SS05H Slider type

High lead: Lead 20 | CE compliance | Origin on the non-motor side is selectable

Ordering method

SS05H – [Lead] – [Model] – [Brake Note 1] – [Origin position] – [Grease option] – [Stroke] – [Cable length Note 3] – [S2 / SH / SD] – [I/O] – [Battery / I/O cable]

Model	Lead	Model	Brake Note 1	Origin position	Grease option	Stroke	Cable length Note 3
	20: 20mm 12: 12mm 06: 6mm	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: Standard grease C: Clean room grease	50 to 800 (50mm pitch)	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 5

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 5	B: With battery (Absolute) N: None (Incremental)

SD – **1**

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

Note 1. Brake-equipped models can be selected only when the lead is 12mm or 6mm.
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. The robot cable is flexible and resists bending.
Note 4. See P.498 for DIN rail mounting bracket.
Note 5. Select this selection when using the gateway function. For details, see P.60.

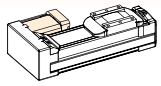
Basic specifications

Motor		42 □ Step motor		
Resolution (Pulse/rotation)		20480		
Repeatability Note 1 (mm)		+/-0.02		
Deceleration mechanism		Ball screw ϕ12 (Class C10)		
Maximum motor torque (N·m)		0.47		
Ball screw lead (mm)		20	12	6
Maximum speed Note 2 (mm/sec)	Horizontal	1000	600	300
	Vertical	–	500	250
Maximum payload (kg)	Horizontal	6	8	12
	Vertical	–	2	4
Max. pressing force (N)		36	60	120
Stroke (mm)		50 to 800 (50pitch)		
Overall length (mm)	Horizontal	Stroke+286		
	Vertical	Stroke+306		
Maximum outside dimension of body cross-section (mm)		W55 × H56		
Cable length (m)		Standard: 1 / Option: 3, 5, 10		

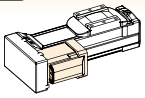
Note 1. Positioning repeatability in one direction.
Note 2. When the stroke is longer than 600mm, resonance of the ball screw may occur depending on the operation conditions (critical speed). In this case, reduce the speed setting on the program by referring to the maximum speeds shown in the table below.

Motor installation (Space-saving model)

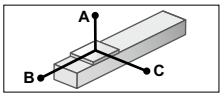
R type Motor installed on right

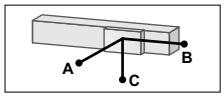


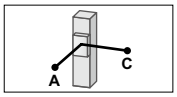
L type Motor installed on left



Allowable overhang Note







Horizontal installation (Unit: mm)

		A	B	C
Lead 20	2kg	599	225	291
	4kg	366	109	148
	6kg	352	71	104
Lead 12	4kg	500	118	179
	6kg	399	79	118
	8kg	403	56	88
Lead 6	6kg	573	83	136
	8kg	480	61	100
	10kg	442	47	78
	12kg	465	39	64

Wall installation (Unit: mm)

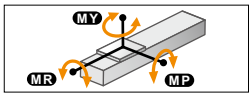
		A	B	C
Lead 20	2kg	262	203	554
	4kg	118	88	309
	6kg	71	49	262
Lead 12	4kg	146	96	449
	6kg	85	55	334
	8kg	55	34	305
Lead 6	6kg	101	62	519
	8kg	64	39	413
	10kg	43	26	355
	12kg	28	17	338

Vertical installation (Unit: mm)

		A	C
Lead 12	1kg	458	459
	2kg	224	224
Lead 6	2kg	244	245
	4kg	113	113

Note. Distance from center of slider upper surface to carrier center-of-gravity at a guide service life of 10,000 km (Service life is calculated for 600mm stroke models).

