

**NANO**

24 Vdc

Chain actuator

Maximum force in push action 400 N

Maximum stroke 800 mm



The solution for the integration into  
the window profiles.

Very silent operation.

- › Chain in double stainless-steel links.
- › Smallest case (24 x 35 mm) in aluminum extrusion.
- › Electronic stop in the intermediate positions in case of overload.
- › Electronic Soft Stop in close and fully open position.
- › Reduction of entrapment risk: stop and reverse action in case of obstacle detected (outside the Soft Stop zone).
- › Quick and easy installation: the manual closing position regulation is not required.
- › Suitable for combined installation with the additional locking device E-LOCK.

- › NANO versions with IP42 protection class, for a higher resistance against atmospheric agents, available upon request.



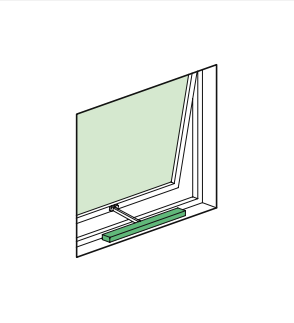
- › and  versions for USA and Canada.

- › 24 Vdc version is suitable for installation on Smoke and Heat Exhaust Ventilators (SHEV) in conformity to European Standard EN 12101-2, tested by Istituto Giordano.

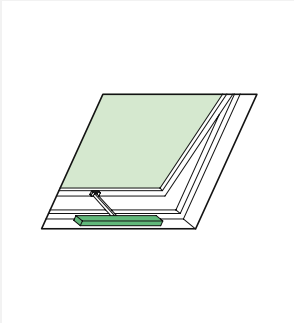
For installation remarks refer to the section at page 33 or contact UCS's technical department for further information.

POSSIBLE APPLICATIONS

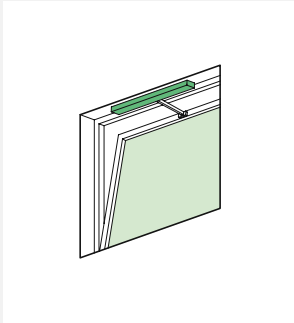
OUTWARD OPENING



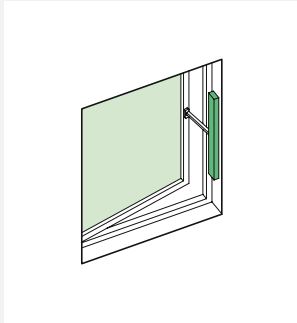
Top hung window.



Top hung roof window.



Bottom hung window.

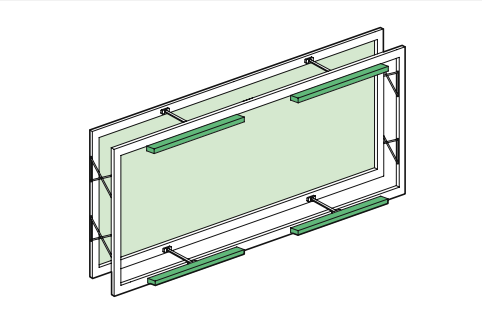


Side hung window.

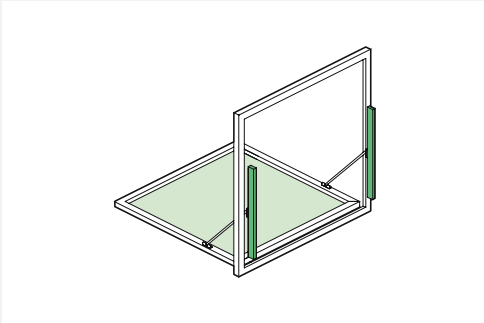
LEGEND

Common application

Special application

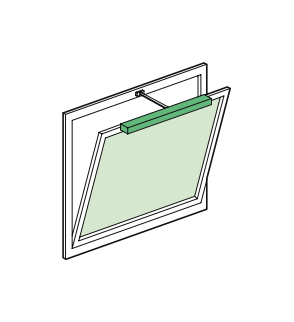


Parallel window.

