



Window automation technology

Automation for smoke and
heat evacuation (RWA) and
natural ventilation systems



www.comunello.com/mowin/

Window automation technology



Research & design: the core of our product development

Expanding for over 60 years

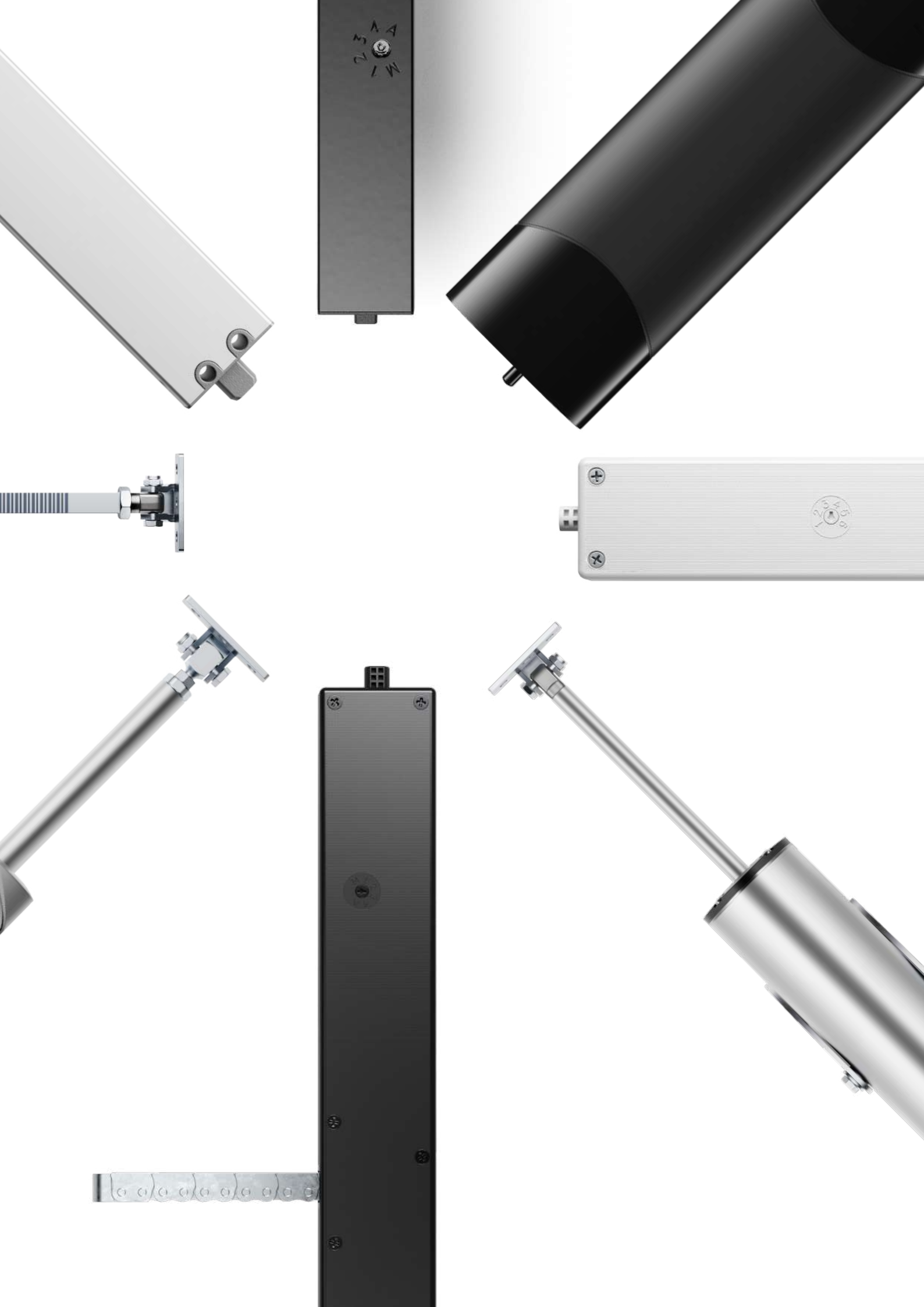
For over 60 years, Research and Design have been the fulcrum of the development of the aesthetic and formal characteristics of the product and have always been conceptual and practical phases that take place within the study centers and laboratories at the company headquarters in Bassano del Grappa. Here visions of the future are conceived and experienced.

Production, quality control e customer care

All Made in Comunello

In order to be able to exercise total control, and thus guarantee the highest quality, each element is produced in its entirety within the Comunello factories which include a dedicated, technologically advanced and efficient foundry. The delicate stage of assembling the electronic components of each individual product is also rigorously made in Comunello. To the certainty of quality, which is generated by these basic choices of the company, for Comunello the guarantees of the services offered to its customers have always been equally important, i.e. the technical support of qualified and highly trained personnel and assistance in all phases of sales and after-sales.





