



**NEXT DAY
DESPATCH**



**UK
IMPORTER**

**400 SERIES
COMPATIBLE**

**IP20
RATED**



Chain



24V or 230V



150N/15 kg



250mm or 365mm **ADJUSTABLE**

**DO NOT USE FOR
SMOKE VENTILATION**



If you do require smoke control products or advice – please call us



ABOUT THIS ACTUATOR

The Mingardi Micro 02 electric actuator with sprocket chain, is available in 24V and 230V options. Fitted with end-of-stroke microswitch in closed position / reed contact in open position system. An external selector allows a 250mm or 365mm stroke selection. Can be connected in parallel with signal outputs.

PRODUCT HIGHLIGHTS

- ✓ Limit Switch in opening and closing
- ✓ Complete with accessories for top-hinged windows
- ✓ Maintenance free
- ✓ CE marked device

SUITABLE FOR...

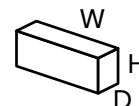


COLOUR OPTIONS

- Anodised Black
- White
- Anodised Silver
- Bespoke colours on request

ACTUATOR DIMENSIONS

WIDTH: 269mm
HEIGHT: 50mm
DEPTH: 86mm



TECHNICAL DATA >>>

PRODUCT CODES >>>

24 HR DESIGN **TECHNICAL DATA**

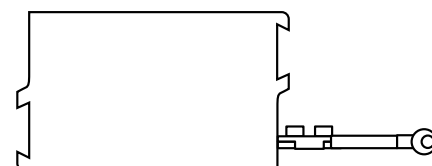
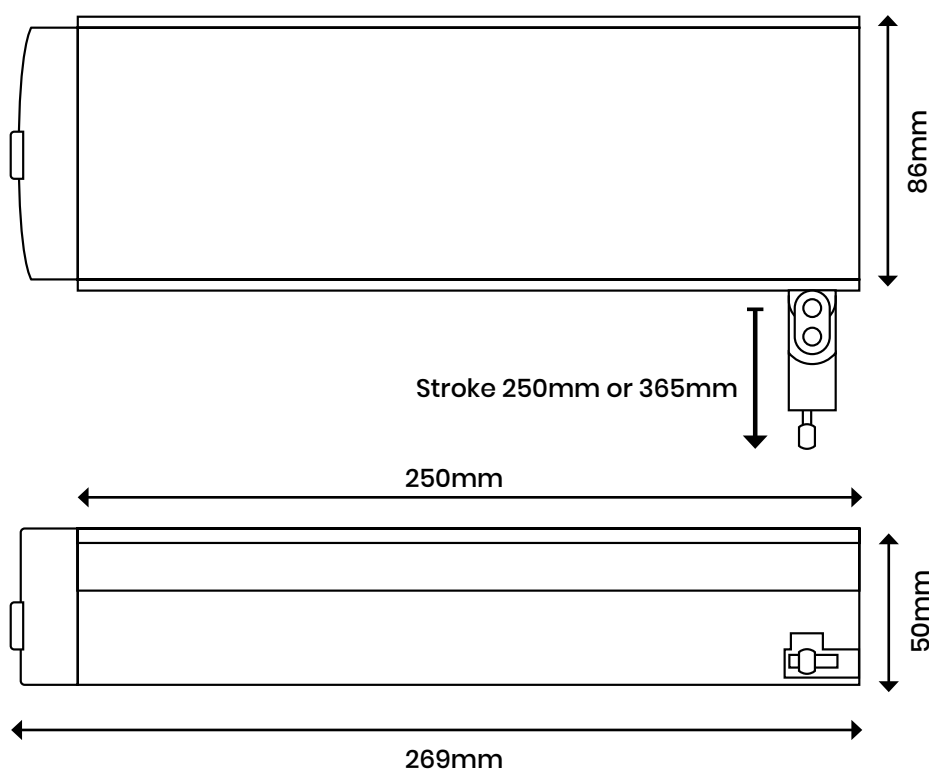
	Micro 02 24V	Micro 02 230V
Voltage Supply	24V	230V
Thrust Force	150N/15 kg	150N/15 kg
Traction Force	300N/30 kg	300N/30 kg
Stroke	150, 365mm	150, 365mm
Minimum Window Width	339mm	339mm
Maximum Window Width	1300mm (use an actuator with two pushpoints if wider)	
Absorbed Current	2.29 amps	0.58 amps
Power	55 watts	130 watts
Operating Temperature	-10°C to +40°C	-10°C to +40°C
Time Rating	S2 of 5 min	S2 of 5 min
Limit Stop	Microswitch/Electronic	Microswitch/Electronic
Safety Stop	Microswitch/Electronic	Microswitch/Electronic
Wiring	2 Core + Earth	3 Core + Earth
Speed	~ 40mm/s	~ 35mm/s
Protection Class	IP20	IP20
Parallel Connection Option	Yes	Yes
Weight	1.8 kg	2.0 kg



WHAT'S IN THE BOX?

