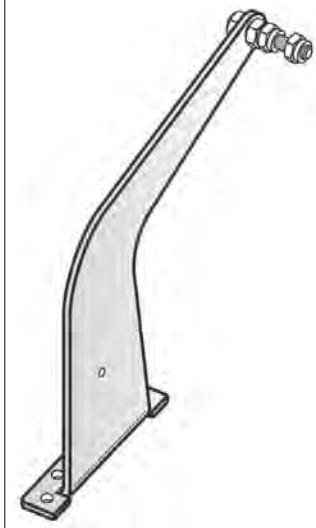
B16ST Eyebolt (Ø8 x 40 mm ST)

Part.-No. 100044

B16VA Eyebolt (Ø8 x 40 mm VA)

Part.-No. 100144

K97R



Application

Surface mounting on the side closing edge of window frame profiles of inward opening side hung windows, by obliquely arranged drives with rear suspension with bore Ø8 mm. Required space on the frame 20 mm

Part.-No. 160939

Material/Finish

stainless steel, vibratory grinding

Feature/Equipment

right hand

Accessories

B16ST Eyebolt (Ø 8 x 40 mm ST)

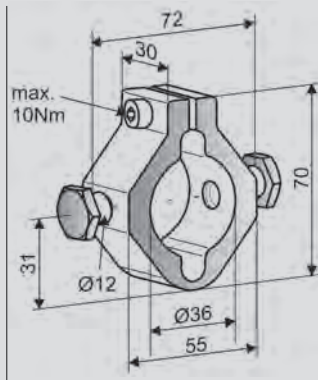
Part.-No. 100044

B16VA Eyebolt (Ø8 x 40 mm VA)

Part.-No. 100144

OPTIONAL ACCESSORIES

B4

**Application**

Adjustable clamping of the PLA drive housing, for surface mounting with **swivelling suspension** on **K5, K7, K82, K22, K22-1, K127** (preferably on outward opening windows)

Part.-No. 515900

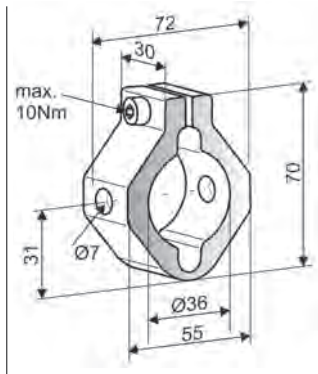
Material/Finish

aluminium (antreated), stainless steel

Feature/Equipment

2x B8 collar screw
Ø12mm, G1/8
1x cylinder head screw
M6x16mm

B5

**Application**

Adjustable clamping of the PLA drive housing, for surface mounting with **swivelling suspension** on **K17** (preferably on outward opening windows)

Part.-No. 515825

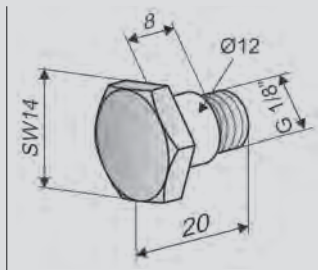
Material/Finish

aluminium (antreated), stainless steel

Feature/Equipment

2x Holes Ø7 mm
1x cylinder head screw
M6x16

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 **Ø12,5 mm**

Part.-No. 172800

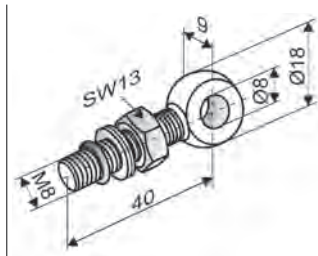
Material/Finish

stainless steel

Feature/Equipment

Collar Ø12 mm, G1/8"

B16ST

**Application**

Eye bolt for rear or front suspension of spindle drives with **M8** thread in the rear base cap or in the spindle tube

Part.-No. 100044

Material/Finish

steel galvanized

Feature/Equipment

M8x40 (Eye Ø8 mm),
1 x nut M8 + Nordlock-
safety-washer + O-ring
max. screw-in depth in the
drive 25 mm

B16VA

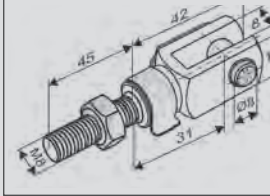
Part.-No. 100144

Material/Finish

stainless steel (V2A)

OPTIONAL ACCESSORIES

B27ST



Application

Clevis for rear or front suspension of spindle drives with M8 thread in the rear base cap or in the spindle tube

Part.-No. 105510

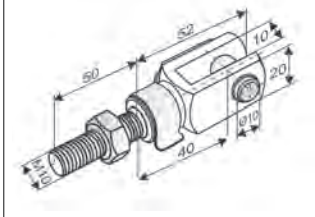
Material/Finish

steel galvanized

Feature/Equipment

Clevis M8 x 40 mm with spring bolt Ø8 mm and thread M8 x 45 mm
1x nut M10 + Nordlock-safety-washer + O-ring, max. screw-in depth in the drive 25 mm

B28ST



Application

Clevis for rear or front suspension of spindle drives with M10 thread in the rear base cap or in the spindle tube

Part.-No. 105520

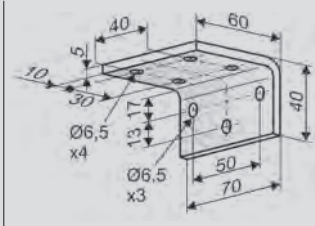
Material/Finish

steel galvanized

Feature/Equipment

Clevis M10 x 40 mm with spring bolt Ø8 mm and thread M10 x 50 mm
1x nut M10 + Nordlock-safety-washer + O-ring, max. screw-in depth in the drive 25 mm

K21K



Application

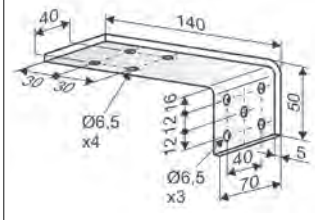
Shift the fastening level of the frame brackets **K5**, **K29** from the horizontal to the vertical position of the **main closing edge** of window frame profiles

Part.-No. 159900

Material/Finish

steel galvanized

K21L



Application

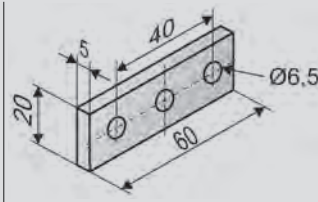
Shift the fastening level of the frame brackets **K5**, **K29** from the horizontal to the vertical position of the **main closing edge** of window frame profiles

