



**NEXT DAY
DESPATCH**



**SOLE UK
IMPORTER**

**100 SERIES
COMPATIBLE**

**IP55
RATED**

**SYNCHRO
OPTION**

**TANDEM
OPTION**



TYPE Rack



VOLTAGE 24V or 230V



THRUST 500N/50 kg



STROKE 150 to 750mm (1000mm available on request)

**DO NOT USE FOR
SMOKE VENTILATION**



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



ABOUT THIS ACTUATOR

The TOPP T50 electric actuator, with self-aligning swivel movement, for top hung, skylight and roof dome installations – is available in 24V or 230V options. Each unit is designed for mechanical connection by transmission rod allowing two or more push points. Stroke adjustment is controlled by an external selector.

For simultaneous synchronisation and operation, a T50S version is available, allowing more than one actuator to be installed on a single window – without a connecting bar.

PRODUCT HIGHLIGHTS

- ✓ Synchronisation and tandem options
- ✓ High protection class – IP55
- ✓ Rapid coupling system
- ✓ CE marked device

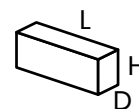
SUITABLE FOR...



COLOUR OPTIONS

- Grey
- Bespoke colours on request

STANDARD ACTUATOR DIMENSIONS



LENGTH: 610mm (320mm stroke)
780mm (500mm stroke)
1030mm (750mm stroke)

