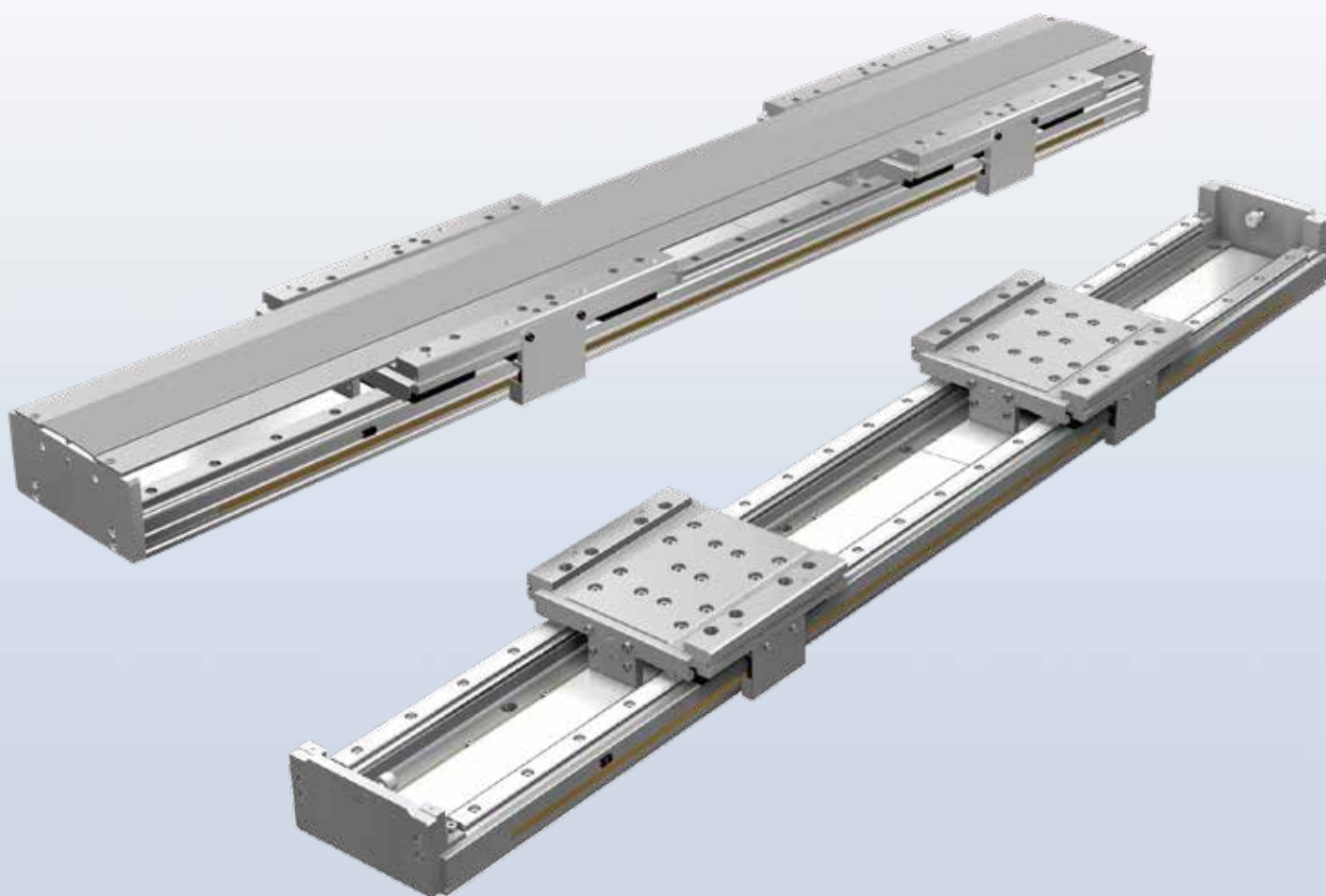Semi-custom order series
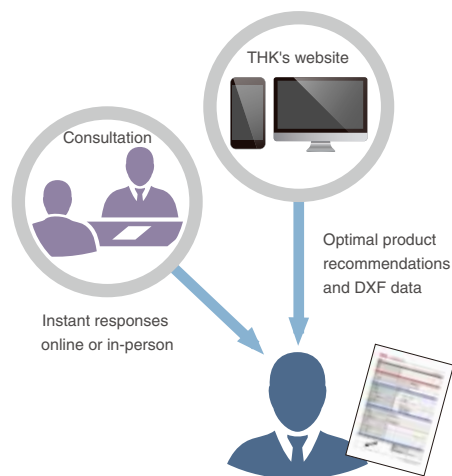
GLM-AP

Linear Motor Actuator

Three Key Features

1 **Frequently requested specifications are now standard options, making it even easier to select a linear motor actuator.**

2 **Choosing scaleless specifications will reduce the cost of the linear motor actuator.**