COMUNELLO

MOWIN



Window automation technology



Smoke and Heat Evacuation systems SHEVS (RWA)

The main objective of a smoke and heat evacuation system is to create, in the event of a fire, a smoke-free layer at least 2.5 meters high which allows people to escape from the establishment and favors rescue team operations. Since the gas and fume temperature is higher than the ambient air temperature, in the event of a fire, the smoke tends to occupy the upper part of the compartment.

The NSHEV evacuation system exploits this principle and, thanks to the suitable openings for the entry of fresh air and the vents (both suitably sized) which favor the escape of the fumes, it is possible to create a "X" layer free from fumes.

The Comunello LIWIN L40, L40 Slim - 350, L40 Slim - 350 Wi-Fi, L40 Slim - 600 and L40 Slim - 600 Wi-Fi actuators (in the 24 VDC versions), suitably installed in smoke and heat extractors, have passed the heat resistance tests at a notified body according to the reference standard UNI EN 12101-2. The actuators have been tested, in compliance with appendix G of UNI EN 12101-2, at a temperature of 300°C. The characteristics of these actuators are therefore particularly suitable for use with smoke and heat extractors which must be certified.



LIWIN L40 Slim - 350

LIWIN L40 Slim - 350 Wi-Fi

max stroke 350 mm

max force 400 N

24VDC RWA - 110/230 VAC Natural ventilation



Main Features

Force

The LIWIN L40 Slim series actuators have a maximum push and pull force of 400N. Thanks to the synchronization function it is possible to obtain a total maximum force up to 2240 N.

QRCode Sync

Synchronization of multiple actuators, Parameter adjustment, Recording and Diagnostics in real time by simply scanning the QRCode.

Resistance

The extruded aluminium casing and brackets guarantee high resistance even in particularly difficult environments; the actuator has passed the heat resistance tests required by the EN12101-2 standard.

Chain

The high quality and sturdiness of the double link stainless steel chain guarantees the transmission of the maximum declared force both in traction and in thrust.

Technology

The new Wi-Fi technology, in addition to giving the possibility of making very precise adjustments using the Mowin App, allows synchronization of up to 8 LIWIN L40 Slim for the possible installation of several actuators in a single window or on systems where a force is required elevated.

Diagnostics

The Mowin App allows both the recording of the last maneuvers with any reported anomalies and real-time diagnostics to identify any malfunction errors. The actuator is also equipped with a led able to signal if there are any anomalies.

Mowin App



One Smart



Agile



Technology



RWA



Natural ventilation



Power



LIWIN L40 Slim - 600

LIWIN L40 Slim - 600 Wi-Fi

max stroke 600 mm

max force 400 N

24VDC RWA - 110/230 VAC Natural ventilation



Main Features

Force

The LIWIN L40 Slim series actuators have a maximum push and pull force of 400N. Thanks to the synchronization function it is possible to obtain a total maximum force up to 2240 N.

QRCode Sync

Synchronization of multiple actuators, Parameter adjustment, Recording and Diagnostics in real time by simply scanning the QRCode.

Resistance

The extruded aluminium casing and brackets guarantee high resistance even in particularly difficult environments; the actuator has passed the heat resistance tests required by the EN12101-2 standard.

Chain

The high quality and sturdiness of the double link stainless steel chain guarantees the transmission of the maximum declared force both in traction and in thrust.

Technology

The new Wi-Fi technology, in addition to giving the possibility of making very precise adjustments using the Mowin App, allows synchronization of up to 8 LIWIN L40 Slim for the possible installation of several actuators in a single window or on systems where a force is required elevated.

Diagnostics

The Mowin App allows both the recording of the last maneuvers with any reported anomalies and real-time diagnostics to identify any malfunction errors. The actuator is also equipped with a led able to signal if there are any anomalies.

Mowin App



One Smart



Agile



Technology



RWA



Natural ventilation



Power



LIWIN L40 Slim - 800

LIWIN L40 Slim - 800 Wi-Fi

max stroke 800 mm

max force 400 N

24VDC - 110VAC - 230VAC Natural ventilation



Main Features

Force

The LIWIN L40 Slim series actuators have a maximum force of 400N. Thanks to the synchronization function it is possible to obtain a total maximum force up to 2240 N.

QRCode Sync

Synchronization of multiple actuators, Parameter adjustment, Recording and Diagnostics in real time by simply scanning the QRCode.

Resistance

The extruded aluminium casing and brackets guarantee high resistance even in particularly difficult environments.

