STH04 Slide table type

CE compliance | Origin on the non-motor side is selectable

Ordering method

STH04 - [Model] - [Lead] - [Model] - [Brake Note 1] - [Origin position] - [Bracket plate Note 3] - [Stroke] - [Cable length Note 4] - [S2 / SH / SD]

Model	Lead	Model	Brake Note 1	Origin position	Bracket plate Note 3	Stroke	Cable length Note 4
	05: 5mm 10: 10mm	S: Straight model R: Space-saving model (motor installed on right) L: Space-saving model (motor installed on left)	N: With no brake B: With brake	N: Standard Note 2 Z: Non-motor side	N: No plate H: With plate	50: 50mm 100: 100mm	1K: 1m 3K: 3m 5K: 5m 10K: 10m

S2

Robot positioner	I/O
S2: TS-S2 Note 5	NP: NPN PN: PNP CC: CC-Link DN: DeviceNet™ EP: EtherNet/IP™ PT: PROFINET GW: No I/O board Note 7

SH

Robot positioner	I/O	Battery
SH: TS-SH	NP: NPN PN: PNP CC: CC-Link DN: DeviceNet™ EP: EtherNet/IP™ PT: PROFINET GW: No I/O board Note 7	B: With battery (Absolute) N: None (Incremental)

SD

Robot driver	I/O cable
SD: TS-SD Note 6	1: 1m

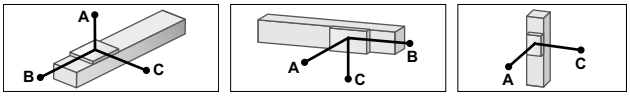
Note 1. For the space saving models (R and L), the specifications with brake are applicable to only 100mm strokes.
Note 2. If changing from the origin position at the time of purchase, the machine reference amount must be reset. For details, refer to the manual.
Note 3. Space-saving models (R and L) with the plate cannot be selected.
Note 4. The robot cable is flexible and resists bending.
Note 5. See P.600 for DIN rail mounting bracket.
Note 6. The robot with the brake cannot use the TS-SD.
Note 7. Select this selection when using the gateway function.

Basic specifications

Motor		28 □ Step motor	
Resolution (Pulse/rotation)		4096	
Repeatability Note 1 (mm)		+/-0.05	
Drive method	Straight	Slide screw	
	Space-saving	Slide screw + belt	
Ball screw lead (mm)		5	10
Maximum speed Note 2 (mm/sec)		200	400
Maximum payload (kg)	Horizontal	6	4
	Vertical	2	1
Max. pressing force (N)		55	30
Stroke (mm)		50/100	
Maximum outside dimension of body cross-section (mm)	Straight	W45 × H46	
	Space-saving	W74.5 × H51	
Cable length (m)		Standard: 1 / Option: 3, 5, 10	

Note 1. Positioning repeatability in one direction.
Note 2. The maximum speed needs to be changed in accordance with the payload.
See the "Speed vs. payload" graph shown on the right.
For details, see P. 336.

Allowable overhang Note



Horizontal installation (Unit: mm)

		A	B	C
Lead 10	2kg	1534	611	415
	3kg	949	374	255
	4kg	656	255	175
Lead 5	2kg	1534	611	415
	4kg	656	255	175
	6kg	364	137	95

Wall installation (Unit: mm)

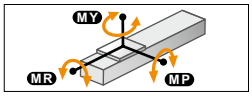
		A	B	C
Lead 10	2kg	435	595	1504
	3kg	263	359	920
	4kg	177	241	629
Lead 5	2kg	435	595	1504
	4kg	177	241	629
	6kg	91	123	337

Vertical installation (Unit: mm)

		A	C
Lead 10	0.5kg	2000	2000
	0.75kg	1558	1558
	1kg	1165	1164
Lead 5	1kg	1165	1164
	1.5kg	771	771
	2kg	574	574

Note. Overhang at travelling service life of 3000km.
(Service life is calculated for 75mm stroke models.)

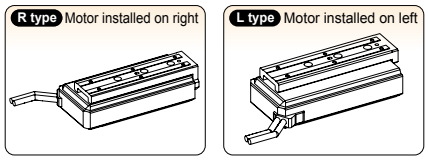
Static loading moment



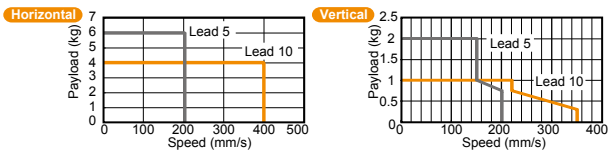
(Unit: N·m)

Stroke	MY	MP	MR
50mm	26	26	48
100mm	43	43	

Motor installation (Space-saving model)



