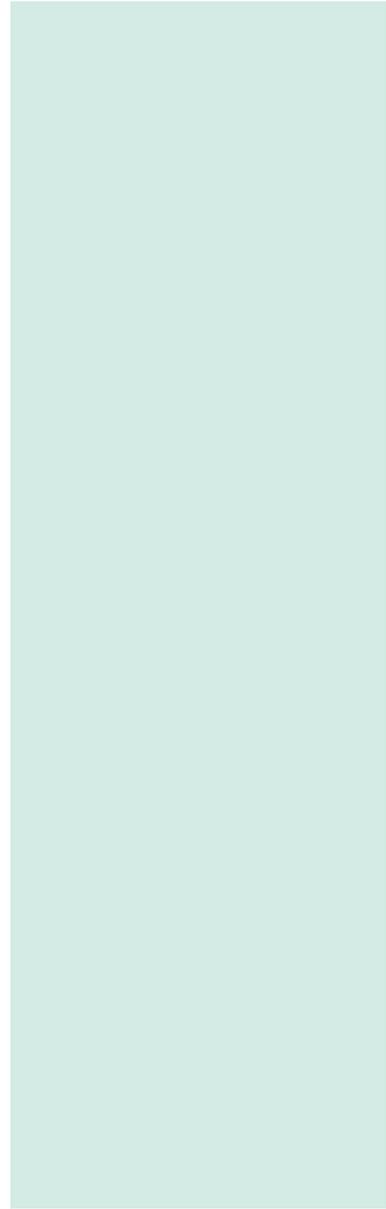
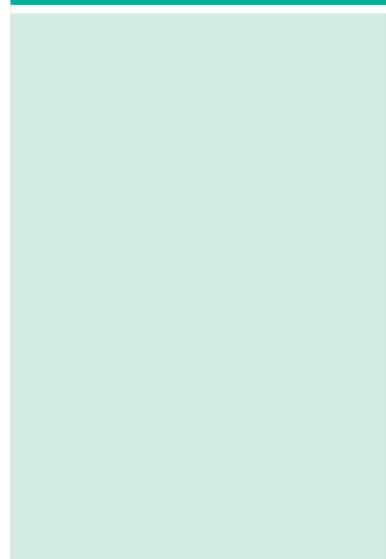


Standard AC Motors

LS Linear Heads



LS Linear Heads



Introduction

Induction Motors

Reversible Motors

Electromagnetic Brake Motors

V Series

Clutch & Brake Motors

Synchronous Motors

Low-Speed Synchronous Motors

Waterright, Dust-Resistant Motors

Torque Motors

Right-Angle Gearheads

Linear Heads

Brake Pack

Accessories

Installation

For details on this product please refer to our website, contact technical support or your nearest Oriental Motor sales office.
www.orientalmotor.com

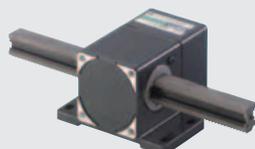
LS Linear Heads

RoHS



Vertical Stroke: **F** Type

2LS Type



Horizontal Stroke: **B** Type



Vertical Stroke: **F** Type

4LS Type



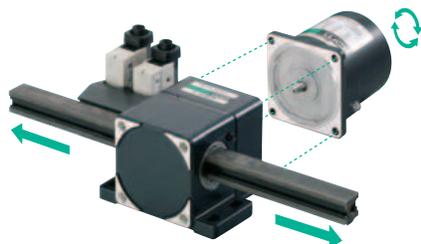
Horizontal Stroke: **B** Type

Overview

Easy to Achieve Linear Motion with Standard AC Motors

A "linear head" can generate linear motion simply by combining a standard AC motor.

Linear heads can be combined with a wide range of standard AC motors and are also available with many different stroke lengths for use in simple operations such as push, pull, lift and lower.



Combined with various motors, linear motion can be achieved easily.

Features

High Transportable Mass

We have achieved a max. transportable mass to approximately 1.5 times the conventional high transportable mass. (Actual numbers may differ depending on the basic speed.)

	0	50 kg (110 lb.)	100 kg (220 lb.)
4LS Type			100 kg (220 lb.)
2LS Type	30 kg (66 lb.)		

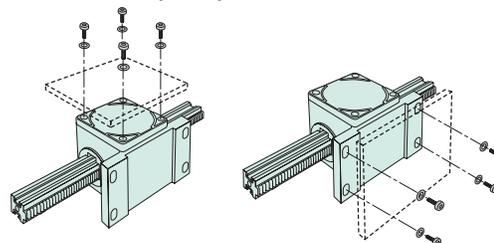
Ample Stroke Variation

Select the stroke according to your application.