Part.-No. 159905

Material/Finish

steel galvanized

B2



Application

Support for **F39** and **F40** as packing plate for mounting on the casement profiles of outward opening roof windows

Part.-No. 155173

Material/Finish

aluminium

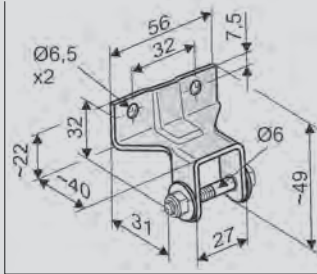
Feature/Equipment

60 x 20 x 5 mm

SPECIFIC APPLICATIONS

SKY-LIGHT ESSMANN TYP 810

F12

**Application**

Surface mounting on the main closing edge of the case-ment profiles of skylight domes **Essmann 810** for drives with front suspension with bore $\varnothing 6$ mm

Part.-No. 151500

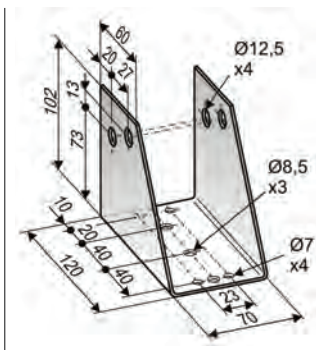
Material/Finish
steel galvanized**Feature/Equipment**

1x screw M6,
washer,
nut

Load

max. 800 N

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

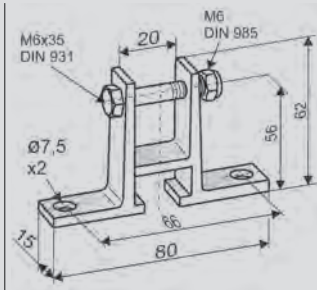
Material/Finish
steel galvanized**Feature/Equipment**
drilled holes $\varnothing 12,5$ mm**Accessories**

B4 clamp ring PLA
($\varnothing 36$ mm, G1/8)

Part.-No. 515900

SKY-LIGHT ETERNIT

F2

**Application**

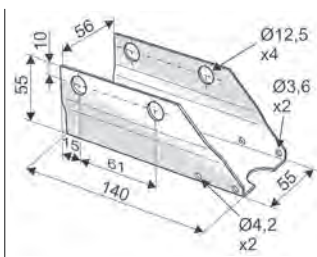
Surface mounting on the main closing edge of skylight domes **Eternit**, for drives with front suspension with bore $\varnothing 6$ mm

Part.-No. 150303

Material/Finish
aluminium**Feature/Equipment**

1x nut M6,
1x screw M6x35

K4-L

**Application**

Surface mounting on the main closing edge of the upstand of skylight domes **Eternit** for swivelling suspension of drives
PLA with **B4**,
SP with **B11**,

Part.-No. 155610

Material/Finish
steel galvanized**Feature/Equipment**

2x screw Taptite M4x10,
1x nut M4,
1x screw M4x65

Accessories

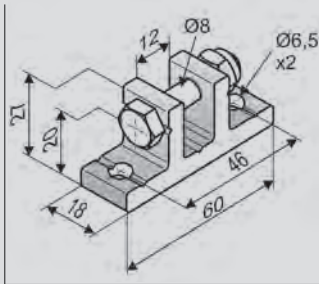
B4 clamp ring PLA
($\varnothing 36$ mm, G1/8)

Part.-No. 515900

SPECIFIC APPLICATIONS

SCHÜCO AWS 57RO, WICONA WICTEC 50, RAICO WING 105D – HSK

F10.8S



Application

Surface mounting on the main closing edge of casement profiles of outward opening windows, for drives with front or rear suspension with bore Ø8 mm

Part.-No. 151105

Material/Finish
aluminium

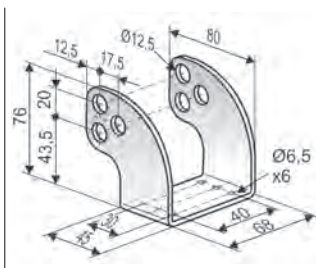
Feature/Equipment

1x nut M8,
1x screw M8x35

Load

max. 5000 N

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

drilled holes Ø12,5 mm

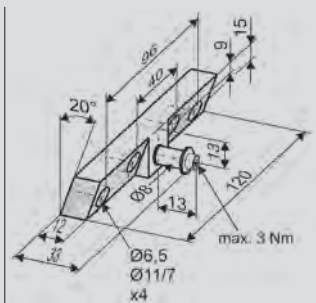
Accessories

B4 clamp ring PLA
(Ø36 mm, G1/8)

Part.-No. 515900

SCHÜCO AWS 57R – NSK

F36



Application

Surface mounting on the side closing edge of outward opening casement profiles of roof windows Schüco AWS 57RO, for drives with front suspension with bore Ø8 mm

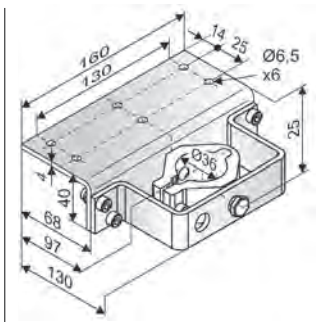
Part.-No. 155170

Material/Finish
aluminium,
stainless steel

Feature/Equipment

1x bolt Ø8 mm,
screw M4,
washer A4,3

K122-1



Application

Surface mounting on the side closing edge of window frame profiles of outward opening roof windows Schüco AWS 57RO, Wicona Wictec 50 for swivelling suspension of drives
PLA with B4

Part.-No. 155116

Material/Finish
stainless steel

Feature/Equipment
without clamping ring B4

Accessories

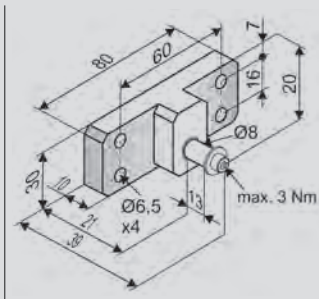
B4 clamp ring PLA
(Ø 36 mm, G1/8)

Part.-No. 515900

SPECIFIC APPLICATIONS

WICONA WICTEC 50 – NSK

F30

**Application**

Surface mounting on the side closing edge of the outward opening casement profiles of roof windows **Wicona Wictec 50**, for drives with **front suspension** with bore **Ø8 mm**

