EZS Series *α<sub>ste</sub>* AZ Equipped

Linear & Rotary Actuators

# **Electric Linear Slides**

EZS Series *CASTEP* AZ Equipped ······ F-12

Overview

*αstep* az EZS

Electric Cylinders

> *αstep* аz EAC

> α<sub>step</sub> az DRS2

Hollow Rotary Actuators

CASTEP AZ

# Electric Linear Slides **EZS Series** *Aster* Az Equipped

CEECO View View View View View View View View	Reversed Motor Type *Photo shows the Leftt side Type	highly i Motors Electric steppe no hun Straigh availab High Spac Simp	rigid and have a simple from the <i>Qstep</i> <b>AZ</b> set c linear slides actualize t r motors, such as high r ting. It type and reversed mo- ble to match your installa rigidity and compact gu ce saving by using rever	the unique advantages of response, low vibration, and tor type variations are ation space. uide sed motors ure prevent dust and other
	roduct Details Online ntalmotor.com	● Manual  ● CAD	Specifications     Characteristics	Dimensions     Oconnection and Operation

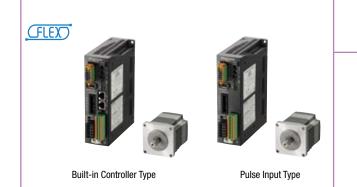
## Features

# Wide Variety of Products to Match Installation Spaces and Environments

Slim, high accuracy, and high rigidity slides and the product line includes reversed motor types with shorter overall length. Standard motor of **AZ** Series are equipped. Various products are available.

#### Motor Type

- CINER AZ Series • Battery-free, Absolute Sensor Equipped • Positioning Information is Available without a sensor • High Reliability with Closed Loop Control • High Fefficiency Technology Reduces Motor Heat Gene
- High Efficiency Technology Reduces Motor Heat Generation and Saves Energy



# Linear Slides



• This photo shows **EZS6** (Width 74 mm × Height 66.5 mm).

#### **Linear & Rotary Actuators** F-13

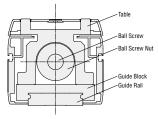
# High Rigidity · High Accuracy

Even with the compact motor, a high permissible moment is possible due to the rigidity of the guide.

#### High Rigidity, High Accuracy Guide

The guides used on linear slides are LM Guide\* use the Ball Retainer made by THK. The slim, stainless guide increases the load moment. And the highly accurate guide enables traveling parallelism of 0.03 mm or less.

\* LM Guide and Ball Retainer are registered trademarks of THK.



Traveling Parallelism of 0.03 mm or Less

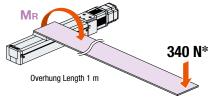
# Slim Body with High Transportable

#### Mass



#### High Permissible Moment

A high load moment is achieved from a compact body.



\*The load value was calculated using the static permissible moment 340 N·m for EZS6.

#### •Permissible Moment in Rolling Directions [N·m]

Frame Size	Static Permissible Moment*1	Dynamic Permissible Moment*2
EZS3	52.0	10.5
EZS4	176	27.8
EZS6	340	55.6

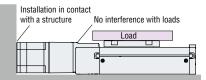
\*1 Load moment that the linear guide can support while the motor is stopped.

\*2 Load moment that the linear guide can support while the motor is in operation.

# **Space Saving**

Effective utilization of the installation space is possible because the body does not interfere with the loads.

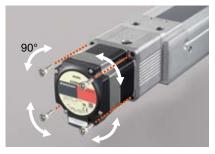
Installation in contact with another structure is possible.



#### Cable Outlet Can be Rotated

The motor can be rotated and installed in 4 possible directions\*, so the direction of the cable outlet can be changed to match the installation location.

\* Reversed motor type can be rotated in 3 possible directions.



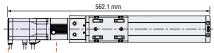
#### Reversed Motor Type

The length of the reversed motor type is up to 136.4 mm shorter than the straight type. This contributes to space saving with equipment.

