

EC-GS4

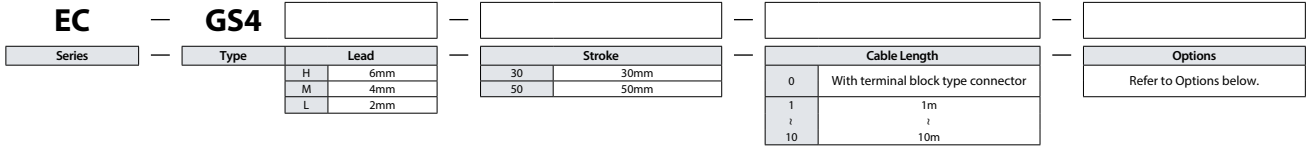
Mini



Body width
55 mm

24v
Stepper motor

Model Specification Items



The above photo shows a right side-mount (GT2).



- (1) The actuator specifications display the payload's maximum value, but it will vary depending on the acceleration and speed. Please refer to "Table of Payload by Speed/Acceleration" for more details.
- (2) The value for horizontal payload assumes the use of an external guide so that radial and moment loads are not applied on the rod. If a guide is not installed, please refer to the "Correlation between Radial Load and Operation Life" (P111).
- (3) When performing a push-motion operation, please refer to the "Correlation between push force and current limit value." Push force is only a guide. Please refer to P115 for cautions.
- (4) Please make sure to select an option code from the option price list below for the guide mounting direction.
- (5) Special attention needs to be paid to the mounting orientation. Please refer to P33 for details.

Stroke (mm)	EC-GS4
30	○
50	○

Name	Option code	Reference page
Brake	B	See P.101
Guide right mount	GT2	See P.105
Guide bottom mount	GT3	See P.105
Guide left mount	GT4	See P.105
PNP specification	PN	See P.108
Split motor and controller power supply specification	TMD2	See P.109
Battery-less Absolute Encoder specification	WA	See P.109
Wireless communication specification	WL	See P.109
Wireless axis-operation specification	WL2	See P.109

Cable code	Cable length
0	No cable (with connector)
1 ~ 3	1 ~ 3m
4 ~ 5	4 ~ 5m
6 ~ 10	6 ~ 10m

(Note) Robot cables.

Main specifications					
Item		Description			
Lead	Ball screw lead (mm)	6	4	2	
Horizontal	Payload	Max. payload (kg)	2.5	4	8
		Max. speed (mm/s)	300	200	100
	Speed/acceleration/deceleration	Min. speed (mm/s)	7.5	5	2.5
		Rated acceleration/deceleration (G)	0.3	0.3	0.3
		Max. acceleration/deceleration (G)	0.5	0.5	0.3
Vertical	Payload	Max. payload (kg)	1	1.5	2.5
		Max. speed (mm/s)	300	200	100
	Speed/acceleration/deceleration	Min. speed (mm/s)	7.5	5	2.5
		Rated acceleration/deceleration (G)	0.3	0.3	0.3
		Max. acceleration/deceleration (G)	0.5	0.5	0.3
Push force	Pushing max. thrust force (N)*	30	45	90	
	Pushing max. speed (mm/s)	20	20	20	
Brake	Brake holding specification		Non-excitation actuating solenoid brake		
	Brake holding force (kgf)	1	1.5	2.5	
Stroke	Min. stroke (mm)	30	30	30	
	Max. stroke (mm)	50	50	50	
	Stroke pitch (mm)	20	20	20	

Item	Description
Driving system	Ball screw \varnothing 6mm, Rolling C10
Positioning repeatability	\pm 0.05mm
Lost motion	-
Rod non-rotation accuracy	-
Operational service life	5,000km or 50 million reciprocating motions
Ambient operation temperature/humidity	0~40°C, 85%RH or less (Non-condensing)
Degree of protection	IP20
Vibration & shock resistance	4.9m/s ² 100Hz or less
Overseas standards	CE marking, RoHS (Restriction of Hazardous Substances)
Motor type	Stepper motor
Encoder type	Incremental / battery-less absolute
Number of encoder pulses	800 pulse/rev

* Speed limitation applies to push motion. See the manual or contact IAI.

Table of Payload by Speed/Acceleration

Unit for payload is kg.

Lead 6

Orientation	Horizontal		Vertical	
	Speed (mm/s)	Acceleration (G)	Speed (mm/s)	Acceleration (G)
0	0.3	0.5	0.3	0.5
	2.5	2.5	1	1
300	2.5	2.5	1	1

Lead 4

Orientation	Horizontal				Vertical
	Speed (mm/s)	Acceleration (G)			
0	0.3	0.5	0.3	0.5	1.5
	4	4	1.5	1.5	
200	4	4	1.5	1.5	1.5

Lead 2

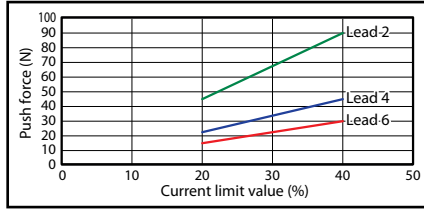
Orientation	Horizontal		Vertical
	Speed (mm/s)	Acceleration (G)	
0	0.3	0.3	2.5
	8	8	
100	8	8	2.5

Stroke and maximum speed

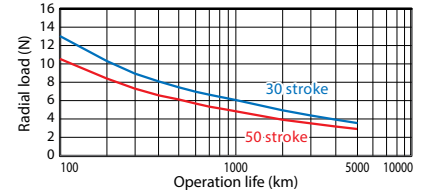
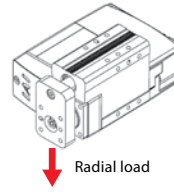
Lead (mm)	30 (mm)	50 (mm)
6	300	
4	200	
2	100	