Part.-No. 155160

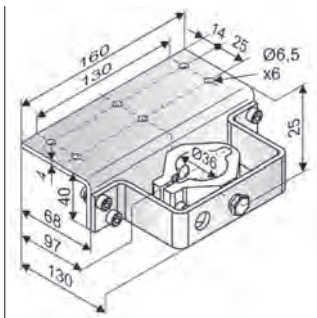
Material/Finish

aluminium,
stainless steel

Feature/Equipment

1x bolt Ø8 mm,
screw M4,
washer A4,3

K122-1

**Application**

Surface mounting on the side closing edge of window frame profiles of outward opening roof windows **Schüco AWS 57RO**, **Wicona Wictec 50** for **swivelling suspension** of drives **PLA** with **B4**

Part.-No. 155116

Material/Finish

stainless steel

Feature/Equipment

without clamping ring B4

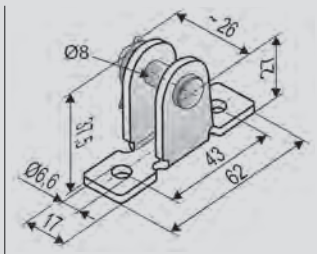
Accessories

B4 clamp ring PLA
(Ø36 mm, G1/8)

Part.-No. 515900

RAICO WING 105D – NSK

F11ST

**Application**

Surface mounting on the side closing edge of casement/window frame profiles of in-/outward opening windows or on skylights, for drives with **front or rear suspension** with bore **Ø8 mm**, mounting holes aligned with central axis of drive

Part.-No. 151400

Material/Finish

steel galvanized

Feature/Equipment

1x bolt Ø8 mm,
washer,
cotter pin

Load

max. 3000 N

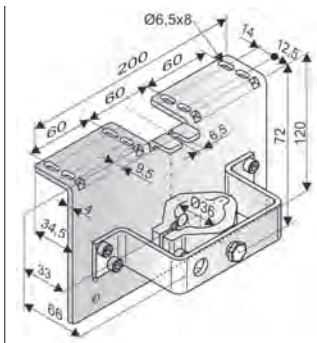
F11VA

Part.-No. 151401

Material/Finish

stainless steel

K127

**Application**

Surface mounting on the side closing edge of window frame profiles of outward opening roof windows **Raico Wing 105D** for **swivelling suspension** of drives **PLA** with **B4**

Part.-No. 155119

Material/Finish

stainless steel

Feature/Equipment

without clamping ring B4

Accessories

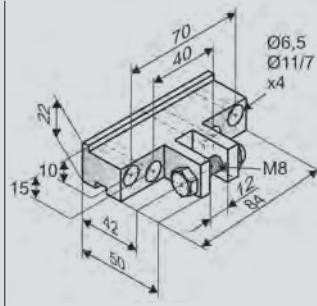
B4 clamp ring PLA
(Ø36 mm, G1/8)

Part.-No. 515900

SPECIFIC APPLICATIONS

HEROAL 085D – HSK

F29-1



Application

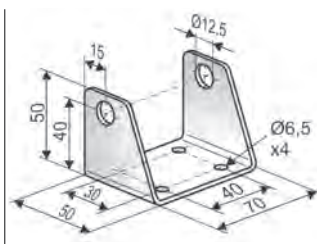
Surface mounting on the **main closing edge** of casement profiles of roof windows **Heroal 085D** for drives with **front suspension** with bore **Ø8 mm**

Part.-No. 155158

Material/Finish
aluminium
(natural anodized),
stainless steel

Feature/Equipment
1x screw M8x35,
nut M8

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
steel galvanized

Feature/Equipment
drilled holes Ø12,5 mm

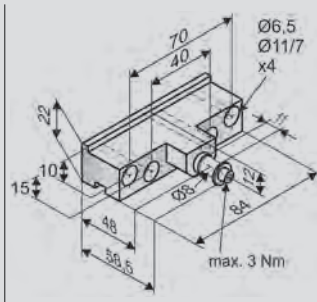
Accessories

B4 clamp ring PLA
(Ø36 mm, G1/8)

Part.-No. 515900

HEROAL 085D – NSK

F29



Application

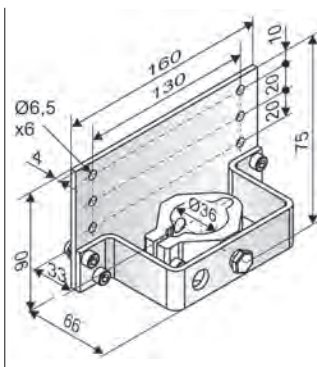
Surface mounting on the **side closing edge** of casement profiles of roof windows **Heroal 085D** for drives with **front suspension** with bore **Ø8 mm**

Part.-No. 155156

Material/Finish
aluminium
(natural anodized),
stainless steel

Feature/Equipment
1x bolt Ø8 mm,
screw M4,
washer A4,3

K122



Application

Surface mounting on the **side closing edge** of window frame profiles of outward opening roof windows **Schüco RS 106D**, **Heroal 085D** for **swivelling suspension** of drives

PLA with **B4**

Part.-No. 155115

Material/Finish
stainless steel


Feature/Equipment
without clamping ring B4
(#515900)

Accessories

B4 clamp ring PLA
(Ø36 mm, G1/8)

Part.-No. 515900

OPTIONAL ACCESSORIES

Main control unit			
M-COM		<p>Application</p> <p>Configuration module for automatic configuration and surveillance of max. 6 opening or locking drives version S12 / S3 in synchronised multi-drive systems</p> <p>Rated voltage: 24 V DC +/- 20%, (max. 2 Vss)</p> <p>Current consumption: <12 mA</p> <p>Drive type: S12</p>	<p>Part.-No. 524177</p> <p>Protection rating IP30 rubber envelope</p> <p>Ambient temperature range 0 °C ... + 70 °C</p> <p>Dimensions 45 x 17 x 6 mm</p> <p>Connecting wires 3 wires 0,5 mm² x 50 mm</p> <p>Feature/Equipment Printed circuit board with components and connection wires to be installed in connection box to be supplied on site.</p>

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		
	up 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		
	up 101	516031		