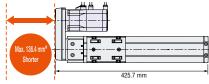
AZ Series

EZS6 With Electromagnetic Brake Stroke 200 mm

Straight Type



#### Reversed Motor Type



\*When electromagnetic brake is installed



Electric Cylinders

*ASTEP* **AZ** EAC

**CASTEP AZ** 

Hollow Rotarv Actuators

CASTEP AZ

# Simple Dust-Resistant Structure

The simple dust-resistant structure made from a stainless sheet and the roller mechanism in the table part prevent dust and other foreign particles from entering.

#### Keeps Out Foreign Objects

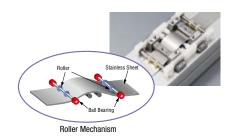
Simple dust-resistant structure with stainless sheet prevents intrusion of foreign particles.

**Dust Preventing Structure** 

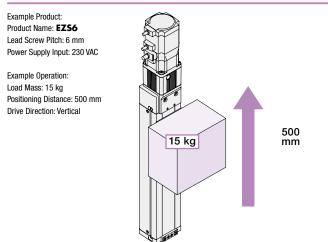
The low dust-generative roller mechanism in the table part helps to prevent the generation of dust via friction with the stainless sheet.

#### Low Dust-Generative Roller Mechanism (Patented)

The low dust-generative roller mechanism in the table part rotates smoothly against the stainless sheet to prevent the generation of dust via friction. In addition to dust prevention, it increases the durability of the stainless sheet.

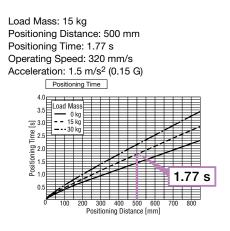


# High Speed Driving with Light Load or Heavy Load



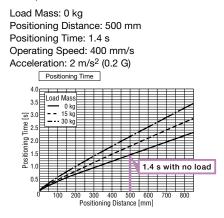
#### High-Speed with a Heavy Load

High-speed is possible when transporting a heavy load in a vertical direction.



#### High-Speed with a Light Load

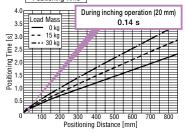
Operation is possible at an even higher speed when the load is absent, for example on the return.



#### High-Speed during Inching Operation

Operation is possible at high speed during inching operation over short distances.

Load Mass: 15 kg Positioning Distance: 20 mm Positioning Time: 0.14 s Operating Speed: 200 mm/s Acceleration: 4.7 m/s<sup>2</sup> (0.5 G) Positioning Time



#### - Positioning Time Calculation Tool Available

A tool is available to calculate the positioning time, operating speed, acceleration, and more—simply by selecting the type of electric linear slides and entering some simple data. The software can be downloaded from the Oriental Motor website. http://www.orientalmotor.com

