

SOONINDUSTRIAL

LINEAR ACTUATOR

AUTOMATIC WINDOW OPENER

SMART BUILDING MATERIAL

SOON INDUSTRIAL

We specialized in motion system design and application. With nearly 20 years' experience of manufacturing linear actuators. We dedicated in developing inline design **LINEAR ACTUATORS** for **AUTOMATIC WINDOW OPENERS**. Pursuing 100% precise, using high quality of raw material and elegant looking industrial design for novel buildings. Well made in **TAIWAN**, introducing to the global market.



Made In Taiwan

KST SERIES ELECTRIC ACTUATORS

- ☐ Inline Design Linear Actuators
- ☐ Chain Actuators
- ☐ Spindle Actuators
- ☐ Track Actuators





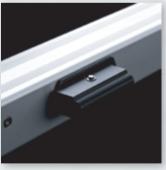
- ✓ With CE, RoHS, SGS certifications
- ✓ Passed over 100,000 times durability test.
- ✓ Customizable for travel length, color, and speed.













KST SERIES AUTOMATIC WINDOW OPENERS









We provide solutions for opening windows electrically. **AUTOMATIC WINDOW OPENERS** are usually for opening **HIGH WINDOWS** to improve natural ventilations. Regarding to the **SMOKE VENTILATION REGULATIONS** in some countries. Our automatic window opener systems work for **AOV**, **Automatic Opening Vent** systems, which can connect with fire system. Once there is fire or smoke happened, windows will open automatically for smoke ventilation.

Furthermore, people could connect their windows with **SMART HOME SYSTEM**. Operating windows through their smartphone or setting customized sceneries with various sensors.

With **PARALLEL CONTROL SYSTEM**, opening all windows in the same area at the same time is possible. The systems usually been applied in large Public Building, Factory or Office.







KST-A SERIES LINEAR ACTUATORS





Model	KST-A01 Linear Actuator	KST-A02 Linear Actuator
Stroke Length	50 to 400 mm	50 to 300 mm
Min. Mounting Dim.	Stroke Length + 230 mm	Stroke Length + 215 mm
Max. Dynamic Load	800 N / 80 kgf / 180 lbf	600 N / 60 kgf / 135 lbf
Max. Static Load	1470 N / 150 kgf / 330 lbf	1200 N / 122 kgf / 270 lbf
Volt. / Current	24 VDC/ 0.45A ~ 1.2A *12 VDC is opt.	24 VDC/ 0.13A ~ 1.14A
Travel Speed	12 mm/ sec	9.27 mm/ sec
Duty Cycle	20 %	25 %
Motor Type	Spur gear with metal gear inside	
IP Rating	IP 54 *IP 66 is opt.	IP 54
Noise Level	55 dB	54 dB
Material	Aluminum case & inner tube, aluminum alloy die-castings for sealing top & bottom	
Outer Dimension	D 43mm, H 46mm, L stroke + 230mm	D 34mm, H 40.7mm, L stroke +215 mm
Test	Over 100,000 times working test Salt spray test	Over 100,000 times working test
Certification	CE, LVD, EMC, RoHS	



The bottom and top were sealed by **aluminum alloy die-castings**. High strength, anti-corrosion. The inner tube can change to sus 304.



Mounting bracket made by **steel 304**. Special holder for KST-A01 is to adjusting the direction of force.



Anti-rust. Cover by high quality of aluminum alloy with excellent anodized treatment.



Basic Automatic Window Opener System

Here is a simple example of **Automatic Window Opener System** for outward opening windows/skylight.

Electric Actuators as electric mechnical for pushing or pulling windows.

Controllers for controlling the movements of actuators and supporting connection port for fire system or smart home applications.



Selecting right specs of **ACTUATORS** for windows.



ACTUATOR CONTROLLER for with control panel and power supply.



With different MOUNTING BRACKETS for different type of windows.



REMOTE CONTROLLER is optional functions.



WALL MOUNT SWITCH for open, stop and close the windows.

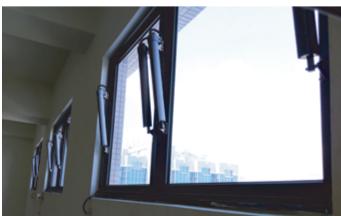


@Factory. For smoke ventilation, daily natural ventilation and parallel control a row of windows.



with remote control for all skylight windows.







