



SPECIAL FEATURES PLS

- For natural ventilation, smoke and heat exhausting and ferralux® NRWG (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)
- Spindle is ball beared with end position dampening and gentle soft-start and soft-stop mode
- Stainless steel spindle tube
- 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

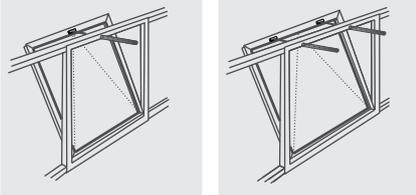
For this product series, a Type III Environmental Product Declaration (EPD) was issued according to ISO 14025 and EN 15804.

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

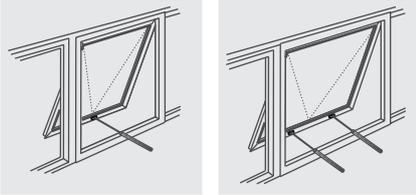
The EPD documents can be viewed or downloaded from our homepage www.aumueller-gmbh.de.

FACADE

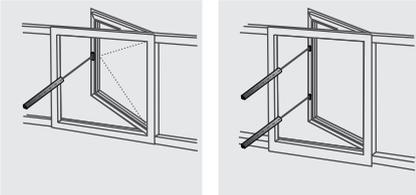
Bottom-hung



Top-hung

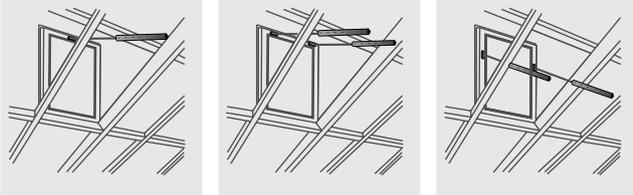


Side-hung

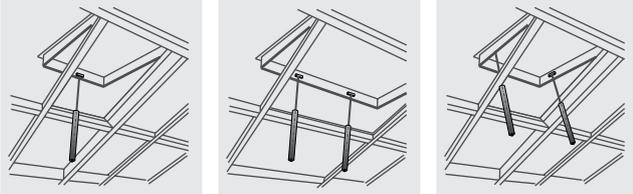


ROOF

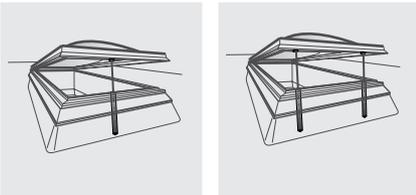
Bottom-hung



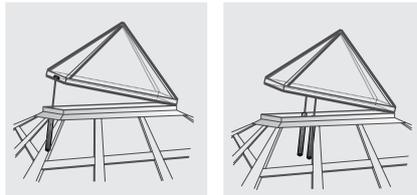
Top-hung

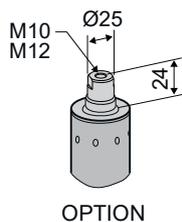


Skylight



Glass pyramid

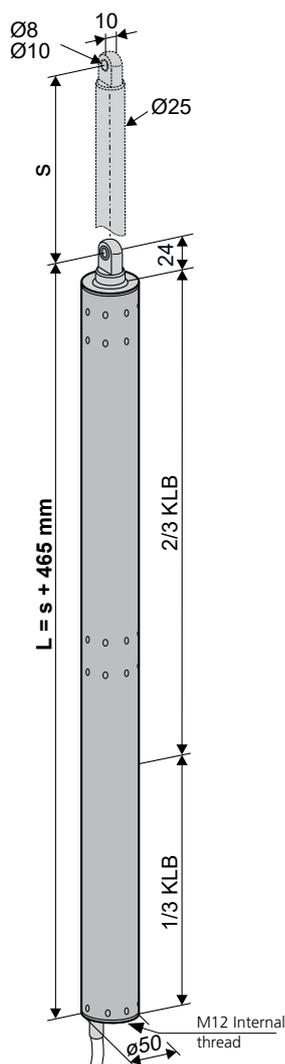




- Application: natural ventilation, RWA, ferralux®-NRWG
- Internal Intelligent Control Electronics S12

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

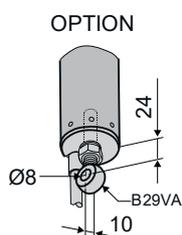


TECHNICAL DATA

U_N	Rated voltage	24 V DC (19 V ... 28 V)
I_N	Rated current	3,0 A
I_A	Cut-off current	4,0 A
P_N	Rated power	72 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.	1500 N
F_A	Pushing force max.	