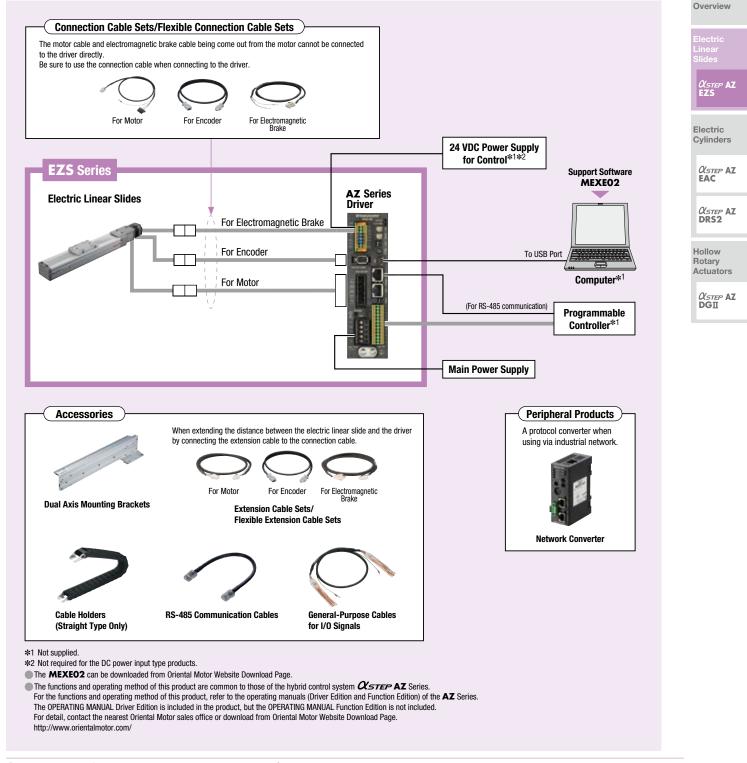
# Linear & Rotary Actuators F-15

# System Configuration

Combination of Linear & Rotary Actuator with Electromagnetic Brake and Built-in Controller Type Driver

(Information for AC input type and DC input type are both provided. The photos show the product for AC input type.)

An example of a configuration using I/O control or RS-485 communication is shown below.



The system configuration shown above is an example. Other combinations are also available.

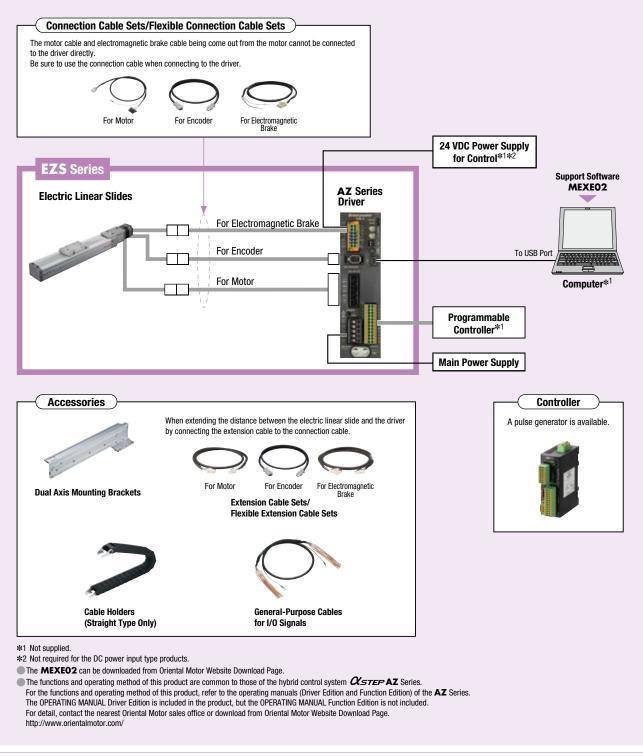
 Note

The motor cable and electromagnetic brake cable from the motor cannot be connected directly to the driver. When connecting to a driver, use a connection cable.

Technical T Support Combination of Linear & Rotary Actuator with Electromagnetic Brake and Pulse Input Type Driver

(Information for AC input type and DC input type are both provided. The photos show the product for AC input type.)

An example of a single-axis system configuration with the **SCX11** controller is shown below.



The system configuration shown above is an example. Other combinations are also available.

 Note

• The motor cable and electromagnetic brake cable from the motor cannot be connected directly to the driver. When connecting to a driver, use a connection cable.

# Product Line

#### AC Input

◇Product Number (Straight Type/Reversed Motor Type)

1) Series Name	② Motor Orientation	(4) Lead Screw Pitch	(5) Stroke	6 Motor	⑦ Motor Type	8 Power Supply Input	<ul><li> ⊙</li><li> Driver Type</li></ul>
EZS3	L	- D	005	– AZ	A	С	D
EZS3 EZS4 EZS6	L: Reversed Motor Type (Left Side) R: Reversed Motor Type (Right Side) Blank: Straight Type	D: 12 mm E: 6 mm	005: 50 mm 010: 100 mm 015: 150 mm 085: 850 mm (50 mm increments)	AZ Series	A: Single Shaft M: With Electromagnetic Brake	A: Single-Phase 100-120 VAC C: Single-Phase/ Three-Phase 200-240 VAC	D: Built-in Controller Type Blank: Pulse Input Type

#### ♦ EZS3 Straight Type/Reversed Motor Type

The prices are the same even if the ② Motor orientation (L, R, Blank), ④ Lead screw pitch (D, E) or ⑧ Power supply input (A, C) are different.

