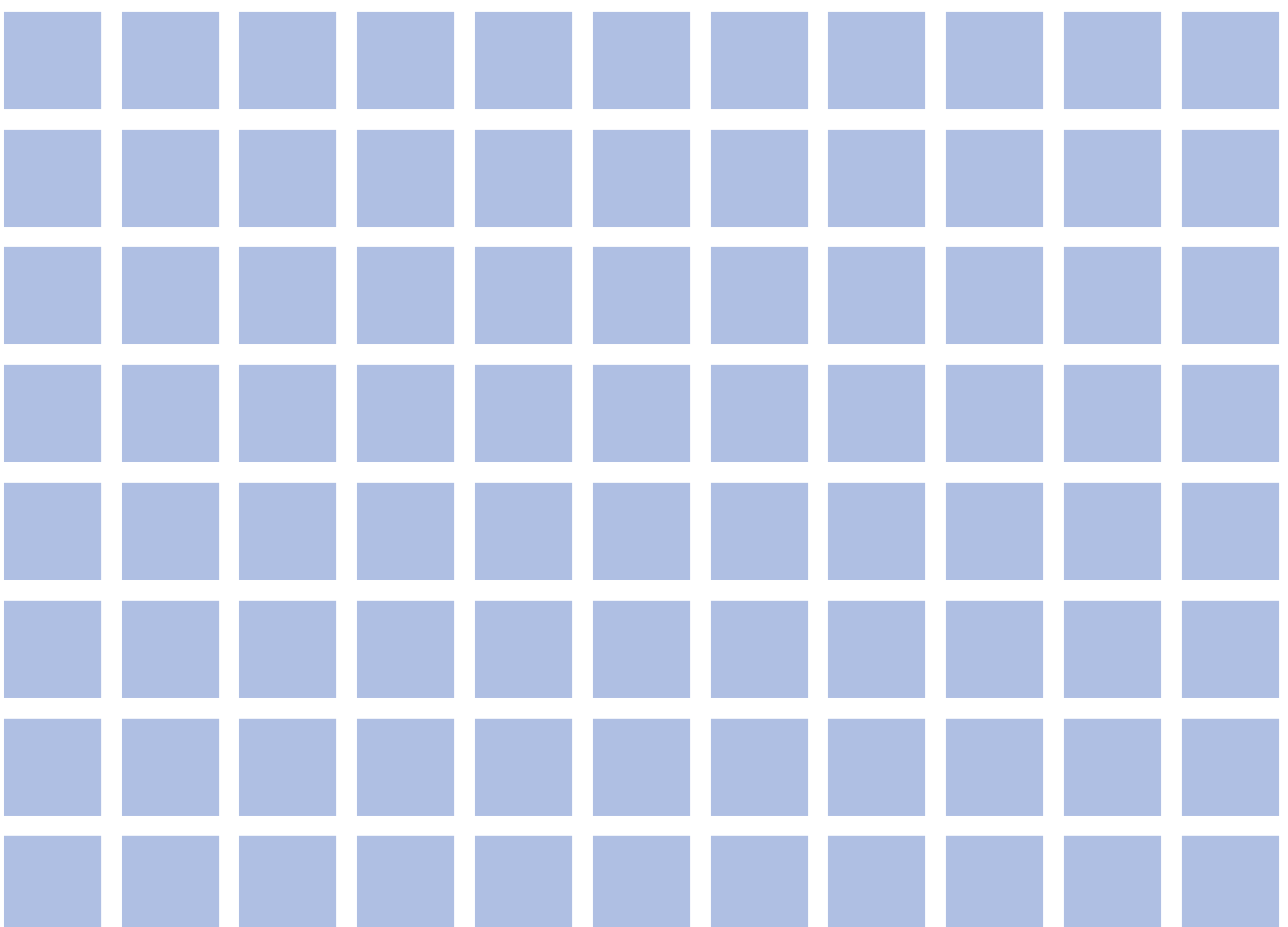


4

Folding arm drives

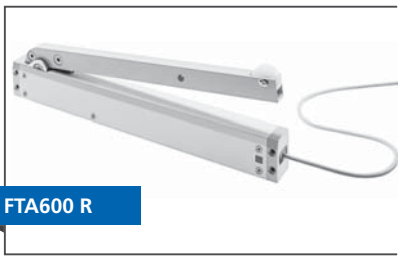


OVERVIEW OF FOLDING ARM DRIVES																	
Type	Form	Model		Stroke	Torque		Running time		Cut-off current	Use			Location		Functions		
		Type of cut-off	Rated voltage	Range	Opening torque	Closing torque	OPEN	CLOSE	Max.	Natural ventilation	SHEV	NSHEV	Facade	Roof	Run monitoring	Synchronised run	Sequence control
			[VDC]	[mm]	[Nm]	[Nm]	[mm/s]	[mm/s]	[A]								
FTA	FTA R	S12	24	0 – 93	215	215	45,0	45,0	1,4	●	●	●	●		●	●	●
	FTA DF					215				●	●	●	●		●	●	●
	FTA GF					215				●	●	●	●	■	●	●	●

