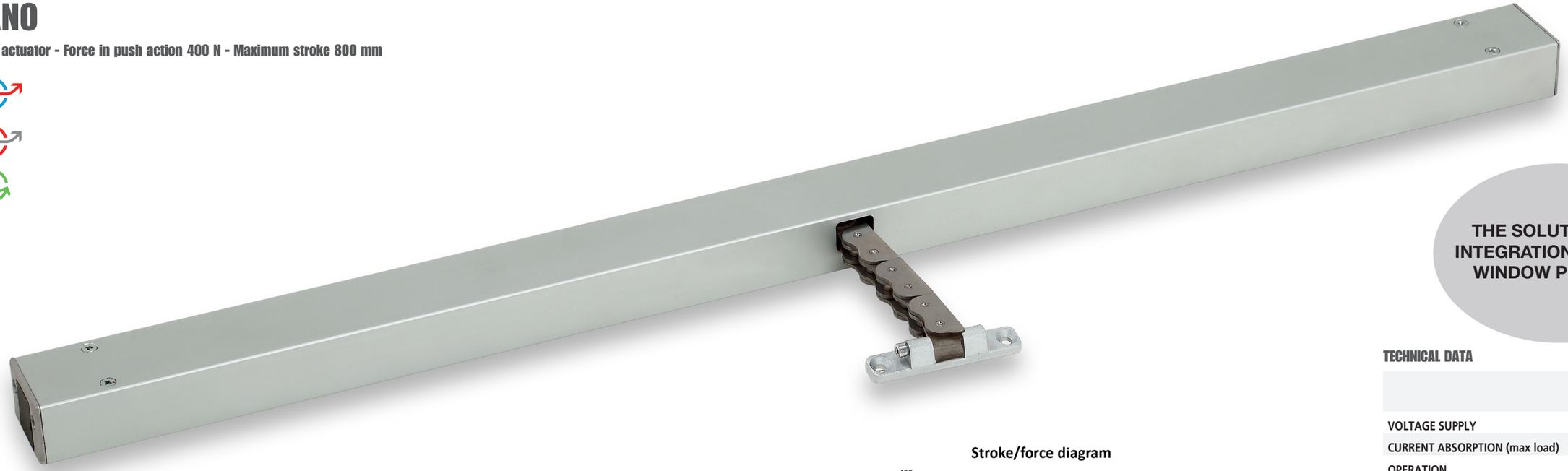
NANO

Chain actuator - Force in push action 400 N - Maximum stroke 800 mm



THE SOLUTION FOR INTEGRATION INTO THE WINDOW PROFILES

MAIN FEATURES

- The highest performance (400 N) in the smallest case (24 x 35 mm)
- Very silent operation
- Chain in double stainless steel links.
- Aluminum extrusion
- Electronic stop in the intermediate positions in case of overload.
- Soft stop in close and fully open position
- Reduction of entrapment risk: stop and reverse action in case of obstacle detected
- Cable connection on both sides (Synchro versions)

- The **SYNCHRO NANO** 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). SYNCHRO NANO versions provide also open/close feedback.
- The **SYNCHRO NANO F-SIGNAL** versions provide free potential opening and closing feedback signal (maintained contact), activated by the current limit.
- **NANO DC** is provided with 1,5 m cable (no synchronization, feedback signal and speed selection).

- Suitable for installation with the additional locking device E-LOCK: NANO DC with E-LOCK Standard, SYNCHRO NANO with E-LOCK BMS (for easier wiring and sequence operation).
- Suitable for drawbridge application (Synchro versions).

OTHER VERSIONS UPON REQUEST:

- **NANO** versions with **IP42** protection class, for a higher resistance against atmospheric agents.
- c UL us LISTED c UL us Versions for USA and Canada.

INSTALLATION REMARKS

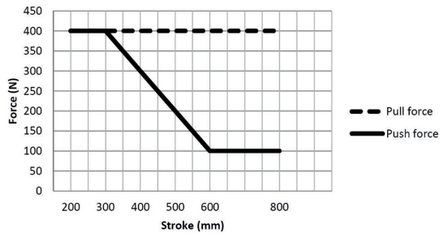
- In case of vents with four-bar hinges, please contact our Technical Dept.
- If installed on PVC windows, the profile has to be reinforced.
- In case of Building Management System control, avoid repetitive commands in the same direction.

For further information contact our Tech. Dept.

Suitable for installation on **Smoke and Heat Exhaust Ventilators (SHEV)** in conformity to European Standard **EN 12101-2** (pending test).

The BMSline version is fully programmable (stroke, speed, force, ...); different scenarios are selectable with a connection to a computer throught dedicated software. See BMSline section.

Stroke/force diagram



800 mm stroke only for bottom hinged windows.