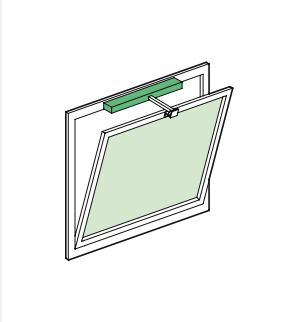


**DRAW BRIDGE.**  
Bottom hung window.

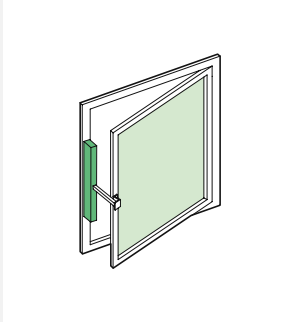
INWARD OPENING



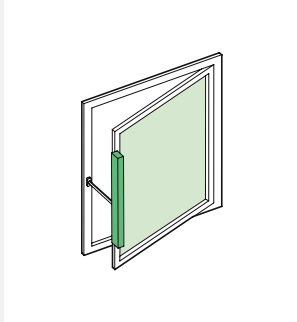
Bottom hung window.



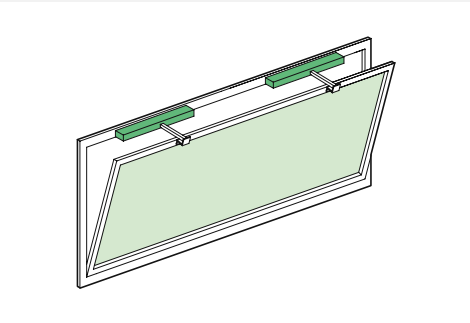
Bottom hung window.



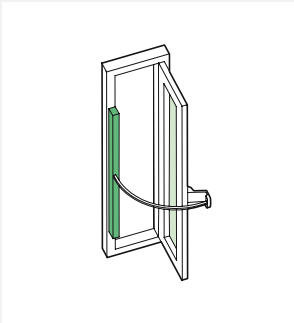
Side hung window.



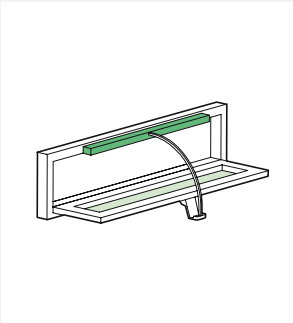
Side hung window.



Bottom hung window.



**FLEX CHAIN.**  
Side hung window.



**FLEX CHAIN.**  
Bottom hung window.

SPECIAL VERSIONS



NANO FLEX

UP TO 90 DEGREES OPENING thanks to a flexible chain, allowing a wide opening angle according to the window size.

High narrow opening windows are becoming very popular and are implemented into the façade panel, as well as small bottom hinged windows, opening inward, with maximized opening angle.

- › Flexible chain in stainless steel.
- › Suitable for bottom and side hung windows, inwards opening, with pivoting hinges.
- › Minimum distance from the hinges 170mm.
- › Suitable for being concealed into aluminum profiles with minimal chain connector.
- › Suitable for installation with the additional locking device E-LOCK.
- › NANO FLEX is available in Synchro version; DC, and BMSline versions upon request.

NANO DRAW BRIDGE

Especially for smoke ventilation, wide opening angle represents a big advantage in order to reduce the number of openable windows, according to the required efficiency or geometrical free area.

NANO in DRAW BRIDGE application can increase the opening angle up to 90°, taking in consideration the window size and weight.

NANO can be installed in DRAW BRIDGE configuration on bottom hung windows opening inwards or outwards.

Suitable for installation with the additional locking device E-LOCK, granting a perfect tightness of the windows, even on very high sashes.

Contact our Technical Department for the installation limits (size and weight of window) and brackets for actuator installation (depending on type of profile).



NANO

TECHNICAL DATA

VERSION	DC VERSION	BMSline VERSION
VOLTAGE SUPPLY	24 Vdc ± 15%	24 Vdc ± 10%
CURRENT ABSORPTION (max load)	1,2 A	1,2 A
OPERATION	polarity inversion	programmable
MAX FORCE (see force/stroke diagram)	400 N*	programmable up to 400 N*
OPENING SPEED	4 - 14 mm/s**	programmable up to 14 mm/s
CLOSING SPEED	4 mm/s	programmable up to 14 mm/s
LOCKING FORCE	1900 N***	1900 N***
DUTY CYCLE	30%	30%
PARALLEL CONNECTION	Yes	Yes
LIMIT STOP	Electronic	Electronic
SAFETY STOP	Electronic	Electronic
PROTECTION CLASS	IP40****	IP40****