LEGEND

● suitable ■ not recommended

S12 internal intelligent cut-off switch for synchronised run and programmable functions



FTA600 R

FTA600 R FOLDING ARM DRIVES

- Model 24V DC, S12
- Pulling/Pushing force 215 Nm / 215 Nm
- Stroke length 0 – 93 Degree
- Speed 2,0 Degree/s (45 s für 90°)
- Housing (WxH) 40 x 56 x 421 mm, aluminium
- Opening mechanism Lever arm 20 x 30 x 380 mm, aluminium
- Version SOLO with roller for air inlets
- Protection rating IP32



FTA600 DF

FTA600 DF FOLDING ARM DRIVES

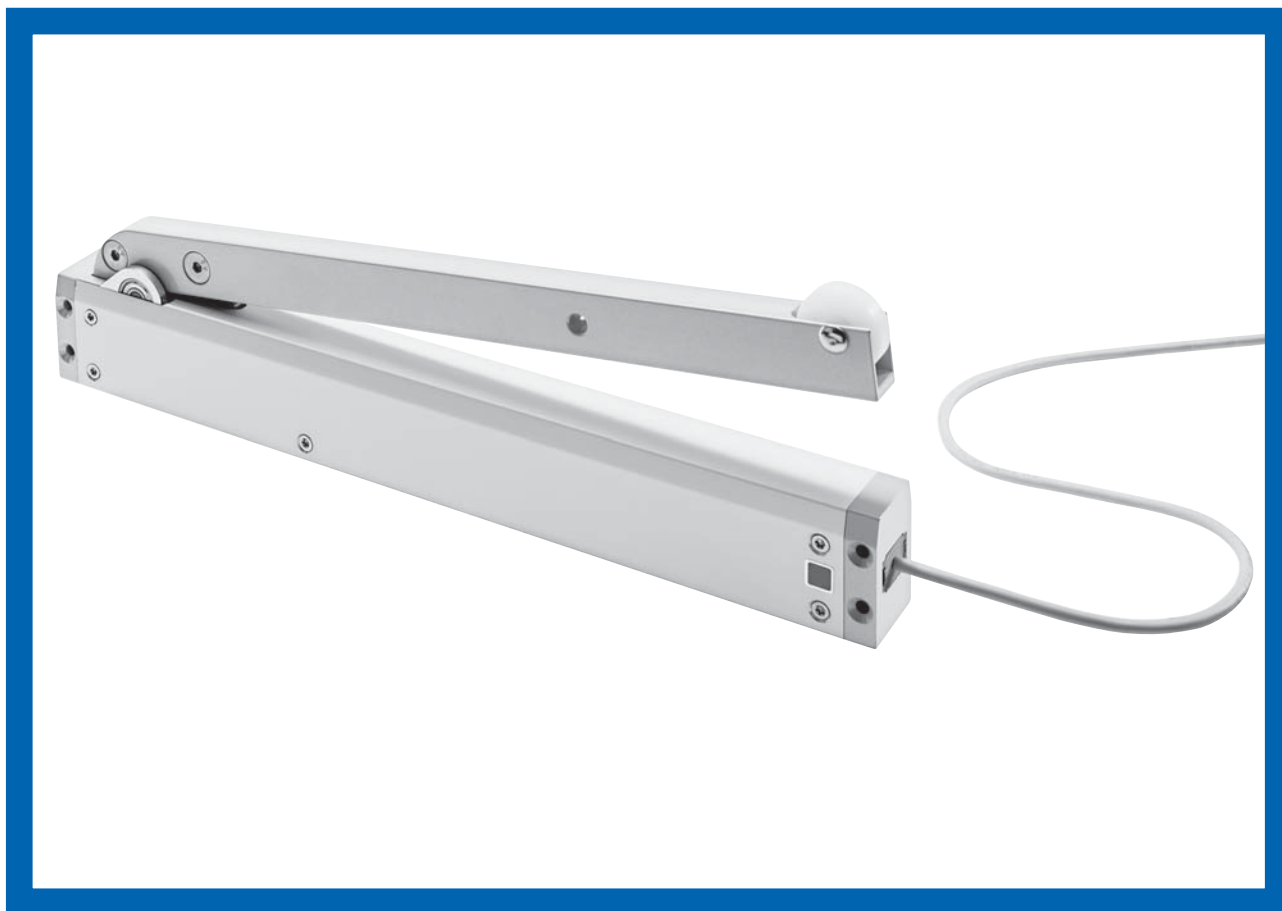
- Model 24V DC, S12
- Pulling/Pushing force 215 Nm / 215 Nm
- Stroke length 0 – 93 Degree
- Speed 2,0 Degree/s (45 s für 93°)
- Housing (WxH) 40 x 56 x 421 mm, aluminium
- Opening mechanism Lever arm 20 x 30 x 380 mm, aluminium
- Version SOLO with knuckle joint for side-hung inward opening windows
- Protection rating IP32



