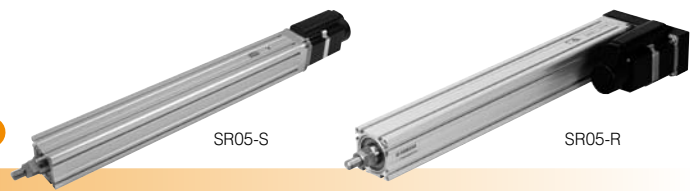


SR05 Rod type

● CE compliance ● Origin at non-motor side: Lead 6, 12



Ordering method

SR05

Model	Lead	Model	Brake	Origin position ^{Note 1}	Bracket plate	Stroke	Cable length ^{Note 2}
	12: 12mm 06: 6mm 02: 2mm	S: Straight model R: Space-saving model ^{Note 3} (motor installed on right) L: Space-saving model ^{Note 3} (motor installed on left)	N: With no brake B: With brake	N: Standard Z: Non-motor side	N: No plate H: With plate V: With flange	50 to 300 (50mm pitch)	1L: 1m 3L: 3m 5L: 5m 10L: 10m

S	I/O
Controller ^{Note 4} S: TS-S	NP: NPN PN: PNP CC: CC-Link DN: DeviceNet
SD	1
Controller SD: TS-SD	I/O cable 1: 1m

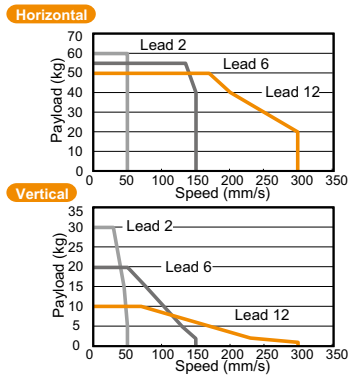
Note 1. When "2mm lead" is selected, the origin position cannot be changed (to non-motor side).
Note 2. The robot cable is flexible and resists bending.
Note 3. See P.61 for grease gun nozzles.
Note 4. See P.404 for DIN rail mounting bracket.

Basic specifications

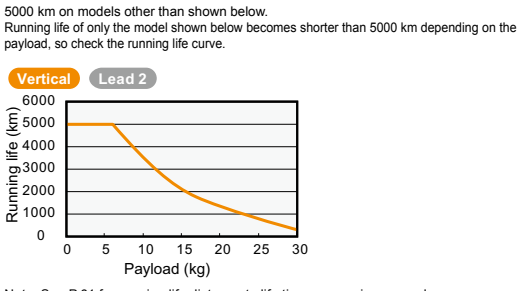
Motor	56 □ Step motor	
Repeatability (mm)	±0.02	
Deceleration mechanism	Ball screw φ12 (Class C10)	
Ball screw lead (mm)	12	6
Maximum speed ^{Note 1} (mm/sec)	300	150
Maximum payload (kg)	Horizontal	50
	Vertical	10
Max. pressing force (N)	Horizontal	250
	Vertical	20
Stroke (mm)	50 to 300 (50pitch)	
Lost motion	0.1mm or less	
Rotating backlash (°)	±1.0	
Overall length (mm)	Horizontal	Stroke+276
	Vertical	Stroke+316
Maximum outside dimension of body cross-section (mm)	W56.4 × H71	
Cable length (m)	Standard: 1 / Option: 3, 5, 10	

Note 1. Maximum speed varies with the payload.
Refer to the "Speed vs. payload graphs" on the right.