Speed vs. payload

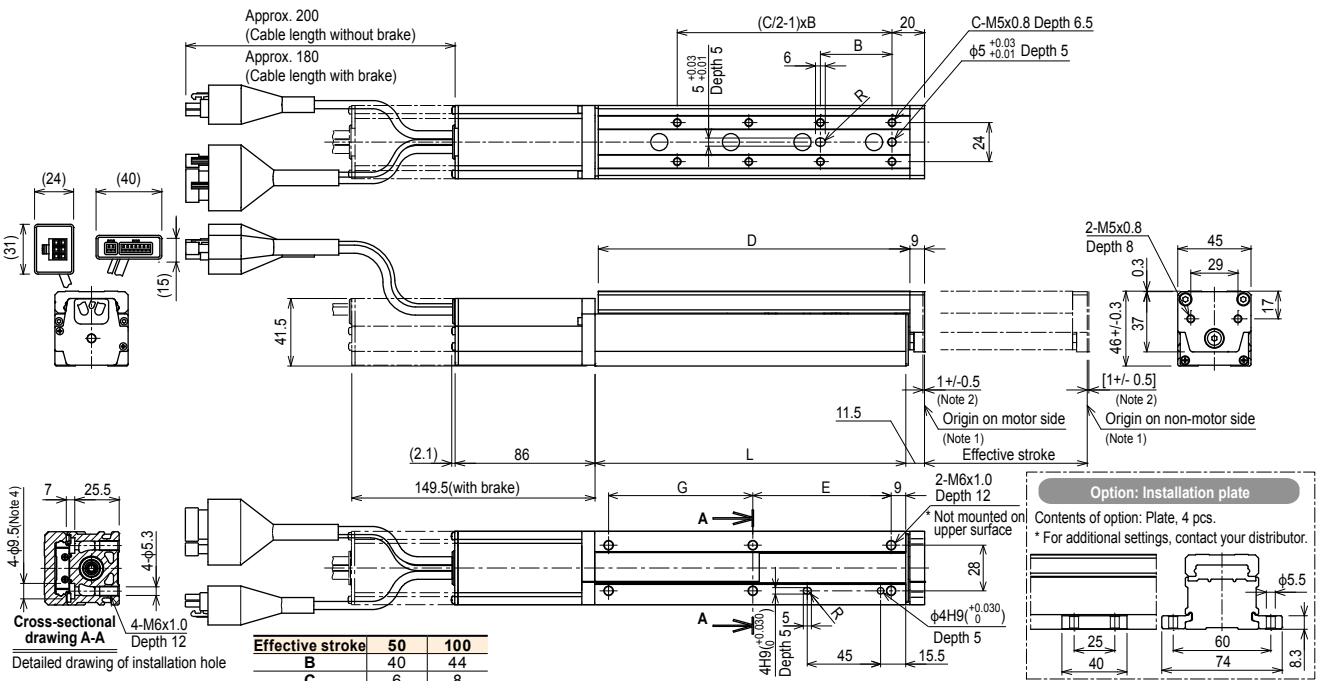


Controller

Controller	Operation method
TS-S2 TS-SH	I/O point trace / Remote command
TS-SD Note	Pulse train control

Note. The robot with the brake cannot use the TS-SD.

