GTH8 User Manual

Ball Screw Linear Motion Module | 82mm Width

Features

- 82mm width linear actuator.
- Ball screw drive mechanism.
- Three ball screw lead options: 5mm, 10mm, and 20mm.
- Compatible with 200W AC servo motors.
- Compatible with 60mm servo motor mounting brackets.
- Supports front, left, or right motor mounting configurations.
- Effective stroke options from 50mm to 1100mm.

Specifications

Model: GTH8

Module Width: 82mm

Repeatability: ±0.03mm

Ball Screw Lead: 5mm / 10mm / 20mm

Maximum Speed: 250mm/s / 500mm/s / 1000mm/s

Maximum Horizontal Payload: 50kg / 30kg / 18kg

Maximum Vertical Payload: 15kg / 8kg / 3kg

Rated Thrust: 683N / 341N / 170N

Effective Stroke: 50–1100mm

Total Length: Effective Stroke + 278mm

Ball Screw Diameter: 16mm

Compatible Motor: 200W AC Servo Motor

Motor Mounting Input: 60mm Servo Motor Interface

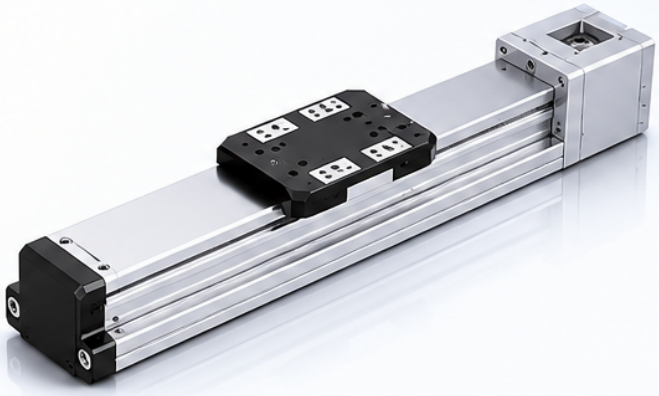
Contact Us

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TOYO®

GTH8 Series Linear Actuator

GTH8
Product Specifications



±0.03 mm
Repeatability

250 – 1000 mm/s
Max. Speed

50 – 18 kg
Max. Payload

50 – 1100 mm
Effective Stroke

Model		GTH8		
Repeatability (mm)		±0.03		
Ball Screw Lead (mm)		5	10	20
Maximum Speed (mm/s)		250	500	1000
Maximum Payload	Horizontal (kg)	50	30	18
	Vertical (kg)	15	8	3
Rated Thrust (N)		683	341	170
Effective Stroke (mm)		50 – 1100		
Total Length (mm)		Effective Stroke + 278		
Motor bracket Matching type		60mm 200W servo motor		
Ball screw outside diameter (mm)		C7 ø16mm		

GTH8 Configuration – 5mm Ball Screw Lead

TOYO® GTH8 Medium Linear Actuator

GTH8
Medium Model



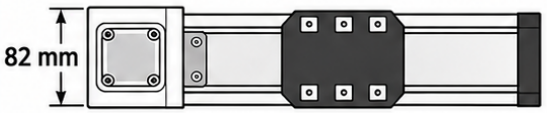
Repeatability
±0.005 mm

Specifications

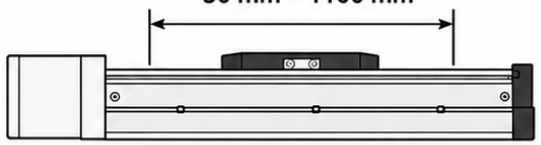
Module Width	82 mm
Ball Screw Lead	5 mm / turn
MAX. Speed	250 mm/s
Effective Stroke	50 mm – 1100 mm
MAX. Horizontal Payload	50 kg
MAX. Vertical Payload	15 kg
Applicable Motor Type	200 W Servo Motor (Not included)
Outer Diameter of Ball Screw	16 mm

Main Dimensions

Module Width: 82 mm



Effective Stroke:
50 mm – 1100 mm



GTH8 Configuration – 10mm Ball Screw Lead

TOYO | GTH8 Linear Actuator

GTH8 Medium

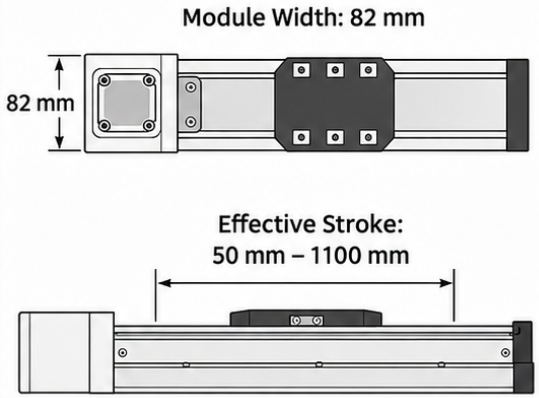


Repeatability:
±0.005 mm

Specifications

Module Width	82 mm
Ball Screw Lead	10 mm / turn
MAX. Speed	500 mm/s
Effective Stroke	50 mm – 1100 mm
MAX. Horizontal Payload	30 kg
MAX. Vertical Payload	8 kg
Applicable Motor Type	200 W Servo Motor (Not included)
Outer Diameter of Ball Screw	16 mm