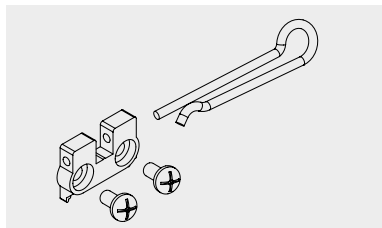
- ✓ Mingardi Micro 02 Actuator
- ✓ Upper Bracket Connecting Pack
- ✓ Inward Opening Bracket
- ✓ Fitting/Drilling Template
- ✓ Installation and User Guide
- ✓ Safety Plate

DIMENSIONS

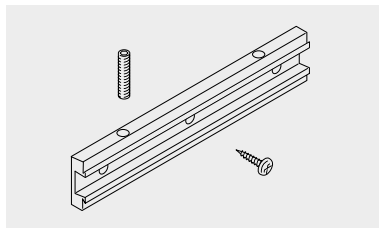


PRODUCT CODES >>>

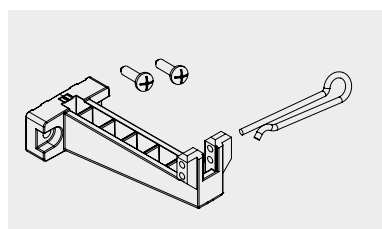
BRACKET & ACCESSORY CODES



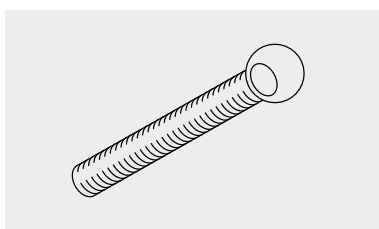
Upper Bracket Fixing Pack (included)
AXMI-M02-BUPP-0002



Actuator Support Bracket Pack
AXMI-M02-BSUP-MI01



Inward Opening Bracket (included)
AXMI-M02-BUPP-0001



60mm Chrome Extension Pin
AXMI-M02-ETP-60MM

ACTUATOR CODES

Micro 02 Actuator 24V

Silver ACMI-M02-024V-SI01

Micro 02 Actuator 230V

Silver ACMI-M02-230V-SI01

230V

RELATED PRODUCTS AND SERVICES

24V



VENTEC 100
SERIES CONTROL



VENTEC DS
SWITCH



230V TF SERIES
CONTROL



PROJECT
COMMISSIONING



INSTALLATION
& MAINTENANCE



24V TF SERIES
CONTROL



WEATHER
STATION

WINDOW OPERATION FORCE CALCULATION

TOP, BOTTOM OR PIVOT HUNG WINDOWS

The formula for calculating the load the actuator has to move for top hung, bottom hung and pivot windows is the following:

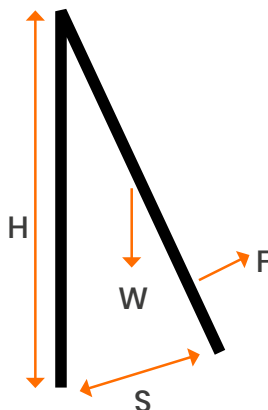
$$F = \frac{W}{2} \times \frac{S}{H} \times 10$$

F = Force required (N)

W = Weight of the window (kg)

S = Opening stroke (mm)

H = Height of the window (mm)



EXAMPLE: 60 kg Weight / 1000mm Height / 500mm Stroke

$$F = 60/2 \times 500/1000 \times 10$$

$$F = 30 \times 0.5 \times 10$$

$$F = 150 \text{ newtons}$$

IMPORTANT: For installation on a pivoting window the given height is to be considered H/2.

IMPORTANT: The indicated loads do not include the force exerted by wind or other extreme weather conditions. If the actuator is to be installed in areas that may be subject to these conditions, contact our technical department to discuss your requirements.

The actuator rotation angle is usually half the height of the opening angle of the window. Check that there are no obstacles to the rotation of the actuator in order to prevent damage to it.

For actuators with non pivoting brackets, the height of the window must not be below a certain height (see individual product details) in order to prevent excessive chain bending. Please contact our sales support team for more details.

If the window width is greater than 1.5m we suggest using an actuator with two thrust points.

DOMES AND SKYLIGHTS

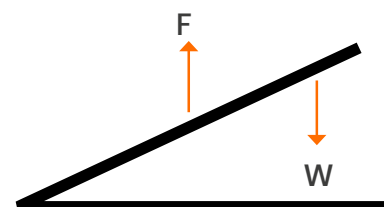
IMPORTANT: When calculating the required force for domes and skylights, Snow Load must be added to the weight of the window leaf (W).

The formula for calculating the load the actuator has to move for domes and skylights is the following:

$$F = \frac{W}{2} \times 10$$

F = Force required (N)

W = Weight of the window (kg)



EXAMPLE: 110 kg Weight / 1000mm Height / 500mm Stroke

$$F = 110/2 \times 10$$

$$F = 55 \times 10$$

$$F = 550 \text{ newtons}$$

SKYLIGHTS: The opening can be hung on one side or have a central axis of rotation. In the latter case, you have to consider the distance between the axis of rotation and the point of application of the actuator as the frame height. A Velux type of opening on a horizontal roof or roof sloping up to 30° horizontally weighs 50% on the hinges and 50% on the actuator. In the case of centre rotation, the weight is practically nothing and is determined only by the windows frictions.

If the window width is greater than 1.5m we suggest using an actuator with two thrust points.



IMPORTANT: If the window frame is accessible, or installed at a height of less than 2.5m from the ground, an emergency stop system must be fitted to prevent the crushing or entrapment of clothing or body parts inserted between the moving and fixed elements of the window frame.