Manuale di istruzioni per l'uso



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INSTRUCTION MANUAL MODE D'EMPLOI BEDIENUNGSANLEITUNG MANUAL DE INSTRUCCIONES Инструкция по монтажу



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1. GENERAL INFORMATION

1.1 Introduction to this manual

Please read carefully and follow the instructions detailed in this manual. Keep the manual for use and future maintenance. Pay attention to the configuration of the DIP-switch, to the data concerning the performance (see "Technical Data") and to the installation instructions. Improper use or incorrect operation, fitting or assembly can damage the system as well as cause injury to people and damage to property. The assembling instructions are available on the official web site

http://www.comunello.com/mowin







2. SAFETY

This installation manual is written exclusively for competent professional personnel.

The installation, electrical connections and adjustments must be carried out conforming to good practice and according to the regulations in force.

Incorrect installation can cause a potential hazard.

The packing materials (plastic, polystyrene, etc.) must not be allowed to pollute the environment, but must be disposed of correctly, and must not be left within the reach of children since they can cause possible hazards.

Before starting installation, check the product is complete and undamaged.

If the power cable is damaged, it must be replaced by the manufacturer or his technical support.

Do not install the product in an explosive environment or atmosphere: the presence of flammable gas or fumes is a serious health and safety hazard.

Before installing the drive mechanism, put in place all the structural modifications relating to safety measures and to the protection or segregation of all the zones involving hazards of crushing, shearing, entrapment and of general hazard.

Check that all the existing structure has the necessary requirements of strength and stability. The manufacturer of the drive mechanism is not responsible for failing to conform to good practice in the construction of the windows to be opened, as well as any distortion which could occur during use.

Put up the notices laid down by current regulations to identify hazardous areas.

Ensure that the electrical supply is not a temporary one, but has the required electrical boxes, and in case of doubt or lack of (definite) information, also install:

- suitable isolating transformers
- thermal magnetic cut-outs suitable to voltage requirements

- surge arrester.

Before connecting the electrical supply, ensure that the electrical rating correspond to that of electrical distribution supply. Fit onto the supply network an allpole switch with a contact gap of at least 3 mm. Check that on the supply side of the electrical plant there is a suitable differential residual current circuit breaker and overload protection.

When required to do so, connect to an efficient earthing/ground system fitted according to the safety regulations in force in the country where the actuator is being installed. Before carrying out any operation (installation, maintenance or repair), isolate the electrical supply before working on the equipment. To ensure complete isolation from the supply current, installation is recommended of a double-pole switch of the approved type.

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Cross-section of cables	Max lenght of cables
1,50 mm²	~ 100 m
0,75 mm ²	~ 50 m

The device is not intended to be used by people (including children) whose physical, sensory or mental capabilities are reduced or by people who lack in experience or knowledge, unless a person responsible for their safety can control them or give them instructions concerning the use of the device. Children must be supervised to ensure that they do not play with the device.

The Smart chain actuator is intended only and exclusively for use for which it was designed, and the manufacturer cannot be held responsible for damage due to its improper use. The actuator is intended exclusively for internal installation to open top-hung and bottom-hung windows, skylights and dormer windows.

Any other use is not recommended unless with the prior approval of the manufacturer. Install the actuator according to the instructions shown in this manual.

Any apparatus serving and controlling the actuator must be produced according to the regulations in force and respect the relevant standards issued by the European Community.

If the actuator is installed on a window at a height of less than 2.5 m from the floor and in buildings (public and otherwise) in which the use of destination is not clear, it must be operated exclusively by a command which is not accessible by public (key button).

The command button has to:

1) be placed at a height of 1500 mm from the floor

2) be positioned so that, at its activation, a person who carries the opening and closing has within its field of view all the moving parts.

Do not wash the apparatus with solvents or jets of water. Do not immerse the apparatus in water.

Any repair must be carried out by qualified personnel (the manufacturer or an authorised service centre). Always insist that only original spare parts are used.

Failure to use the original spare parts could compromise the correct operation of the product and the safety of people or property, also annulling the effects of the guarantee enclosed with the apparatus.