FTA600 GF

FTA600 GF FOLDING ARM DRIVES

- Model 24V DC, S12
- Pulling/Pushing force 215 Nm / 215 Nm
- Stroke length 0 – 93 Degree
- Speed 3,0 Degree/s (45 s für 93°)
- Housing (WxH) 40 x 56 x 421 mm, aluminium
- Opening mechanism Lever arm 20 x 30 x 380 mm, aluminium
- Version SOLO with slide rail for side hung outward opening windows
- Protection rating IP32



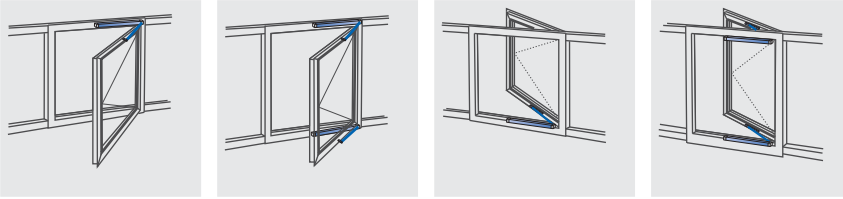
SPECIAL FEATURES FTA600

- For natural ventilation, smoke and heat exhausting systems and ferralux® NSHEV (EN12101-2)
- Type:
 - R – with role: The folding arm opens via role free moving doors for air inlets at 90°
 - DF – with knuckle-joint for opening/closing of side hung inward opening windows at 90°
 - GF – with slide rail for opening/closing of side hung outward opening windows at 90°
- Opening time of 45 s for 93° opening angle
- Programmable voltage free contact
- Robust corrosion-resistant design
- Easy installation due to holes in the end caps of housing
- Programmable parameters of Internal 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
- Integrated plug solution
- Suitable for M-COM for automatic synchronised run of multi drive systems and automatic sequence control with locking drives

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.

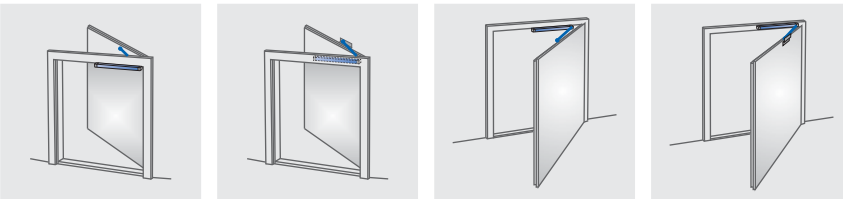
FACADE

Side-hung (FTA600 DF/GF)



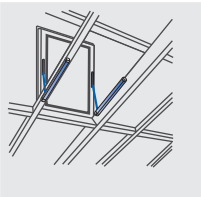
INLET AIR

Doors (FTA600 R)

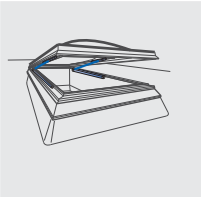


ROOF

Bottom-hung (FTA600 GF)



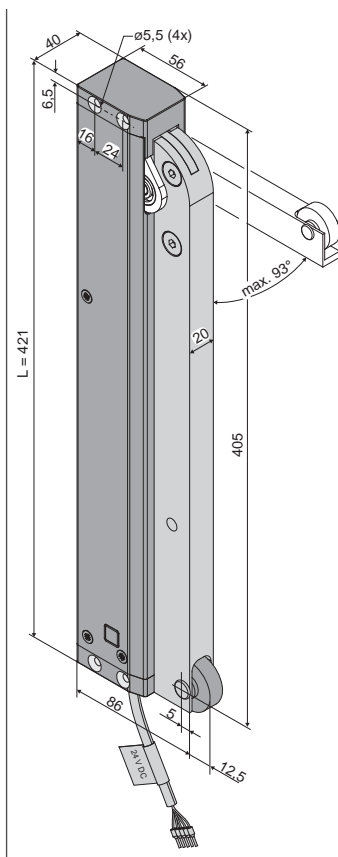
Sky-light (FTA600 GF)



- Application: natural ventilation, SHEV
- Mainly for opening of doors as air inlets
- Internal Intelligent Control Electronics S12
- Programmable contact for door opener
- Unified plug solution for all **AUMÜLLER** chain drives and **AUMÜLLER** folding arm drives

Options

- Programmable special functions
- M-COM for automatic synchronised run of multi drive systems and automatic sequence control with locking drives (S3 / S12)
- Various customised programmings on request