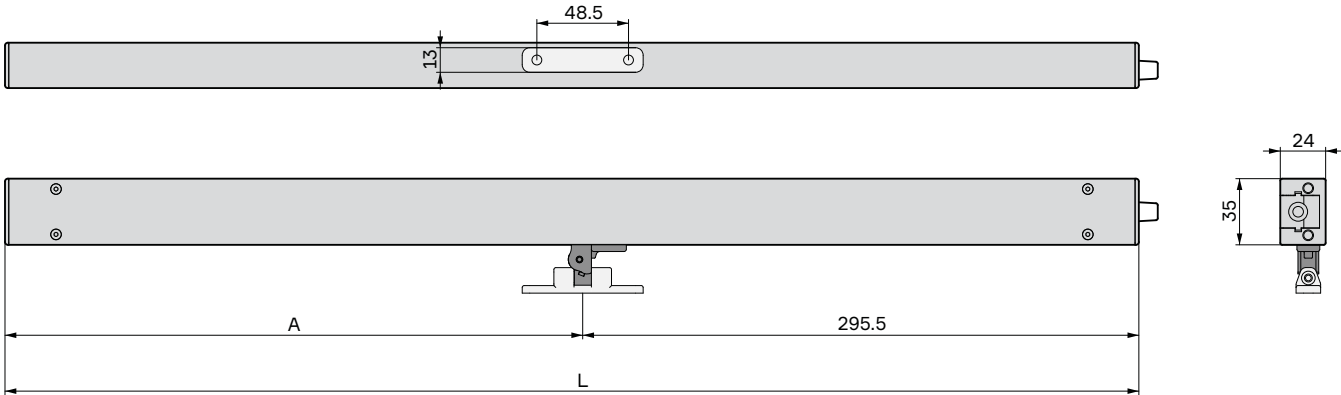
\* Must be considered as a temporary load only, both in push and pull.  
\*\* Silent operation: minimum speed to complete the opening within 60s.

\*\*\* Installation with side bracket kit.  
\*\*\*\* Version with IP42 protection class available upon request.

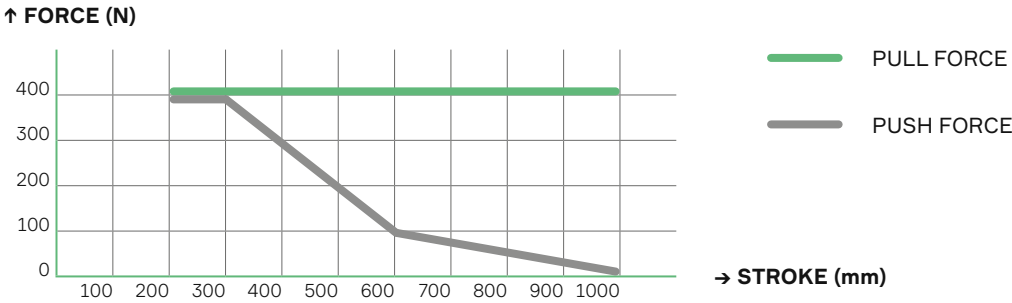
DIMENSIONS

Chain connector included.

STROKE	200	300	400	500	600	800
A (mm)	254,5		304,5	404,5		604,5
L (mm)	550		600	700		900



STROKE / FORCE DIAGRAM



SYNCHRO

The NANO SYNCHRO versions are equipped with an integrated speed synchronization control board for the installation of more than one actuator on the same vent, avoiding any external control panel (max 4 actuators + E-Lock).  
Cable not provided, to order separately, and connectable on both sides of actuator.  
Suitable for installation with the additional locking device E-LOCK BMS, for easier wiring and sequence operation.  
NANO SYNCHRO versions provide also open/close feedback (not free potential).

F-SIGNAL

The NANO SYNCHRO F-SIGNAL versions provide free potential opening and closing feedback signal (maintained contact), activated by the current limit, in addition to the Synchro features.  
The free potential feedback is often required to share with third part devices the status of the windows.

UCS

BMSline

The NANO BMSline version is fully programmable (stroke length, speed, force, ...) and addressable via the dedicated Modbus RTU communication line for the integration in the Building Management System.  
Introducing special features like: real-time feedback, entrapment risk reduction, statistics, override of local push button by BMS, quite operation for Natural Ventilation and full speed for Smoke Ventilation.  
For complete feature description refer to the BMSline section at page 20.