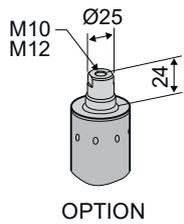


F_H	Pullout force	25000 N (fastening depended)
	Spindle tube	stainless steel
	Connecting cable	non-halogen, grey 3 x 1,0 mm ² , ~ 3 m
v	Speed	16,0 mm/s
s	Stroke	300 – 1200 mm
L	Length	s + 465 mm see order data
	Sound pressure level	≤ 70 dB (A)



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	

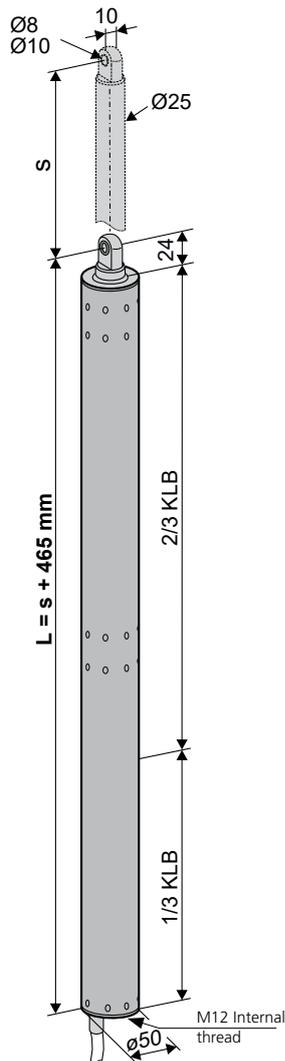
OPTIONS						
Special model		PU/pcs.	Part.-No.			
Front Fixing						
Spindle tube end with interior thread M10		1	515062			
Spindle tube end with interior thread M12		1	515063			
Drive housing painted/powder coated in other RAL colours						
Lump sum for coating				516030		
Specify at order stage:		1 – 20	516004			
		21 – 50	516004			
		51 – 100	516004			
		from 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, RWA, ferralux®-NRWG
- Internal Intelligent Control Electronics S12

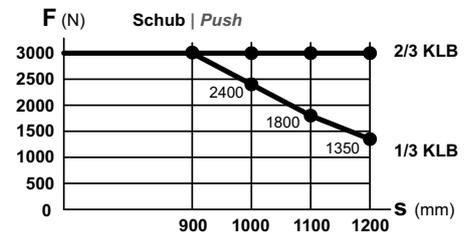
Options

- 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

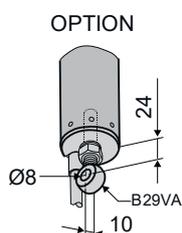


TECHNICAL DATA

U_N	Rated voltage	24 V DC (19 V ... 28 V)
I_N	Rated current	3,8 A
I_A	Cut-off current	5,0 A
P_N	Rated power	91 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.	3000 N
F_A	Pushing force max.	

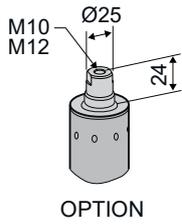


F_H	Pullout force	25000 N (fastening depended)
	Spindle tube	stainless steel
	Connecting cable	non-halogen, grey 3 x 1,0 mm ² , ~ 3 m
v	Speed	\rightarrow 7,8 mm/s \leftarrow 7,8 mm/s
s	Stroke	300 – 1200 mm
L	Length	s + 465 mm see order data
	Sound pressure level	≤ 70 dB (A)



