


24 HR

**NEXT DAY
DESPATCH**


**UK
IMPORTER**

**100 SERIES
COMPATIBLE**

**IP55
RATED**



- 
TYPE Linear
- 
VOLTAGE 24V or 230V
- 
THRUST Up to 1000N/100 kg
- 
STROKE 70, 200, 300 or 500mm

**DO NOT USE FOR
SMOKE VENTILATION**

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

ABOUT THIS ACTUATOR

The Mingardi Euro 1 linear electric actuator with rigid rod, is available in 24V and 230V models. The stroke can be adjusted from the outside through a register. Maintenance-free, and adjustable via an external register, the Euro 1 is a great choice for higher level installations.

PRODUCT HIGHLIGHTS

- ✓ Complete with fixing accessories
- ✓ Electronic limit switch in opening and closing
- ✓ Possibility of parallel wiring
- ✓ Overload protection
- ✓ CE marked device

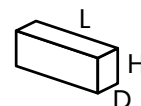
SUITABLE FOR...



COLOUR OPTIONS

-  Anodised Silver
-  Bespoke colours on request

ACTUATOR DIMENSIONS



LENGTH: 375mm (70mm stroke)
 375mm (200mm stroke)
 415mm (300mm stroke)
 615mm (500mm stroke)
HEIGHT: 62.5mm
DEPTH: 43mm

TECHNICAL DATA >>>

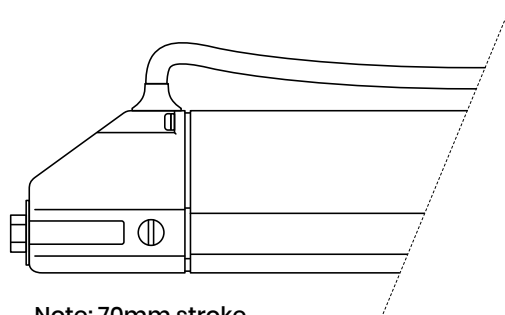
PRODUCT CODES >>>

24 HR DESIGN TECHNICAL DATA

	EURO 1 – 24V 450N	EURO 1 – 24V 1000N	EURO 1 – 230V 450N	EURO 1 – 230V 1000N
Voltage Supply	24V	24V	230V	230V
Thrust Force	450N/45 kg	1000N/100 kg	450N/45 kg	1000N/100 kg
Traction Force	450N/45 kg	1000N/100 kg	450N/45 kg	1000N/100 kg
Stroke – adjustable through an external register	200, 300, 400, 500mm	70mm, 300mm	200, 300, 500mm	70mm, 300mm
Maximum Window Width	1300mm (use multiple actuators if wider)			
Absorbed Current	4.5 amps	4.5 amps	4.5 amps	4.5 amps
Power	35 watts	25 watts	35 watts	30 watts
Operating Temperature	-10°C to +40°C	-10°C to +40°C	-10°C to +40°C	-10°C to +40°C
Time Rating	S2 4 min	S2 4 min	S2 4 min	S2 4 min
Limit Stop	Electronic	Electronic	Electronic	Electronic
Safety Stop	Electronic	Electronic	Electronic	Electronic
Wiring	3 Core + Earth	3 Core + Earth	3 Core + Earth	3 Core + Earth
Speed	~ 10mm/s	~ 2.5mm/s	~ 10mm/s	~ 2.5mm/s
Double Insulated	Yes	Yes	Yes	Yes
Protection Class	IP55	IP55	IP55	IP55
Parallel Connection Option	Yes	Yes	Yes	Yes
Cable Length (standard)	1.2m	1.2m	1.2m	1.2m

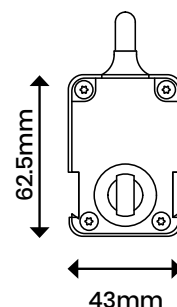
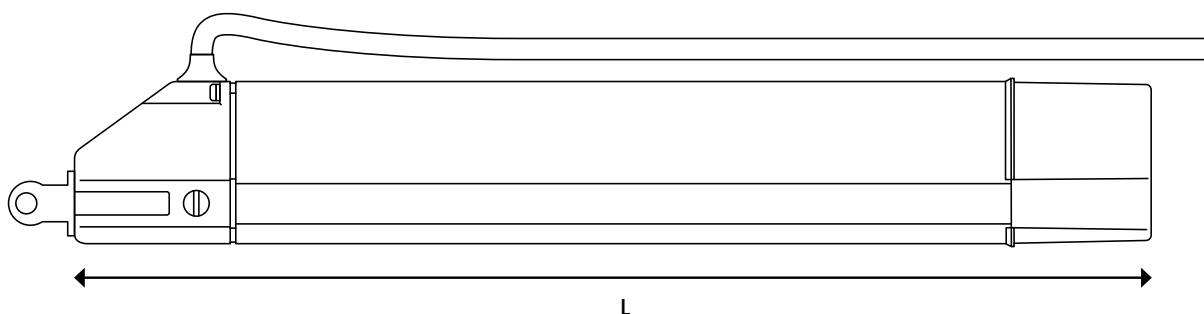
WHAT'S IN THE BOX?