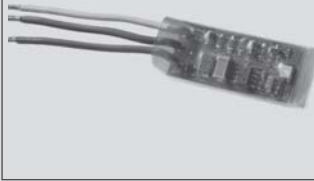



TECHNICAL DATA

U_N	Rated voltage	24V DC ($\pm 20\%$), max. 2 Vpp
I_N	Rated current	1,2 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 32
	Ambient temperature range	-5 °C ... +75 °C
M_A	Torque OPEN	215 Nm (600 N)
M_Z	Torque CLOSE	215 Nm (600 N)
F_H	Pullout force	3000 N (fastening depended)
	Lever arm	aluminium (RAL9006)
	Connecting cable	non-halogen, grey 5 x 0,5 mm ² , ~ 3 m
t	Running time (0° – 90°)	45 s (2,0°/s) 45 s (2,0°/s)
s	Stroke	0 – 93 DEG ($\pm 5\%$)
L	Length	421 mm
	Potential free contact	max. 24VDC / 0,5A programmable
	Sound pressure level A	≤ 70 dB (A)

ORDER DATA						
s [DEG]	L [mm]	Version	Finish	PU/pcs.	Part.-No.	
0° – 93°	421	FTA600 R S12 24V	E6/C-0	1	524144	
Accessories				PU/pcs.	Part.-No.	
K88 Casement bracket FTA600 R				1	524156	
OPTIONS						
Special model				PU/pcs.	Part.-No.	
Drive housing painted/powder coated in other RAL colours						
Lump sum for coating					516030	
Specify at order stage:				1 – 20	516004	
				21 – 50	516004	
				51 – 100	516004	
				up 101	516004	
Extra length connecting cable:						
10 m – non-halogen, grey – 5 x 0,5 mm ²					501056	
Microprocessor programming S12						
Electronic stroke reduction 24V S12				1	524190	
Programming drives 24V / 230V S12					524180	
Optional accessories				PU/pcs.	Part.-No.	
Configuration module for synchronised multi-drive systems				1	524177	

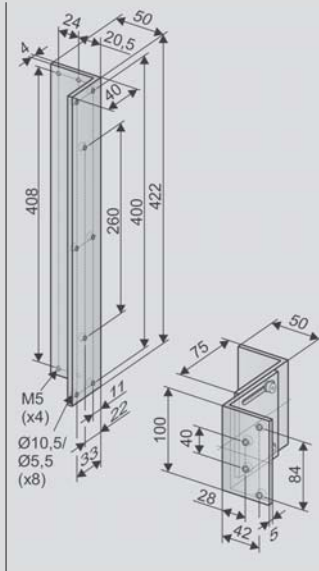
OPTIONAL ACCESSORIES

Main control unit and plug solution																																									
<p>M-COM</p> 	<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) Current consumption: <12 mA Drive type: S12 Protection rating IP30 rubber envelope</p>	<p>Part.-No. 524177</p> <p>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</p>																																							
	<p>Aumüller-Click plug solution</p> 	<p>Aumüller-Click plug solution: Unified plug solution for all AUMÜLLER chain drives and AUMÜLLER folding arm drives.</p> <p>Rated voltage: 24 V DC +/- 20 %, (max. 2 Vss) Connecting cable: non-halogen, grey 5 x 0,5 mm² Terminal: to 1,5 mm²</p>	<p>Feature/Equipment</p> <ul style="list-style-type: none"> • Flexible cable length • Connect multiple drives in series connection • Torsion-plug • Locking hooks prevent withdrawal of the plug under tensile load • Strain relief according DIN EN 60335-1 by screwing the housing halves 																																						
<p>VARIANTS:</p> <table border="1"> <tr> <td>1 m cable length - 24 V DC</td> <td>Part.-No. 501250</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>2 m cable length - 24 V DC</td> <td>Part.-No. 501258</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>3 m cable length - 24 V DC</td> <td>Part.-No. 501251</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>5 m cable length - 24 V DC</td> <td>Part.-No. 501252</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>10 m cable length - 24 V DC</td> <td>Part.-No. 501253</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>							1 m cable length - 24 V DC	Part.-No. 501250						2 m cable length - 24 V DC	Part.-No. 501258						3 m cable length - 24 V DC	Part.-No. 501251						5 m cable length - 24 V DC	Part.-No. 501252						10 m cable length - 24 V DC	Part.-No. 501253					
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10 m cable length - 24 V DC	Part.-No. 501253																																								

OPTIONAL ACCESSORIES

Casement bracket

K88



Application

Surface mounting on the **side closing edge** of door frame profiles of inward opening doors as air inlets.
 Angle bracket **422 mm** for mounting of FTA600-R on the door frame profile.
 Two angle brackets 100 mm for mounting on the door as sliding guidance of the carrier role, adjustable for compensation of the door overlap