Static loading moment



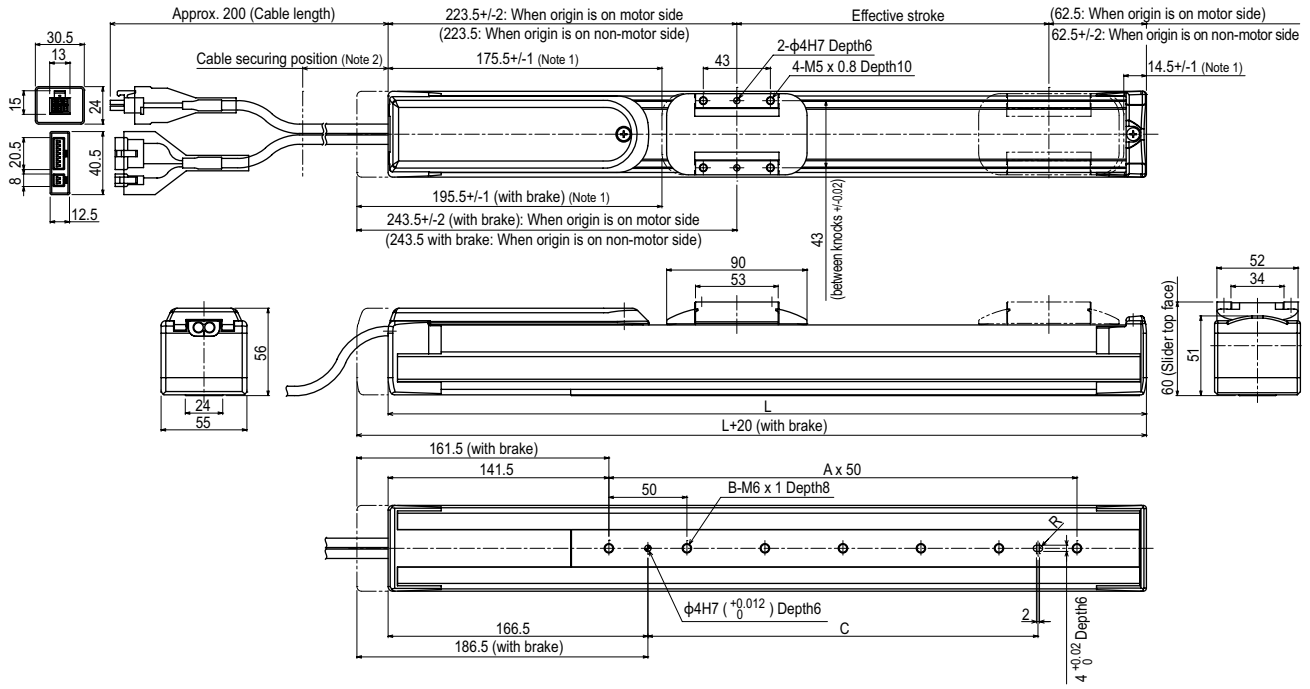
(Unit: N·m)