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	

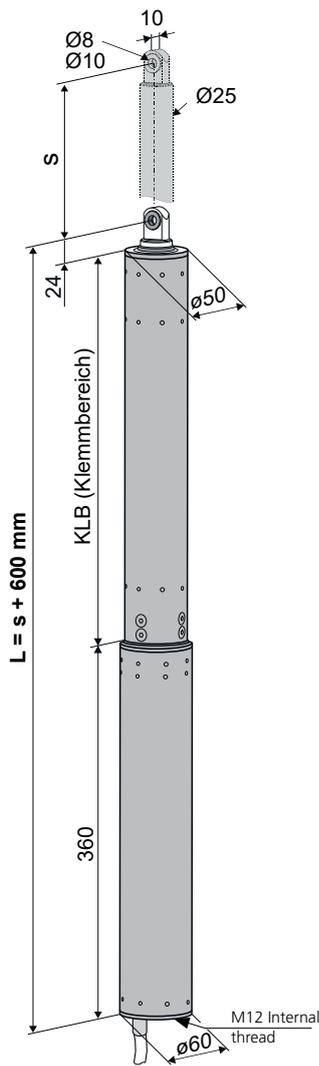
OPTIONS						
Special model		PU/pcs.	Part.-No.			
Front Fixing						
Spindle tube end with interior thread M10		1	515062			
Spindle tube end with interior thread M12		1	515063			
Drive housing painted/powder coated in other RAL colours						
Lump sum for coating				516030		
Specify at order stage:		1 – 20	516004			
		21 – 50	516004			
		51 – 100	516004			
		from 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, RWA
- 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

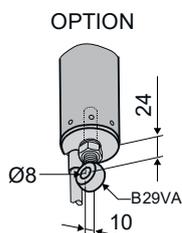


TECHNICAL DATA

U_N	Rated voltage	24 V DC (19 V ... 28 V)
I_N	Rated current	3,0 A
I_A	Cut-off current	4,2 A
P_N	Rated power	72 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.	5000 N
F_A	Pushing force max.	5000 N

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	↖ 4,0 mm/s ↗ 4,0 mm/s
s	Stroke	200 – 750 mm
L	Length	s + 600 mm see order data
	Sound pressure level	≤ 70 dB (A)



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 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		
				from 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	K121-1	K121-1
Mounting aid				clamping ring B6 (50 mm-G1/8)						
Bracket accessories				clamping ring B6 (50 mm-G1/8)						
Casement bracket				F28-1, F10.8S, F10.10	F28-1	F28	F10.11	F36	F30	
Special application				Wictec 50, Wing 105 D	AWS 57RO, Wing 105D	Heroal 085D	Heroal 085D	roof window	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			

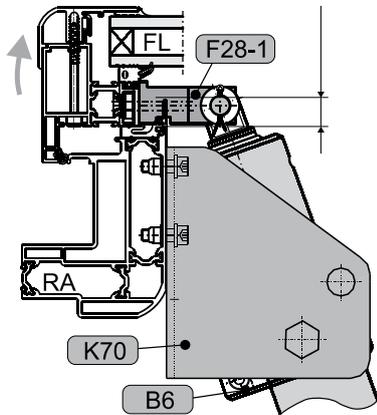
LEGEND

● 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.