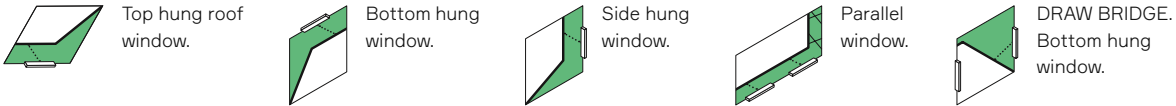
PART No.

DC POWER SUPPLY (24 Vdc)

MODEL	SYNCHRO	FEEDBACK	CABLE & BUS LINE	STROKE	→ COLOUR / ↓ PART No.		
					SILVER ANODIZED	BLACK RAL 9005	WHITE RAL 9010
NANO DC	-	-	1,5 m 2 wires	200mm 300mm 400mm 500mm 600mm 800mm	41944Z 41947C 41950F 41953I 41956L 41959O	41945A 41948D 41951G 41954J 41957M 41960P	41946B 41949E 41952H 41955K 41958N 41961Q
NANO DC SYNCHRO	Yes	Open/closed	Not provided. Order separately. Refer to the accessories section.	200mm 300mm 400mm 500mm 600mm 800mm	41962R 41965U 41968X 41971A 41974D 41977G	41963S 41966V 41969Y 41972B 41975E 41978H	41964T 41967W 41970Z 41973C 41976F 41979I
NANO DC SYNCHRO F-SIGNAL	Yes	Free potential Open/closed	Not provided. Order separately. Refer to the accessories section.	200mm 300mm 400mm 500mm 600mm 800mm	41980J 41983M 41986P 41989S 41992V 41995Y	41981K 41984N 41987Q 41990T 41993W 41996Z	41982L 41985O 41988R 41991U 41994X 41997A
NANO DC SYNCHRO FLEX	Yes	Open/closed	Not provided. Order separately. Refer to the accessories section.	300mm 400mm	48226Q 48221L	48227R 48222M	48228S 48223N
NANO BMSline	Yes	All features via BUS line	Not provided. Order separately. Refer to the accessories section.	200mm 300mm 400mm 500mm 600mm 800mm	41998B 42001E 42004H 42007K 42010N 42013Q	41999C 42002F 42005I 42008L 42011O 42014R	42000D 42003G 42006J 42009M 42012P 42015S



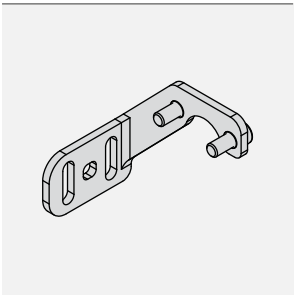
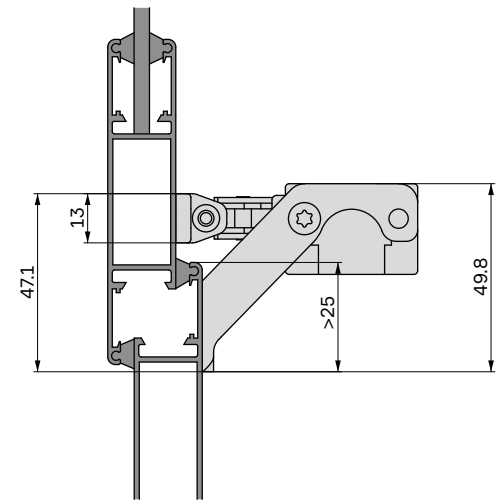
POSSIBLE APPLICATIONS & ACCESSORIES



OUTWARD OPENING

INSTALLATION EXAMPLE 01

With front bracket kit.

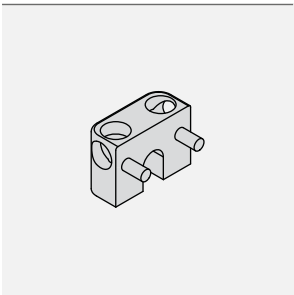
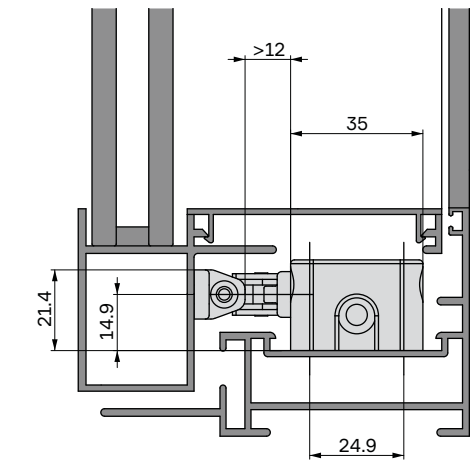


Front bracket kit

GREY RAL 9006	41935Q
BLACK RAL 9005	41936R
WHITE RAL 9010	41937S

INSTALLATION EXAMPLE 02

Integrated into the profile with side bracket kit.