In case of any problems or doubt, contact the point of sale where the product was purchased or the manufacturer directly.

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3. TECHNICAL DATA

3.1 Table of technical data and mark

The CE mark certifies that the actuator conforms to the essential health and safety requirements laid down by European product directives. The CE mark can be identified by the relevant adhesive label applied to the outside of the product, on which are shown some of the data shown in the following table:

	SMART			
Model	MSMART20H0***	MSMART20L0***		
Power supply VAC	230VCA	24VDC		
Frequency	50Hz	50Hz		
Operation	S2 4min	S2 4min		
Push strength	200N	200N		
Pull strength	250N	250N		
Stroke speed unloaded	16 mm/s	16 mm/s		
Protection class	IP20	IP20		
Double insulation AC	yes	yes		
Motor voltage VAC	0,14 A	0,9 A		
Loaded power	22 W	22 W		
Operating temperature	-5° / +50°	-5° / +50°		
Strokes	180 - 380	180 - 380		
Strokes setting	with dip-switch	with dip-switch		
Soft Start / Soft Stop	yes / yes	yes / yes		
Obstacle detection	yes	yes		
Cabling included	0,5 m	0,5 m		
Dimensions	265x79x41 mm	265x79x41 mm		

B00 black version W00 white version G00 grey version



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4. ACTUATOR

4.1 Types of power supply

The smart series of actuators is available with electrical supply 230VAC 50 Hz (with a tolerance of \pm 10%), with a three-core supply cable: BLUE, neutral common; BLACK, open phase; BROWN, closed phase.

4.2 Calculation of the force necessary

The calculation is made without considering the loads due to atmospheric agents.

Key to symbols F = Force required to open in N (Newton)

- P = Weight of the window (only moveable part) in kg (kilogrammes)
- C = Opening travel of actuator in cm. (Centimetres)
- H = Height of the openable part of the window in cm. (centimetres)



4.3 Pack and tools required for assembling the actuator

The actuator is packed individually in a cardboard box. Each pack contains:

Electric actuator, 230VAC 50Hz with electric supply cable, support brackets, fixing bracket for top-hung window, fixing bracket for bottom-hung window and instruction manual.

Before starting to fit the actuator, we recommend preparing the following fitting materials, tools and equipment: Metre rule or tape measure, pencil, drill/screwdriver, set of drill bits for metal or wood, set of screw bits, electrical pliers, screwdrivers, screws and/or threaded inserts suitable for the type of window material. AVOID using self-tapping screws and/or three-lobed screws on any metal windows.



5. INSTALLATION



With bottom-hung windows, there is a danger of potential injury resulting from the window accidentally falling.

It is OBLIGATORY to fit limiting arms (of the Series 1276 type), or an alternative safety system, of a suitable size to prevent the window from accidentally falling down. In case of testing before installation, please move the chain only when opening.





5.1 Installation sequence

Check that the width of the window, where the actuator is due to be fitted, is more than 320 mm. Otherwise, it is NOT POSSIBLE to fit the actuator.

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Check that the force required to open/close it (calculated according to the table under Point 4.2) is less than or equal to that shown in the TECHNICAL DATA table.

Try manually the window opening, checking for and if necessary eliminating any sticking points that could cause a malfunction.

Manually test the maximum opening of the window, checking that it is greater than the travel set by the actuator.





CAUTION If the window is of the bottom-hung type, check that the limiting arms have been fitted to prevent the window from accidentally falling down.















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5.2 Electrical connection

Wire in the apparatus according to the electrical supply required by the actuator (see label on product), following the table below.

230Vac Supply			24Vdc supply			
1	Blue	Neutral / Common	1	Blue	Positive	
2	Black	Phase / Open	2	Brown	Negative	
3	Brown	Phase / Closed				
Electric 230Vac wiring			Electric 24Vdc wiring			

5.3 Operating test

Press the control button and close the window, checking that:

a. The window is completely closed. If it is not, check that the gap between the window and the frame is bigger than or equal to 0 mm. If necessary, insert spacers so as to obtain the correct gap.

b. The chain is perfectly vertical to the window frame. If necessary adjust the fixing bracket by using the screws and slots.