Chain

The high quality and sturdiness of the double link stainless steel chain guarantees the transmission of the maximum declared force both in traction and in thrust.

Technology

The new Wi-Fi technology, in addition to giving the possibility of making very precise adjustments using the Mowin App, allows synchronization of up to 8 LIWIN L40 Slim for the possible installation of several actuators in a single window or on systems where a force is required elevated.

Diagnostics

The Mowin App allows both the recording of the last maneuvers with any reported anomalies and real-time diagnostics to identify any malfunction errors. The actuator is also equipped with a led able to signal if there are any anomalies.

Mowin App



One Smart



Agile



Technology



Natural ventilation



Power

24
VDC

230
VAC

110
VAC

LIWIN L40 Slim - 1000

LIWIN L40 Slim - 1000 Wi-Fi

max stroke 1000 mm

max force 400 N

24VDC - 110VAC - 230VAC Natural ventilation



Main Features

Force

The LIWIN L40 Slim series actuators have a maximum force of 400N. Thanks to the synchronization function it is possible to obtain a total maximum force up to 2240 N.

QRCode Sync

Synchronization of multiple actuators, Parameter adjustment, Recording and Diagnostics in real time by simply scanning the QRCode.

Resistance

The extruded aluminium casing and brackets guarantee high resistance even in particularly difficult environments.

Chain

The high quality and sturdiness of the double link stainless steel chain guarantees the transmission of the maximum declared force both in traction and in thrust.

Technology

The new Wi-Fi technology, in addition to giving the possibility of making very precise adjustments using the Mowin App, allows synchronization of up to 8 LIWIN L40 Slim for the possible installation of several actuators in a single window or on systems where a force is required elevated.

Diagnostics

The Mowin App allows both the recording of the last maneuvers with any reported anomalies and real-time diagnostics to identify any malfunction errors. The actuator is also equipped with a led able to signal if there are any anomalies.

Mowin App



One Smart



Agile



Technology



Natural ventilation



Power

24
VDC

230
VAC

110
VAC

LIWIN L40

LIWIN L40 - Wi-Fi

max stroke 500 mm

max force 400 N

24VDC RWA - 110/230 VAC Natural ventilation



Main Features

Force

The LIWIN L40 series actuators have a maximum push and pull force of 400N. Thanks to the synchronization function it is possible to obtain a total maximum force up to 2240N.

QRCode Sync

Synchronization of multiple actuators, parameter adjustment, recording and diagnostics in real time by simply scanning the QRCode.

Resistance

The die-cast aluminum casing and brackets guarantee high resistance even in particularly difficult environments. The actuator has passed the heat resistance tests required by the EN12101-2 standard.

Chain

The high quality and sturdiness of the double link stainless steel chain guarantee the transmission of the maximum force both in traction and in thrust. The version with galvanized chain is also available. Maximum stroke length 500 mm.

Technology

The new Wi-Fi technology, in addition to giving the possibility of making very precise adjustments using the Mowin App, allows synchronization of up to 8 LIWIN L40 for the possible installation of several actuators in a single window or on systems where a force is required elevated.

Diagnostics

The Mowin App allows both the recording of the last maneuvers with any reported anomalies and real-time diagnostics to identify any malfunction errors. The actuator is also equipped with a led able to signal if there are any anomalies.

Mowin App



One Smart



Agile



Technology



RWA



Natural ventilation



Power



LIWIN L35 Slim

LIWIN L35 Slim - Wi-Fi

max stroke 400 mm

max force 350 N

24VDC - 110/230VAC Natural ventilation



Main Features

Force

The LIWIN L35 Slim series actuators have a maximum push and pull force of 350N. Thanks to the synchronization function it is possible to obtain a total maximum force up to 1960N.

QRCode Sync

Synchronization of multiple actuators, Parameter adjustment, Recording and Diagnostics in real time by simply scanning the QRCode.

Simplicity

The reduced thickness of the actuator and the special brackets make installation quick and easy even in limited spaces.

Resistance

The high quality and sturdiness of the double link chain guarantee the transmission of the maximum force both in traction and in push.

Technology

The new Wi-Fi technology, in addition to giving the possibility of making very precise adjustments using the Mowin App, allows synchronization of up to 8 LIWIN L35 for the possible installation of several actuators in a single window or on systems where an elevated force is required.

Diagnostics

The Mowin App allows both the recording of the last maneuvers with any reported anomalies and real-time diagnostics to identify any malfunction errors. The actuator is also equipped with a led able to signal if there are any anomalies.

Mowin App



One Smart



Agile



Technology



Natural ventilation



Power



LIWIN L20 Insert Wi-Fi

max stroke 250 mm
max force 200 N
24VDC Natural ventilation

Block

max adjustable stroke 18-19-34-36 mm
max force 500 N
24VDC Natural ventilation



Main Features

Strokes

The LIWIN L20 Insert Wi-Fi actuator allows one manual adjustment of the stroke by trimmer and a millimeter adjustment with the Mowin App.