3 **Quotes and CAD data are available in as little as one day.**

THK's website

Consultation

Optimal product recommendations and DXF data

Instant responses online or in-person
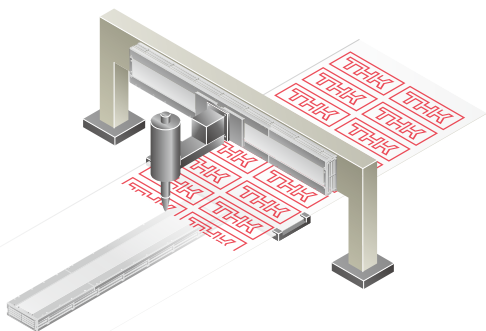
Applications

| Liquid crystal | Electronic components | Automobile components | Medicine | General industry |

Benefits
- Highly consistent speed
- Compatible with multiple sliders

Benefits
- Supports high-speed transportation with long strokes
- Compatible with multiple sliders

Benefits
- High positioning acuracy
- Capable of rapid acceleration/deceleration
- Low dust generation

Benefits
- Supports high-speed transportation with long strokes
- Highly suited for clean environments
- Compatible with multiple sliders
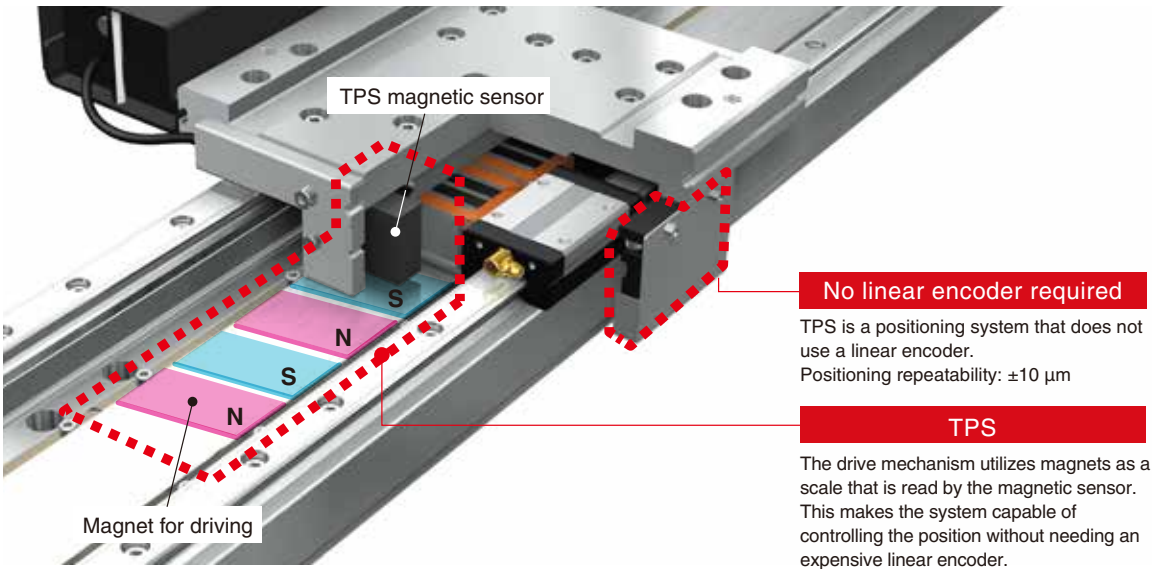
Model Number Configuration

Model	Number of sliders/ Count-up direction [1]	Stroke [2]	Encoder	Driver [3]	Cover	Sensor [4]	Cable chain	Cable length [5]	LM Guide option	Grease/ Anti-rust oil [6]
GLM15AP	SL	0300	A	M4	C	2	Q1	03	D	EE

Model	Number of sliders/ Count-up direction [1]	Stroke [2]	Encoder	Driver [3]	Cover	Sensor [4]	Cable chain	Cable length [5]	LM Guide option	Grease/ Anti-rust oil [6]
GLM15AP GLM20AP	(Example) SL: 1 S type slider/ Left direction Slider Type: GLM15AP: S, M GLM20AP: S, M, L Number of Sliders: 1 or 2 Count-Up Direction: L: Left R: Right I: Inward (for 2 sliders) O: Outward (for 2 sliders)	(Example) 0300: 300 mm GLM15AP: 0120 to 1940: 120 mm to 1940 mm GLM20AP: 0120 to 2650: 120 mm to 2650 mm	A: Absolute L: Scaleless	M4: Mitsubishi J4 SSCNET III/H MN: No driver (To be prepared by the customer) T: THK TDP	C: Cover N: None	2: Photo sensor H: Proximity sensor A L: Proximity sensor B J: Proximity sensor C M: Proximity sensor D N: None	Q1: igus E6.29 N: None	03: 3 m 05: 5 m 10: 10 m 15: 15 m N: None	D: AP-C coating N: None	E: AFE-CA/ Anti-rust oil EE: AFE-CA F: AFF/ Anti-rust oil FF: AFF J: AFJ/ Anti-rust oil JJ: AFJ