@Factory. Customized color to iron gray. Smoke ventilation, opening high windows with parallel control system.

KST-SL SERIES TRACK LINEAR ACTUATOR





Model	KST-SL01 Track Linear Actuator	KST-SL02 Track Linear Actuator
Total Length	600 to 1,500 mm	580 to 1,180 mm
Travel Length	*Please refer to the table below	*Please refer to the table below
Max. Dynamic Load	88 N / 9 kgf / 20 lbf	600 N / 60 kgf / 135 lbf
Travel Speed	18 mm/ sec	
Working Current	0.24 A ~1 A	0.24 A ~1.3 A
Motor Voltage	24 VDC	
Working Direction	Right / Left	Reversible
Noise Level	38 dB	48 dB
Material	Aluminum, stainless steel	
IP Rating	IP 32, with brush for protecting the track	IP 32
Remote Control	RF 433, include remote controller	None
Standard Color	White	Light Grey
Adapter	Input: 100~240VAC; 50/ 60 Hz; 540mA Output: 24 VDC/ 1A/ 24W	None. Work with additional controller.
Test	Durability test for over 12,000 times	

Standard Spec. Of Traveling Length

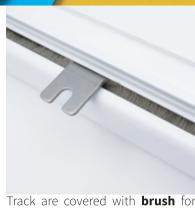
KST-SL01	Body Length	Travel Length
KST-SL01-1000	1,000 mm	$630 \pm 30 \mathrm{mm}$
KST-SL01-1400	1,400 mm	$1030 \pm 30 \text{mm}$

For Body Length from 600 to 1500 mm are customized product. Please contact us for MOQ and Lead Time.

KST-SL02	Body Length	Travel Length
KST-SL02-580	580 mm	400 mm
KST-SL02-780	780 mm	600 mm
KST-SL02-980	980 mm	800 mm
KST-SL02-1180	1,180 mm	1,000 mm



KST-SL01 are with **built-in control panel** and **remoter**. **DIY package** for automatic sliding windows.



Track are covered with **brush** for **dustproof**. With special brackets for easily switching between manual & automatic mode.



Support the signal for **smarthome applications** & **sensors** with dry contact connection ports.



Anti-pinch function, when there is any obstacle on the track, the machine will stop immediately and backward a little.



@ Townhouse. Connecting with smart home system. Operate by **phone app**.



@ Gym of elementry school. **High windows** for natural ventilation. With **parallel operation** with remote controller.



@ Workshop. Opening **high sliding windows** for natural ventilation by remote controller.



@ Lectural Hall. KST-SL02 for **smoke ventilation** and **parallel control** high windows.

KST-C SERIES CHAIN ACTUATOR





Model	KST-C01 Single Chain Actuator	KST-C02 Dual Chain Actuator
Stroke Length	50 to 400 mm	
Max. Dynamic Load	400 N / 40 kgf / 88 lbf	600 N / 60 kgf / 135 lbf
Max. Static Load	600 N / 60 kgf / 135 lbf	
AC Ver.	230VAC/ 0.3A; 110VAC/ 0.6A	230VAC/ 0.6A; 110VAC/ 1.2A
DC Ver.	24VDC/ 1.0A	24VDC/ 1.6A
Travel Speed	10 mm/ sec	
IP Rating	IP 32	
Noise Level	38 dB	
Outer Dimension	D 51 mm, H 40 mm, L depend on the stroke length	
Certification	CE, LVD, EMC, RoHS	
Material	Aluminum case, Chain made by nickel-plated carbon steel (customized for stainless steel 304)	





L/ Upgrade to sus 304 chain **R**/ AC ver. with built-in remote control panel

L/ For side opening window. **R**/ For high windows improving ventilation.

Dual chain window opener for windows which width is over 90 cm.