Concealed installation

The dimensions of the 28 mm x 22 mm section make the actuator particularly suitable for concealed installations inside the profile.

Installation in small spaces

Thanks to the dedicated brackets, the L20 Insert actuator is also particularly suitable for bottom-hung openings with external fixing and reduced spaces.

Chain

The high quality and sturdiness of the double link stainless steel chain guarantee the transmission of the maximum force both in traction and in thrust.

Technology

The new Wi-Fi technology, in addition to giving the possibility of making very precise adjustments using the Mowin App, allows synchronization of up to 8 LIWIN L20 Insert for the possible installation of several actuators in a single window or on systems where a force is required elevated.

Diagnostics

The Mowin App allows both the recording of the last maneuvers with any reported anomalies and real-time diagnostics to identify any malfunction errors. The actuator is also equipped with a led able to signal if there are any anomalies.

Mowin App



One Smart



Technology



Natural ventilation



Power



Main Features

Adjustment

Adjustment: Using the dedicated trimmer it is possible to adjust the stroke to arm and disarm the hardware.

Synchronisation

The block system is equipped with Wi-Fi technology which allows the synchronization of the movement between the block itself and the actuator that moves the window.

Technology

The new Wi-Fi technology, in addition to giving the possibility of making very precise adjustments using the Mowin App, allows synchronization of the actuator block with Liwin actuators for an installation in the same window.

Resistance

The die-cast aluminum casing guarantees high resistance even in particularly difficult environments.

Mowin App



One Smart



Technology



Natural ventilation



Power



SMART

max stroke 380 mm

max force 250 N

24VDC - 110VAC - 230VAC Natural ventilation



STAR 25

max stroke 380 mm

max force 250 N

24VDC - 110/230VAC Natural ventilation



Main Features

Adjustment

2 strokes easily adjustable via dip-switch, even when the motor is not powered.

Resistance

The sturdy double-link chain with increased thickness guarantees greater resistance in push and pull.

Reliable

The support brackets allow the actuator to swing to accompany the movement of the window.

Limit switch

Acquisition of the automatic closing limit switch by current absorption. In this way, a safe and constant closure over time is guaranteed.

Installation

Quick and easy installation thanks to the quick coupling of the brackets.

Complete

The SMART actuator is complete with brackets and chain attachments for both bottom-hung and top-hung applications.

Kit smart twin

The SMART TWIN KIT is available, consisting of 2 actuators and AF-960 interface to be installed in a single window.

One Smart



Natural ventilation



Power

24
VDC

230
VAC

110
VAC

Main Features

Adjustment

6 chain stroke lengths easily adjustable by trimmer even when the actuator is not powered.

Resistance

The sturdy double-link chain with increased thickness guarantees greater resistance in push and pull.

Reliable

The support brackets allow the actuator to swing to accompany the movement of the window.

Limit Switch

Acquisition of the automatic closing limit switch by current absorption. In this way, a safe and constant closure over time is guaranteed.

Compact

The small size allows installation even in small spaces.

Safe

Slowdowns in the opening and closing phases ensure safety and accuracy.

One Smart



Natural ventilation



Power

24
VDC

230
VAC

STAR 30

max stroke 360 mm
max force 300 N
24VDC - 110/230VAC Natural ventilation



Main Features

Adjustment

4 chain stroke lengths easily adjustable by trimmer even when the actuator is not powered.

Resistance

The sturdy double-link chain with increased thickness guarantees greater resistance in push and pull.

Reliable

The support brackets allow the actuator to swing to accompany the movement of the window.

Limit Switch

Acquisition of the automatic closing limit switch by current absorption. In this way, a safe and constant closure over time is guaranteed.

Compact

The small size allows installation even in small spaces.

Safe

Slowdowns in the opening and closing phases ensure safety and accuracy.

One Smart



Natural ventilation



Power

24
VDC

230
VAC

FAST

max stroke 400 mm
max force 500 N
230VAC Natural ventilation



Main Features

Installation

Fixing of the adjustable bracket along the rail of the actuator body.

Degree of protection IP55

The IP 55 degree of protection makes the actuator suitable for particularly difficult environments.

Complete

The Fast actuator is supplied with the actuator support and leaf fixing brackets included.

Force

The high force of 500N both in traction and in thrust makes the actuator also suitable for particularly heavy frames.

Stroke

There are 4 versions of FAST 50 respectively with 160-200-300-400mm strokes.

Application

The technical characteristics of FAST 50 make the actuator suitable for projecting applications, skylight domes and sunscreen blades.