[1] Contact THK for details about the count-up direction.
[2] Please refer to the back page for information about the stroke. Contact THK for details.
[3] For MN, please prepare a Mitsubishi servo amplifier. Contact THK for details about the amplifier model to order.
[4] Proximity sensor A: A contact x3
  Proximity sensor B: B contact x3
  Proximity sensor C: A contact x1, B contact x2
  Proximity sensor D: A contact x1, B contact x2 (PNP)
[5] The cable length refers to the distance between the mechanical part and the driver.
[6] AFE-CA: For clean room use (low dust generation)
  AFF: For clean room use (stable rolling resistance)
  AFJ: General environments and high-speed applications (low sliding resistance when driven at high speeds)

Customization Overview

Mechatronic part		Control unit	
Specification	Linear encoder	Driver	Communication method
GLM15AP GLM20AP	Scaleless	MR-J4 (Mitsubishi)	SSCNET III/H
		TDP (THK)	Pulse
	Absolute	MR-J4 (Mitsubishi)	SSCNET III/H

● Scaleless Specifications

TPS magnetic sensor

No linear encoder required

TPS is a positioning system that does not use a linear encoder.
Positioning repeatability: ±10 μm

TPS

The drive mechanism utilizes magnets as a scale that is read by the magnetic sensor. This makes the system capable of controlling the position without needing an expensive linear encoder.

Magnet for driving

Product Specifications

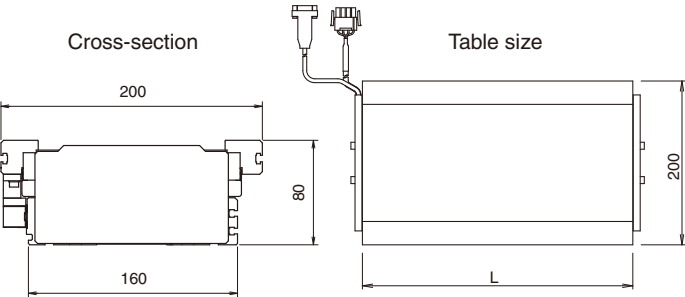|		GLM15AP		GLM20AP		
		S	M	S	M	L
Stroke (mm)	1 slider	300 to 1940	220 to 1860	130 to 2650	160 to 2500	200 to 2360
	2 sliders	120 to 1760	200 to 1600	240 to 2400	120 to 2100	200 to 1820
Maximum thrust (N)		152	283	312	573	893
Rated thrust (N)		42	89	108	202	320
Maximum speed (mm/s)		3000		4000[1]		
Positioning repeatability (mm)		±0.001(absolute)/±0.01(scaleless)				
Maximum load capacity[2] (kg)		20	39	42	79	125

1 When selecting M4 (Mitsubishi MRJ4) or MN (No driver) for the driver and A (Absolute) for the linear encoder, the maximum speed will be 4 m/s.
   The maximum speed for any other combination will be 3 m/s.
2 The maximum load capacity is the weight the system can transport at an acceleration of 0.5 G and a maximum achieved speed of 1 m/s.
   Changing the usage conditions will affect the maximum load capacity. THK can perform this calculation upon request.

Model Configurations

GLM15AP

Cross-section   Table size

154
75.6
120
154
L

GLM20AP

Cross-section   Table size

200
80
160
200
L
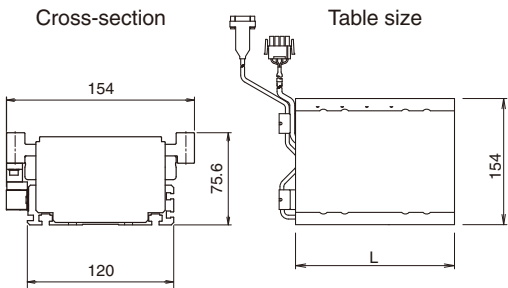
Unit: mm

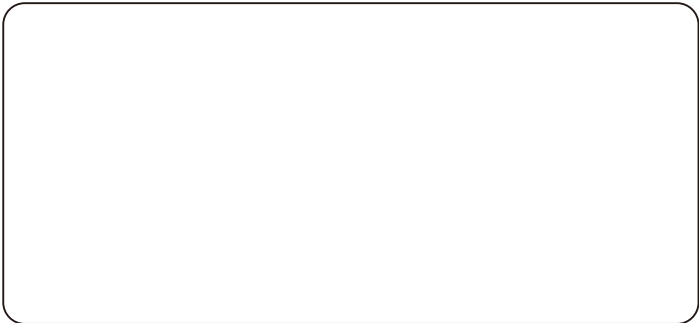|	GLM15AP		GLM20AP		
	S	M	S	M	L
Table size L	116	194	180	330	470

Full-Cover Type Introduction

● Full-Cover ULM15/20

This product is perfect for using near devices that generate dust or in equipment that needs to be completely covered in order to ensure worker safety.
Contact THK for details.

ULM15/ULM20

Contact:

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