Part.-No. 524156

Material/Finish
aluminium

Feature/Equipment

1x angle 50x40x422

(t = 4) mm

2x angles 50x75x100

(t = 5) mm

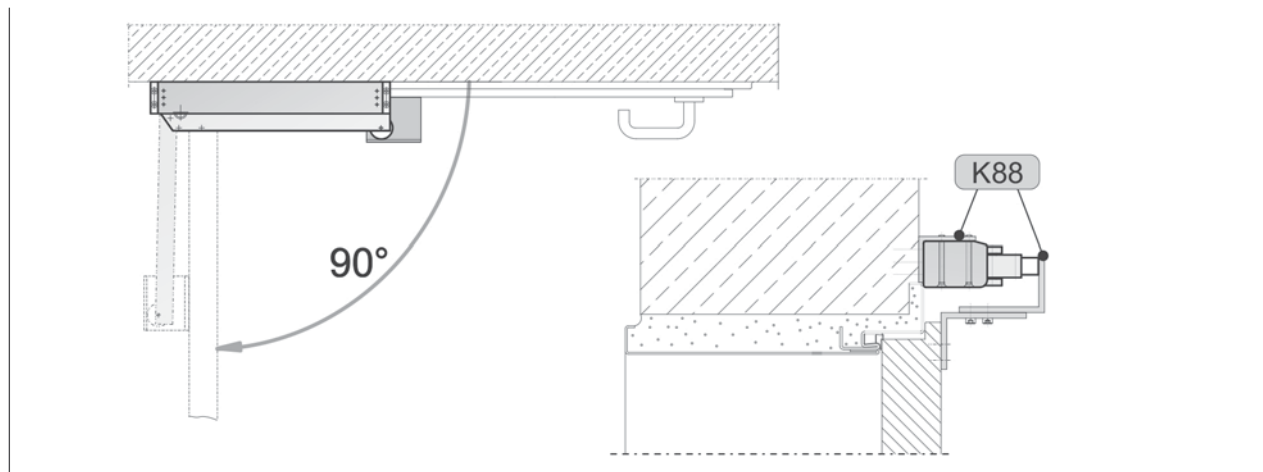
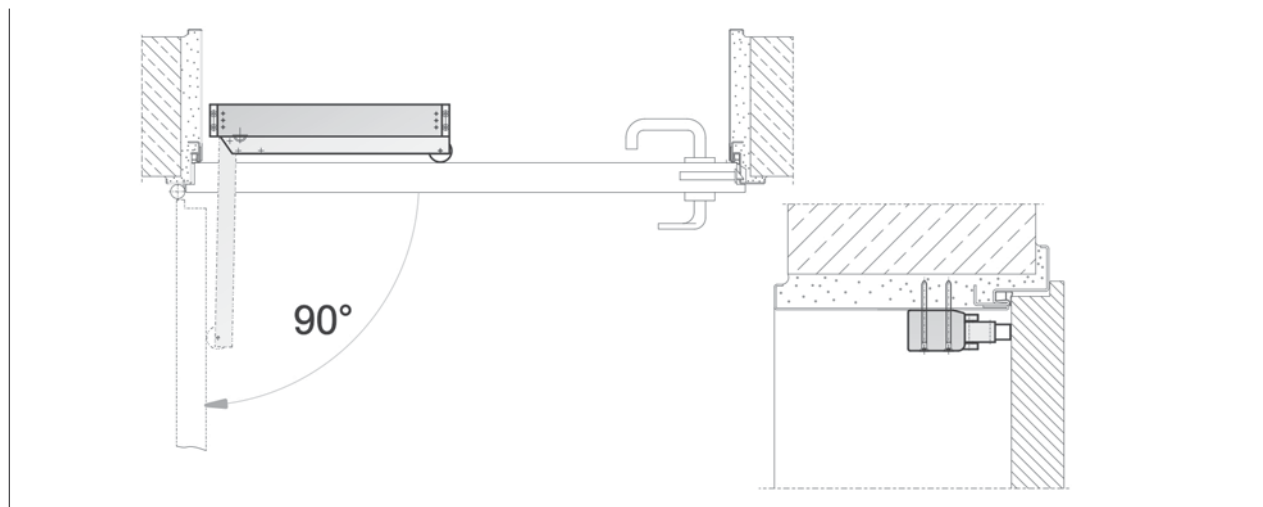
fixing screws and nuts