One Smart



Natural ventilation



Power

230
VAC

Raywin R20 - R45

R60 - R60 Regulator

max stroke **R20** 300 mm - **R45** 400mm - **R60** 500 mm -
R60/0-300R 0-300mm - **R60/0-500R** 0-500 mm
max force **R20** 200 N - **R45** 450 N - **R60** 600 N
24VDC - 110/230VAC Natural ventilation



Main Features

Installation

Fixing of the adjustable bracket along the rail of the actuator body.

Resistance

The aluminum casing and steel brackets guarantee high resistance.

Strokes available

The adjustable opening limit switch is guaranteed in a stable and precise manner by the encoder.

Closing limit switch

The closing limit switch by current absorption guarantees stable closure over time.

Parallel connections

Can be connected in parallel up to a maximum of 30 actuators.

Adjustments

Stroke setting by dip-switch combination.

W-Net Technology

In the R60 version, thanks to the W-Net technology it is possible to install up to 4 synchronized actuators in the same window.

Millimeter adjustment

The R60 REGULATOR version allows by means of dip-switches to carry out a millimeter stroke adjustment even after installation is completed.

One Smart



Natural ventilation



Sync technology



Power



Airwin A45

Airwin A65

max stroke 180 - 230 - 350 - 550 - 750 - 1000 mm
max force **A45** 450 N - **A65** 650 N
24VDC - 230VAC Natural ventilation



Main Features

Installation

Fixing of the adjustable bracket along the rail of the actuator body.

Resistance

The aluminum casing and steel brackets guarantee high resistance.

Opening limit switch

The adjustable opening limit switch is guaranteed in a stable and precise manner by the encoder.

Closing limit switch

The closing limit switch by current absorption guarantees stable closure over time.

Parallel connections

Can be connected in parallel up to a maximum of 30 actuators.

W-Net Technology

In the A65 version, thanks to the W-Net technology it is possible to install up to 4 synchronized actuators in the same window.

A-Mech

It is possible to mechanically connect 1 or 2 AIRWIN A MECH racks to the actuator to obtain a 2 or 3-point thrust system and ensure more uniform closure along the entire length of the window.

One Smart



Natural ventilation



Sync technology



Power



The Agile Brackets

Quick fitting, easy transport



The innovative «AGILE» support brackets, suitable for the L40 and L40 Slim and L35 Slim models, are made up of 2 pieces: the first, which takes up minimal space, can be fixed to the frame during the factory production, while the second is easily hooked up when the actuator is installed directly on site.



01 The AGILE bracket consists of 2 pieces.

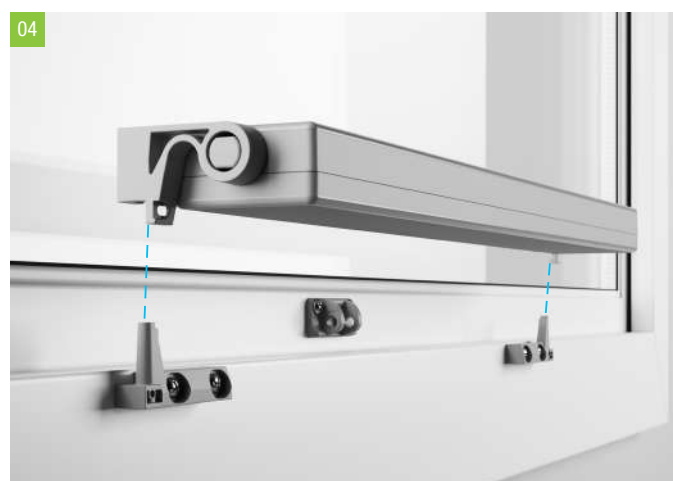


02 One piece, occupying minimum space, can be installed in the factory before transporting the frame to the construction site.



03 Easy and safe transportation. The minimum size of the brackets facilitates the transport operation.

This solution offers various advantages in terms of simplicity of installation but above all of ease of transport. The installation directly in the factory of a single piece of the AGILE bracket considerably limits the overall dimensions compared to the installation of the complete bracket. This facilitates the operation of transporting the windows to the construction site, reducing the possibility of breaking the brackets themselves. At the time of installation, the coupling of the actuator to the brackets is easy and immediate.



04 Ease of installation.

The hooking of the brackets is easy, fast and safe.