Having reached the correct closing position, press the control button and open the window in order to check that the actuator runs freely over the full travel set up.

Having achieved the required opening run, press the control button again to close the window. Once the window has completely closed, check that the screws, supports and fixings are tightened correctly, and that the seals are sufficiently compressed.

Installation completed

CAREFUL !! - after installation the cover must be closed.







ATTENTION!

Before operating the actuator, please make sure that the product has been fixed at the right position

6. MAINTENANCE, EMERGENCY ACTION & CLEANING

If it becomes necessary to manually disconnect the window from the actuator due to: a power failure, mechanical breakdown, maintenance, or cleaning the exterior of the window, follow the step sequence described on Page 11 in reverse order.

BEWARE OF THE DANGER of the window falling; as the window is free to fall, as it is no longer held up by the chain. Once the maintenance or cleaning operations have been completed, repeat the sequence described on Page 11.





7. PROTECTION OF THE ENVIRONMENT

Some parts inside the actuator are not recyclable (plastic materials and electronic parts) and cannot be considered normal refuse. They must be disposed of correctly. In case of doubt, consult the relevant refuse disposal body.

8. FAQ (frequently asked questions)







9. WARRANTY

Fratelli Comunello SpA provides a warranty for thirty-six months for the correct functioning of the actuators from the date of manufacture, provided that the performance specifications indicated in the product instruction manuals are respected. Free of charge repair and replacement of components that are found to be faulty according to the indisputable judgment of the company's technical staff shall be guaranteed at the sole discretion of Fratelli Comunello Spa, and so excluding any claim for damages made by others. Warranty material shall be returned to Fratelli Comunello S.p.a. headquarters carriage paid and will then be shipped to the customer carriage unpaid. The material found to be faulty and returned to Fratelli Comunello S.p.a. shall remain property of the Seller.

Any cost resulting from any work needed to repair the defect or to replace the material shall be charged to the Buyer. No compensation shall be allowed for the period of device inactivity. Work under warranty does not prolong the warranty period.

The defect of the product shall be reported by the Buyer within 8 (eight) days from its discovery or from the date of delivery of the goods, under penalty of invalidation of the warranty. Such claim shall be notified in writing.

Warranty does not cover:

Any product defect or damage that may have been incurred during transport; any defect or damage arising from any fault and/or from neglect, inadequacy and misuse of the electrical wiring in the Buyer's property; any defect or damage caused by any repairs carried out by non authorised personnel or by incorrect use/ installation (with reference to this, system maintenance is recommended every 6 months) or if not original spare parts are used; any defect caused by chemicals or atmospheric conditions. The warranty does not cover any cost neither for consumable materials nor for alleged defects or convenient surveys.

Product Features

Fratelli Comunello SpA products are subjected to continue changes and improvements; their technical features and image may therefore change without previous notice.

Competent court

Since the contract of sale is confirmed by an Order Confirmation drawn up in Rosà, any such dispute shall be settled by the laws of Italy and by the court of Bassano del Grappa (VI).



DECLARATION OF EC CONFORMITY

The company Fratelli Comunello S.p.A., based in Rosà, Via Cassola 64 (VI), Italy Declares under its full responsibility that the following actuators' models:

- MSMART20H0***
- MSMART20L0***

Serial number and year of manufacture: on the data plate. Description: electromechanical actuator for windows, skylights.

• Are manufactured in conformity with the basic requirements of the following European Directives:

Directive 2006/95 EC (Low Voltage Directive) and following amendments Directive 2004/108/ EC (EMC Directive) and following amendments

Design and development have been carried out in compliance with the following European harmonised standards:

EN 55014-1; EN 55014-2; EN 61000-3-2; EN 61000-3-3; EN 61000-6-2; EN 61000-6-3; EN 60335-1; EN 62233:

• Last two numbers where EC-Marking is applied is - 12

Luca Comunello Legal Representative of Fratelli Comunello S.p.A.

Rosà, 09/01/2012

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