

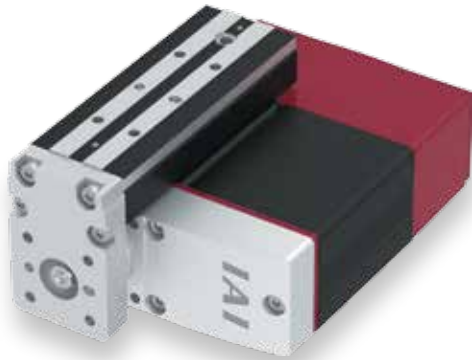
EC-TC4

Mini Side-mounted Motor Body width 78 mm 24v Stepper motor

Model Specification Items

EC — TC4

Series	Type	Lead	Stroke	Cable Length	Options
		H 6mm M 4mm L 2mm	30 30mm 50 50mm	0 With terminal block type connector 1 1m 2 2m 10 10m	Refer to Options below.



The above photo shows a left side-mount specification (GT4).



POINT Selection Notes

- 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.
- 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.
- Please make sure to select an option code from the option price list below for the table mounting direction.
- Reference value of the overhang load length is under 100mm in the table top surface of the Ma direction, under 50mm in the table front direction and under 120mm in the Mb and Mc directions.
- Special attention needs to be paid to the mounting orientation. Please refer to P33 for details.

Stroke	
Stroke (mm)	EC-TC4
30	○
50	○

Options			
Name	Option code	Reference page	
Brake	B	See P.101	
Table right mount	GT2	See P.105	
Table bottom mount	GT3	See P.105	
Table left mount	GT4	See P.105	
Non-motor end specification	NM	See P.108	
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 Length	
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
	Speed/acceleration/deceleration	Max. speed (mm/s)	300	200	100
		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
	Speed/acceleration/deceleration	Max. speed (mm/s)	300	200	100
		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	

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

Item	Description
Driving system	Ball screw ϕ 6mm, Rolling C10
Positioning repeatability	\pm 0.05mm
Lost motion	-
Static allowable moment	Ma: 5N·m
	Mb: 5N·m
	Mc: 9N·m
Dynamic allowable moment (Note 1)	Ma: 3N·m
	Mb: 3N·m
	Mc: 6N·m
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	-
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

(Note 1) Based on the standard rated operation life of 5,000 km. Operation life varies according to operating and mounting conditions. Confirm the operation life on P36.

Direction of moment for the Table type



Table of Payload by Speed/Acceleration

Unit for payload is kg.

Lead 6

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

Lead 4

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

Stroke and maximum speed

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

(Unit is mm/s)

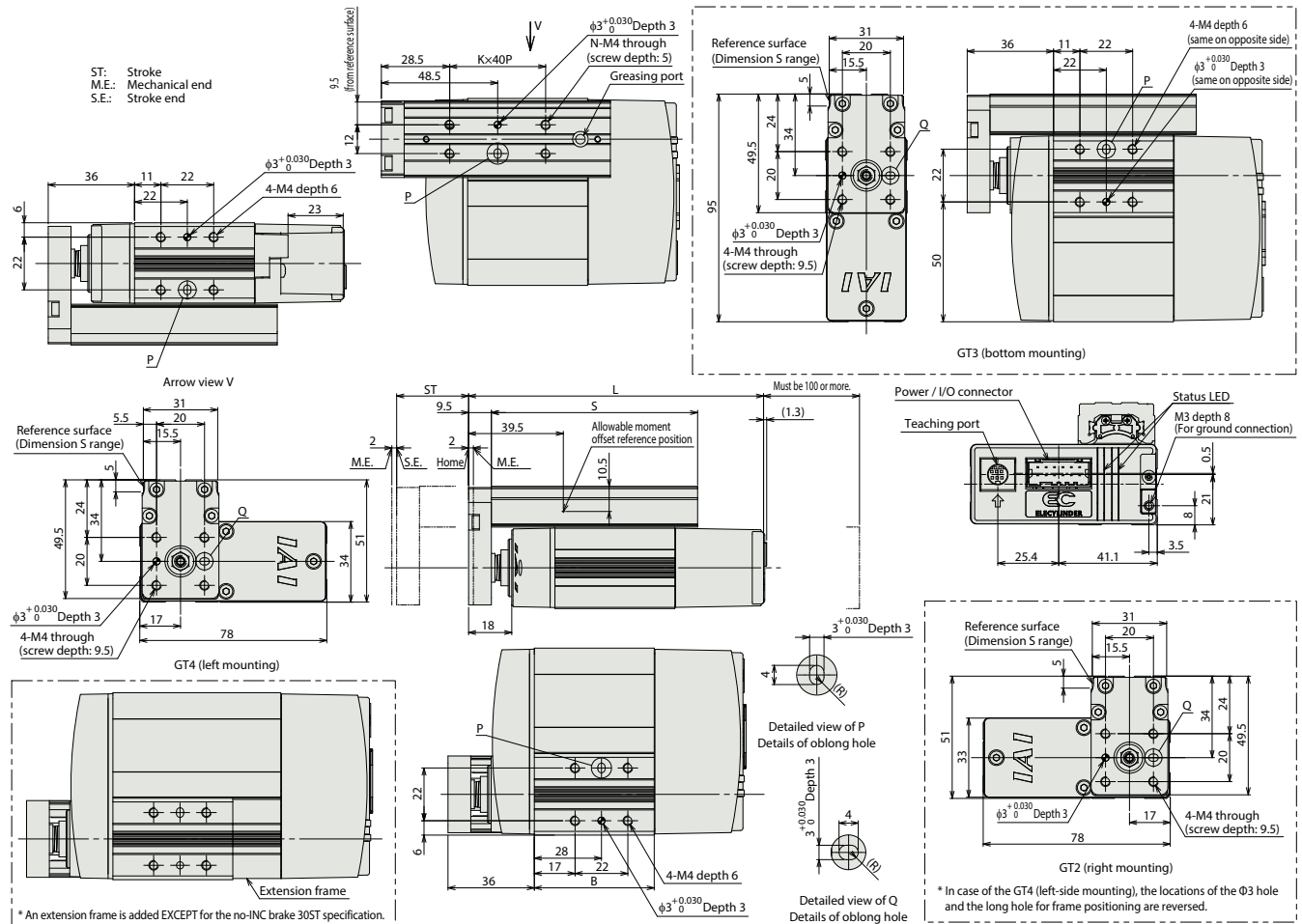
Correlation between push force and current limit value



Dimensions

(Note) When the table 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



Dimensions by stroke

Encoder type	Incremental			Battery-less absolute	
	Stroke	30	50	30	50
L	Without brake	123	143	143	143
	With brake	153	153	173	173
B	Without brake	50	70	70	70
	With brake	80	80	100	100
S		86	106	86	106
K		1	2	1	2
N		4	6	4	6

Mass by stroke

Encoder type	Incremental			Battery-less absolute	
	Stroke	30	50	30	50
Weight (kg)	Without brake	0.6	0.7	0.7	0.7
	With brake	0.8	0.8	0.8	0.8

Applicable controller

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