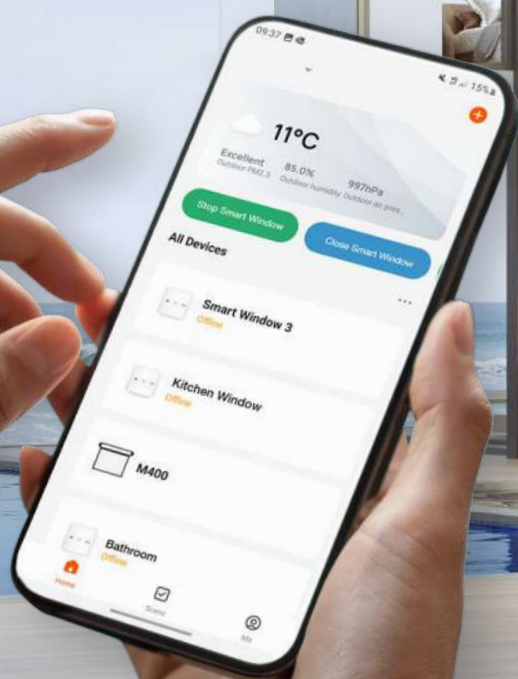
05 At the moment of the installation of the window it is sufficient to hook on the brackets and block them with a screw.

Smart home
Connectivity made easy
for the end user

OneSmart



Your home under control
from anywhere
in the world



Smart home

Connectivity made easy for the end user

OneSmart



OneSmart device in just a few minutes and manage up to 50 installations in different places with 1000 devices each.

The main functions are:

Remote Control

With OneSmart it is possible to control the devices from anywhere in the world, create time schedules and scenarios.

Multi-plant system

With a single interface it is possible to control up to 50 systems around the world.

Hourly programming

Hourly and weekly opening or closing programs. It is possible to set an event at a precise time or by time slots.

Scenario

With simple programming it's easy to make keys that send commands on multiple devices simultaneously.

Event Notification

It is possible to receive a notification message when an event occurs, such as the closing of a window.

Centralization

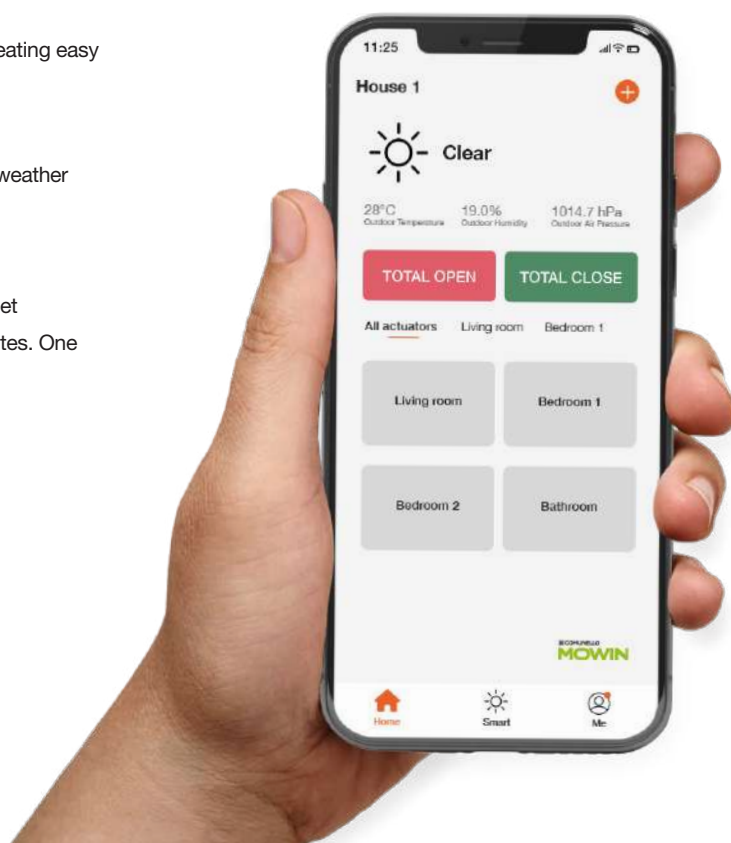
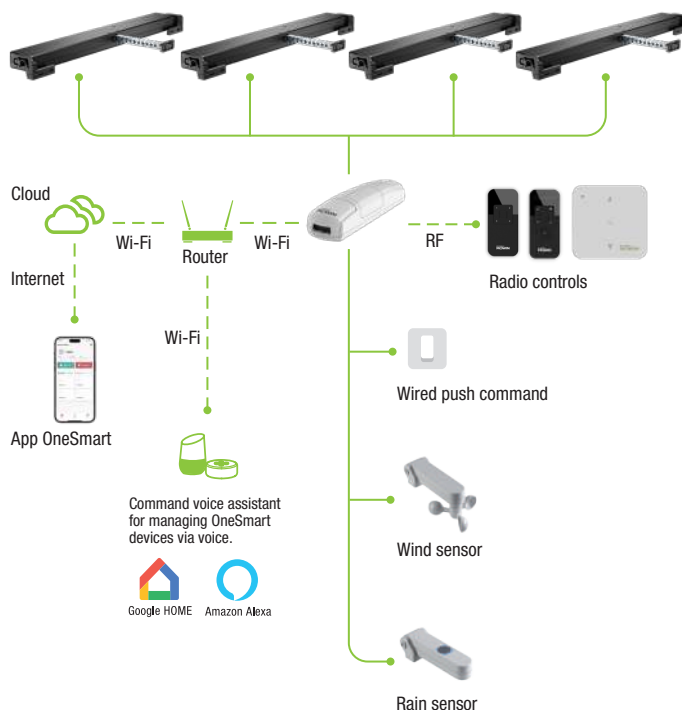
It is possible to control the devices individually or in groups, creating easy total opening or closing commands.