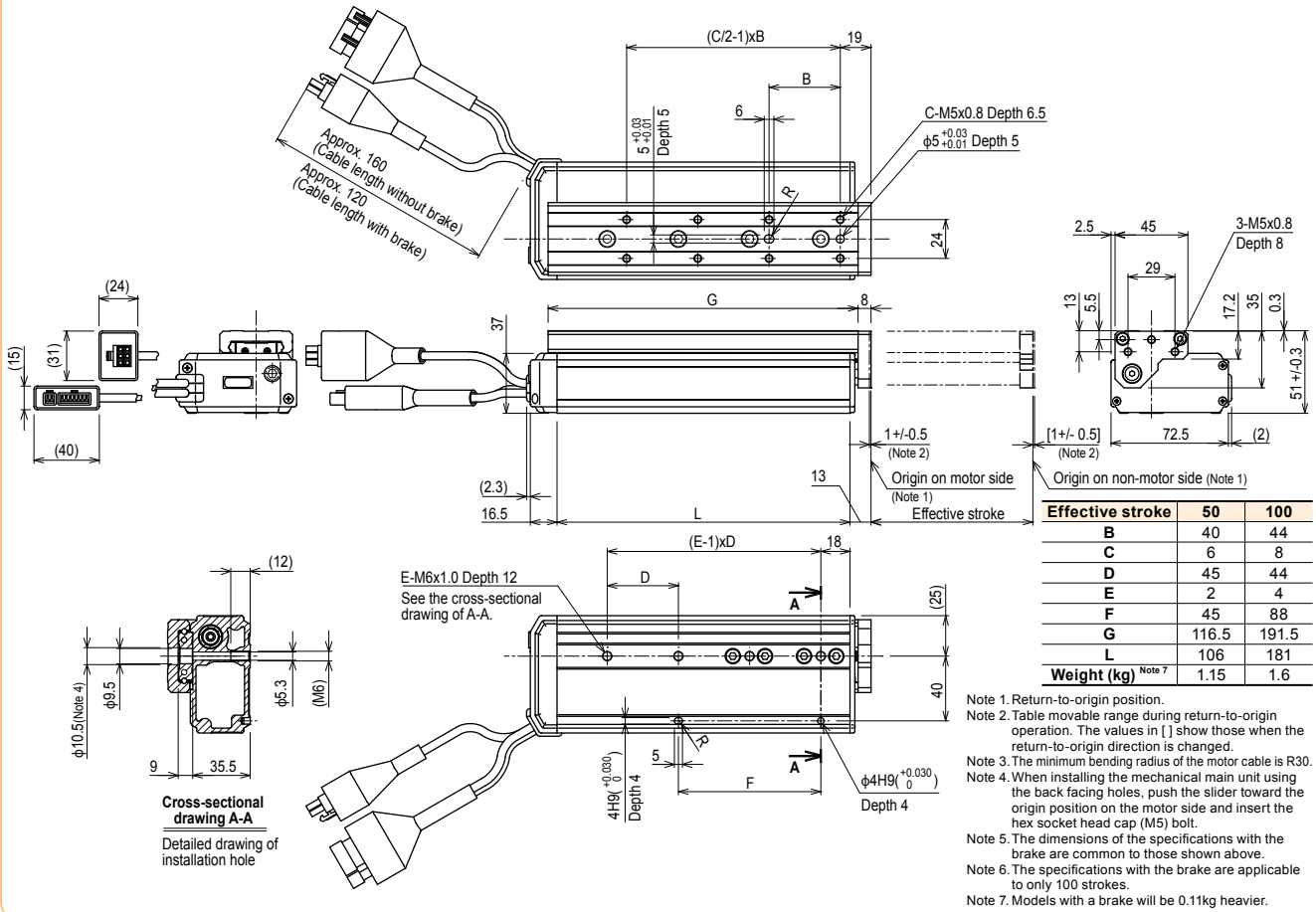
STH04 Straight model S



Effective stroke	50	100
B	40	44
C	6	8
D	116.5	191.5
E	65	85
G	39.5	88.5
L	122	191
Weight (kg) Note 6	1.25	1.7

Note 1. Return-to-origin position.
Note 2. Table movable range during return-to-origin operation. The values in [ ] show those when the return-to-origin direction is changed.
Note 3. The minimum bending radius of the motor cable is R30.
Note 4. When installing the mechanical main unit using the back facing holes, use the hex socket head cap M5 bolts.
Note 5. The installation hole positions of the main unit with the specifications with the brake are common to those shown above.
Note 6. Models with a brake will be 0.11kg heavier.

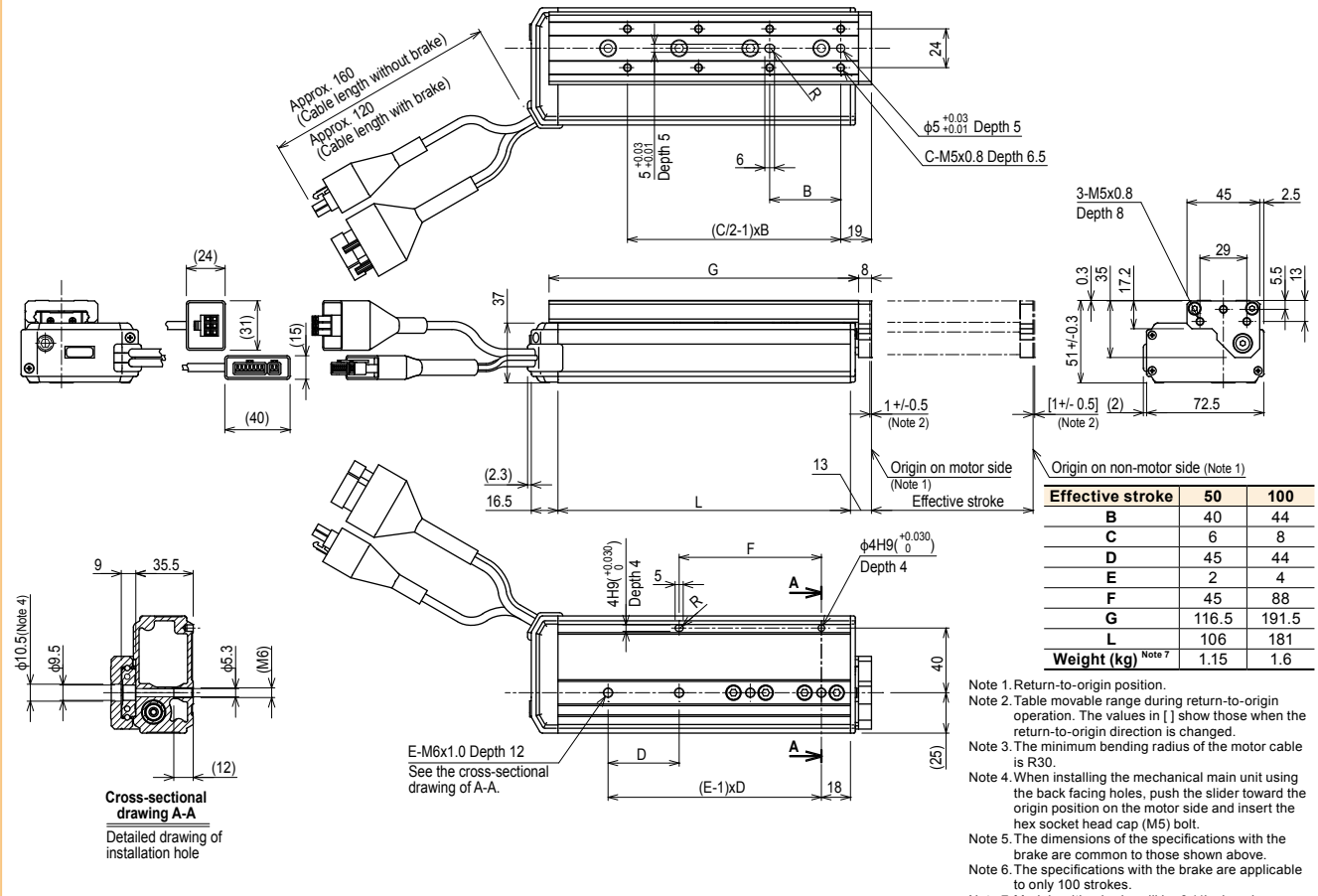
STH04 Space-saving model (motor installed on right) R