Load

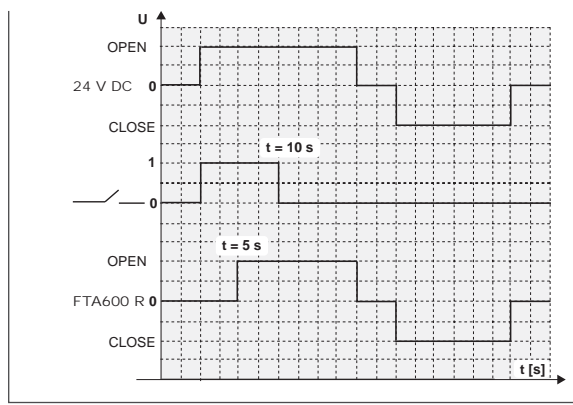
max. 600 N

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		

Typical applications



Contact diagramm



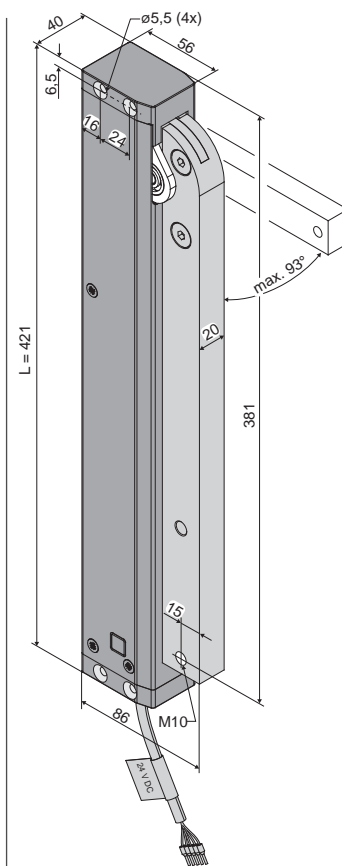
After application of the voltage, the door lock contact is activated for 10 seconds. With a delay of about 5 seconds, the drive arm of the folding arm drives **FTA600 R** starts moving and opens to an angle of max. 93°.

During the **closing operation**, the door lock contact is not activated.

- Application: natural ventilation, SHEV
- Mainly for opening and closing of side-hung inward opening windows
- Internal Intelligent Control Electronics S12
- Programmable contact for door opener
- Unified plug solution for all **AUMÜLLER** chain drives and **AUMÜLLER** folding arm drives

Options

- Programmable special functions
- M-COM for automatic synchronised run of multi drive systems and automatic sequence control with locking drives (S3 / S12)
- Various customised programmings on request

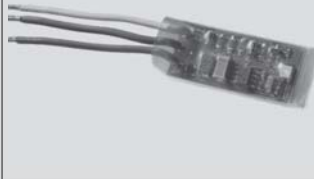



TECHNICAL DATA

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	20 W
ED	Duty cycle	30 % (ON: 3 min. / OFF: 7 min.)
	Protection rating	IP 32
	Ambient temperature range	-5 °C ... +75 °C
M_A	Torque OPEN	215 Nm (600 N)
M_Z	Torque CLOSE	215 Nm (600 N)
F_H	Pullout force	3000 N (fastening depended)
	Lever arm	aluminium (RAL9006)
	Connecting cable	non-halogen, grey 5 x 0,5 mm ² , ~ 3 m
t	Running time (0° – 90°)	45 s (2,0°/s) 45 s (2,0°/s)
s	Stroke	0 – 93 DEG ($\pm 5\%$)
L	Length	421 mm
	Potential free contact	max. 24VDC / 0,5A programmable
	Sound pressure level A	≤ 70 dB (A)

ORDER DATA						
s [DEG]	L [mm]	Version	Finish	PU/pcs.	Part.-No.	
0° – 93°	421	FTA600 DF S12 24V	E6/C-0	1	524145	
Accessories				PU/pcs.	Part.-No.	
K103 Casement bracket FTA600 DF				1	524172	
OPTIONS						
Special model				PU/pcs.	Part.-No.	
Drive housing painted/powder coated in other RAL colours						
Lump sum for coating						516030
Specify at order stage:					1 – 20	516004
					21 – 50	516004
					51 – 100	516004
					up 101	516004
Extra length connecting cable:						
10 m – non-halogen, grey – 5 x 0,5 mm ²						501056
Microprocessor programming S12						
Electronic stroke reduction 24V S12				1	524190	
Programming drives 24V / 230V S12					524180	
Optional accessories				PU/pcs.	Part.-No.	
Configuration module for synchronised multi-drive systems				1	524177	