Oriver Type (D, Blank)		Built-in Contr	roller Type ( <b>D</b> )	Pulse Input Type (Blank)		
Motor Type (A, M)		Single Shaft (A)	With Electromagnetic Brake (M)	Single Shaft (A)	With Electromagnetic Brake (M)	
	50 mm ( <b>005</b> )	\$1,453.00	\$1,670.00	\$1,396.00	\$1,613.00	
	100 mm ( <b>010</b> )	\$1,453.00	\$1,670.00	\$1,396.00	\$1,613.00	
	150 mm ( <b>015</b> )	\$1,484.00	\$1,701.00	\$1,427.00	\$1,644.00	
	200 mm ( <b>020</b> )	\$1,484.00	\$1,701.00	\$1,427.00	\$1,644.00	
	250 mm ( <b>025</b> )	\$1,515.00	\$1,732.00	\$1,458.00	\$1,675.00	
	300 mm ( <b>030</b> )	\$1,515.00	\$1,732.00	\$1,458.00	\$1,675.00	
(5) Stroke	350 mm ( <b>035</b> )	\$1,546.00	\$1,763.00	\$1,489.00	\$1,706.00	
5 Slicke	400 mm ( <b>040</b> )	\$1,546.00	\$1,763.00	\$1,489.00	\$1,706.00	
	450 mm ( <b>045</b> )	\$1,577.00	\$1,794.00	\$1,520.00	\$1,737.00	
	500 mm ( <b>050</b> )	\$1,577.00	\$1,794.00	\$1,520.00	\$1,737.00	
	550 mm ( <b>055</b> )	\$1,608.00	\$1,825.00	\$1,551.00	\$1,768.00	
	600 mm ( <b>060</b> )	\$1,608.00	\$1,825.00	\$1,551.00	\$1,768.00	
	650 mm ( <b>065</b> )	\$1,639.00	\$1,856.00	\$1,582.00	\$1,799.00	
	700 mm ( <b>070</b> )	\$1,639.00	\$1,856.00	\$1,582.00	\$1,799.00	

#### ◇EZS4 Straight Type/Reversed Motor Type

The prices are the same even if the ② Motor orientation (L, R, Blank), ④ Lead screw pitch (D, E) or ⑧ Power supply input (A, C) are different.

Oriver Type (D,	Blank)	Built-in Contr	oller Type ( <b>D</b> )	Pulse Input	Type (Blank)
Ø Motor Type (A, 1)	M)	Single Shaft (A)	With Electromagnetic Brake (M)	Single Shaft (A)	With Electromagnetic Brake (M)
	50 mm ( <b>005</b> )	\$1,499.00	\$1,716.00	\$1,442.00	\$1,659.00
	100 mm ( <b>010</b> )	\$1,499.00	\$1,716.00	\$1,442.00	\$1,659.00
	150 mm ( <b>015</b> )	\$1,530.00	\$1,747.00	\$1,473.00	\$1,690.00
	200 mm ( <b>020</b> )	\$1,530.00	\$1,747.00	\$1,473.00	\$1,690.00
	250 mm ( <b>025</b> )	\$1,561.00	\$1,778.00	\$1,504.00	\$1,721.00
	300 mm ( <b>030</b> )	\$1,561.00	\$1,778.00	\$1,504.00	\$1,721.00
(5) Stroke	350 mm ( <b>035</b> )	\$1,592.00	\$1,809.00	\$1,535.00	\$1,752.00
5 SHOKE	400 mm ( <b>040</b> )	\$1,592.00	\$1,809.00	\$1,535.00	\$1,752.00
	450 mm ( <b>045</b> )	\$1,623.00	\$1,840.00	\$1,566.00	\$1,783.00
	500 mm ( <b>050</b> )	\$1,623.00	\$1,840.00	\$1,566.00	\$1,783.00
	550 mm ( <b>055</b> )	\$1,654.00	\$1,871.00	\$1,597.00	\$1,814.00
	600 mm ( <b>060</b> )	\$1,654.00	\$1,871.00	\$1,597.00	\$1,814.00
	650 mm ( <b>065</b> )	\$1,685.00	\$1,902.00	\$1,628.00	\$1,845.00
	700 mm ( <b>070</b> )	\$1,685.00	\$1,902.00	\$1,628.00	\$1,845.00