SPECIAL FEATURES PLS

- For natural ventilation, smoke and heat exhausting and ferralux® NSHEV (EN12101-2)
- Powerful heavy duty drives for loads up to 5000 N
- Robust corrosion-resistant design in aluminium housing (D = 50 mm), optionally in RAL colors
- Easy installation due to adjustable clamp ring (Rear suspension on request)
- Stainless steel spindle, ball beared with end position dampening and gentle soft-start and soft-stop mode
- Programmable parameters of Intelligent Control Electronics S12
 - 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
- With GoreTex membrane
- Suitable for operation with M-COM for the automatic configuration of synchronised run of multi drive systems and sequence control

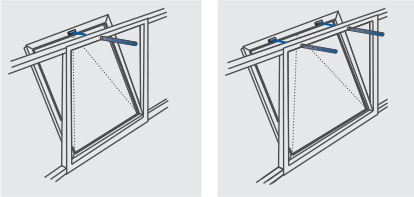
For this product series, a Type III Environmental Product Declaration (EPD) was issued according to ISO 14025 and EN 15804.

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

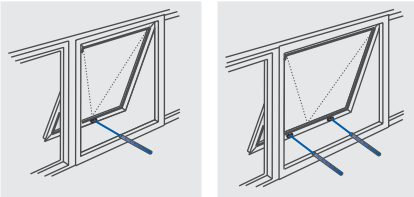
The EPD documents can be viewed or downloaded from our homepage www.aumueller-gmbh.de.

FACADE

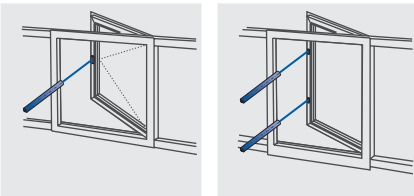
Bottom-hung



Top-hung

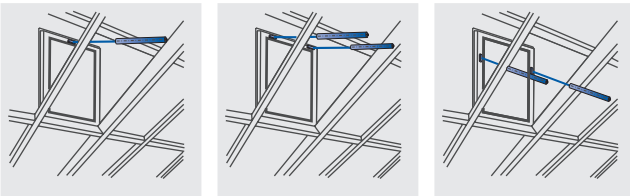


Side-hung

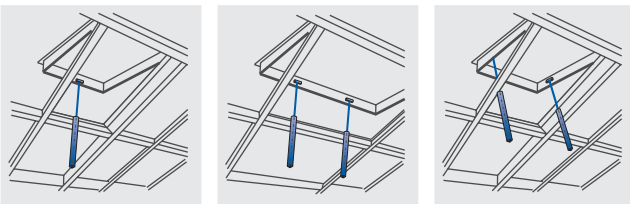


ROOF

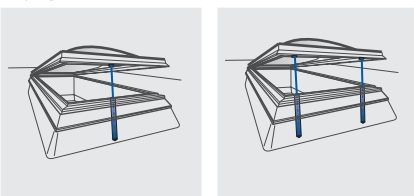
Bottom-hung



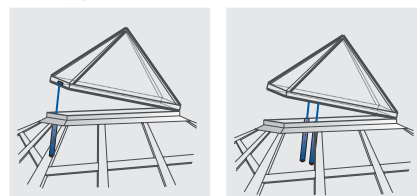
Top-hung



Skylight



Glass pyramid





- Application: natural ventilation, SHEV, ferralux®-NSHEV
- Internal Intelligent Control Electronics S12

Options

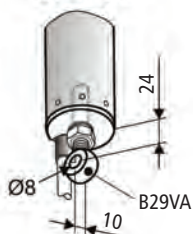
- Programmable synchronised run (max. 4 drives) and special functions
- M-COM for automatic synchronised run of multi drive systems and automatic sequence control with locking drives (S3 / S12)
- Spindle tube end with interior thread for clevis
- Eyebolt and clevis for rear suspension



TECHNICAL DATA

U_N	Rated voltage	24V DC ($\pm 20\%$), max. 2 Vpp
I_N	Rated current	3,0 A
I_A	Cut-off current	4,0 A
P_N	Rated power	72 W
ED	Duty cycle	30 % (ON: 3 min. / OFF: 7 min.)
	Protection rating	IP 54
	Ambient temperature range	-5 °C ... +75 °C
F_Z	Pulling force max.	1500 N
F_A	Pushing force	
F_H	Pullout force	25000 N (fastening depended)
	Spindle tube	stainless steel
	Connecting cable	non-halogen, grey 3 x 1,0 mm ² , ~ 3 m
v	Speed	∇ 16,0 mm/s \curvearrowright 16,0 mm/s
s	Stroke	300 – 1200 mm ($\pm 5\%$)
L	Length	s + 465 mm see order data
	Sound pressure level A	≤ 70 dB (A)

OPTION



ORDER DATA						
s [mm]	L [mm]	Version	Finish	PU/pcs.	Part.-No.	
300	765	PLS15 300 S12	E6/C-0	1	576830	
400	865	PLS15 400 S12	E6/C-0	1	576840	
500	965	PLS15 500 S12	E6/C-0	1	576850	
600	1065	PLS15 600 S12	E6/C-0	1	576860	
750	1215	PLS15 750 S12	E6/C-0	1	576875	
1000	1465	PLS15 1000 S12	E6/C-0	1	576800	
1200	1665	PLS15 1200 S12	E6/C-0	1	576812	