Weather Check

It is possible to set an opening or closing action based on the weather conditions.

Easy installation

It is not necessary to install any gateway, a 2.4 GHz WiFi internet connection is sufficient to configure a device in just a few minutes. One Smart



Smart home accessories

AF-800 / 820

Control unit for controlling 230Vac actuators using the OneSMART app, radio control, wired button or voice command: 110/240Vac power supply, 2 wired inputs that can be set with step-by-step or dead-man function, a maximum power output of 500W for 230Vac actuators, 433 radio receiver, 92MHz. The **AF-820** version is also equipped with an integrated WiFi module for remote control via OneSmart App and/or voice command.



AF-840

Control unit for controlling 230Vac actuators by remote control or wired button: 110/240Vac power supply, 3 wired inputs that can be set with step-by-step, dead man function or weather sensors, 4 outputs with a maximum power of 500W for 230Vac actuators, 433.92MHz radio receiver.



AF-850

Control unit for controlling 230Vac actuators via OneSMART app, remote control, wired button or voice command: 110/240Vac power supply, 3 wired inputs that can be set with step-by-step function, dead man or weather sensors, 4 outputs with a maximum power of 500W for 230Vac actuators, 433.92MHz radio receiver, integrated WiFi module for remote control via OneSmart App and voice command.



AF-860

Control unit with dry contact function: 12/24 Vac/dc power supply, 2 outputs with normally open contact, 433.92MHz radio receiver, integrated WiFi module for remote control via OneSmart App and voice command, input for limit switch or signal light for checking the device status.



AF-870

433.92MHz radio Rolling code switch: Open-close-stop function up/down, open-close-stop CR2450 battery.



AF-880 / 890

1-channel (AF-880 version) or 6-channel (AF-890 version) radio control 433.92 MHz Rolling code: Open-stop-close-partial opening function. CR2230 battery. Wall mount included.



Smart home accessories

Comunello control units integrate inputs for wired control, 433.92MHz RF receiver and WiFi module. Thanks to Cloud technology it is possible to control a device from anywhere in the world. A 2.4 GHz WiFi internet connection is sufficient to configure a OneSmart device in just a few minutes and manage up to 50 installations in different places with 1000 devices each.

With OneSmart it is possible to control the devices from anywhere in the world, create time schedules and scenarios.



1.
AF-800
Radio Module 110-240 Vac
cod. MX00AU05H0W00



2.
AF-820
Radio / Wifi Module 110-240 Vac
cod. MX00AU06H0W00



3.
AF-840
Radio / Weather sensors module 110-240Vac
cod. MX00AU07H0W00



4.
AF-850
Radio / WiFi / Weather sensors module 110-240Vac
cod. MX00AU08H0W00



5.
AF-860
Radio/ WiFi / NO contact module 24V
cod. MX00AU09L0W00



6.
AF-880
Remote control 1 channel
cod. MX00AT11N0B00



7.
AF-890
Remote control 6 channels
cod. MX00AT16N0B00



8.
AF-870
Wall mounted radio control 1 channel
cod. MX00AT10N0W00



9.
Wind sun sensor
cod. MX00AR02N0T00



10.
Rain sensor
cod. MX00AR01N0T00

Compatible actuators



*A simple support relay, is necessary to power the actuator.



Rain and wind/sun sensors.



Concealed control unit for controlling motorized windows and rolling shutters.



Activator via Rolling Code radio button.



Command voice assistant for managing OneSmart devices via voice.



Multi-channel remote control for controlling windows and shutters.



Remote control with Smartphone via Wi-Fi connection.