#### ◇EZS6 Straight Type/Reversed Motor Type

The prices are the same even if the (2) Motor orientation (L, R, Blank), (4) Lead screw pitch (D, E) or (8) Power supply input (A, C) are different.

Oriver Type (	), Blank)	Built-in Contr	oller Type ( <b>D</b> )	Pulse Input Type (Blank)		
Motor Type (A, M)		Single Shaft (A)	With Electromagnetic Brake (M)	Single Shaft (A)	With Electromagnetic Brake (M)	
	50 mm ( <b>005</b> )	\$1,814.00	\$2,093.00	\$1,757.00	\$2,036.00	
	100 mm ( <b>010</b> )	\$1,814.00	\$2,093.00	\$1,757.00	\$2,036.00	
	150 mm ( <b>015</b> )	\$1,845.00	\$2,124.00	\$1,788.00	\$2,067.00	
	200 mm ( <b>020</b> )	\$1,845.00	\$2,124.00	\$1,788.00	\$2,067.00	
	250 mm ( <b>025</b> )	\$1,876.00	\$2,155.00	\$1,819.00	\$2,098.00	
	300 mm ( <b>030</b> )	\$1,876.00	\$2,155.00	\$1,819.00	\$2,098.00	
	350 mm ( <b>035</b> )	\$1,907.00	\$2,186.00	\$1,850.00	\$2,129.00	
	400 mm ( <b>040</b> )	\$1,907.00	\$2,186.00	\$1,850.00	\$2,129.00	
(5) Stroke	450 mm ( <b>045</b> )	\$1,938.00	\$2,217.00	\$1,881.00	\$2,160.00	
	500 mm ( <b>050</b> )	\$1,938.00	\$2,217.00	\$1,881.00	\$2,160.00	
	550 mm ( <b>055</b> )	\$1,969.00	\$2,248.00	\$1,912.00	\$2,191.00	
	600 mm ( <b>060</b> )	\$1,969.00	\$2,248.00	\$1,912.00	\$2,191.00	
	650 mm ( <b>065</b> )	\$2,000.00	\$2,279.00	\$1,943.00	\$2,222.00	
	700 mm ( <b>070</b> )	\$2,000.00	\$2,279.00	\$1,943.00	\$2,222.00	
	750 mm ( <b>075</b> )	\$2,031.00	\$2,310.00	\$1,974.00	\$2,253.00	
	800 mm ( <b>080</b> )	\$2,031.00	\$2,310.00	\$1,974.00	\$2,253.00	
	850 mm ( <b>085</b> )	\$2,062.00	\$2,341.00	\$2,005.00	\$2,284.00	

Overview

near ides

XSTEP AZ EZS

Electric Cylinders

> *αstep* αζ EAC

α<sub>step</sub> az DRS2

Hollow Rotary Actuators

CASTEP AZ

### DC Input

#### ◇Product Number (Straight Type/Reversed Motor Type)

1 Series Name	② Motor Orientation	]	(4) Lead Screw Pitch	(5) Stroke	]	6 Motor	Motor Type	8 Power Supply Input	© Driver Type D
EZS3 EZS4 EZS6	L Reversed Motor Type (Left Side) R: Reversed Motor Type (Right Side) Blank: Straight Type		D: 12 mm E: 6 mm	005:50 mm 010:100 mm 015:150 mm 085:850 mm (50 mm increments)		AZ Series	A: Single Shaft M: With Electromagnetic Brake	K: 24/48 VDC	D: Built-in Controller Type Blank: Pulse Input Type

#### ♦ EZS3 Straight Type/Reversed Motor Type

The prices are the same even if the 2 Motor orientation (**L**, **R**, Blank) or 4 Lead screw pitch (**D**, **E**) are different.