HEIGHT: 113mm

DEPTH: 52mm

TECHNICAL DATA >>>

PRODUCT CODES >>>



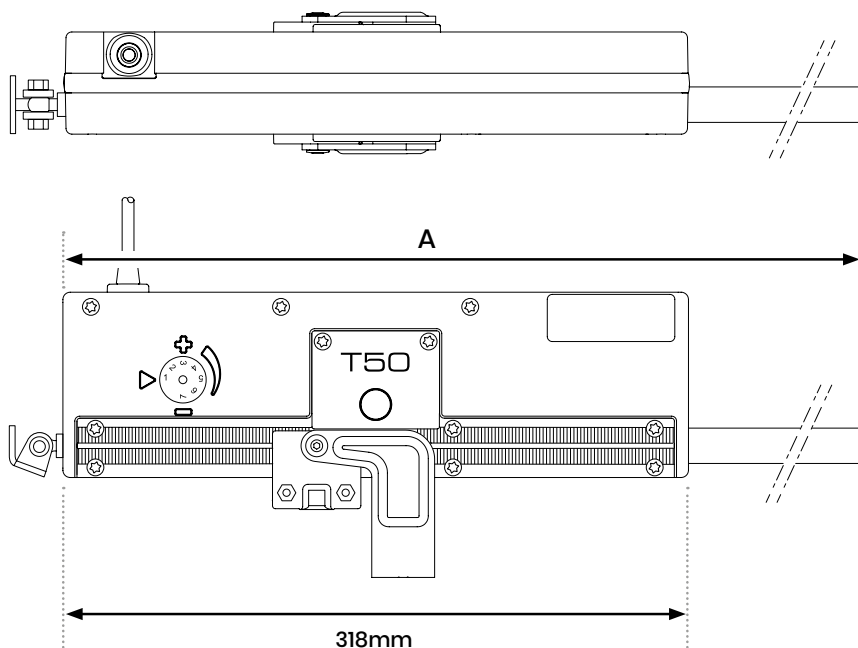
TECHNICAL DATA

	TOPP T50 24V	TOPP T50 230V
Thrust Force	500N/50 kg	500N/50 kg
Max. applicable load tandem version (1 master + 1 slave)	500N/50 kg	500N/50 kg
Max. applicable load tandem version (1 master + 1 master)	700N/70 kg	700N/70 kg
Max. applicable load tandem version (1 master + 2 slaves)*	450N/45 kg	450N/45 kg
Distance between 2 push points	max. 2400mm – min. 1000mm (1500mm between 2 masters)	
Stroke Adjustment: Four positions – T50 320 model	150, 200, 250, 320mm	
Stroke Adjustment: Seven positions – T50 500 model	150, 200, 250, 320, 400, 450, 500mm	
Stroke Adjustment: Seven positions – T50 750 model	180, 280, 370, 470, 560, 650, 750mm	
Stroke Adjustment: Seven positions – T50 1000 model	600, 700, 750, 800, 850, 900, 1000mm	
Tolerance on stroke adjustment	+/- 20mm – via a self-aligning, sliding bracket – along actuator side guides	
Absorbed current at full load (500N)	1.4 amps	0.3 amps
Absorbed current at full load (700N) with 2 masters	2.1 amps	0.45 amps
Absorbed current at full load (1000N) with 3 masters	3 amps	0.65 amps
Double Insulated	No	Yes
Time Rating	S2 of 4 min	S2 of 4 min
Operating Temperature	-5°C to +55°C	-5°C to +55°C
Idle Translation Speed	~ 10mm/s	~ 18mm/s
Protection Class	IP55	IP55
Synchronisation Option	Yes with S version (two actuators on the same window)	
Parallel Connection Option	Yes	Yes

* Operation of up to 6 drives on the same window frame is possible by connecting rod. Details available on request.

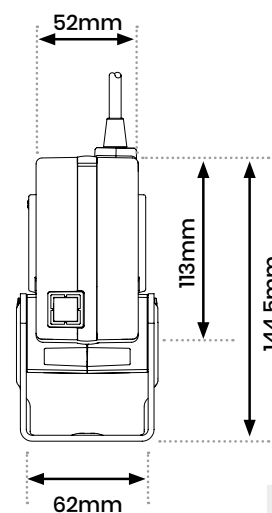
DIMENSIONS

Model: 320mm stroke	A = 578mm
Model: 500mm stroke	A = 745mm
Model: 750mm stroke	A = 982mm



WHAT'S IN THE BOX?

- ✓ TOPP T50 Actuator + power cable
- ✓ Upper Bracket Connection Kit
- ✓ Actuator Support Bracket Kit
- ✓ Fixing screws (for aluminium frames)
- ✓ Installation and use instructions
- ✓ Adhesive warning plate



PRODUCT CODES >>>

APPLICATION AND ARRANGEMENT

Legend: M=Master S=Slave

	24V	230V	Maximum Space Between Actuators	Minimum Space Between Actuators
Max. thrust/traction load applicable on single actuator (M)	500N/400N	500N/400N	N/A	N/A
Max. thrust/traction load applicable on tandem – 1 master and 1 slave (M-S)	500N/350N	500N/350N	2400mm	1000mm
Max. thrust/traction load applicable on triple system – 1 master and 2 slaves (S-M-S)	450N/300N	450N/300N	2400mm	1000mm
Max. thrust/traction load applicable on 1 master and 3 slaves (S-M-S-S)	450N/250N	450N/250N	2400mm	1000mm
Max. thrust/traction load applicable on 2 masters (M-M)	700N/700N	700N/350N	2400mm	1500mm
Max. thrust/traction load applicable on 2 masters and 2 slaves (M-S-M-S)	700N/700N	700N/300N	2400mm	1000mm
Max. thrust/traction load applicable on 2 masters and 3 slaves (S-M-S-M-S)	650N/650N	650N/300N	2400mm	1000mm
Max. thrust/traction load applicable on 3 masters (M-M-M)	1000N/1000N	1000N/500N	2400mm	1500mm
Max. thrust/traction load applicable on 3 masters and 3 slaves (M-S-M-S-M-S)	1000N/1000N	1000N/500N	2400mm	1000mm

TOPP T50 320 Model

Stroke Adjustment Position	Actuator Travel	Minimum height of window frame
1	150mm	120mm
2	200mm	150mm
3	250mm	200mm
4	320mm	250mm