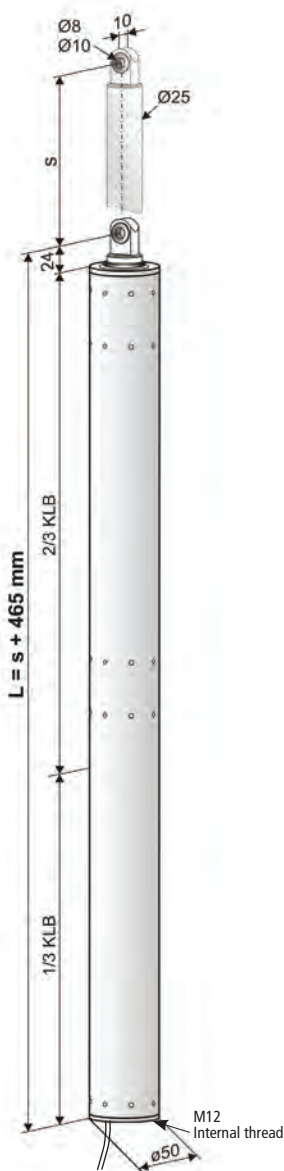
OPTIONS						
Special model		PU/pcs.	Part.-No.			
Front / Rear Fixing						
Spindle tube end with interior thread M10		1	515062			
Spindle tube end with interior thread M12		1	515063			
Drive housing painted/powder coated in other RAL colours						
Lump sum for coating				516030		
Specify at order stage:		1 – 20	516004			
		21 – 50	516004			
		51 – 100	516004			
		up 101	516004			
Extra length connecting cable:						
5 m – non-halogen, grey – 3 x 1,0 mm ²				501037		
10 m – non-halogen, grey – 3 x 1,0 mm ²				501039		
Accessories for front / rear suspension						
B29VA Eyebolt M12x40mm, Ø8 mm, stainless steel			1	105430		
B28ST Clevis M10x20 mm, galvanized, thread M10x50 mm			1	105520		
Microprocessor programming S12						
Electronic stroke reduction 24V S12			1	524190		
Programming drives 24V / 230V S12			1	524180		
Other lengths available on request						
Optional accessories			PU/pcs.	Part.-No.		
M-COM Configuration module for synchronised multi-drive systems			1	524177		



- Application: natural ventilation, SHEV, ferralux®-NSHEV
- Internal Intelligent Control Electronics S12

Options

- Programmable synchronised run (max. 4 drives) and special functions
- M-COM for automatic synchronised run of multi drive systems and automatic sequence control with locking drives (S3 / S12)
- Spindle tube end with interior thread for clevis
- Eyebolt and clevis for rear suspension



TECHNICAL DATA

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

I_N Rated current 3,8 A

I_A Cut-off current 5,0 A

P_N Rated power 91 W

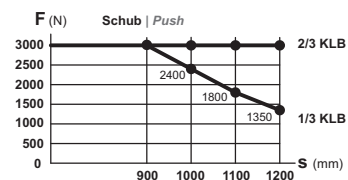
ED Duty cycle 30 % (ON: 3 min. / OFF: 7 min.)

Protection rating IP 54

Ambient temperature range -5 °C ... +75 °C

F_Z Pulling force max. 3000 N

F_A Pushing force



F_H Pullout force 25000 N (fastening depended)

Spindle tube stainless steel

Connecting cable non-halogen, grey 3 x 1,0 mm², ~ 3 m

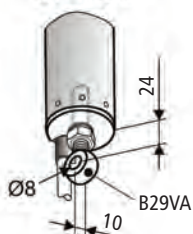
v Speed 7,8 mm/s 7,8 mm/s

s Stroke 300 – 1200 mm ($\pm 5\%$)

L Length s + 465 mm
see order data

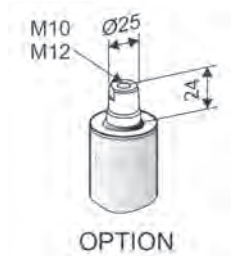
Sound pressure level A ≤ 70 dB (A)

OPTION



ORDER DATA						
s [mm]	L [mm]	Version	Finish	PU/pcs.	Part.-No.	
300	765	PLS30 300 S12	E6/C-0	1	577530	
400	865	PLS30 400 S12	E6/C-0	1	577540	
500	965	PLS30 500 S12	E6/C-0	1	577550	
600	1065	PLS30 600 S12	E6/C-0	1	577560	
750	1215	PLS30 750 S12	E6/C-0	1	577575	
1000	1465	PLS30 1000 S12	E6/C-0	1	577500	
1200	1665	PLS30 1200 S12	E6/C-0	1	577512	

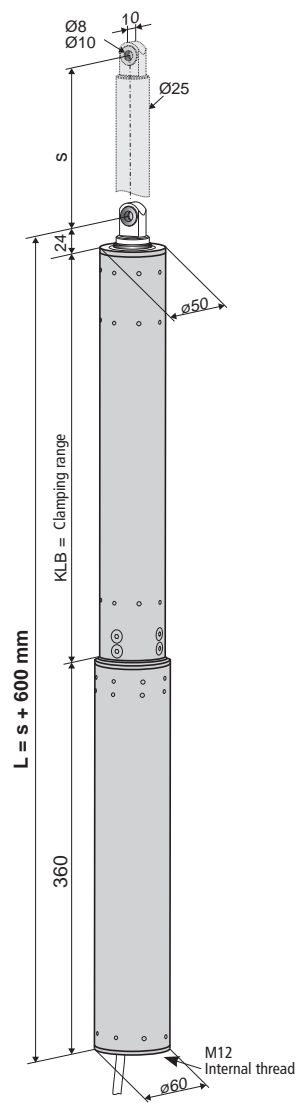
OPTIONS						
Special model		PU/pcs.	Part.-No.			
Front / Rear Fixing						
Spindle tube end with interior thread M10		1	515062			
Spindle tube end with interior thread M12		1	515063			
Drive housing painted/powder coated in other RAL colours						
Lump sum for coating				516030		
Specify at order stage:		1 – 20	516004			
		21 – 50	516004			
		51 – 100	516004			
		up 101	516004			
Extra length connecting cable:						
5 m – non-halogen, grey – 3 x 1,0 mm ²				501037		
10 m – non-halogen, grey – 3 x 1,0 mm ²				501039		
Accessories for front / rear suspension						
B29VA Eyebolt M12x40mm, Ø8 mm, stainless steel			1	105430		
B28ST Clevis M10x20 mm, galvanized, thread M10x50 mm			1	105520		
Microprocessor programming S12						
Electronic stroke reduction 24V S12			1	524190		
Programming drives 24V / 230V S12			1	524180		
Other lengths available on request						
Optional accessories			PU/pcs.	Part.-No.		
M-COM Configuration module for synchronised multi-drive systems			1	524177		



- Application: natural ventilation, SHEV
- Internal Intelligent Control Electronics S12

Options

- Programmable synchronised run (max. 4 drives) and special functions
- M-COM for automatic synchronised run of multi drive systems and automatic sequence control with locking drives (S3 / S12)
- Spindle tube end with interior thread for clevis
- Eyebolt and clevis for rear suspension



