

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



#### **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.
- 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). The quiet operation is ensured by the slow speed for natural ventilation; the maximum speed for smoke ventilation is activated by UCS
- C-SV Control Panels. SYNCHRO NANO versions provide also open/close feedback. Cable connection possible on both sides. • 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 without selectable features (Synchronization, feedback signal and speed selection). The quiet operation is ensured by the slow speed (4 mm/s) for natural ventilation.
- Available on request NANO DC actuators with maximum speed for smoke ventilation systems.
- Suitable for combined installation with the additional locking device E-LOCK (see related data sheet).

### **OTHER VERSIONS UPON REQUEST:**

• NANO versions with IP42 protection class, for a higher resistance against atmospheric agents.

### **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.

### THE SOLUTION FOR **INTEGRATION INTO THE** WINDOW PROFILES

(4E)

(16)



	DC VERSION		
VOLTAGE SUPPLY	24 Vdc ± 15%		
CURRENT ABSORPTION (max load)	1 A		
OPERATION	polarity inversion		
MAX FORCE	400 N		
SPEED	4 - 14 mm/s		
DUTY CYCLE	30%		
PARALLEL CONNECTION	Yes		
LIMIT STOP	Electronic		
SAFETY STOP	Electronic		
PROTECTION CLASS	IP40		

### Part No. for DC VERSIONS (24 Vdc ±15%)

200 300 400 500 600

Stroke (mm)

150

100 50 0 Stroke/force diagram

MODEL	SYNCHRO	FEEDBACK	CABLE	COLOUR	PART No. (Stroke)		
NANO DC	-		1,5 m 2 wires	SILVER ANODIZED BLACK RAL 9005 WHITE RAL 9010 SILVER ANODIZED BLACK RAL 9005 WHITE RAL 9010	200 mm 41944Z 41945A 41946B 500 mm 41953I 41954J 41955K	300 mm 41947C 41948D 41949E 600 mm 41956L 41957M 41958N	400 mm 41950F 41951G 41952H 800 mm 41959O 41960P 41961Q
SYNCHRO NANO DC	Yes	open/close	8 pole connector	SILVER ANODIZED BLACK RAL 9005 WHITE RAL 9010 SILVER ANODIZED BLACK RAL 9005 WHITE RAL 9010	200 mm 41962R 41963S 41964T 500 mm 41971A 41972B 41973C	300 mm 41965U 41966V 41967W 600 mm 41974D 41975E 41976F	400 mm 41968X 41969Y 41970Z 800 mm 41977G 41977H 41979I
SYNCHRO NANO DC F-SIGNAL	Yes	free potential open/close	8 pole connector	SILVER ANODIZED BLACK RAL 9005 WHITE RAL 9010 SILVER ANODIZED BLACK RAL 9005 WHITE RAL 9010	200 mm 41980J 41981K 41982L 500 mm 41989S 41990T 41991U	300 mm 41983M 41984N 41985O 600 mm 41992V 41993W 41994X	400 mm 41986P 41987Q 41988R 800 mm 41995Y 41996Z 41997A

Pull force

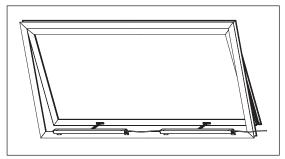
1000

800

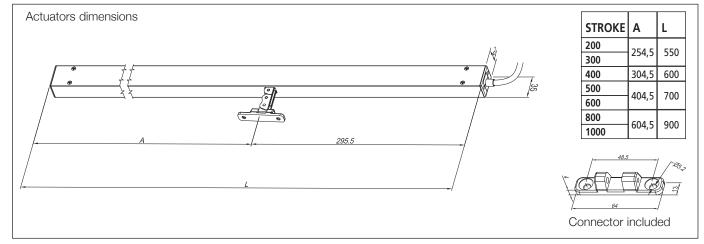
Push force

NOTE: brackets, electrical connector and cable not included - to be ordered separately

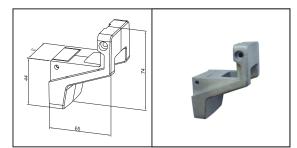




SYNCHRO NANO DC Installation on top hinged windows, with cable with 2 connectors between the actuators



### **Accessories - Brackets**



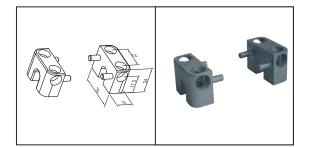
Aluminum bracket for bottom hinged windows: GREY part no. 41941W BLACK part no. 41942X WHITE part no. 41943Y



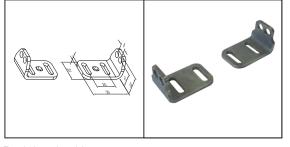
Front bracket kit: GREY part no. 41935Q BLACK part no. 41936R WHITE part no. 41937S

## 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
- 42020X Electrical Connector with 1,5 m cable (white) for SYNCHRO NANO DC F-SIGNAL



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



Back bracket kit: GREY part no. 41932N BLACK part no. 419330 WHITE part no. 41934P

- 42021Y Electrical Connector (without cable) for SYNCHRO NANO DC and SYNCHRO NANO DC F-SIGNAL
- 42018V Cable with 2 connectors (1m, white) for installations of 2  $\times$  SYNCHRO NANO DC actuators.
- 42019W Cable with 2 connectors (1m, black) for installations of 2  $\times$  SYNCHRO NANO DC actuators.

### **14 GREEN LINE**

# Installation examples





Top hinged windows, two Synchro actuators



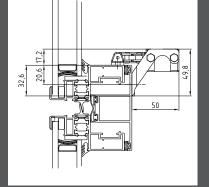
Side hinged windows



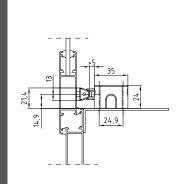
Roof windows



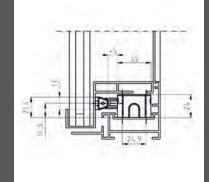
Parallel windows



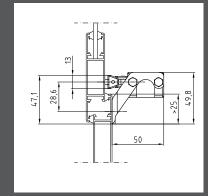
Concealed vent with front bracket



On windowsill with side brackets



Integrated into window profiles with side brackets

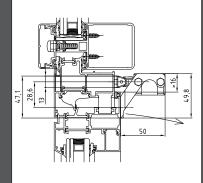


With front brackets

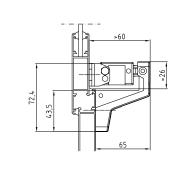


Bottom hinged windows





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 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"