Type / Stroke	Unit = mm (in.)									
	100 (3.94)	200 (7.87)	300 (11.81)	400 (15.75)	500 (19.69)	600 (23.62)	700 (27.56)	800 (31.50)	900 (35.43)	1000 (39.37)
4LS Type	●	●	●	●	●	●	●	●	●	●
2LS Type	●	●	●	●	●	●	●	●	—	—

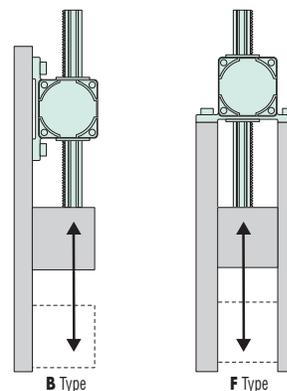
Two Installation Directions

Two mounting surfaces are provided. Choose the installation direction that best suits your system.



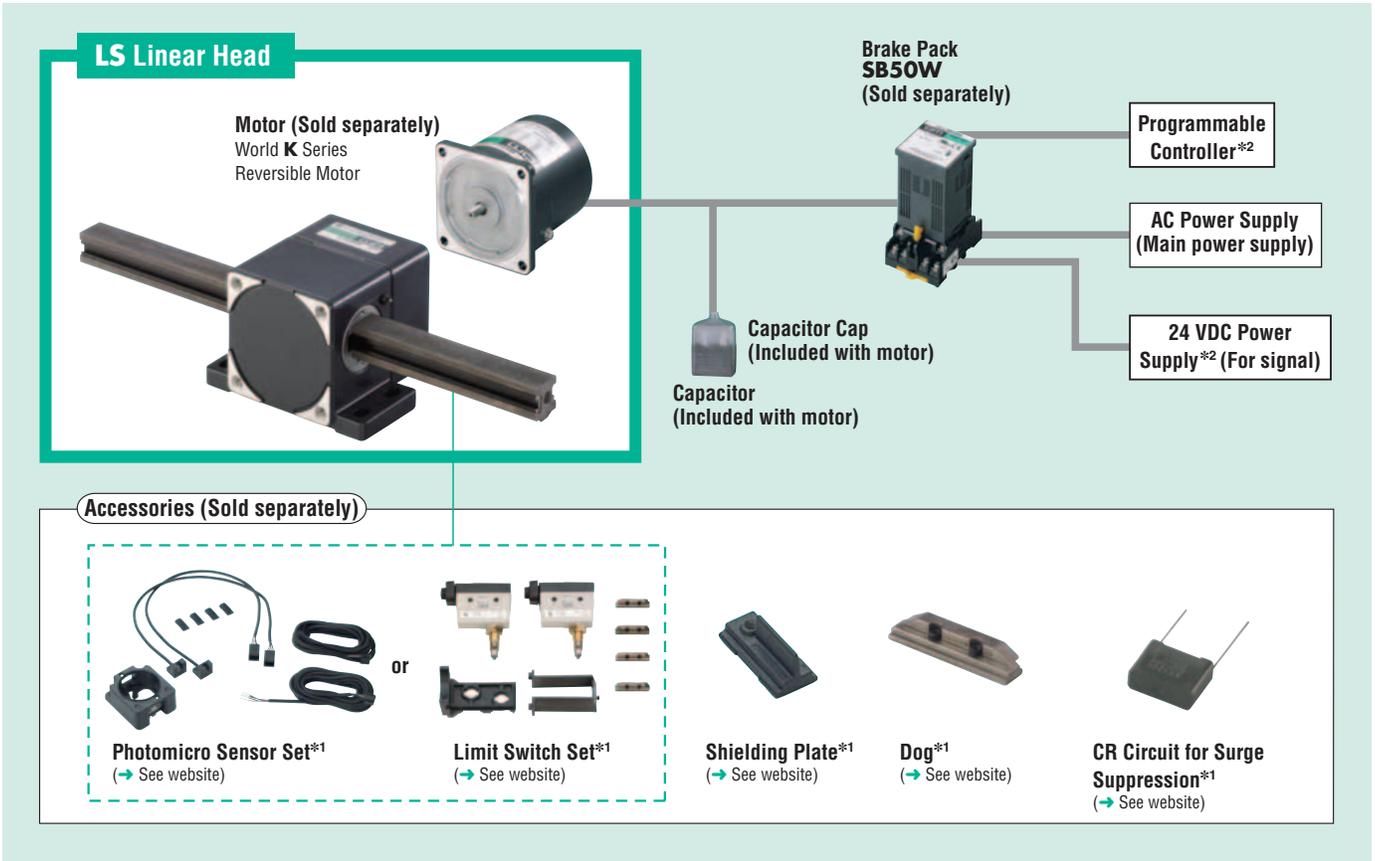
Flexible Mounting

Each model comes in two types – horizontal type and vertical type – to allow for mounting in different directions to meet various limitations on installation. Choose the type that best suits your system.