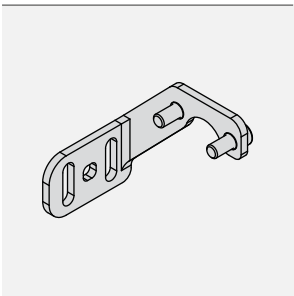
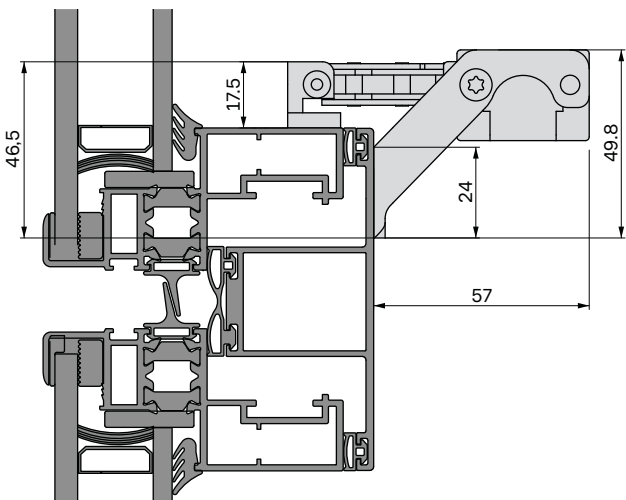


Side bracket kit

GREY RAL 9006	41938T
BLACK RAL 9005	41939U
WHITE RAL 9010	41940V

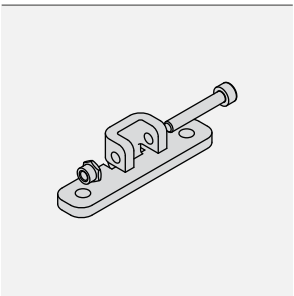
INSTALLATION EXAMPLE 03

Concealed vent with front bracket kit.



Front bracket kit

GREY RAL 9006	41935Q
BLACK RAL 9005	41936R
WHITE RAL 9010	41937S

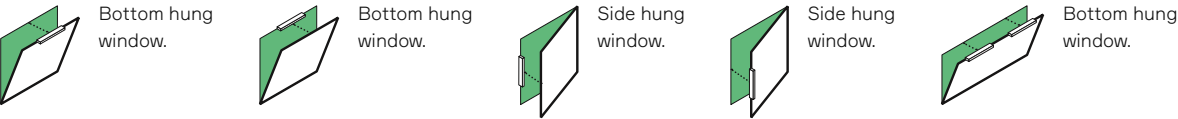


Chain connector

STAINLESS STEEL	48143L
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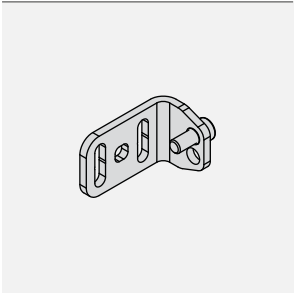
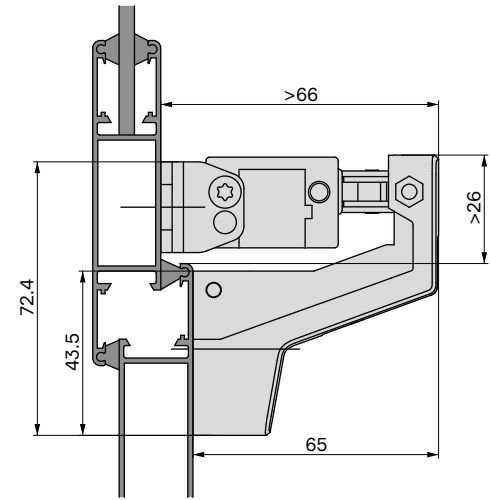


POSSIBLE APPLICATIONS & ACCESSORIES



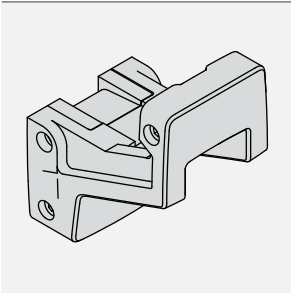
INSTALLATION EXAMPLE 01

On the frame with Z bracket kit.