- ✓ Mingardi EURO 1 Actuator
- ✓ Upper Bracket Connecting Pack
- ✓ Fitting/Drilling Template
- ✓ Installation and User Guide



Note: 70mm stroke version includes Special Support Bracket only

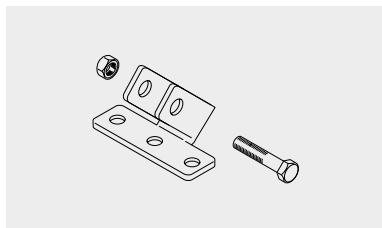
DIMENSIONS



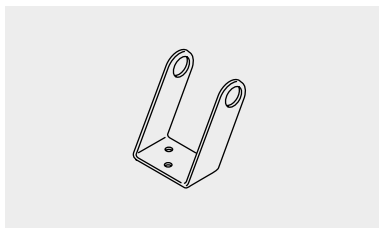
STROKE LENGTH	MEASUREMENT L
70mm	375mm
200mm	375mm
300mm	415mm
500mm	615mm

PRODUCT CODES >>>

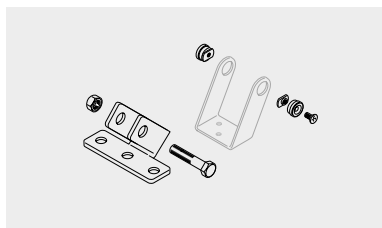
BRACKET & ACCESSORY CODES



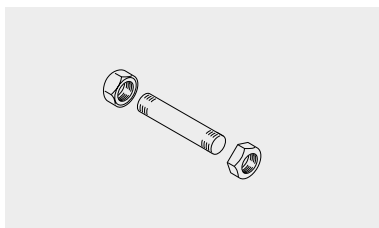
Upper Bracket (included)
Connects rod to window/frame



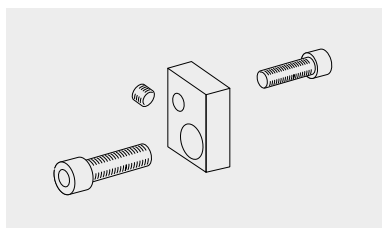
Silver / Black Support Bracket
Available on request



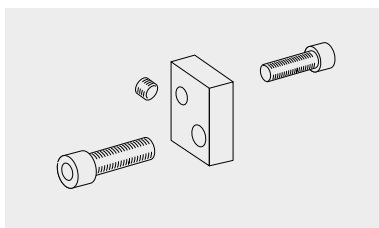
Window Upper Bracket + Actuator Support Bracket Kit
Available on request



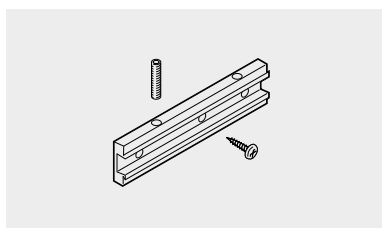
Front pin for sunshades and louvre application
Available on request



Fitting: Snap Lock GEZE OL 90
Available on request



Fitting: Snap Lock GEZE OL 100
Available on request



Special Support Bracket
70mm Actuator only
Available on request

ACTUATOR CODES

Euro 1 Actuator 24V

70mm	ACMI-EUR-024V-SI04
200mm	ACMI-EUR-024V-SI01
300mm	ACMI-EUR-024V-SI02
500mm	ACMI-EUR-024V-SI03

Euro 1 Actuator 230V

200mm	ACMI-EUR-230V-SI01
300mm	ACMI-EUR-230V-SI02
500mm	ACMI-EUR-230V-SI03

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:

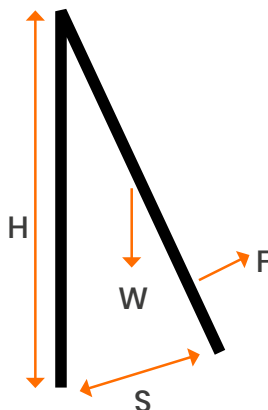
$$F = \frac{W}{2} \times \frac{S}{H} \times 10$$

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

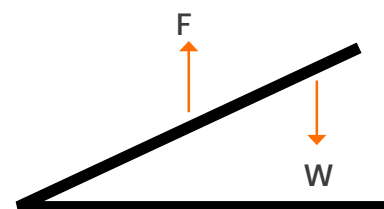
IMPORTANT: When calculating the required force for domes and skylights, Snow Load must be added to the weight of the window leaf (W).

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.