(Unit is mm/s)

Correlation between push force and current limit value



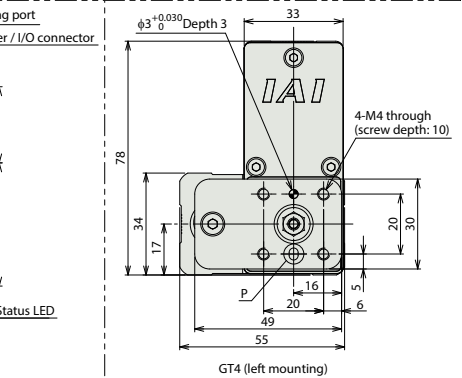
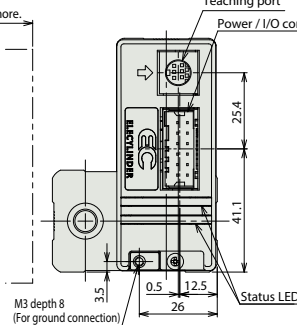
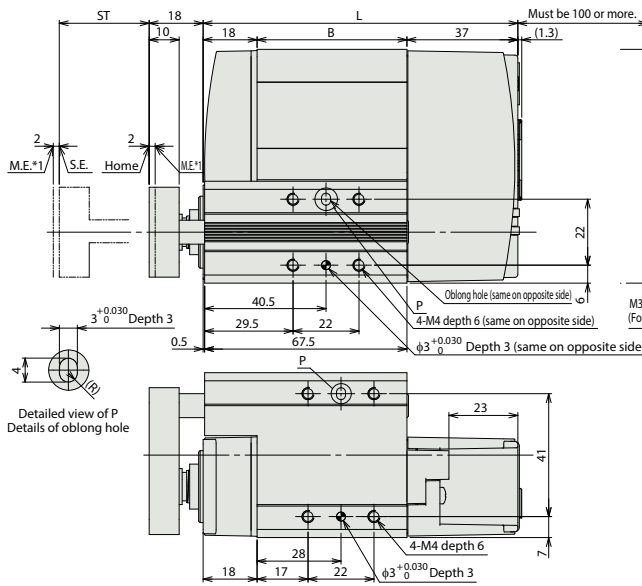
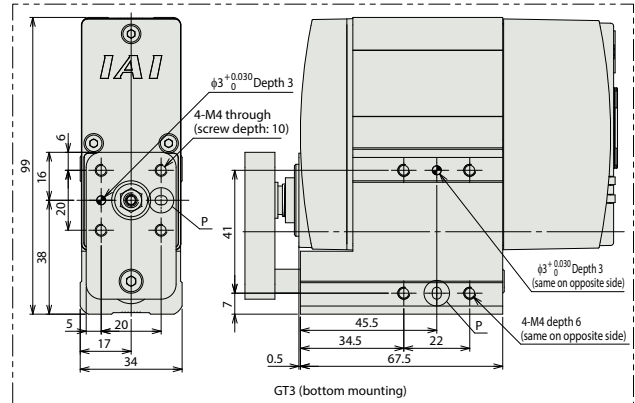
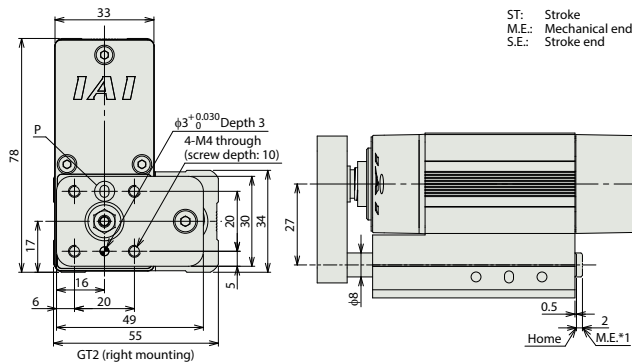
Radial load and operational service life



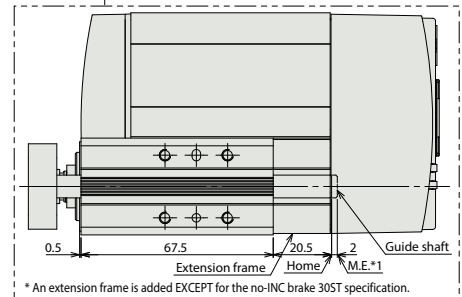
Dimensions

*1 When the rod is returning to its home position, please be careful of interference from surrounding objects, as it will travel until it reaches the M.E.

CAD drawings can be downloaded from our website.
www.intelligentactuator.com



* Compared to GT2 (right mounting), the $\phi 3$ frame positioning hole and oblong hole positions are reversed.



* An extension frame is added EXCEPT for the no-INC brake 30ST specification.

Dimensions by stroke

	Encoder type	Incremental		Battery-less absolute	
		Stroke	30	50	30
L	W/o Brake	105	125	125	125
	With Brake	135	135	155	155
B	W/o Brake	50	70	70	70
	With Brake	80	80	100	100

Mass by stroke

	Encoder type	Incremental		Battery-less absolute	
		Stroke	30	50	30
Weight (kg)	W/o Brake	0.7	0.7	0.7	0.7
	With Brake	0.8	0.8	0.9	0.9

Applicable controller

(Note) The EC series is equipped with a built-in controller. Please refer to P116 for details.