Back bracket kit

GREY RAL 9006	41932N
BLACK RAL 9005	41933O
WHITE RAL 9010	41934P

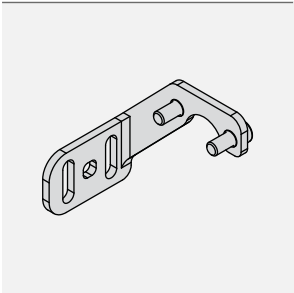
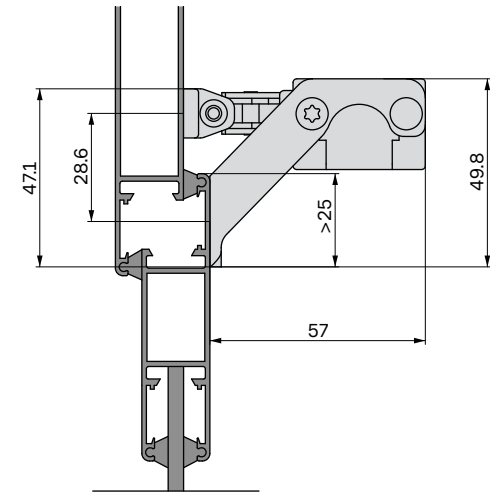


Z aluminium bracket kit

GREY RAL 9006	41941W
BLACK RAL 9005	41942X
WHITE RAL 9010	41943Y

INSTALLATION EXAMPLE 02

On the vent with front bracket kit.

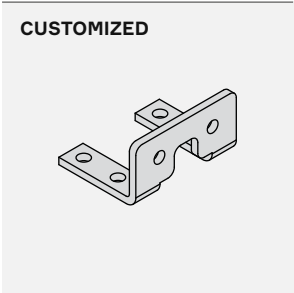
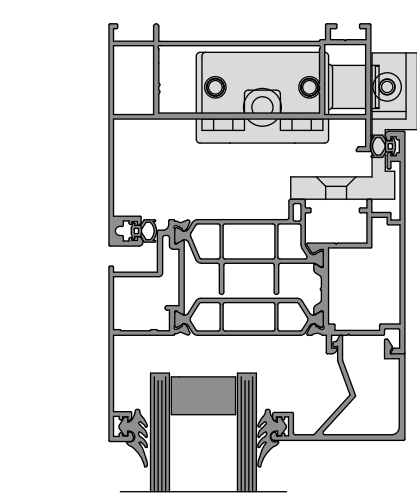


Front bracket kit

GREY RAL 9006	41935Q
BLACK RAL 9005	41936R
WHITE RAL 9010	41937S

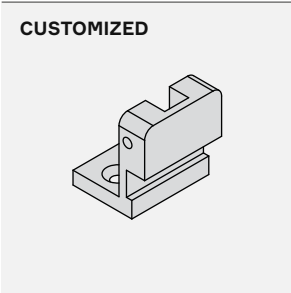
INSTALLATION EXAMPLE 03

Concealed into the frame with customized bracket kit.



Side bracket kit

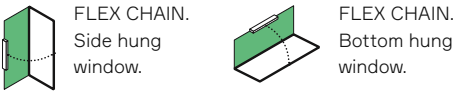
To be designed according to aluminium profile system. Please contact UCS technical department.



Chain connector kit

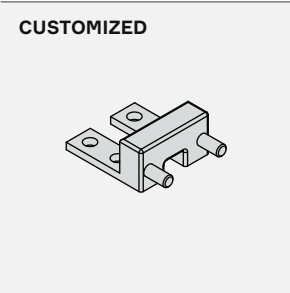
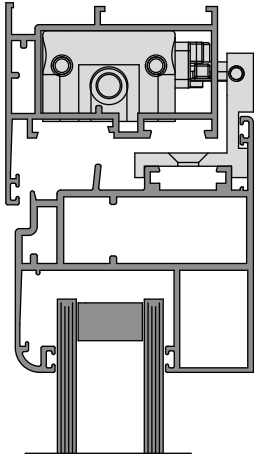
To be designed according to aluminium profile system. Please contact UCS technical department.