System Configuration

An example of a system configuration with the **LS** linear head and a standard AC motor World **K** Series.



Example of System Configuration

LS Linear Head	Sold Separately	+	Sold Separately	
	World K Series Reversible Motor		Photomicro Sensor Set	Brake Pack
4LSB10-2	4RK25GN-AW2U		PARP-PS4	SB50W

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

*1 For accessory details on these products please either refer to our website, contact technical support or your nearest Oriental Motor sales office. www.orientalmotor.com

*2 Not supplied

Product Number Code

2 LS F 10 - 2

① ② ③ ④ ⑤

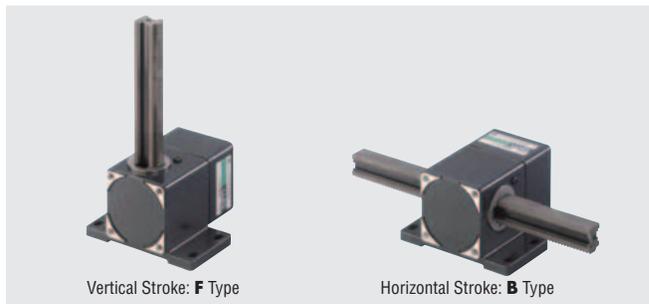
①	2 : Can be combined with GN pinion motors of frame size 60 mm (2.36 in.) 4 : Can be combined with GN pinion motors of frame size 80 mm (3.15 in.)
②	LS : LS Linear Head
③	Traveling Direction of Rack F : The rack travels vertically to the mounting flange B : The rack travels horizontally to the mounting flange
④	Basic Speed of Rack 10 : 10 mm/s (0.39 inch/s) 20 : 20 mm/s (0.79 inch/s) 45 : 45 mm/s (1.77 inch/s)
⑤	Stroke 1 : 100 mm (3.94 in.) 2 : 200 mm (7.87 in.) 3 : 300 mm (11.81 in.) 4 : 400 mm (15.75 in.) 5 : 500 mm (19.69 in.) 6 : 600 mm (23.62 in.) 7 : 700 mm (27.56 in.) 8 : 800 mm (31.50 in.) 9 : 900 mm (35.43 in.) 10 : 1000 mm (39.37 in.)

LS Linear Heads

2LS Type

Maximum Transportable Mass: 30 kg (66 lb.)

The maximum transportable mass varies with basic speed and the motor combined.



Product Line

Stroke mm (inch)	Model		
	Basic Speed mm/s (inch/s)		
	10 (0.39)	20 (0.79)	45 (1.77)
100 (3.94)	2LS □ 10-1	2LS □ 20-1	2LS □ 45-1
200 (7.87)	2LS □ 10-2	2LS □ 20-2	2LS □ 45-2
300 (11.81)	2LS □ 10-3	2LS □ 20-3	2LS □ 45-3
400 (15.75)	2LS □ 10-4	2LS □ 20-4	2LS □ 45-4
500 (19.69)	2LS □ 10-5	2LS □ 20-5	2LS □ 45-5
600 (23.62)	2LS □ 10-6	2LS □ 20-6	2LS □ 45-6
700 (27.56)	2LS □ 10-7	2LS □ 20-7	2LS □ 45-7
800 (31.50)	2LS □ 10-8	2LS □ 20-8	2LS □ 45-8

The following items are included in each product.
Linear Head, Operating Manual

● Enter **F** or **B** (traveling direction of rack) in the box (□) within the model name.