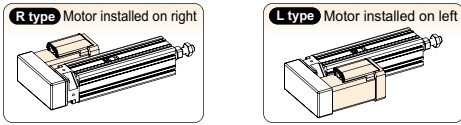
Speed vs. payload graph



Running life



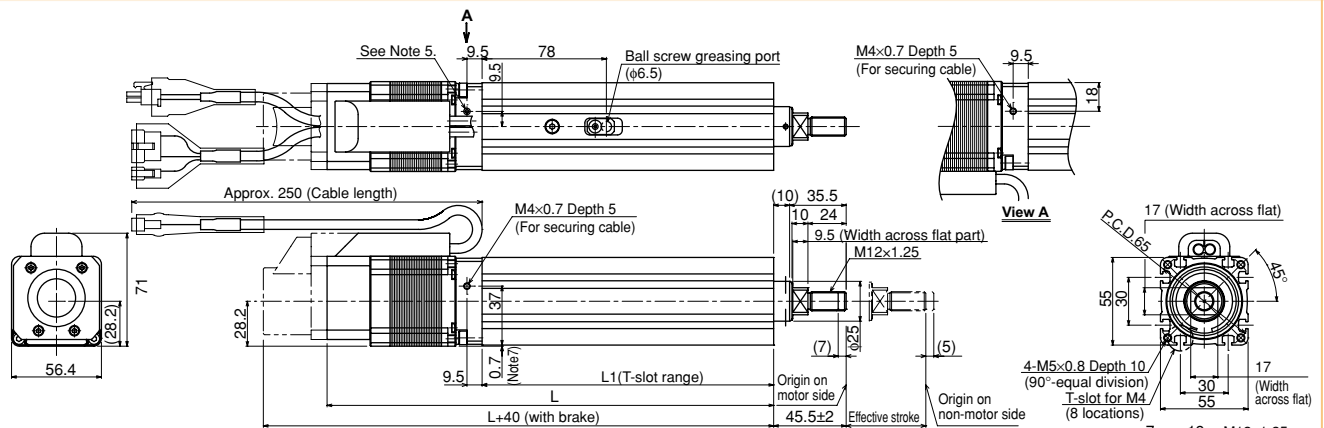
Motor installation (Space-saving model)



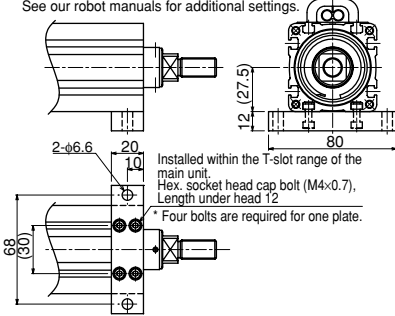
Controller

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

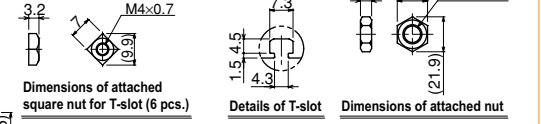
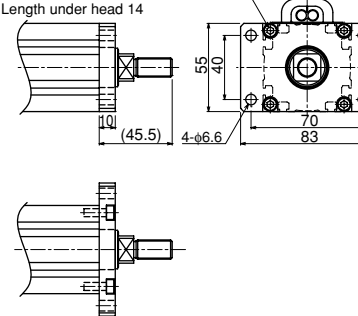
SR05 Straight model S



Option: Horizontal installation plate (foot)
* Contents of option: Plate, 2 pcs., Nut, 8 pcs.
See our robot manuals for additional settings.



Option: Vertical installation plate (flange)
Hex. socket head cap bolt (M5×0.8), Length under head 14



Effective stroke	50	100	150	200	250	300
L1	183	233	283	333	383	433
L	280.5	330.5	380.5	430.5	480.5	530.5
Weight (kg) ^{Note 10}	2.2	2.6	3.0	3.3	3.7	4.1

Note1. It is possible to apply only the axial load.
Note2. Use the external guide together so that any radial load is not applied to the rod.
Note3. The orientation of the width across flat part is undefined to the base surface.
Note4. Use the support guide together to maintain the straightness.
Note5. For lead 2mm specifications, the origin on the non-motor side cannot be set.
Note6. When the lead is 2mm, this dimension is 27mm.
Note7. When running the cables, secure cables so that any load is not applied to them.
Note8. Remove the M4 hex. socket head cap set bolts and use them to secure the cables. (Effective screw thread depth 5)
Note9. The cable's minimum bend radius is R30.
Note10. Take great care as the outer case of the motor projects from the bottom of the main unit.
Note11. Models with a brake will be 0.2kg heavier.
Note12. Distance to mechanical stopper.

SR05 Space-saving model (motor installed on right) **R**

Approx. 245 (Cable length)

146 (with brake)
106

45.5^{+/-2} Effective stroke (5(Note 8, Note 12))

7 (Note 8)

Origin on motor side

Origin on non-motor side (Note 9)

M4x0.7 (9.9)

3.2

Dimensions of attached square nut for T-slot (6 pcs.)

7.3
4.3
1.5
6

M12x1.25 19 7
(21.9)

Dimensions of attached nut

Detail of section B

28.5 70
T-slot for M4 (8 locations)

17 (Width across flat)

30 55
56.5 71

9.5 (Width across flat part)

10 24 17 (Width across flat)

30 55

56.4

4-M5x0.8 Depth 10 (90°-equal division)

M12x1.25

9.5

10 24 17 (Width across flat)

(10) 35.5

See Note 5.