Effective stroke	50	100
B	40	44
C	6	8
D	45	44
E	2	4
F	45	88
G	116.5	191.5
L	106	181
Weight (kg) Note 7	1.15	1.6

Note 1. Return-to-origin position.
Note 2. Table movable range during return-to-origin operation. The values in [ ] show those when the return-to-origin direction is changed.
Note 3. The minimum bending radius of the motor cable is R30.
Note 4. When installing the mechanical main unit using the back facing holes, push the slider toward the origin position on the motor side and insert the hex socket head cap (M5) bolt.
Note 5. The dimensions of the specifications with the brake are common to those shown above.
Note 6. The specifications with the brake are applicable to only 100 strokes.
Note 7. Models with a brake will be 0.11kg heavier.

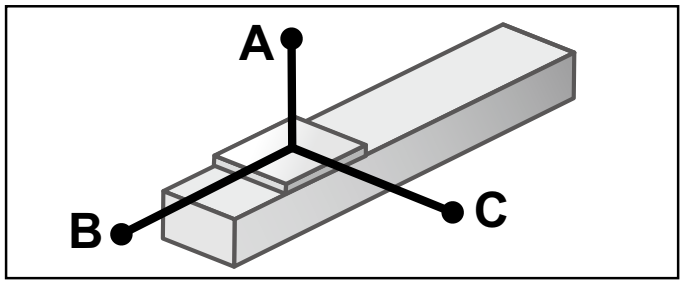
STH04 Space-saving model (motor installed on left) L

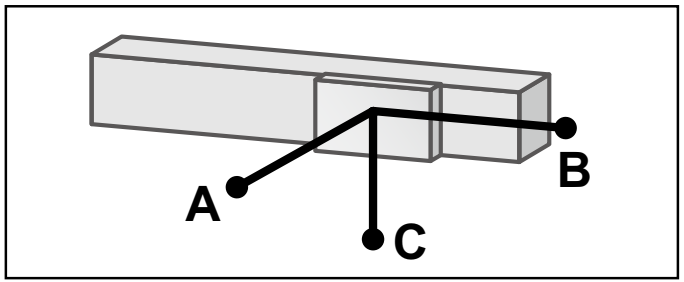


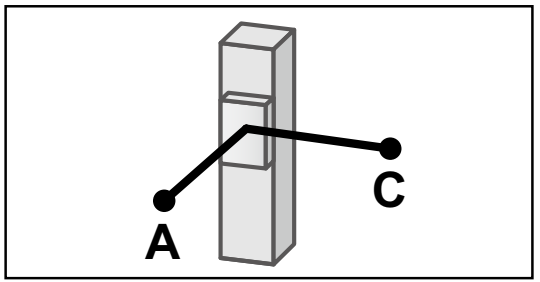
Effective stroke	50	100
B	40	44
C	6	8
D	45	44
E	2	4
F	45	88
G	116.5	191.5
L	106	181
Weight (kg) Note 7	1.15	1.6

Note 1. Return-to-origin position.
Note 2. Table movable range during return-to-origin operation. The values in [ ] show those when the return-to-origin direction is changed.
Note 3. The minimum bending radius of the motor cable is R30.
Note 4. When installing the mechanical main unit using the back facing holes, push the slider toward the origin position on the motor side and insert the hex socket head cap (M5) bolt.
Note 5. The dimensions of the specifications with the brake are common to those shown above.
Note 6. The specifications with the brake are applicable to only 100 strokes.
Note 7. Models with a brake will be 0.11kg heavier.