TOPP T50 500 Model

Stroke Adjustment Position	Actuator Travel	Minimum height of window frame
1	150mm	120mm
2	200mm	150mm
3	250mm	200mm
4	320mm	250mm
5	400mm	320mm
6	450mm	370mm
7	500mm	420mm

TOPP T50 750 Model

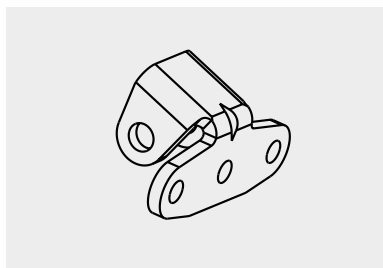
Stroke Adjustment Position	Actuator Travel	Minimum height of window frame
1	180mm	130mm
2	280mm	220mm
3	370mm	290mm
4	470mm	390mm
5	560mm	480mm
6	650mm	570mm
7	750mm	670mm

TOPP T50 1000 Model

Stroke Adjustment Position	Actuator Travel	Minimum height of window frame
1	600mm	520mm
2	700mm	620mm
3	750mm	670mm
4	800mm	720mm
5	850mm	770mm
6	900mm	820mm
7	1000mm	920mm

PRODUCT CODES >>>

BRACKET & ACCESSORY CODES



Upper Bracket (included)

Connecting Rod

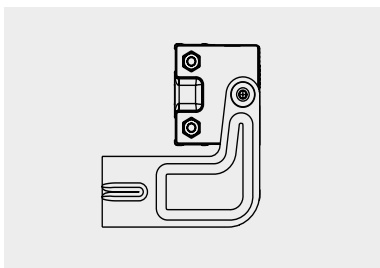
1500mm Available on request
3000mm Available on request

Junction ring

(between the connecting rods for 3 push points)
Available on request

Connecting Rod Stop

Available on request



Actuator Support Bracket (included)

ACTUATOR CODES

TOPP T50 Actuator (Master) 24V

320mm Available on request
500mm Available on request
750mm Available on request
1000mm* Available on request

TOPP T50 Actuator (Master) 230V

320mm Available on request
500mm Available on request
750mm Available on request
1000mm* Available on request

* Thrust force 400N, T50S with stroke 1000mm already equipped with electronic board for simultaneous synchronised operation of 2 actuators on the same window.



TOPP T50S Synchro Option

Synchronous operation of more than one actuator on the same window frame.
Available on request



TOPP T50 Tandem Option

Connection of multiple drives by the addition of rapid-coupling connecting rods, and rack groups, for installation in particularly large windows.

TOPP T50 Assembly (Slave)

(connection and fitting accessories included)

320mm Available on request
500mm Available on request
750mm Available on request
1000mm Available on request

Standard Kit for 2 push points

T50 Rack actuator 230V – 320mm (adjustable)
T50 Rack Slave – 320mm
T50 Rack Slave – 320mm
T50 connecting rod - Length 3000mm

Standard Kit for 3 push points

T50 Rack actuator 230V – 320mm (adjustable)
T50 Rack Slave – 320mm
T50 Rack Slave – 320mm
T50 connecting rod - Length 3000mm

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:

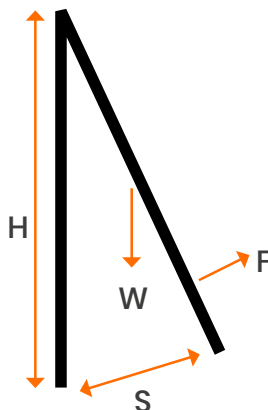
$$F = \frac{W}{2} \times \frac{S}{H} \times 10$$

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

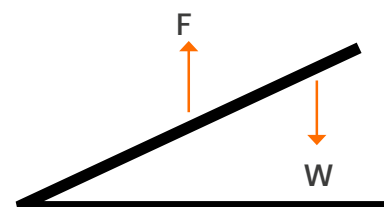
IMPORTANT: When calculating the required force for domes and skylights, Snow Load must be added to the weight of the window leaf (W).

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.