

# Flex Actuator

## 2-phase Stepping Motor (Uni-polar 0.95A / phase & □28) with Precision Ball Screw type Actuator

Motor Model : TS3641N11E2(Double shaft)

TAMAGAWA SEIKI

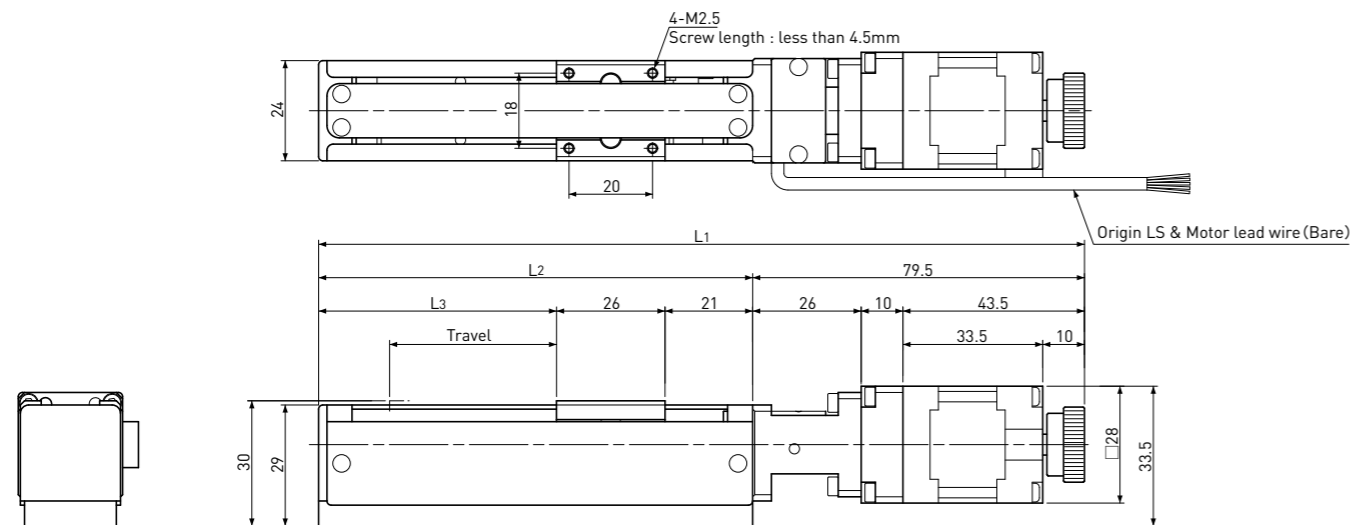
Driver recommendation : KS9110

### Connector choice

Please designate connector type below.

No connector if there is no designation.

- 1) None (Bare)
  - 2) RP17-13J-12SC (HIROSE)
  - 3) EI-Connector (Tyco Electronics)
- 172211-6 pins for Motor + 172211-4 pins for Sensor

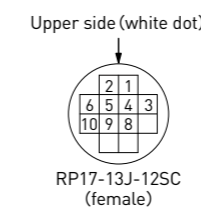


### Limit Switch

COM	Black
ORGLS Sensor	White

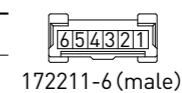
### Motor

A	Black
COM1	Yellow
A	Green
B	Red
COM2	White
B	Blue



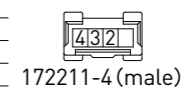
### HIROSE RP17 Connector

1	Stepping Motor COM1 (Yellow)
2	Stepping Motor COM2 (White)
3	Stepping Motor A (Black)
4	Stepping Motor A (Green)
5	Stepping Motor B (Red)
6	Stepping Motor B (Blue)
7	None
8	COM (Black)
9	Short circuit with No.8
10	ORGLS Sensor NC (White)
11	None
12	None



### EI Connector

1	Stepping Motor COM1 (Yellow)
2	Stepping Motor COM2 (White)
3	Stepping Motor A (Black)
4	Stepping Motor A (Green)
5	Stepping Motor B (Red)
6	Stepping Motor B (Blue)
1	None
2	COM (Black)
3	Short circuit with No.2
4	ORGLS Sensor NC (White)



### Note

- 1) Acceleration & deceleration rate is our recommendation.
- 2) There should be no condensation when using.
- 3) Permissible Moment is the number when no load in other direction.
- 4) Resolution represents the values for full step.
- 5) Model number is for no-connector and lead wire is set on right side on Motor

Model Number	Travel (mm)	Screw Lead (mm)	Resolution (μm)	Length (mm)			M-thread hole		Max. Load Capacity (N)		Permissible speed (mm / sec)	Mass (g)
				L <sub>1</sub>	L <sub>2</sub>	L <sub>3</sub>	F	N	Hor.	Vert.		
FAS-G010-020TNR	20	1	5	163.5	84	37	1	4	29.4	19.6	2 ~ 25	275
FAS-G010-040TNR	40	1	5	183.5	104	57	1	4	29.4	19.6	2 ~ 25	295
FAS-G020-040TNR		2	10						29.4	19.6	4 ~ 50	
FAS-G060-040TNR		6	30						19.6	9.8	12 ~ 150	
FAS-G100-040TNR		10	50						19.6	4.9	20 ~ 250	
FAS-G010-080TNR	80	1	5	223.5	144	97	2	6	29.4	19.6	2 ~ 25	340
FAS-G020-080TNR		2	10						29.4	19.6	4 ~ 50	
FAS-G060-080TNR		6	30						19.6	9.8	12 ~ 150	
FAS-G100-080TNR		10	50						19.6	4.9	20 ~ 250	
FAS-G060-120TNR	120	6	30	263.5	184	137	3	8	19.6	9.8	12 ~ 150	380
FAS-G100-120TNR		10	50						19.6	4.9	20 ~ 250	
FAS-G060-160TNR	160	6	30	303.5	224	177	4	10	19.6	9.8	12 ~ 150	425
FAS-G100-160TNR		10	50						19.6	4.9	20 ~ 250	
FAS-G060-200TNR	200	6	30	343.5	264	217	5	12	19.6	9.8	12 ~ 150	465
FAS-G100-200TNR		10	50						19.6	4.9	20 ~ 250	

Note) Refer to page G134 for connection diagram of recommended Driver (KS9110).

Common Specifications	
Repeatability	Max. ±0.005mm
Lost Motion	Max. 0.005mm
Body Material	Aluminum
Sliding guide	Slide Guide rail
Sensor	Limit switch
Accuracy of Zero pt. return	Max. ±0.01mm
Acceleration & Deceleration Rate	Min. 50ms / kHz
Permissible Moment	
Pitching Mp	0.10Nm
Yawing My	0.09Nm
Rolling Mr	0.23Nm
Lubrication	Grease MSG No.2(KSS)
Operating Temp.	0 ~ 40°C