Allowable overhang Note







Horizontal installation (Unit: mm)

		A	B	C
Lead 10	2kg	1534	611	415
	3kg	949	374	255
	4kg	656	255	175
Lead 5	2kg	1534	611	415
	4kg	656	255	175
	6kg	364	137	95

Wall installation (Unit: mm)

		A	B	C
Lead 10	2kg	435	595	1504
	3kg	263	359	920
	4kg	177	241	629
Lead 5	2kg	435	595	1504
	4kg	177	241	629
	6kg	91	123	337

Vertical installation (Unit: mm)

		A	C
Lead 10	0.5kg	2000	2000
	0.75kg	1558	1558
	1kg	1165	1164
Lead 5	1kg	1165	1164
	1.5kg	771	771
	2kg	574	574

Note. Overhang at travelling service life of 3000km.
(Service life is calculated for 75mm stroke models.)

STH06 Slide table type

- CE compliance
- Origin on the non-motor side is selectable

Ordering method

STH06 –

Model	Lead	Model	Brake	Origin position	Bracket plate Note 2	Stroke	Cable length Note 3
	08: 8mm 16: 16mm	S: Straight model R: Space-saving model (motor installed on right) L: Space-saving model (motor installed on left)	N: With no brake B: With brake	N: Standard Note 1 Z: Non-motor side	N: No plate H: With plate	50: 50mm 100: 100mm 150: 150mm	1K: 1m 3K: 3m 5K: 5m 10K: 10m

S2

Robot positioner	I/O
S2: TS-S2 Note 4	NP: NPN PN: PNP CC: CC-Link DN: DeviceNet™ EP: EtherNet/IP™ PT: PROFINET GW: No I/O board Note 6

SH

Robot positioner	I/O	Battery
SH: TS-SH	NP: NPN PN: PNP CC: CC-Link DN: DeviceNet™ EP: EtherNet/IP™ PT: PROFINET GW: No I/O board Note 6	B: With battery (Absolute) N: None (Incremental)

SD – **1**

Robot driver	I/O cable
SD: TS-SD Note 5	1: 1m

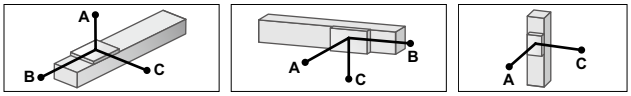
Note 1. If changing from the origin position at the time of purchase, the machine reference amount must be reset. For details, refer to the manual.
Note 2. Space-saving models (R and L) with the plate cannot be selected.
Note 3. The robot cable is flexible and resists bending.
Note 4. See P.600 for DIN rail mounting bracket.
Note 5. The robot with the brake cannot use the TS-SD.
Note 6. Select this selection when using the gateway function.

Basic specifications

Motor		42 □ Step motor	
Resolution (Pulse/rotation)		20480	
Repeatability Note 1 (mm)		+/-0.05	
Drive method	Straight	Slide screw	
	Space-saving	Slide screw + belt	
Ball screw lead (mm)		8	16
Maximum speed Note 2 (mm/sec)		150	400
Maximum payload (kg)	Horizontal	9	6
	Vertical	4	2
Max. pressing force (N)		180	100
Stroke (mm)		50/100/150	
Maximum outside dimension of body cross-section (mm)	Straight	W61 × H65	
	Space-saving	W108 × H70	
Cable length (m)		Standard: 1 / Option: 3, 5, 10	

Note 1. Positioning repeatability in one direction.
Note 2. The maximum speed needs to be changed in accordance with the payload.
See the "Speed vs. payload" graph shown on the right.
For details, see P. 336.

Allowable overhang Note



Horizontal installation (Unit: mm)

		A	B	C
Lead 16	2kg	3000	2123	1436
	4kg	2493	1001	680
	6kg	1571	627	428
Lead 8	3kg	3000	1375	932
	6kg	1571	627	428
	9kg	956	378	260

Wall installation (Unit: mm)

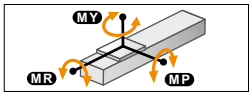
		A	B	C
Lead 16	2kg	1500	2091	3000
	4kg	710	975	2443
	6kg	440	603	1524
Lead 8	3kg	979	1347	3000
	6kg	440	603	1524
	9kg	260	355	912

Vertical installation (Unit: mm)

		A	C
Lead 16	1kg	3000	3000
	1.5kg	2458	2457
	2kg	1837	1837
Lead 8	2kg	1837	1837
	3kg	1217	1216
	4kg	907	906

Note. Overhang at travelling service life of 3000km.
(Service life is calculated for 100mm stroke models.)