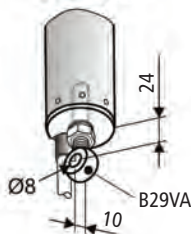
TECHNICAL DATA

U_N	Rated voltage	24V DC ($\pm 20\%$), max. 2 Vpp
I_N	Rated current	3,0 A
I_A	Cut-off current	4,2 A
P_N	Rated power	72 W
ED	Duty cycle	30 % (ON: 3 min. / OFF: 7 min.)
	Protection rating	IP 54
	Ambient temperature range	-5 °C ... +75 °C
F_Z	Pulling force max.	5000 N
F_A	Pushing force	

s (mm)	F (N)
500	5000
550	5000
600	5000
650	5000
700	5000
750	5000

F_H	Pullout force	25000 N (fastening depended)
	Spindle tube	stainless steel
	Connecting cable	non-halogen, grey 3 x 1,0 mm ² , ~ 3 m
v	Speed	\times 4,0 mm/s \curvearrowright 4,0 mm/s
s	Stroke	200 – 750 mm ($\pm 5\%$)
L	Length	s + 600 mm see order data
	Sound pressure level A	≤ 70 dB (A)

OPTION



ORDER DATA						
s [mm]	L [mm]	Version	Finish	PU/pcs.	Part.-No.	
200	800	PLS50 200 S12	E6/C-0	1	577620	
300	900	PLS50 300 S12	E6/C-0	1	577630	
400	1000	PLS50 400 S12	E6/C-0	1	577640	
500	1100	PLS50 500 S12	E6/C-0	1	577650	
600	1200	PLS50 600 S12	E6/C-0	1	577660	
750	1350	PLS50 750 S12	E6/C-0	1	577675	

OPTIONS						
Special model		PU/pcs.	Part.-No.			
Front / Rear Fixing						
Spindle tube end with interior thread M10		1	515062			
Spindle tube end with interior thread M12		1	515063			
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			
		up 101	516004			
Extra length connecting cable:						
5 m – non-halogen, grey – 3 x 1,0 mm ²			501037			
10 m – non-halogen, grey – 3 x 1,0 mm ²			501039			
Accessories for front / rear suspension						
B29VA Eyebolt M12x40mm, Ø8 mm, stainless steel		1	105430			
B28ST Clevis M10x20 mm, galvanized, thread M10x50 mm		1	105520			
Microprocessor programming S12						
Electronic stroke reduction 24V S12		1	524190			
Programming drives 24V / 230V S12		1	524180			
Other lengths available on request						
Optional accessories			PU/pcs.	Part.-No.		
M-COM Configuration module for synchronised multi-drive systems		1	524177			

OVERVIEW OF BRACKETS				1	2	3	4	5	6	7
Typical applications										
Frame bracket				K70	K82-1	K82-1	K121	K127-1	K-121-1	K12-1
Mounting aid				clamping ring B6 (50 mm-G1/8)						
Bracket accessories				clamping ring B6 (50 mm-G1/8)						
Casement bracket				F10.8S, F10.10	F28-1	F28	F11	F36	F30	
Special application				Wictec 50, Wing 105 D	AWS 57RO, Wing 105D	Heroal 085D	Heroal 085D	Raico Wing 105 D	Schüco AWS 57RO	Wicona Wictec 50
Space requirement		min.	[mm]	120	50	50	35	35	50	50
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						●
Sky-light	outward	HSK	RM	●	●					
		NSK	RM							
FAB(*1)		Solo	[mm]				450 – 1300			
		Sync2	[mm]				1200 – 2500			
FAH(*1)		Solo	[mm]				450 – 1500			
		Sync2	[mm]				450 – 2500			

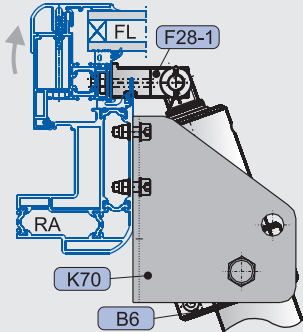
LEGEND

● suitable ■ not recommended

(*1) Sample value of the casement dimensions. The actual 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.

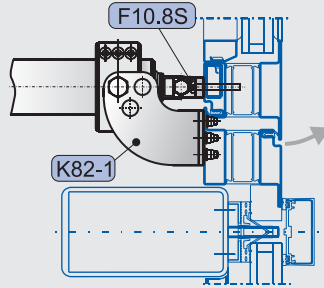
TYPICAL APPLICATIONS

1 RM, HSK, Roof



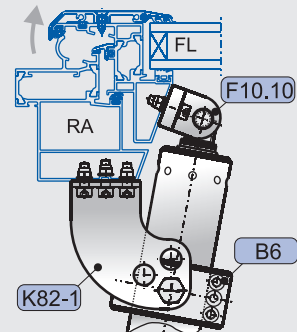
View on aluminium window

1 RM, HSK, Top-hung outward opening



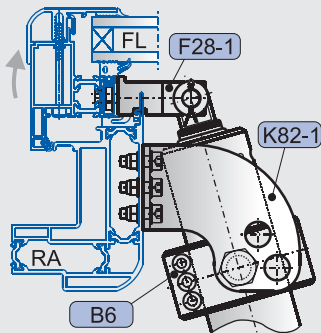
View on steel window

2 RM, HSK, Roof



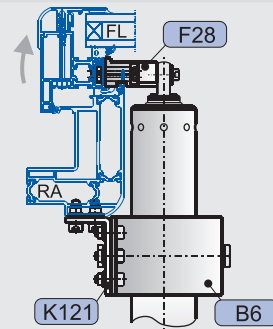
View on aluminium window

3 RM, HSK, Roof



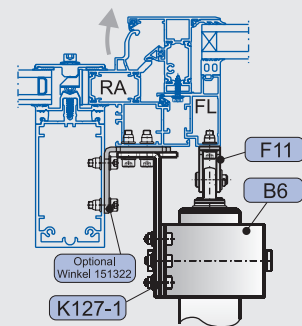
View on aluminium window

4 RM, NSK, Roof



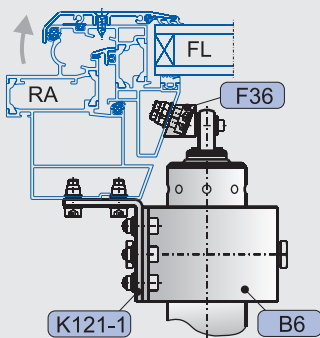
View on aluminium window

5 RM, NSK, Roof



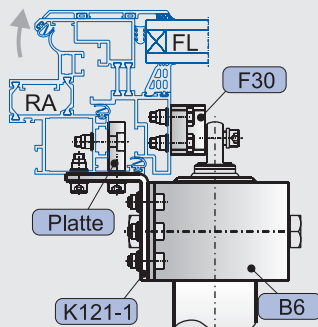
View on aluminium window

6 RM, NSK, Roof



View on aluminium window

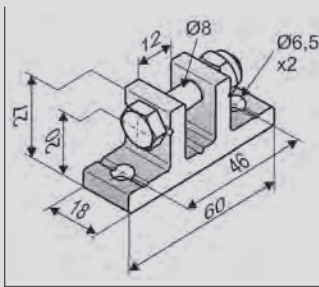
7 RM, NSK, Roof



View on aluminium window

CASEMENT BRACKETS

F10.8S



Application

Surface mounting on the main closing edge of casement profiles of outward opening windows, for drives with front or rear suspension with bore Ø8 mm