Main Dimensions



GTH8 Configuration – 20mm Ball Screw Lead

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GTH8 Linear Actuator

GTH8 Medium



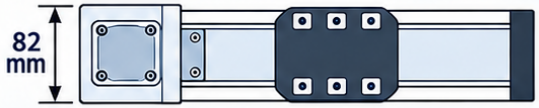
Repeatability: ±0.005 mm

Specifications

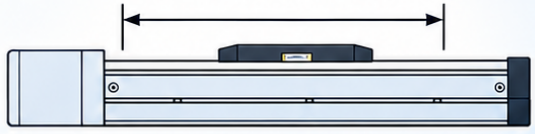
Module Width	82 mm
Ball Screw Lead	20 mm / turn
MAX. Speed	1000 mm/s
Effective Stroke	50 mm – 1100 mm
MAX. Horizontal Payload	180 kg
MAX. Vertical Payload	3 kg
Applicable Motor Type	200 W Servo Motor (Not include)
Outer Diameter of Ball Screw	16 mm

Dimensions

Module Width: 82 mm



Effective Stroke:
50 mm – 1100 mm

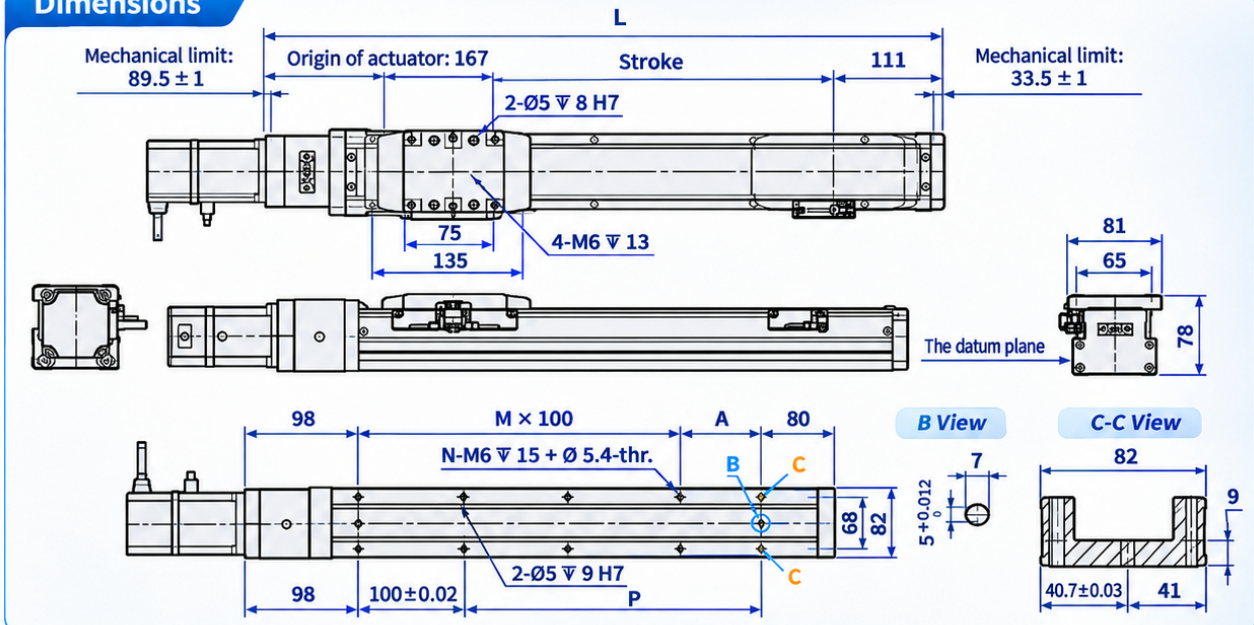


GTH8 Dimensions and Specification Table

GTH8 | 82 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	750	800	850	900	950	1000	1050	1100
L	328	378	428	478	528	578	628	678	728	778	828	878	928	978	1028	1078	1128	1178	1228	1278	1328	1378
A	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100
M	1	1	2	2	3	3	4	4	5	5	6	6	7	7	8	8	9	9	10	10	11	11
N	6	6	8	8	10	10	12	12	14	14	16	16	18	18	20	20	22	22	24	24	26	26
P	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100
KG	3.91	4.29	4.70	5.00	5.35	5.68	6.00	6.35	6.35	6.97	7.41	7.71	8.12	8.41	8.65	8.96	9.37	9.62	10.01	10.28	10.70	11.12

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