Applicable Products

Application	Applicable Product	Single-Phase 110/115 VAC	Single-Phase 220/230 VAC	Three-Phase 200/220/230 VAC	Page
Constant Speed	Reversible motor*1	2RK6GN-AW2U	2RK6GN-CW2E	-	C-84
Position Holding	Electromagnetic brake motor*1	2RK6GN-AW2MU	2RK6GN-CW2ME	2IK6GN-SW2M	C-116
Variable Speed	Speed control motor	ES01/2RK6RGN-AW2U	ES02/2RK6RGN-CW2E	-	D-192
Pushing*2	Torque motor	2TK3GN-AW2U	2TK3GN-CW2E	-	C-213

*1 Single-phase motors can be combined with the brake pack **SB50W** capable of instantaneous stop, bi-directional operation and electromagnetic brake control.

Brake pack **SB50W** → Page C-253

*2 Do not hit and stop an object because the output torque becomes very large while using a motor in a constrained operation. It may cause damage to the linear head due to the impact.

Note

● When the decimal gearhead **2GN10XS** is used, use the mounting screws included with the decimal gearhead.

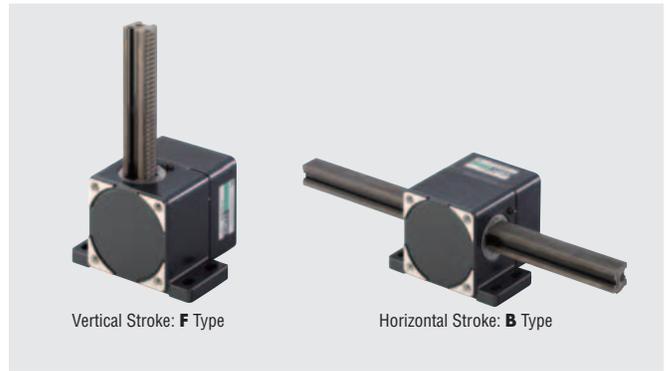
For details (specifications, characteristics, dimensions and others) on these products please refer either to our website, contact technical support or your nearest Oriental Motor sales office.
www.orientalmotor.com

LS Linear Heads

4LS Type

Maximum Transportable Mass: 100 kg (220 lb.)

The maximum transportable mass varies with basic speed and the motor combined.



Vertical Stroke: **F** Type

Horizontal Stroke: **B** Type

Product Line

Stroke mm (inch)	Model		
	Basic Speed mm/s (inch/s)		
	10 (0.39)	20 (0.79)	45 (1.77)
100 (3.94)	4LS □ 10-1	4LS □ 20-1	4LS □ 45-1
200 (7.87)	4LS □ 10-2	4LS □ 20-2	4LS □ 45-2
300 (11.81)	4LS □ 10-3	4LS □ 20-3	4LS □ 45-3
400 (15.75)	4LS □ 10-4	4LS □ 20-4	4LS □ 45-4
500 (19.69)	4LS □ 10-5	4LS □ 20-5	4LS □ 45-5
600 (23.62)	4LS □ 10-6	4LS □ 20-6	4LS □ 45-6
700 (27.56)	4LS □ 10-7	4LS □ 20-7	4LS □ 45-7
800 (31.50)	4LS □ 10-8	4LS □ 20-8	4LS □ 45-8
900 (35.43)	4LS □ 10-9	4LS □ 20-9	4LS □ 45-9
1000 (39.37)	4LS □ 10-10	4LS □ 20-10	4LS □ 45-10

● Enter **F** or **B** (traveling direction of rack) in the box (□) within the model name.

The following items are included in each product.
Linear Head, Operating Manual

Applicable Products

Application	Applicable Product	Single-Phase 110/115 VAC	Single-Phase 220/230 VAC	Three-Phase 200/220/230 VAC	Page
Constant Speed	Reversible motor*1	Lead wire type	4RK25GN-AW2U	4RK25GN-CW2E	C-90
		Terminal box type	4RK25GN-AW2TU	4RK25GN-CW2TE	
Position Holding	Electromagnetic brake motor*1	4RK25GN-AW2MU	4RK25GN-CW2ME	4IK25GN-SW2M	C-124
Variable Speed	Speed control motor	ES01/4RK25RGN-AW2U	ES02/4RK25RGN-CW2E	-	D-192
Pushing*2	Torque motor	4TK10GN-AW2U	4TK10GN-CW2E	-	C-213

*1 Single-phase motors can be combined with the brake pack **SB50W** capable of instantaneous stop, bi-directional operation and electromagnetic brake control.
Brake Pack **SB50W** → Page C-253

*2 Do not hit and stop an object because the output torque becomes very large while using a motor in a constrained operation. It may cause damage to the linear head due to the impact.

Note

● When the decimal gearhead **4GN10XS** is used, use the mounting screws included with the decimal gearhead.

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