Oriver Type (D, Blank)		Built-in Contr	roller Type ( <b>D</b> )	Pulse Input	Type (Blank)
Motor Type (A, M)		Single Shaft (A)	With Electromagnetic Brake (M)	Single Shaft (A)	With Electromagnetic Brake (M)
	50 mm ( <b>005</b> )	\$1,306.00	\$1,523.00	\$1,249.00	\$1,466.00
	100 mm ( <b>010</b> )	\$1,306.00	\$1,523.00	\$1,249.00	\$1,466.00
	150 mm ( <b>015</b> )	\$1,337.00	\$1,554.00	\$1,280.00	\$1,497.00
	200 mm ( <b>020</b> )	\$1,337.00	\$1,554.00	\$1,280.00	\$1,497.00
	250 mm ( <b>025</b> )	\$1,368.00	\$1,585.00	\$1,311.00	\$1,528.00
	300 mm ( <b>030</b> )	\$1,368.00	\$1,585.00	\$1,311.00	\$1,528.00
(5) Stroke	350 mm ( <b>035</b> )	\$1,399.00	\$1,616.00	\$1,342.00	\$1,559.00
5 Slicke	400 mm ( <b>040</b> )	\$1,399.00	\$1,616.00	\$1,342.00	\$1,559.00
	450 mm ( <b>045</b> )	\$1,430.00	\$1,647.00	\$1,373.00	\$1,590.00
	500 mm ( <b>050</b> )	\$1,430.00	\$1,647.00	\$1,373.00	\$1,590.00
	550 mm ( <b>055</b> )	\$1,461.00	\$1,678.00	\$1,404.00	\$1,621.00
	600 mm ( <b>060</b> )	\$1,461.00	\$1,678.00	\$1,404.00	\$1,621.00
	650 mm ( <b>065</b> )	\$1,492.00	\$1,709.00	\$1,435.00	\$1,652.00
	700 mm ( <b>070</b> )	\$1,492.00	\$1,709.00	\$1,435.00	\$1,652.00

#### ♦ EZS4 Straight Type/Reversed Motor Type

The prices are the same even if the ② Motor orientation (L, R, Blank) or ④ Lead screw pitch (D, E) are different.

Oriver Type (D,	Blank)	Built-in Contr	roller Type ( <b>D</b> )	Pulse Input	Type (Blank)
Motor Type (A, M)		Single Shaft (A)	With Electromagnetic Brake (M)	Single Shaft (A)	With Electromagnetic Brake (M)
	50 mm ( <b>005</b> )	\$1,352.00	\$1,569.00	\$1,295.00	\$1,512.00
	100 mm ( <b>010</b> )	\$1,352.00	\$1,569.00	\$1,295.00	\$1,512.00
	150 mm ( <b>015</b> )	\$1,383.00	\$1,600.00	\$1,326.00	\$1,543.00
	200 mm ( <b>020</b> )	\$1,383.00	\$1,600.00	\$1,326.00	\$1,543.00
	250 mm ( <b>025</b> )	\$1,414.00	\$1,631.00	\$1,357.00	\$1,574.00
	300 mm ( <b>030</b> )	\$1,414.00	\$1,631.00	\$1,357.00	\$1,574.00
(5) Stroke	350 mm ( <b>035</b> )	\$1,445.00	\$1,662.00	\$1,388.00	\$1,605.00
5 SHOKE	400 mm ( <b>040</b> )	\$1,445.00	\$1,662.00	\$1,388.00	\$1,605.00
	450 mm ( <b>045</b> )	\$1,476.00	\$1,693.00	\$1,419.00	\$1,636.00
	500 mm ( <b>050</b> )	\$1,476.00	\$1,693.00	\$1,419.00	\$1,636.00
	550 mm ( <b>055</b> )	\$1,507.00	\$1,724.00	\$1,450.00	\$1,667.00
	600 mm ( <b>060</b> )	\$1,507.00	\$1,724.00	\$1,450.00	\$1,667.00
	650 mm ( <b>065</b> )	\$1,538.00	\$1,755.00	\$1,481.00	\$1,698.00
	700 mm ( <b>070</b> )	\$1,538.00	\$1,755.00	\$1,481.00	\$1,698.00