Part.-No. 151105

Material/Finish

aluminium

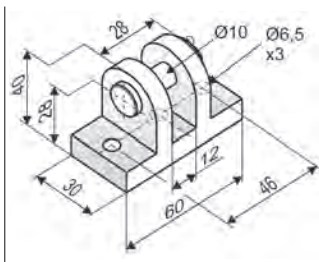
Feature/Equipment

1x nut M8,
1x screw M8x35

Load

max. 3000 N

F10.10



Application

Surface mounting on the main closing edge of the casement profiles of outward opening windows, for drives with front or rear suspension with bore Ø10 mm

Part.-No. 151201

Material/Finish

aluminium, stainless steel

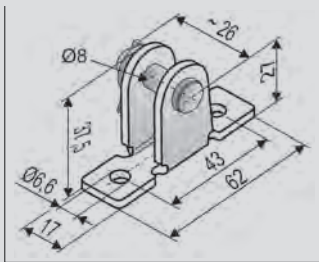
Feature/Equipment

1x bolt Ø10 mm,
washer, split pin

Load

max. 5000 N

F11ST



Application

Surface mounting on the side closing edge of casement/window frame profiles of in-/outward opening windows or on skylights, for drives with front or rear suspension with bore Ø8 mm, mounting holes aligned with central axis of drive

Part.-No. 151400

Material/Finish

steel galvanized

Feature/Equipment

1x bolt Ø8 mm,
washer,
cotter pin

Load

max. 3000 N

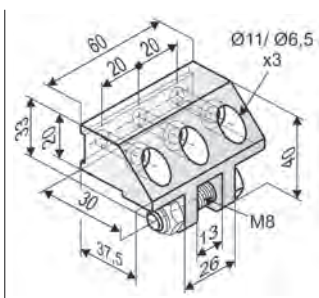
F11VA

Part.-No. 151401

Material/Finish

stainless steel

F40



Application

Surface mounting on the main closing edge of the casement profiles of outward opening roof windows, for drives with front or rear suspension with bore Ø8 mm

Part.-No. 155172

Material/Finish

aluminium

Feature/Equipment

1x screw M8x35,
nut M8

Load

max. 3000 N

Optional accessories

B2 Base plate F39 / F49

Part.-No. 155173

FRAME BRACKETS

K70		<p>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 PLS with B6</p>	<p>Part.-No. 155002 Material/Finish steel galvanized Feature/Equipment drilled holes $\varnothing 14,5$ mm</p>			
K82-1		<p>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 PLS with B6</p>	<p>Part.-No. 151321 Material/Finish stainless steel Feature/Equipment drilled holes $\varnothing 14,5$ mm</p>			
		<p>Accessories B6 clamp ring PLS ($\varnothing 50$mm, G1/8)</p>	Part.-No. 576001			

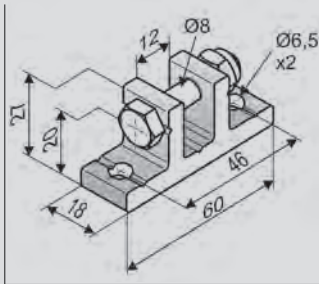
OPTIONAL ACCESSORIES

B6		<p>Application Adjustable clamping of the PLS drive housing, for surface mounting with swivelling suspension on K70, K82-1, K121, K 21-1, K127-1 (preferably on outward opening windows.)</p>	<p>Part.-No. 576001 Material/Finish aluminium (antreated), stainless steel Feature/Equipment 2x B9 collar screw $\varnothing 14$mm, G1/8, 2x cylinder head screw M6x25</p>			
B9		<p>Application Swivelling suspensin of the clamp ring B6 for PLS for U-shaped frame brackets with bore $\varnothing 14,5$ mm</p>	<p>Part.-No. 172900 Material/Finish stainless steel Feature/Equipment Collar $\varnothing 14$ mm, G1/8"</p>			

SPECIFIC APPLICATIONS

SCHÜCO AWS 57RO, WICONA WICTEC 50, RAICO WING 105D – HSK

F10.8S



Application

Surface mounting on the main closing edge of casement profiles of outward opening windows, for drives with front or rear suspension with bore Ø8 mm

Part.-No. 151105

Material/Finish
aluminium

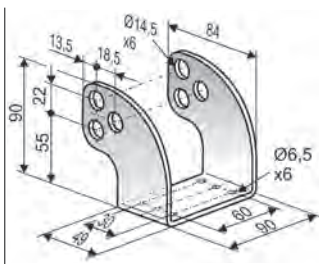
Feature/Equipment

1x nut M8,
1x screw M8x35

Load

max. 5000 N

K82-1



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 PLS with B6

Part.-No. 151321

Material/Finish

stainless steel

Feature/Equipment

drilled holes Ø14,5 mm

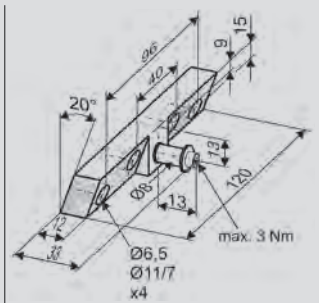
Accessories

B6 Clamp ring PLS
(Ø50 mm, G1/8)

Part.-No. 576001

SCHÜCO AWS 57RO – NSK

F36



Application

Surface mounting on the side closing edge of outward opening casement profiles of roof windows Schüco AWS 57RO, for drives with front suspension with bore Ø8 mm