TECHNICAL DATA

	DC VERSION
VOLTAGE SUPPLY	24 Vdc ± 15%
CURRENT ABSORPTION (max load)	1.2 A
OPERATION	polarity inversion
MAX FORCE	400 N*
OPENING SPEED	4 - 14 mm/s**
CLOSING SPEED	4 mm/s
LOCKING FORCE	1900 N***
DUTY CYCLE	30%
PARALLEL CONNECTION	Yes
LIMIT STOP	Electronic
SAFETY STOP	Electronic
PROTECTION CLASS	IP40

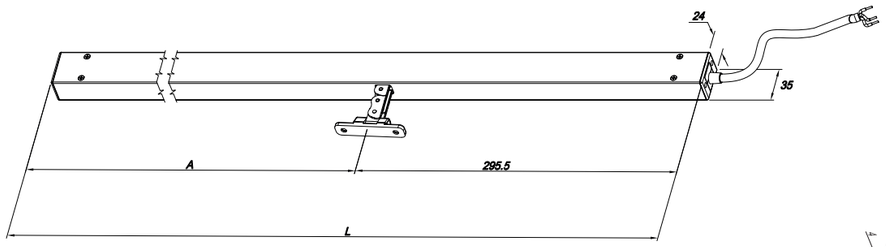
**Must be considered as a temporary load only, both in push and in pull.*
***Silent operation: opening speed depending on stroke (minimum speed to complete the opening within 60 s).*
****Installation with side bracket kit.*
Synchro versions can provide Silent Ventilation (slower speed) activated by UCS C-SV Smoke Ventilation Control Panels.

Part No. for DC VERSIONS

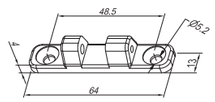
MODEL	SYNCHRO	FEEDBACK	CABLE	COLOUR	PART No. *(Stroke)*		
					200 mm	*300 mm*	*400 mm*
				SILVER ANODIZED	41944Z	41947C	41950F
				BLACK RAL 9005	41945A	41948D	41951G
NANO DC	-	-	1,5 m 2 wires	WHITE RAL 9010	41946B	41949E	41952H
					500 mm	*600 mm*	*800 mm*
				SILVER ANODIZED	41953I	41956L	41959O
				BLACK RAL 9005	41954J	41957M	41960P
				WHITE RAL 9010	41955K	41958N	41961Q
					200 mm	*300 mm*	*400 mm*
				SILVER ANODIZED	41962R	41965U	41968X
				BLACK RAL 9005	41963S	41966V	41969Y
SYNCHRO NANO DC	Yes	open/close	not provided, order separately	WHITE RAL 9010	41964T	41967W	41970Z
					500 mm	*600 mm*	*800 mm*
				SILVER ANODIZED	41971A	41974D	41977G
				BLACK RAL 9005	41972B	41975E	41978H
				WHITE RAL 9010	41973C	41976F	41979I
					200 mm	*300 mm*	*400 mm*
				SILVER ANODIZED	41980J	41983M	41986P
				BLACK RAL 9005	41981K	41984N	41987Q
SYNCHRO NANO DC F-SIGNAL	Yes	free potential open/close	not provided, order separately	WHITE RAL 9010	41982L	41985O	41988R
					500 mm	*600 mm*	*800 mm*
				SILVER ANODIZED	41989S	41992V	41995Y
				BLACK RAL 9005	41990T	41993W	41996Z
				WHITE RAL 9010	41991U	41994X	41997A

NOTE: brackets, not included - to be ordered separately

Actuators dimensions

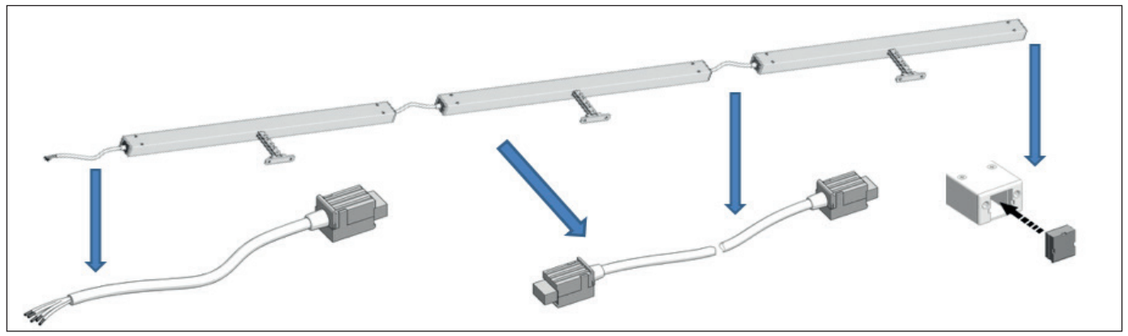


STROKE	A [mm]	L [mm]
200	254,5	550
300		
400	304,5	600
500	404,5	700
600		
800	604,5	900



Connector included

Accessories - Electrical connectors and cables



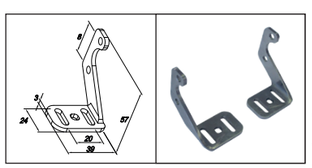
42016T Electrical Connector with 1,5 m cable (white) for SYNCHRO NANO DC

42017U Electrical Connector with 1,5 m cable (black) for SYNCHRO NANO DC

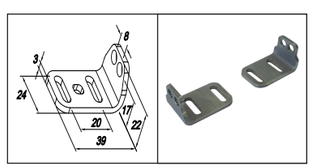
42018V Cable with 2 connectors (1m, white) for installations of 2 x SYNCHRO NANO DC actuators.