Static loading moment

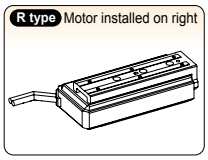


(Unit: N·m)

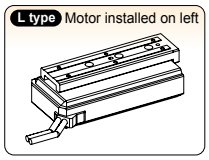
Stroke	MY	MP	MR
50mm	77	77	146
100mm	112	112	177
150mm	155	155	152

Motor installation (Space-saving model)

R type Motor installed on right

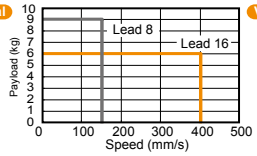


L type Motor installed on left

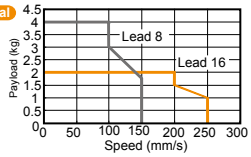


Speed vs. payload

Horizontal



Vertical

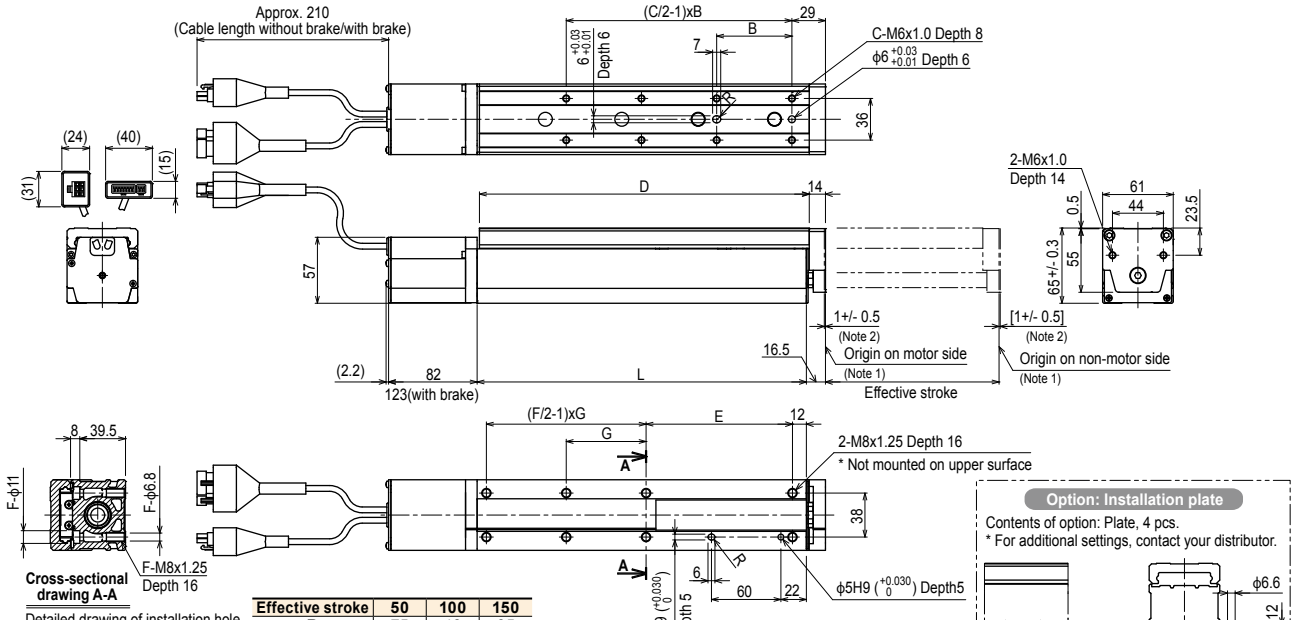


Controller

Controller	Operation method
TS-S2 TS-SH	I/O point trace / Remote command
TS-SD Note	Pulse train control

Note. The robot with the brake cannot use the TS-SD.