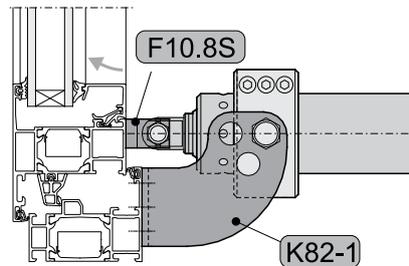
TYPICAL APPLICATIONS

1 RM, HSK, roof



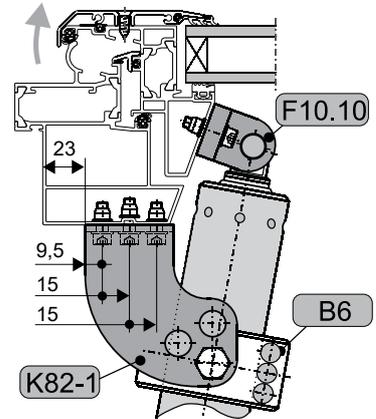
View on aluminium window

1 RM, HSK, op-hung outward opening



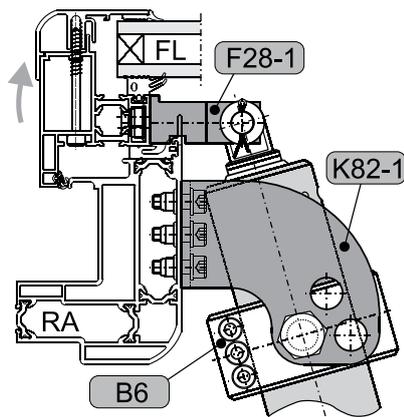
View on steel window

2 RM, HSK, roof



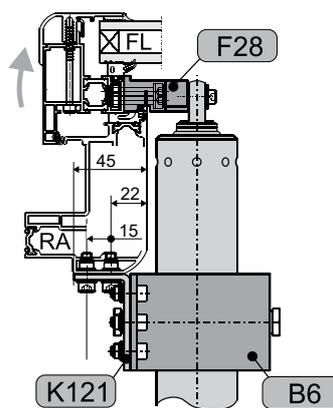
View on aluminium window

3 RM, HSK, roof



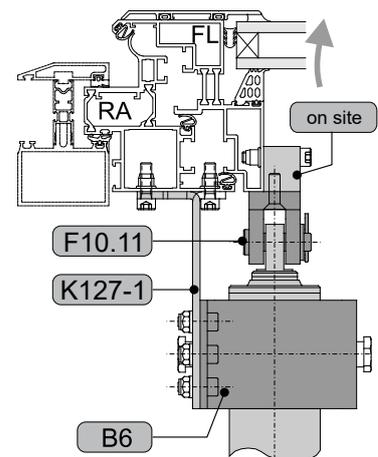
View on aluminium window

4 RM, NSK, roof



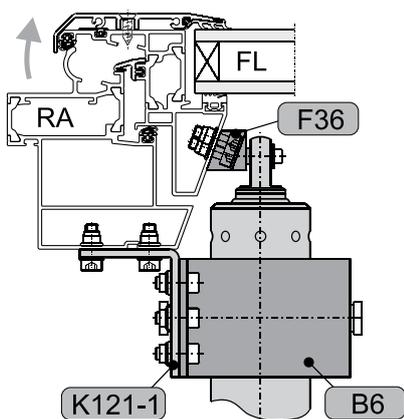
View on aluminium window

5 RM, NSK, roof



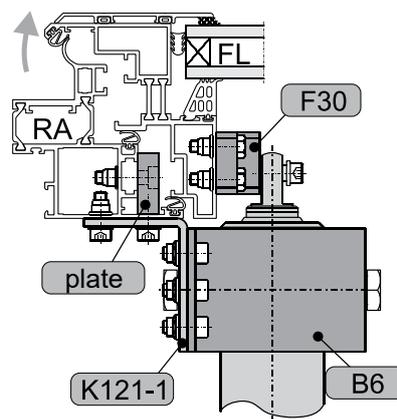
View on aluminium window

6 RM, NSK, roof



View on aluminium window

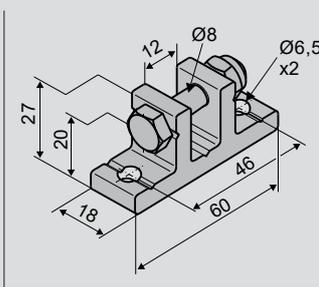
7 RM, NSK, roof



View on aluminium window

CASEMENT BRACKETS

F10.85



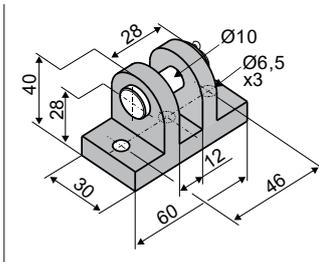
Application

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



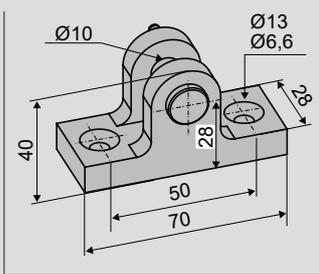
Application

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

F10.11



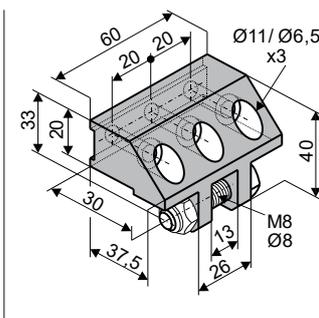
Application

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 **Ø10 mm**, mounting holes aligned with central axis of drive

Part.-No. 151202

Material/Finish
aluminium, stainless steel
Feature/Equipment
1x bolt Ø10 mm,
washer,
cotter pin
Load
max. 5000 N

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

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>			
		Accessories				
		B6 clamp ring PLS ($\varnothing 50$ mm, G1/8)	Part-No. 576001			
		Accessories				
		B6 clamp ring PLS ($\varnothing 50$ mm, G1/8)	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>			

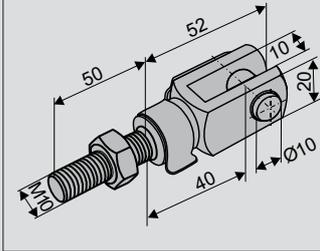
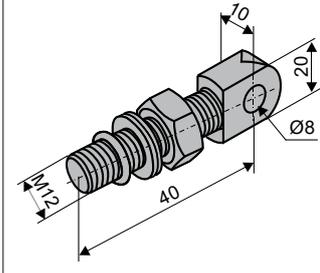
SPECIFIC APPLICATIONS

SCHÜCO AWS 57RO, WICONA WICTEC 50, RAICO WING 105D – HSK				
F10.85		<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. 3000 N</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 Ø14,5 mm</p>	
		<p>Accessories</p>	<p>Part-No. 576001</p>	