Part.-No. 155170

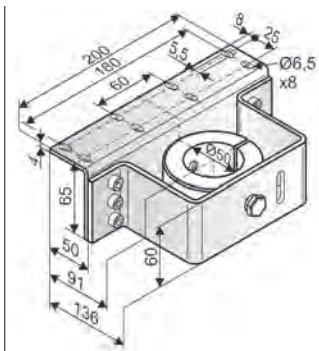
Material/Finish

aluminium
(natural anodized),
stainless steel

Feature/Equipment

1x bolt Ø8 mm,
screw M4,
washer A4,3

K121-1



Application

Surface mounting on the side closing edge of window frame profiles of outward opening roof windows Schüco AWS 57RO, Wicona Wictec 50, Metra for swivelling suspension of drives PLS with B6

Part.-No. 155117

Material/Finish

stainless steel

Feature/Equipment

without clamp ring B6

Accessories

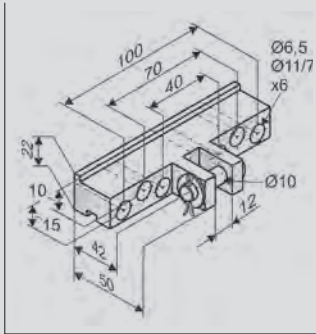
B6 Clamp ring PLS
(Ø50 mm, G1/8)

Part.-No. 576001

SPECIFIC APPLICATIONS

HEROAL 085 / 180 – HSK

F28-1



Application

Surface mounting on the **main closing edge** of outward opening casement profiles of roof windows **Heroal 085D**, for drives with **front suspension** with bore **Ø10 mm**

Part-No. 155154

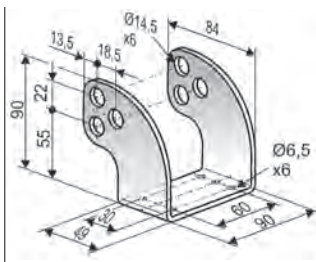
Material/Finish

aluminium (natural anodized), stainless steel

Feature/Equipment

1x bolt Ø10 mm, screw M5, washer A5,3 split pin 2x20

K82-1



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 **PLS** with **B6**

Part-No. 151321

Material/Finish

stainless steel

Feature/Equipment

drilled holes Ø14,5 mm

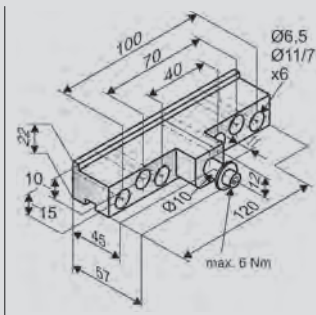
Accessories

B6 Clamp ring PLS (Ø50 mm, G1/8)

Part-No. 576001

HEROAL 085 / 180 – NSK

F28



Application

Surface mounting on the **side closing edge** of outward opening casement profiles of roof windows **Heroal 085D**, for drives with **front suspension** with bore **Ø10 mm**

Part-No. 155155

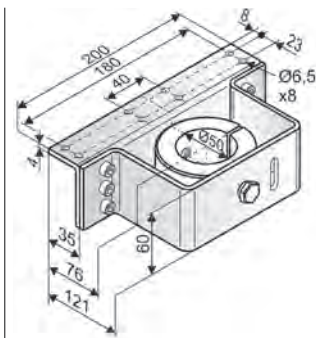
Material/Finish

aluminium (natural anodized), stainless steel

Feature/Equipment

1x bolt Ø10 mm, screw M5, washer A5,3

K121



Application

Surface mounting on the **side closing edge** of window frame profiles of outward opening roof windows **Schüco RS 106D**, **Heroal 085D** for **swivelling suspension** of drives **PLS** with **B6**

Part-No. 155110

Material/Finish

stainless steel

Feature/Equipment

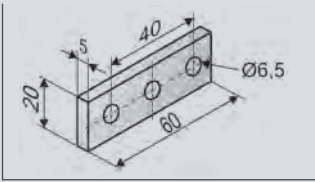
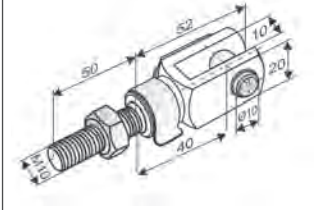
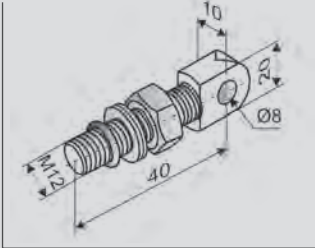

without clamping ring B6

Accessories

B6 Clamp ring PLS (Ø50 mm, G1/8)

Part-No. 576001

OPTIONAL ACCESSORIES

Base Plate				
B2		Application Support for F39 and F40 as packing plate for mounting on the casement profiles of outward opening roof windows	Part.-No. 155173 Material/Finish aluminium (natural anodized) Feature/Equipment 60 x 20 x 5 mm	
Clevis				
B28ST		Application Clevis for rear or front suspension of spindle drives with M10 thread in the rear base cap or in the spindle tube	Part.-No. 105520 Material/Finish steel galvanized Feature/Equipment Clevis M10 x 50 mm with spring bolt Ø8 mm and thread M10x 50 mm 1x nut M10 + Nordlock-safety-washer + O-ring, max. screw-in depth in the drive 25 mm	
Eyebolt				
B29VA		Application Eyebolt for rear or front suspension of spindle drives with M12 thread in the rear base cap or in the spindle tube	Part.-No. 105430 Material/Finish stainless steel Feature/Equipment M12x 40 (eye Ø8,2 mm), 1x nut M12 + Nordlock-safety-washer + o-ring, minimum depth drive 25 mm	
Main control unit				
M-COM		Application Configuration module for automatic configuration and surveillance of max. 6 opening or locking drives version S12 / S3 in synchronised multi-drive systems Rated voltage: 24 V DC +/- 20%, (max. 2 Vss) Current consumption: <12 mA Drive type: S12	Part.-No. 524177 Protection rating IP30 rubber envelope Ambient temperature range 0 °C ... + 70 °C Dimensions 45 x 17 x 6 mm Connecting wires 3 wires 0,5 mm² x 50 mm Feature/Equipment Printed circuit board with components and connection wires to be installed in connection box to be supplied on site	
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		
	up 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		
	up 101	516031		

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