MY	MP	MR
32	38	34

Controller

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

SS05H Straight model S

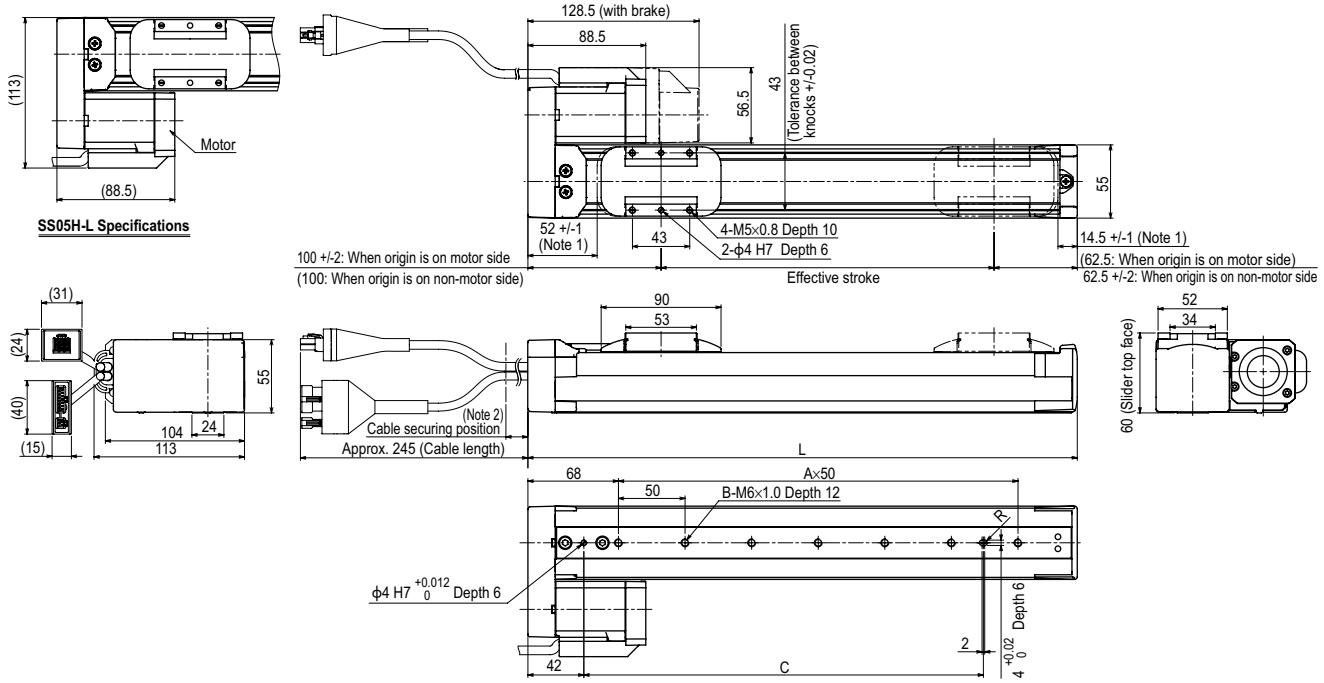


Effective stroke	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800
L	336	386	436	486	536	586	636	686	736	786	836	886	936	986	1036	1086
A	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
B	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
C	100	150	200	250	300	350	400	450	500	500	500	500	500	500	500	500
Weight (kg) Note 4	2.4	2.6	2.8	3.0	3.2	3.4	3.6	3.8	4.0	4.2	4.4	4.5	4.7	4.9	5.1	5.3
Maximum speed for each stroke Note 5 (mm/sec) Lead20	1000												933	833	733	633
Lead12 (Horizontal)	600												560	500	440	380
Lead12(Vertical)	500														440	380
Lead6 (Horizontal)	300												280	250	220	190
Lead6 (Vertical)	250														220	190
Speed setting	–												93%	83%	73%	63%

Note 1. Stop positions are determined by the mechanical stoppers at both ends.
Note 2. Secure the cable with a tie-band 100mm or less from unit's end face to prevent the cable from being subjected to excessive loads.
Note 3. The cable's minimum bend radius is R30.
Note 4. These are the weights without a brake. The weights are 0.2kg heavier when equipped with a brake.
Note 5. When the stroke is longer than 600mm, resonance of the ball screw may occur depending on the operation conditions (critical speed). In this case, reduce the speed setting on the program by referring to the maximum speeds shown in the table at the left.

Controller | TS-S2 ▸ 490 | TS-SH ▸ 490 | TS-SD ▸ 500

SS05H Space-saving model R L



Effective stroke		50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800
L		212.5	262.5	312.5	362.5	412.5	462.5	512.5	562.5	612.5	662.5	712.5	762.5	812.5	862.5	912.5	962.5
A		2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
B		3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
C		100	150	200	250	300	350	400	450	500	500	500	500	500	500	500	500
Weight (kg) Note 4		1.7	1.9	2.1	2.3	2.5	2.7	2.8	3.0	3.2	3.4	3.6	3.8	4.0	4.2	4.4	4.6
Maximum speed for each stroke Note 5 (mm/sec)	Lead20	1000												933	833	733	633
	Lead12 (Horizontal)	600												560	500	440	380
	Lead12 (Vertical)	500														440	380
	Lead6 (Horizontal)	300												280	250	220	190
	Lead6 (Vertical)	250														220	190
	Speed setting	–												93%	83%	73%	63%

Note 1. Stop positions are determined by the mechanical stoppers at both ends.
Note 2. Secure the cable with a tie-band 80mm or less from unit's end face to prevent the cable from being subjected to excessive loads.
Note 3. The cable's minimum bend radius is R30.
Note 4. These are the weights without a brake. The weights are 0.2kg heavier when equipped with a brake.
Note 5. When the stroke is longer than 600mm, resonance of the ball screw may occur depending on the operation conditions (critical speed). In this case, reduce the speed setting on the program by referring to the maximum speeds shown in the table at the left.
Note 6. The belt cover's left and right sides are asymmetrical. Therefore, if the motor mounting orientation is changed, the cover cannot be attached.