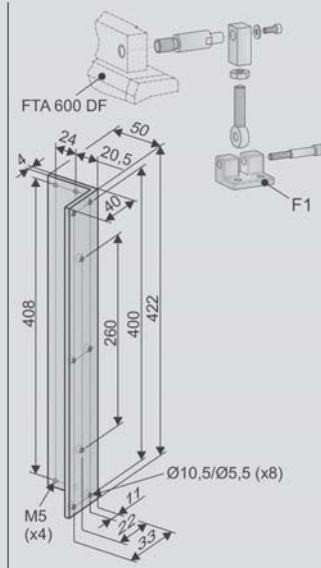
OPTIONAL ACCESSORIES

Main control unit and plug solution						
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 Protection rating IP30 rubber envelope	Part.-No. 524177 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				
	Aumüller-Click plug solution 	Aumüller-Click plug solution: Unified plug solution for all AUMÜLLER chain drives and AUMÜLLER folding arm drives. Rated voltage: 24 V DC +/- 20 %, (max. 2 Vss) Connecting cable: non-halogen, grey 5 x 0,5 mm ² Terminal: to 1,5 mm ²	Feature/Equipment <ul style="list-style-type: none"> • Flexible cable length • Connect multiple drives in series connection • Torsion-plug • Locking hooks prevent withdrawal of the plug under tensile load • Strain relief according DIN EN 60335-1 by screwing the housing halves 			
VARIANTS:						
1 m cable length - 24 V DC		Part.-No. 501250				
2 m cable length - 24 V DC		Part.-No. 501258				
3 m cable length - 24 V DC		Part.-No. 501251				
5 m cable length - 24 V DC		Part.-No. 501252				
10 m cable length - 24 V DC		Part.-No. 501253				

ACCESSORIES

Casement bracket

K103



Application

Surface mounting on the **side closing edge** of window frame profiles of **inward opening side-hung** windows. Angle bracket **422 mm** for mounting of FTA600-DF on the window frame profile. F1 for mounting on the casement profile and for the fixing with the knuckle joint, adjustable for compensation of the door overlap

Part.-No. 524172

Material/Finish
aluminium

Feature/Equipment

1x angle 50x40x422

(t = 4) mm

1x casement bracket F1

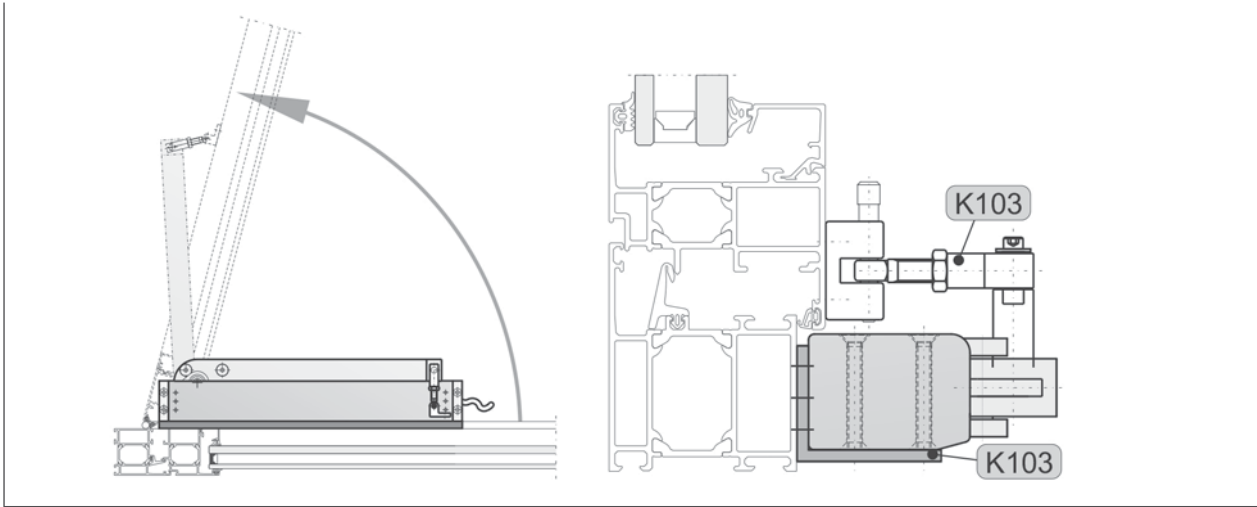
1x fixing accessories

Load

max. 600 N

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		

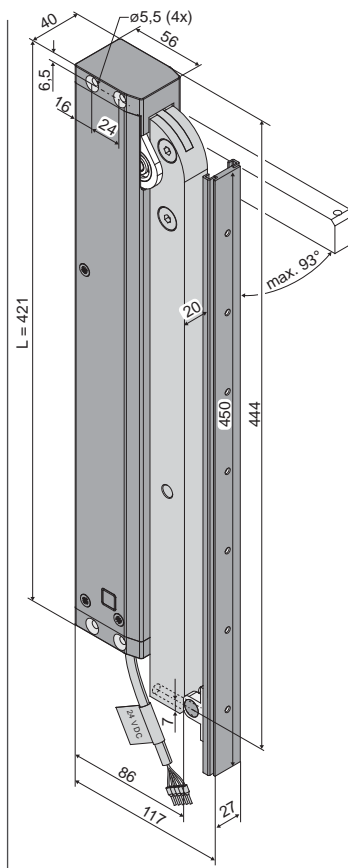
Typical applications



- Application: natural ventilation, SHEV
- Mainly for opening and closing of side-hung outward opening windows
- Internal Intelligent Control Electronics S12
- Programmable contact for door opener
- Unified plug solution for all **AUMÜLLER** chain drives and **AUMÜLLER** folding arm drives