KST-S SERIES SPINDLE ACTUATOR









Model	KST-S01 Spindle Actuator	KST-S01 Heavy Duty Spindle Actuator
Stroke Length	50 to 1,000 mm	
Max. Dynamic Load	600 N/ 60 kgf/ 135 lbf	1,200 N/ 122 kgf/ 270 lbf
Max. Static Load	900 N/ 92 kgf/ 202 lbf	2,000 N/ 204 kgf/ 450 lbf
AC Ver.	230 VAC/ 0.3A; 110 VAC/ 0.6A	230 VAC/ 0.6A; 110 VAC/ 1.2A
DC Ver.	24 VDC/ 1.2A *12 VDC is opt.	24 VDC/ 1.6A *12 VDC is opt.
Travel Speed	10 mm/ sec	
IP Rating	IP 65	
Noise Level	38 dB	
Outer Dimension	DIA. 36 mm	DIA. 45 mm
Certification	CE, LVD, EMC, RoHS	
Material	Inner tube: stainless steel; Case: aluminum alloy	

Top/ Opening high & large windows with a pair of KST-S01 actuators.

Bottom/ Pass IP 65 test, water proofed for outdoor use.



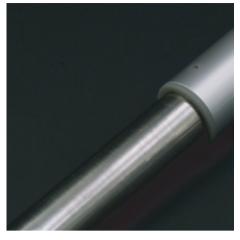






KST-E SERIES LINEAR ACTUATOR

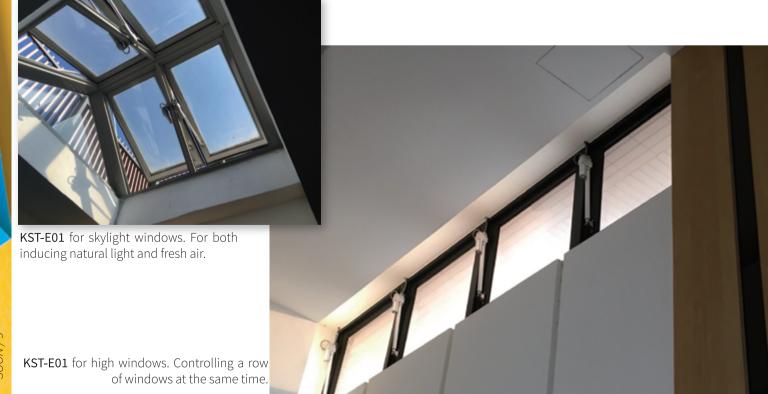








Model	KST-E01 Linear Actuator	KST-E02 Heavy Duty Linear Actuator
Stroke Length	50 to 400 mm	50 to 1,000 mm
Max. Dynamic Load	800 N / 80 kgf / 180 lbf	1,000 N/ 102 kgf/ 225 lbf
Max. Static Load	1470 N / 150 kgf / 330 lbf	2,000 N/ 204 kgf/ 450 lbf
DC Ver.	24 VDC/ 0.3A	24 VDC/ 0.6A
Duty Cycle	25%	
Travel Speed	10 mm/ sec	
IP Rating	IP 54	
Noise Level	48 dB	
Outer Dimension	Bottom base: D 40 mm, H 70 mm, L depend on the stroke length	
Material	Material Inner tube: stainless steel 304; Outer case: aluminum alloy;	
	Bottom base: Zinc alloy die-castings	



PANOOS

KST-B SERIES ACTUATOR CONTROLLER



Features

Input Voltage: 110 or 230 VAC; 50 or 60 Hz

Output Voltage: 24 VAC

Support signal for central control

Support sensor connection

Signal for manual switch

Parallel connection port

Working time memory for 1 set

Remote control through RF 433*

Parallel Control System

Smoke Ventilation Factory

Office Public Building

The control system is for controlling numbers of windows in one area at the same time (with the same manual switch.) The systems are usually been applicated in larger buildings which are with central control systems.



Features

Input Voltage: 100 ~ 240 VAC; 50 ~ 60Hz

Output Voltage: 24 VAC

Remote control through RF 433

Support sensor connection*

Signal for manual switch*

Parallel connection port*

Support signal for smart home system WiFi control device (App)

Single Control System

Home Small Store Small Automatic Device

If there is only one windows or you need to operate windows seperately. You may choose smaller control system. The single control system also support for simple application of linear actuators.

- 20+ With 20+ years of manufacturer experience.
- 20+ Products have been export to over 20+ countries.
- 200+ KST series Automatic Window Openers have been applicated in over 200+ buildings.
- 100,000+ Product had passed over 100,000 times working test.
 - 6+ With CE, TÜV, RoHS, SGS, LVD and EMC certifications
- 1 for 1 exchange with 1-year warranty



CEROHS SGS

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