GTH5 User Manual

Embedded Ball Screw Linear Motion Module | 54mm Width

Features

- Compact linear actuator with a built-in guide rail.
- Compatible with 40mm-frame 100W servo motors (sold separately).
- Front motor mounting bracket with custom left- or right-side mounting options.

Specifications

Model: GTH5

Module Width: 54mm

Effective Stroke: 50mm–800mm

Overall Length Range: 270.5mm–1020.5mm

Unit Weight: 1.65kg–4.09kg, depending on stroke

Motor Mounting Bolt Circle Diameter: 46mm

Ball Screw Outer Diameter: 12mm

Ball Screw Accuracy Grade: C7

Ball Screw Lead: 5mm/rev or 10mm/rev

Maximum Speed: 250mm/s (5mm lead), 500mm/s (10mm lead)

Maximum Horizontal Payload: 30kg (5mm lead), 15kg (10mm lead)

Maximum Vertical Payload: 10kg (5mm lead), 5kg (10mm lead)

Rated Thrust: 341N (5mm lead), 170N (10mm lead)

Motor is sold separately.

TOYO GTH5 Series Linear Actuator

GTH5 Product Specifications



- **Repeatability** ±0.03 mm
- **Effective Stroke** 50 – 800 mm
- **Maximum Speed** 250 / 500 mm/s
- **Maximum Payload** 30 kg / 10 kg

Specifications

Model		GTH5	
Repeatability (mm)		±0.03	
Ball Screw Lead (mm)		5	10
Maximum Speed (mm/s)		250	500
Maximum Payload	Horizontal (kg)	30	15
	Vertical (kg)	10	5
Rated Thrust (N)		341	170
Effective Stroke (mm)		50 – 800	
Total Length (mm)		Effective Stroke + 220.5	
Motor Bracket Matching Type		40 mm 100 W Servo Motor (Installation Circle Diameter 46 mm)	
Ball Screw Outside Diameter (mm)		C7 ϕ12 mm	

https://www.oyostepper.com

GTH5 Configuration – 5mm Ball Screw Lead

TOYO®

GTH5 Linear Actuator

GTH5 Small Model



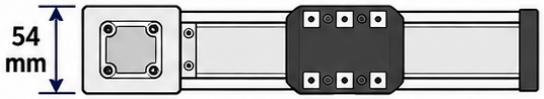
Repeatability: ±0.005 mm

Specifications

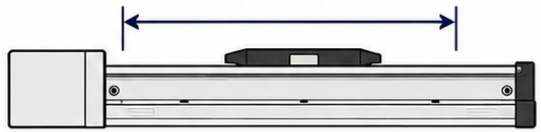
Module Width	54 mm
Ball Screw Lead	5 mm / turn
MAX. Speed	250 mm/s
Effective Stroke	50 mm – 800 mm
MAX. Horizontal Payload	30 kg
MAX. Vertical Payload	10 kg
Applicable Motor Type	100 W Servo Motor (Not included)
Outer Diameter of Ball Screw	12 mm

Dimensions

Module Width: 54 mm



Effective Stroke:
50 mm – 800 mm



GTH5 Configuration – 10mm Ball Screw Lead

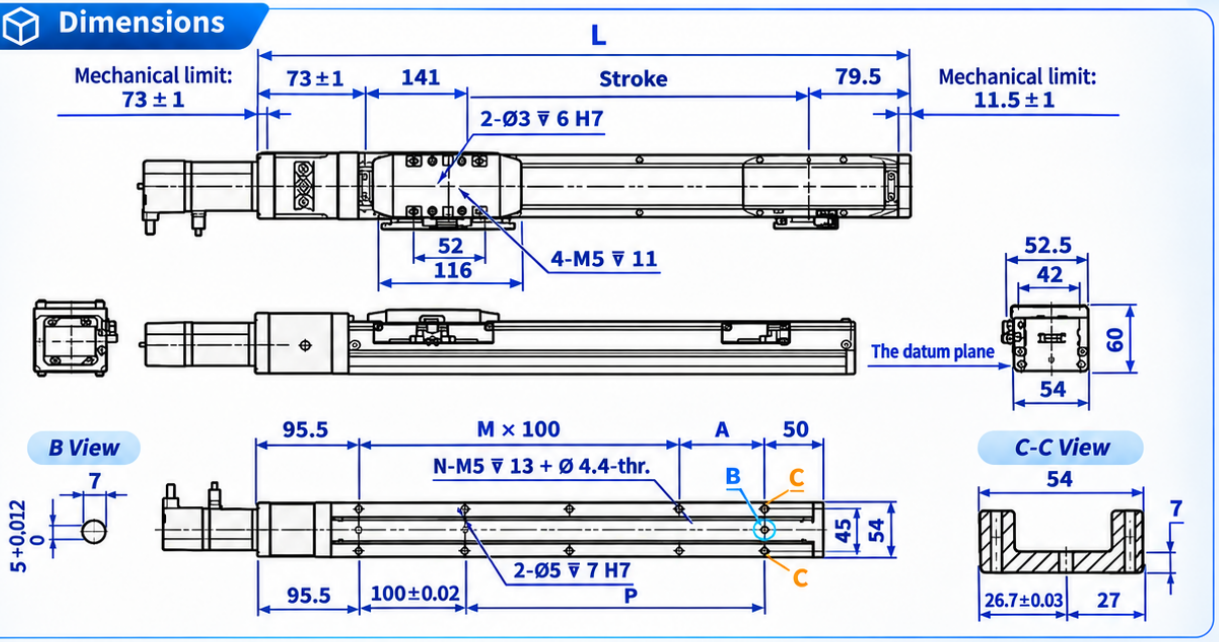


GTH5 Dimensions and Specification Table

GTH5 | 54 mm Width Rail Built-in Linear Motion Stage

Motor front mounting bracket | (Supports customized left/right motor mounting bracket)

Dimensions



Specification Table

Stroke (mm)	50	100	150	200	250	300	350	400	450	500	550	600	650	700	800
L	270.5	320.5	370.5	420.5	470.5	520.5	570.5	620.5	670.5	720.5	770.5	820.5	870.5	970.5	1020.5
A	25	75	25	75	25	75	25	75	25	75	25	75	25	75	75
M	1	1	2	2	3	3	4	4	5	5	6	6	7	7	8
N	6	6	8	8	10	10	12	12	14	14	16	16	18	18	20
P	25	75	125	175	225	275	325	375	425	475	525	575	625	675	775
KG	1.65	1.79	1.92	2.11	2.39	2.50	2.52	2.75	2.86	2.95	3.15	3.28	3.44	3.58	4.09

Note | When the stroke is 50 mm, if fixing the body from the top to the bottom, the fixing hole will be blocked slider and only can be uses 4 screws to fix; as a result, suggest that fixing actuator body from the bottom to the top.