STH06 Straight model S

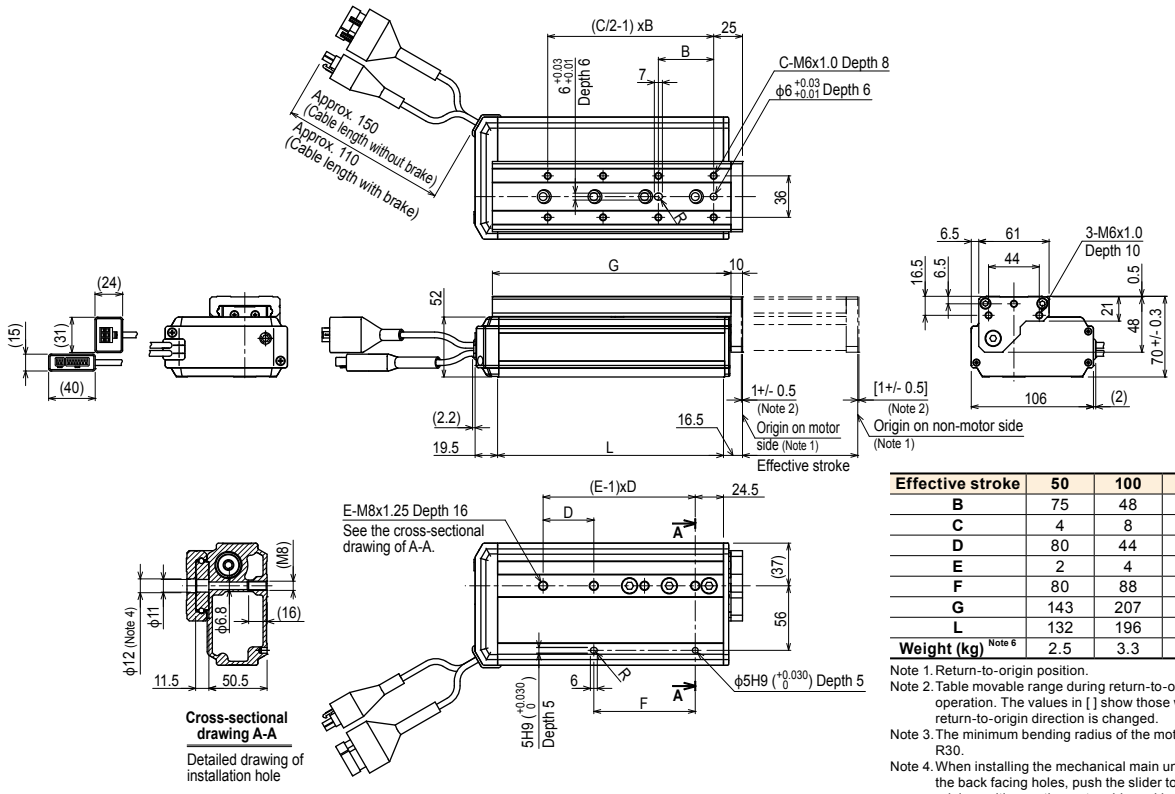


Effective stroke	50	100	150
B	75	48	65
C	4	8	8
D	143	207	285
E	84	98.5	126.5
F	4	4	6
G	40.5	88	69
L	144.5	206.5	284.5
Weight (kg) Note 6	2.52	3.27	3.6

Note 1. Return-to-origin position.
Note 2. Table movable range during return-to-origin operation. The values in [ ] show those when the return-to-origin direction is changed.
Note 3. The minimum bending radius of the motor cable is R30.
Note 4. When installing the mechanical main unit using the back facing holes, use the hex socket head cap M6 bolts.
Note 5. The installation hole positions of the main unit with the specifications with the brake are common to those shown above.
Note 6. Models with a brake will be 0.34kg heavier.

Controller TS-S2 ▶ 592 TS-SH ▶ 592 TS-SD ▶ 602

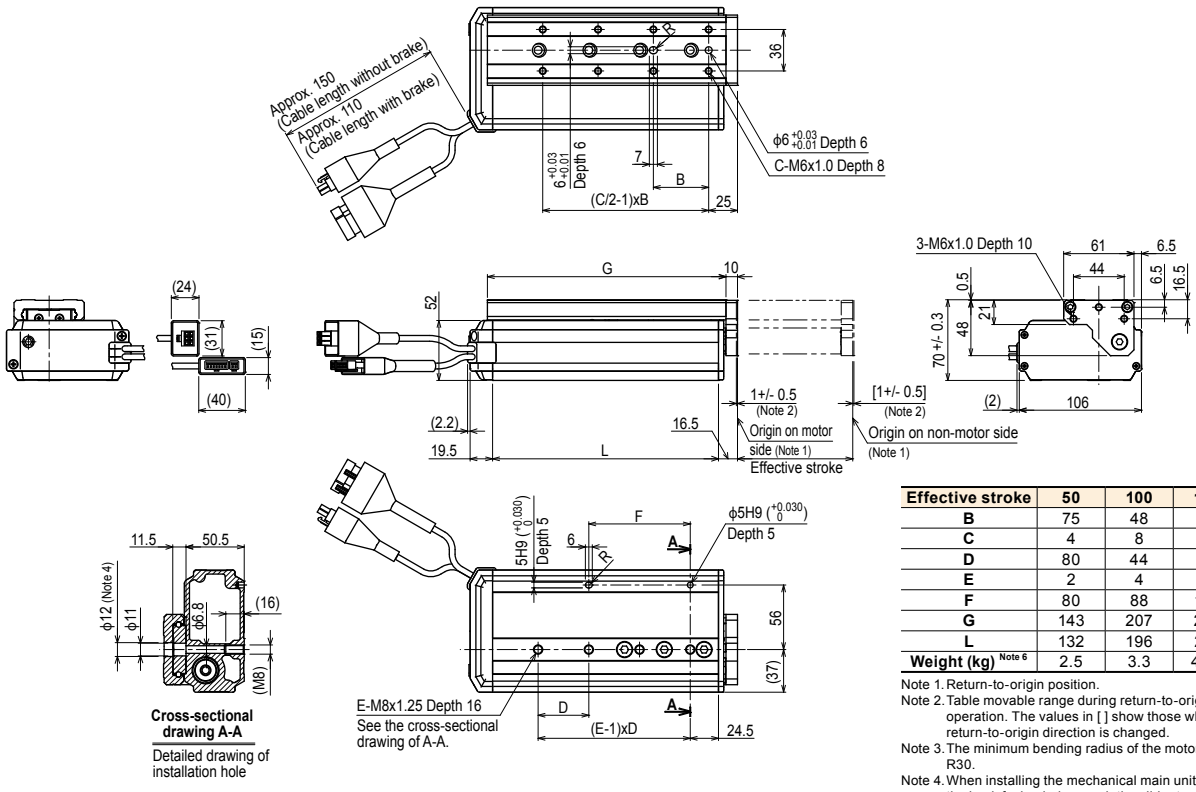
STH06 Space-saving model (motor installed on right) R