INWARD OPENING



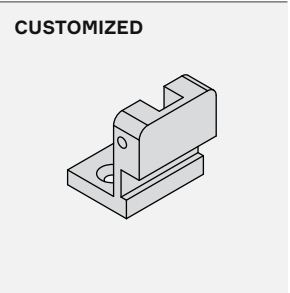
INSTALLATION EXAMPLE 04

Concealed into the frame with customized bracket kit (wide opening angle).



Side bracket kit

To be designed according to aluminium profile system. Please contact UCS technical department.

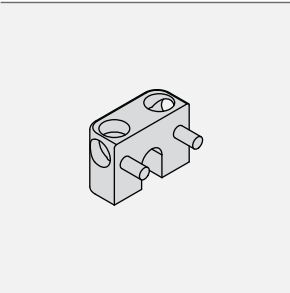
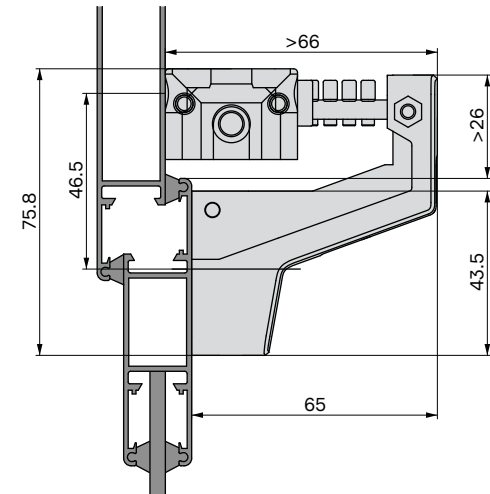


FLEX chain connector kit

To be designed according to aluminium profile system. Please contact UCS technical department.

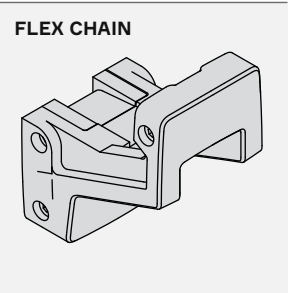
INSTALLATION EXAMPLE 05

On the frame with Z bracket kit (wide opening angle).



Side bracket kit

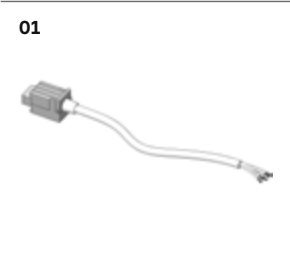
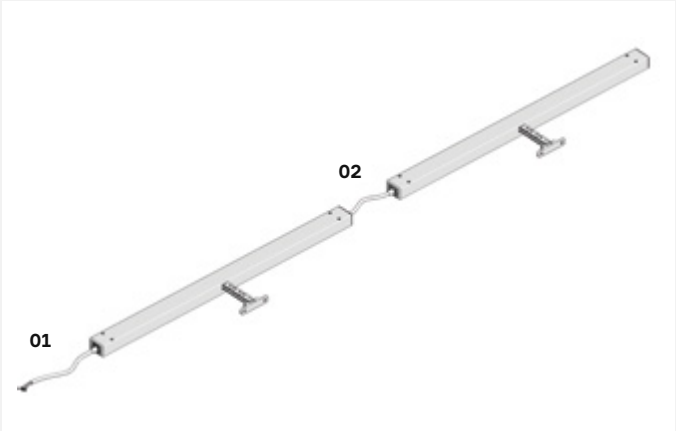
GREY RAL 9006	41938T
BLACK RAL 9005	41939U
WHITE RAL 9010	41940V



Z aluminium bracket kit

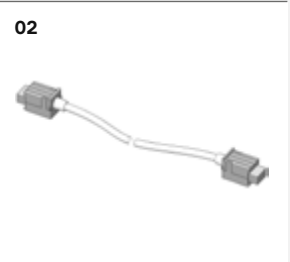
GREY RAL 9006	48298K
BLACK RAL 9005	48299L
WHITE RAL 9010	48300M

ELECTRICAL CONNECTORS AND CABLES



Power supply/Signal

NANO DC	BLACK	42017U
SYNCHRO	WHITE	42016T
NANO DC	BLACK	48016Q
BMSline	WHITE	48015P



Power supply/Synchro

NANO DC	BLACK	42019W
SYNCHRO	WHITE	42018V
NANO DC	BLACK	48019O
BMSline	WHITE	48013N