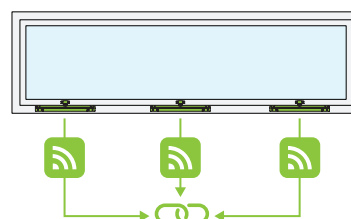
The direct communication

Wi-Fi Synchronization



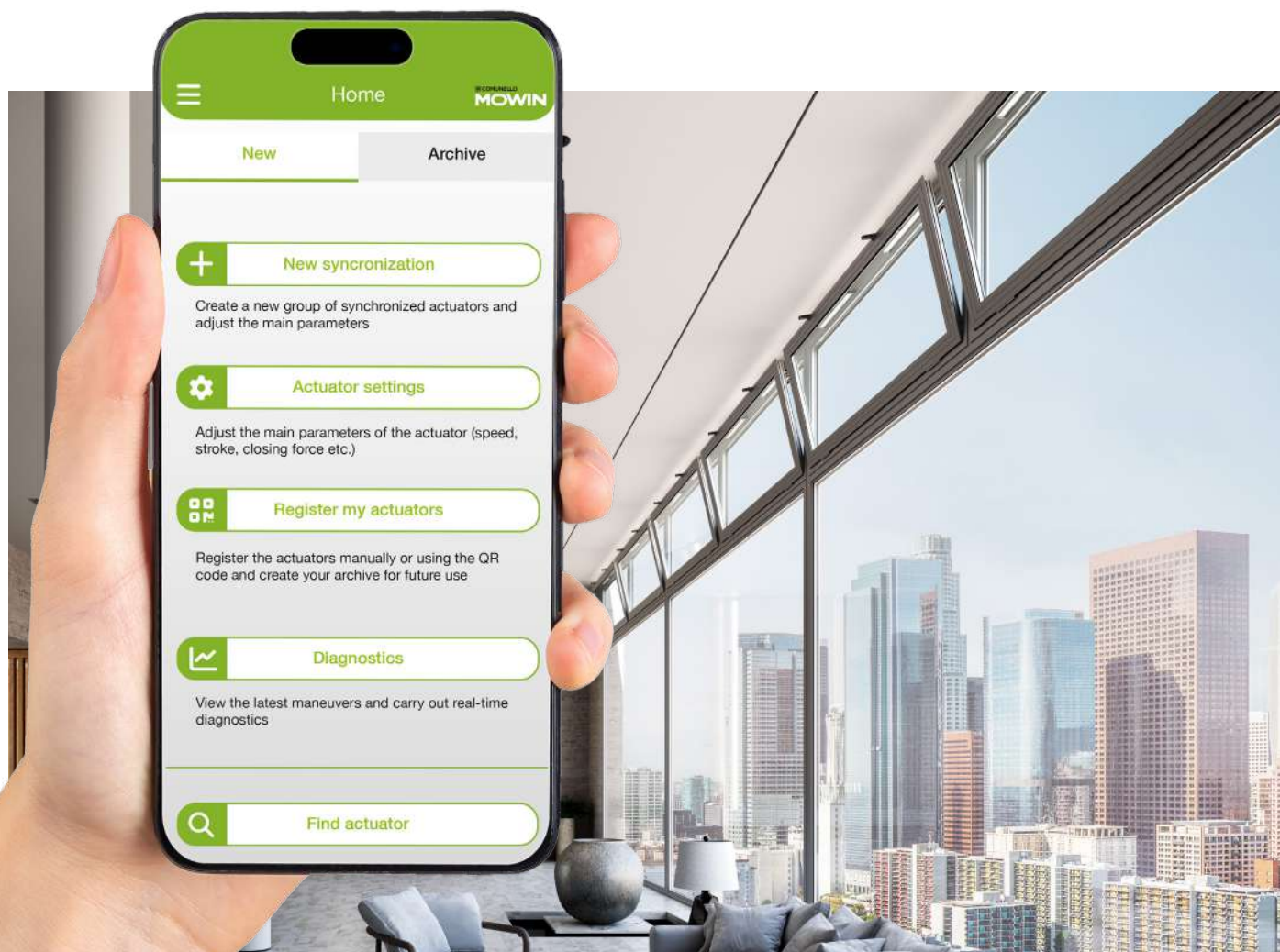
Wi-Fi Syncro is an innovative wireless communication system which, thanks to the Wi-Fi device placed inside the motor and without the aid of external routers, allows you to connect with the MOWIN app for complete configuration of the actuators and guarantee perfect synchronization between multiple actuators installed on the same window.

The LIWIN series actuators in the Wi-Fi versions and the actuator Block can be synchronized up to a maximum of 8 actuators to be installed in a single window. Synchronization can be performed via the app or manually by acting on the trimmers of the actuators and is guaranteed by stable and secure Wi-Fi communication without the need for interface cards or wired connections between the actuators.



Up to **8** actuators

Depending on the stiffness of the window, it is recommended to install at least one actuator every 1.5 meters of window length.



The New Mowin App

Professional installation

MowinApp





COMUNELLO GROUP
INNOVATING TOGETHER