9.5

78

L1 (T-slot range)

Ball screw greasing port (φ6.5)

9.5

0.7 (Note 11)

37

9.5

M4x0.7 Depth 5 (For securing cable)

M4x0.7 Depth 5 (For securing cable)

Option: Horizontal installation plate (foot)

* Contents of option: Plate, 2 pcs., Nut, 8 pcs. See our robot manuals for additional settings.

127.5

56.5

Option: Vertical installation plate (flange)

Hex. socket head cap bolt (M5x0.8), Length under head 14

2-φ6.6 drill-through

20

10

Installed within the T-slot range of the main unit. (Hex. socket head cap bolt (M4x0.7), Length under head 12)

* Four bolts are required for one plate.

30

68

80

4-φ6.6 drill-through

10

45.5

28.2

40

70

83

Effective stroke	50	100	150	200	250	300
L1	183	233	283	333	383	433
L	227.5	277.5	327.5	377.5	427.5	477.5
Weight (kg) ^{Note 7}	2.4	2.8	3.2	3.5	3.9	4.3

Note1. It is possible to apply only the axial load.
 Note2. Use the external guide together so that any radial load is not applied to the rod.
 Note3. The orientation of the width across flat part is undefined to the base surface.
 Note4. When running the cables, secure cables so that any load is not applied to them.
 Note5. Remove the M4 hex. socket head cap set bolts and use them to secure the cables. (Effective screw thread depth 5)
 Note6. The cable's minimum bend radius is R30.
 Note7. Models with a brake will be 0.2kg heavier.
 Note8. Distance to mechanical stopper.
 Note9. For lead 2mm specifications, the origin on the non-motor side cannot be set.
 Note10. This unit can be installed with the motor facing up (turned 90 degrees from the position in this drawing).
 Note11. Take great care as the outer case of the motor and cover belt projects from the bottom of the main unit.
 Note12. When the lead is 2mm, this dimension is 27mm.

SR05 Space-saving model (motor installed on left) **L**

Approx. 245 (Cable length)

106

146 (with brake)

45.5^{+/-2} Effective stroke (5(Note 8, Note 12))

7 (Note 8)

Origin on motor side

Origin on non-motor side (Note 9)

M4x0.7 (9.9)

3.2

Dimensions of attached square nut for T-slot (6 pcs.)

7.3
4.3
1.5
6

M12x1.25 19 7
(21.9)

Dimensions of attached nut

Detail of section B

28.5 70
T-slot for M4 (8 locations)

17 (Width across flat)

30 55
56.5 71

9.5 (Width across flat part)

10 24 17 (Width across flat)

30 55

56.4

4-M5x0.8 Depth 10 (90°-equal division)

M12x1.25

9.5

10 24 17 (Width across flat part)

(10) 35.5

See Note 5.

9.5

78

L1 (T-slot range)

Ball screw greasing port (φ6.5)

9.5

0.7 (Note 11)

37

9.5

M4x0.7 Depth 5 (For securing cable)

M4x0.7 Depth 5 (For securing cable)

Option: Horizontal installation plate (foot)

* Contents of option: Plate, 2 pcs., Nut, 8 pcs. See our robot manuals for additional settings.

127.5

56.5

Option: Vertical installation plate (flange)

Hex. socket head cap bolt (M5x0.8), Length under head 14

2-φ6.6 drill-through

20

10

Installed within the T-slot range of the main unit. (Hex. socket head cap bolt (M4x0.7), Length under head 12)

* Four bolts are required for one plate.

30

68

80

4-φ6.6 drill-through

10

45.5

27.5

40

70

83

Effective stroke	50	100	150	200	250	300
L1	183	233	283	333	383	433
L	227.5	277.5	327.5	377.5	427.5	477.5
Weight (kg) ^{Note 7}	2.4	2.8	3.2	3.5	3.9	4.3

Note1. It is possible to apply only the axial load.
 Note2. Use the external guide together so that any radial load is not applied to the rod.
 Note3. The orientation of the width across flat part is undefined to the base surface.
 Note4. When running the cables, secure cables so that any load is not applied to them.
 Note5. Remove the M4 hex. socket head cap set bolts and use them to secure the cables. (Effective screw thread depth 5)
 Note6. The cable's minimum bend radius is R30.
 Note7. Models with a brake will be 0.2kg heavier.
 Note8. Distance to mechanical stopper.
 Note9. For lead 2mm specifications, the origin on the non-motor side cannot be set.
 Note10. This unit can be installed with the motor facing up (turned 90 degrees from the position in this drawing).
 Note11. Take great care as the outer case of the motor and cover belt projects from the bottom of the main unit.
 Note12. When the lead is 2mm, this dimension is 27mm.