#### $\diamondsuit \textbf{EZS6}$ Straight Type/Reversed Motor Type

The prices are the same even if the ② Motor orientation (L, R, Blank) or ④ Lead screw pitch (D, E) are different.

Oriver Type (I)	D, Blank)	Built-in Cont	roller Type ( <b>D</b> )	Pulse Input	Type (Blank)
Motor Type (A, M)		Single Shaft (A)	With Electromagnetic Brake (M)	Single Shaft (A)	With Electromagnetic Brake (M)
	50 mm ( <b>005</b> )	\$1,667.00	\$1,946.00	\$1,610.00	\$1,889.00
	100 mm ( <b>010</b> )	\$1,667.00	\$1,946.00	\$1,610.00	\$1,889.00
	150 mm ( <b>015</b> )	\$1,698.00	\$1,977.00	\$1,641.00	\$1,920.00
	200 mm ( <b>020</b> )	\$1,698.00	\$1,977.00	\$1,641.00	\$1,920.00
	250 mm ( <b>025</b> )	\$1,729.00	\$2,008.00	\$1,672.00	\$1,951.00
	300 mm ( <b>030</b> )	\$1,729.00	\$2,008.00	\$1,672.00	\$1,951.00
	350 mm ( <b>035</b> )	\$1,760.00	\$2,039.00	\$1,703.00	\$1,982.00
	400 mm ( <b>040</b> )	\$1,760.00	\$2,039.00	\$1,703.00	\$1,982.00
(5) Stroke	450 mm ( <b>045</b> )	\$1,791.00	\$2,070.00	\$1,734.00	\$2,013.00
	500 mm ( <b>050</b> )	\$1,791.00	\$2,070.00	\$1,734.00	\$2,013.00
	550 mm ( <b>055</b> )	\$1,822.00	\$2,101.00	\$1,765.00	\$2,044.00
	600 mm ( <b>060</b> )	\$1,822.00	\$2,101.00	\$1,765.00	\$2,044.00
	650 mm ( <b>065</b> )	\$1,853.00	\$2,132.00	\$1,796.00	\$2,075.00
	700 mm ( <b>070</b> )	\$1,853.00	\$2,132.00	\$1,796.00	\$2,075.00
	750 mm ( <b>075</b> )	\$1,884.00	\$2,163.00	\$1,827.00	\$2,106.00
	800 mm ( <b>080</b> )	\$1,884.00	\$2,163.00	\$1,827.00	\$2,106.00
	850 mm ( <b>085</b> )	\$1,915.00	\$2,194.00	\$1,858.00	\$2,137.00

# Linear & Rotary Actuators F-19

# Included

Included Type	Actuator	Driver	Fixing Bolt	Connector	Operating Manual
Common to All Types	1 Unit	1 Unit	EZS3、EZS4 M5 × 45 P0.8 (4 screws) EZS6 M5 × 65 P0.8 (4 screws)	<ul> <li>Connector for CN4 (1 piece)</li> <li>Connector for CN1 (1 piece)</li> <li>Connector for CN5 (1 piece)*</li> <li>Connector Wiring Lever (1 piece)*</li> </ul>	1 Сору

\* AC input only

Overview

Electric Linear Slides

α<sub>step</sub> az EZS

Electric Cylinders

> *ЩSTEP* AZ EAC

> α<sub>step</sub> az DRS2

Hollow Rotary Actuators

CASTEP AZ

For details (specifications, characteristics, dimensions and more) on these products, please either refer to our website or contact technical support or your nearest Oriental Motor sales office.

See Full Product Details Online www.orientalmotor.com



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