SCHÜCO AWS 57RO – NSK				
F36		<p>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</p>	<p>Part-No. 155170 Material/Finish aluminium (natural anodized), stainless steel Feature/Equipment 1x bolt Ø8 mm, screw M4, washer A4,3</p>	
K121-1		<p>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</p>	<p>Part-No. 155117 Material/Finish stainless steel Feature/Equipment without clamp ring B6</p>	
		<p>Accessories</p>	<p>Part-No. 576001</p>	
		<p>B6 Clamp ring PLS (Ø50 mm, G1/8)</p>		

SPECIFIC APPLICATIONS

HEROAL 085 / 180 – HSK			
F28-1		<p>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</p>	<p>Part-No. 155154 Material/Finish aluminium (natural anodized), stainless steel Feature/Equipment 1x bolt Ø10 mm, 1x screw M5, 1x washer A5,3, 1x split pin 2x20</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 Ø14,5 mm</p>
		Accessories	
		B6 Clamp ring PLS (Ø50 mm, G1/8)	Part-No. 576001
HEROAL 085 / 180 – NSK			
F28		<p>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</p>	<p>Part-No. 155155 Material/Finish aluminium (natural anodized), stainless steel Feature/Equipment 1x bolt Ø10 mm, screw M5, washer A5,3</p>
K121		<p>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</p>	<p>Part-No. 155110 Material/Finish stainless steel Feature/Equipment without clamping ring B6</p>
		Accessories	
		B6 Clamp ring PLS (Ø50 mm, G1/8)	Part-No. 576001

OPTIONAL ACCESSORIES

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 Ø10 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. 4 opening drives / 2 locking drives version S12 / S3 in synchronised multi-drive systems Rated voltage: 24 V DC (19 V ... 28 V) 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 mm ² x 50 mm Feature/Equipment Printed circuit board with components and connection wires to be installed in connection box to be supplied on site

CASEMENT BRACKETS AND FRAME BRACKETS

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		