42019W Cable with 2 connectors (1m, black) for installations of 2 x SYNCHRO NANO DC actuators.

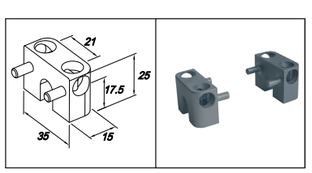
Accessories - Brackets



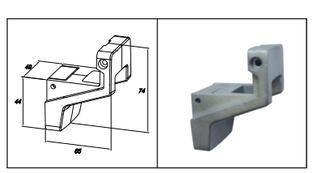
Front bracket kit:
GREY part no. 41935Q
BLACK part no. 41936R
WHITE part no. 41937S



Back bracket kit:
GREY part no. 41932N
BLACK part no. 41933O
WHITE part no. 41934P



Side bracket kit:
GREY part no. 41938T
BLACK part no. 41939U
WHITE part no. 41940V



Aluminum bracket for bottom hinged windows:
GREY part no. 41941W
BLACK part no. 41942X
WHITE part no. 41943Y

Installation examples

Outward

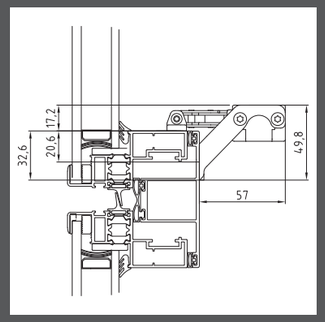
Top hinged windows

Top hinged windows, two Synchro actuators

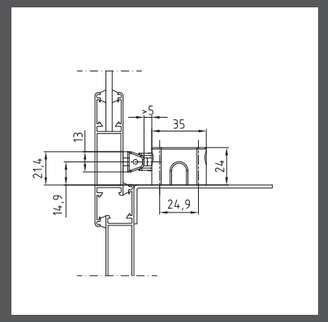
Side hinged windows

Roof windows

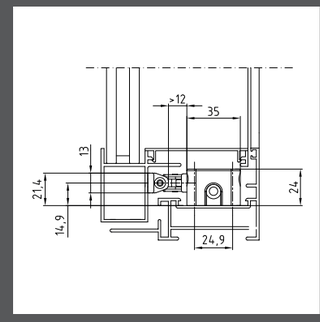
Parallel windows



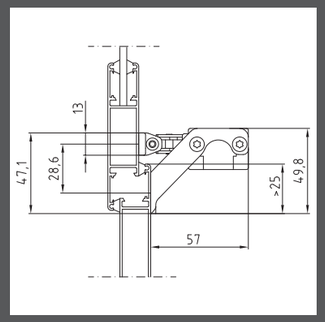
Concealed vent with front bracket



On windowsill with side brackets



Integrated into window profiles with side brackets

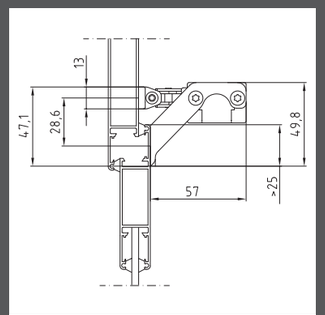


With front brackets

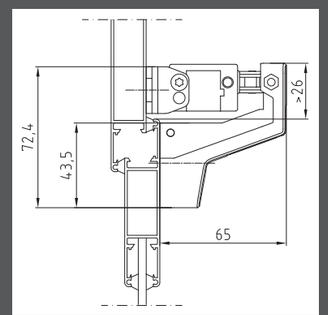
Inward

Bottom hinged windows

Side hinged windows



On the vent with front brackets



On the frame with back brackets and aluminum “Z” bracket

⚠ The instructions for a safe installation are included in the section “SECURITY WARNINGS”

SPECIFICATION PROSPECTS

Electric chain actuator Ultraflex Control Systems named Nano DC with chain in double stainless steel links. High performance (400 N) in very small case (24 x 35 mm). Voltage supply: 24 Vdc – Electronic limit stop; electronic stop in the intermediate positions in case of overload. Electric chain actuator Ultraflex Control Systems named Synchro Nano DC with chain in double stainless steel links. High performance (400 N) in very small case (24 x 35 mm). Voltage supply: 24 Vdc – Electronic limit stop; electronic stop in the intermediate positions in case of overload. Suitable for mounting more than one actuators (max 4 actuators) on the same vent: integrated speed synchronization. When “free potential open/close feedback” is required, indicate suffix “F-SIGNAL”