Effective stroke	50	100	150
B	75	48	65
C	4	8	8
D	80	44	66
E	2	4	4
F	80	88	132
G	143	207	285
L	132	196	274
Weight (kg) Note 6	2.5	3.3	4.26

Note 1. Return-to-origin position.
Note 2. Table movable range during return-to-origin operation. The values in [ ] show those when the return-to-origin direction is changed.
Note 3. The minimum bending radius of the motor cable is R30.
Note 4. When installing the mechanical main unit using the back facing holes, push the slider toward the origin position on the motor side and insert the hex socket head cap (M6) bolt.
Note 5. The dimensions of the specifications with the brake are common to those shown above.
Note 6. Models with a brake will be 0.34kg heavier.

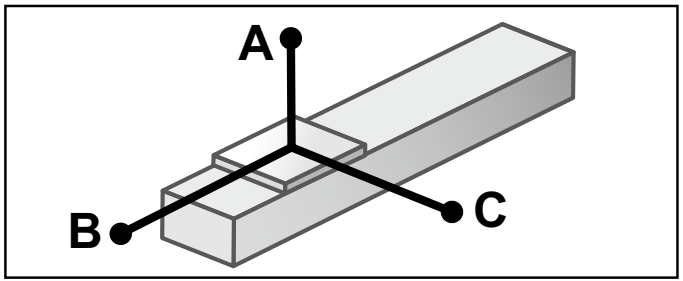
STH06 Space-saving model (motor installed on left) L

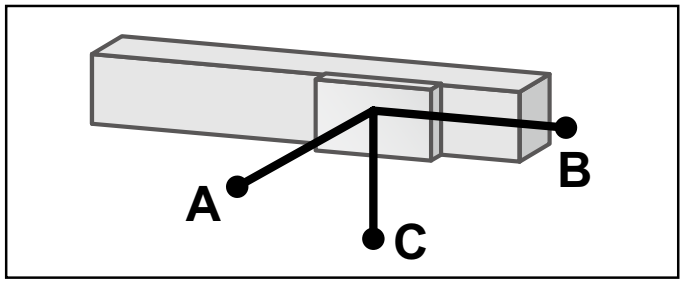


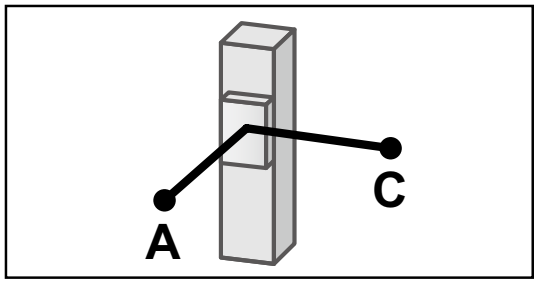
Effective stroke	50	100	150
B	75	48	65
C	4	8	8
D	80	44	66
E	2	4	4
F	80	88	132
G	143	207	285
L	132	196	274
Weight (kg) Note 6	2.5	3.3	4.26

Note 1. Return-to-origin position.
Note 2. Table movable range during return-to-origin operation. The values in [ ] show those when the return-to-origin direction is changed.
Note 3. The minimum bending radius of the motor cable is R30.
Note 4. When installing the mechanical main unit using the back facing holes, push the slider toward the origin position on the motor side and insert the hex socket head cap (M6) bolt.
Note 5. The dimensions of the specifications with the brake are common to those shown above.
Note 6. Models with a brake will be 0.34kg heavier.

Allowable overhang Note







Horizontal installation (Unit: mm)

		A	B	C
Lead 16	2kg	3000	2123	1436
	4kg	2493	1001	680
	6kg	1571	627	428
Lead 8	3kg	3000	1375	932
	6kg	1571	627	428
	9kg	956	378	260

Wall installation (Unit: mm)

		A	B	C
Lead 16	2kg	1500	2091	3000
	4kg	710	975	2443
	6kg	440	603	1524
Lead 8	3kg	979	1347	3000
	6kg	440	603	1524
	9kg	260	355	912

Vertical installation (Unit: mm)

		A	C
Lead 16	1kg	3000	3000
	1.5kg	2458	2457
	2kg	1837	1837
Lead 8	2kg	1837	1837
	3kg	1217	1216
	4kg	907	906

Note. Overhang at travelling service life of 3000km.
(Service life is calculated for 100mm stroke models.)