Options

- Programmable special functions
- M-COM for automatic synchronised run of multi drive systems and automatic sequence control with locking drives (S3 / S12)
- Various customised programmings on request

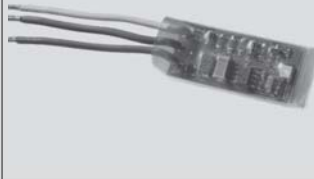



TECHNICAL DATA

U_N	Rated voltage	24V DC ($\pm 20\%$), max. 2 Vpp
I_N	Rated current	0,8 A
I_A	Cut-off current	1,4 A
P_N	Rated power	20 W
ED	Duty cycle	30 % (ON: 3 min. / OFF: 7 min.)
	Protection rating	IP 32
	Ambient temperature range	-5 °C ... +75 °C
M_A	Torque OPEN	215 Nm (600 N)
M_Z	Torque CLOSE	215 Nm (600 N)
F_H	Pullout force	3000 N (fastening depended)
	Lever arm	aluminium (RAL9006)
	Connecting cable	non-halogen, grey 5 x 0,5 mm ² , ~ 3 m
t	Running time (0° – 90°)	45 s (2,0°/s) 45 s (2,0°/s)
s	Stroke	0 – 93 DEG ($\pm 5\%$)
L	Length	455 mm
	Potential free contact	max. 24VDC / 0,5A programmable
	Sound pressure level A	≤ 70 dB (A)

ORDER DATA						
s [DEG]	L [mm]	Version	Finish	PU/pcs.	Part.-No.	
0° – 93°	455	FTA600 GF S12 24V	E6/C-0	1	524146	
Accessories				PU/pcs.	Part.-No.	
K104 Casement bracket FTA600 GF				1	524173	
OPTIONS						
Special model				PU/pcs.	Part.-No.	
Drive housing painted/powder coated in other RAL colours						
Lump sum for coating						516030
Specify at order stage:					1 – 20	516004
					21 – 50	516004
					51 – 100	516004
					up 101	516004
Extra length connecting cable:						
10 m – non-halogen, grey – 5 x 0,5 mm ²						501056
Microprocessor programming S12						
Electronic stroke reduction 24V S12				1	524190	
Programming drives 24V / 230V S12					524180	
Optional accessories				PU/pcs.	Part.-No.	
Configuration module for synchronised multi-drive systems				1	524177	

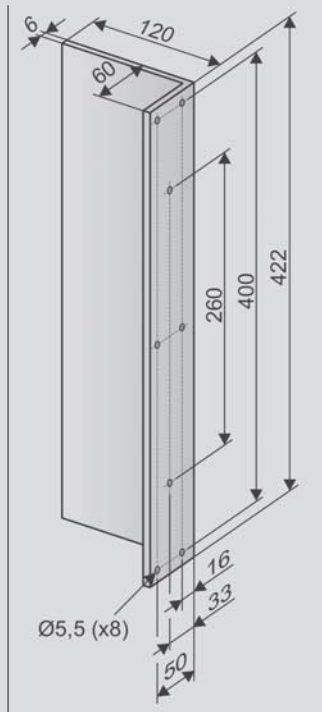
OPTIONAL ACCESSORIES

Main control unit and plug solution						
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 Protection rating IP30 rubber envelope	Part.-No. 524177 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				
	Aumüller-Click plug solution 	Aumüller-Click plug solution: Unified plug solution for all AUMÜLLER chain drives and AUMÜLLER folding arm drives. Rated voltage: 24 V DC +/- 20 %, (max. 2 Vss) Connecting cable: non-halogen, grey 5 x 0,5 mm ² Terminal: to 1,5 mm ²	Feature/Equipment <ul style="list-style-type: none"> • Flexible cable length • Connect multiple drives in series connection • Torsion-plug • Locking hooks prevent withdrawal of the plug under tensile load • Strain relief according DIN EN 60335-1 by screwing the housing halves 			
VARIANTS:						
1 m cable length - 24 V DC		Part.-No. 501250				
2 m cable length - 24 V DC		Part.-No. 501258				
3 m cable length - 24 V DC		Part.-No. 501251				
5 m cable length - 24 V DC		Part.-No. 501252				
10 m cable length - 24 V DC		Part.-No. 501253				

ACCESSORIES

Casement bracket

K104



Application

Surface mounting on the side closing edge of window frame profiles of inward opening side-hung windows.

Angle bracket 422 mm for mounting of FTA600-GF on the window frame profile.

The slide rail of has to be mounted on the casement profile

Part.-No. 524173

Material/Finish
aluminium

Feature/Equipment

1x angle 120x60x422

(t = 6) mm

4x countersunk screws,

M5x45 mm

Load

max. 600 N

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		

Typical applications

