SRD04

Rod type (With support guide)

CE compliance

Origin on the non-motor side is selectable: Lead 6, 12

Ordering method

SRD04 – [Model] – [Lead] – [Model] – [Brake] – [Origin position Note 2] – [Bracket plate] – [Stroke] – [Cable length Note 4]

Model	Lead	Model	Brake	Origin position Note 2	Bracket plate	Stroke	Cable length Note 4
	12: 12mm 06: 6mm 02: 2mm	S: Straight model U: Space-saving model Note 1 (motor installed on top)	N: With no brake B: With brake	N: Standard Note 3 Z: Non-motor side	N: No plate H: With plate	50 to 300 (50mm pitch)	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 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	1: 1m

Note 1. See P.129 for grease gun nozzles.
Note 2. When "2mm lead" is selected, the origin position cannot be changed (to non-motor side).
Note 3. 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 4. The robot cable is flexible and resists bending.
Note 5. See P.498 for DIN rail mounting bracket.
Note 6. Select this selection when using the gateway function. For details, see P.60.

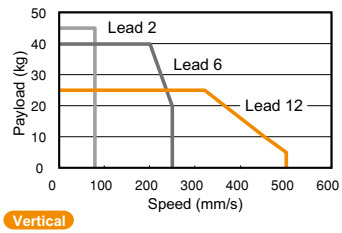
Basic specifications

Motor		42 □ Step motor		
Resolution (Pulse/rotation)		20480		
Repeatability (mm)		+/-0.02		
Deceleration mechanism		Ball screw ϕ8 (Class C10)		Ball screw ϕ10 (Class C10)
Ball screw lead (mm)		12	6	2
Maximum speed Note 1 (mm/sec)		500	250	80
Maximum payload (kg)	Horizontal	25	40	45
	Vertical	4	11	24
Max. pressing force (N)		150	300	600
Stroke (mm)		50 to 300 (50pitch)		
Lost motion		0.1mm or less		
Rotating backlash (°)		+/-0.05		
Overall length (mm)	Horizontal	Stroke+263		
	Vertical	Stroke+303		
Maximum outside dimension of body cross-section (mm)		W48 × H58		
Cable length (m)		Standard: 1 / Option: 3, 5, 10		

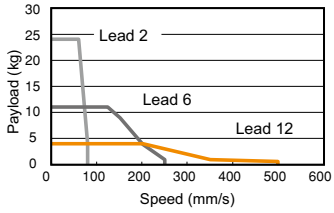
Note 1. The maximum speed needs to be changed in accordance with the payload.
See the "Speed vs. payload" graph shown on the right.
For details, see P. 128.
Additionally, when the stroke is long, the maximum speed is decreased due to the critical speed of the ball screw.
See the maximum speed table shown at the lower portion of the drawing.

Speed vs. payload

Horizontal



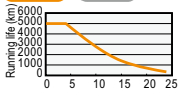
Vertical



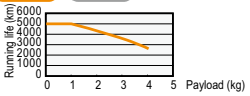
Running life

5000 km on models other than shown below.
Running life of only the model shown below becomes shorter than 5000 km depending on the payload, so check the running life curve.

Vertical Lead 2



Vertical Lead 12



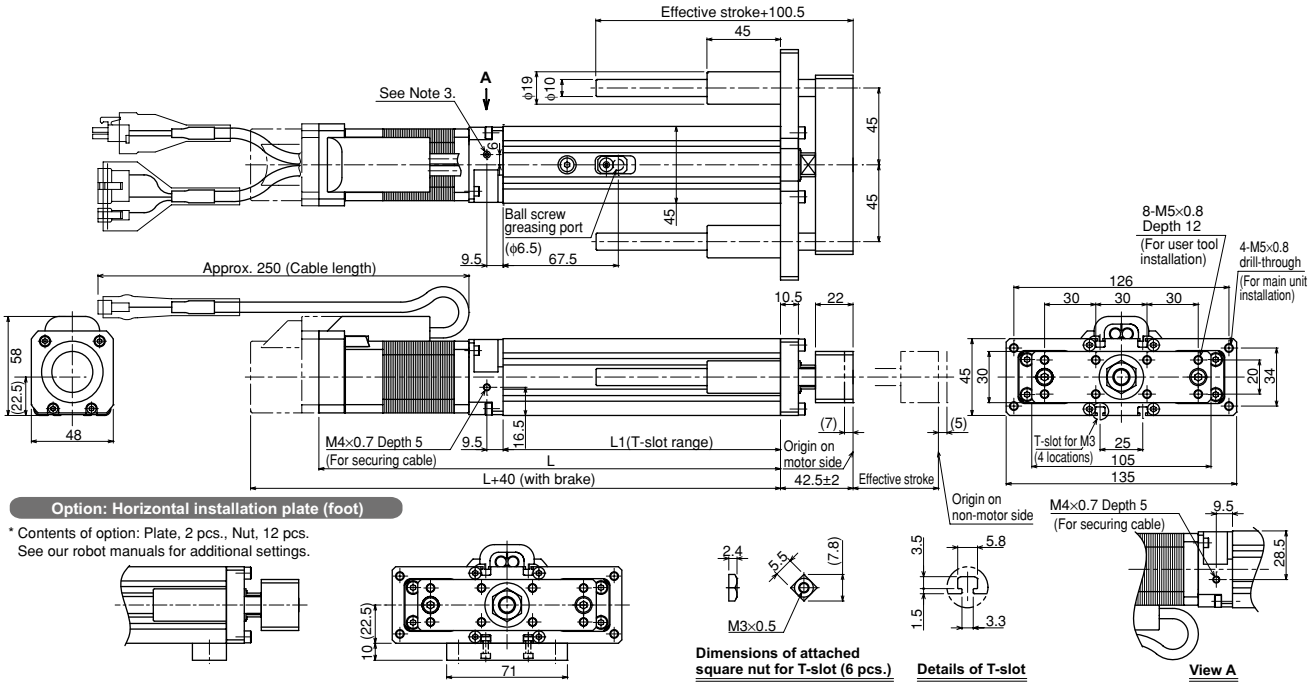
Note. See P.129 for running life distance to life time conversion example.

Controller

Controller	Operation method
TS-S2 TS-SH	I/O point trace / Remote command

Controller	Operation method
TS-SD	Pulse train control

SRD04 Straight model S



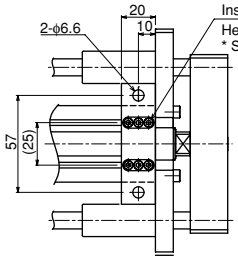
Option: Horizontal installation plate (foot)

* Contents of option: Plate, 2 pcs., Nut, 12 pcs.
See our robot manuals for additional settings.

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

Details of T-slot

View A



Installed within the T-slot range of the main unit.
Hex. socket head cap bolt (M3×0.5), Length under head 10
* Six bolts are required for one plate.

Effective stroke		50	100	150	200	250	300
L1		162.5	212.5	262.5	312.5	362.5	412.5
L		270.5	320.5	370.5	420.5	470.5	520.5
Weight (kg) Note 6		2.0	2.4	2.7	3.0	3.3	3.7
Maximum speed for each stroke (mm/sec)	Lead 12	500				440	320
	Lead 6	250				220	160
	Lead 2	80				72	53

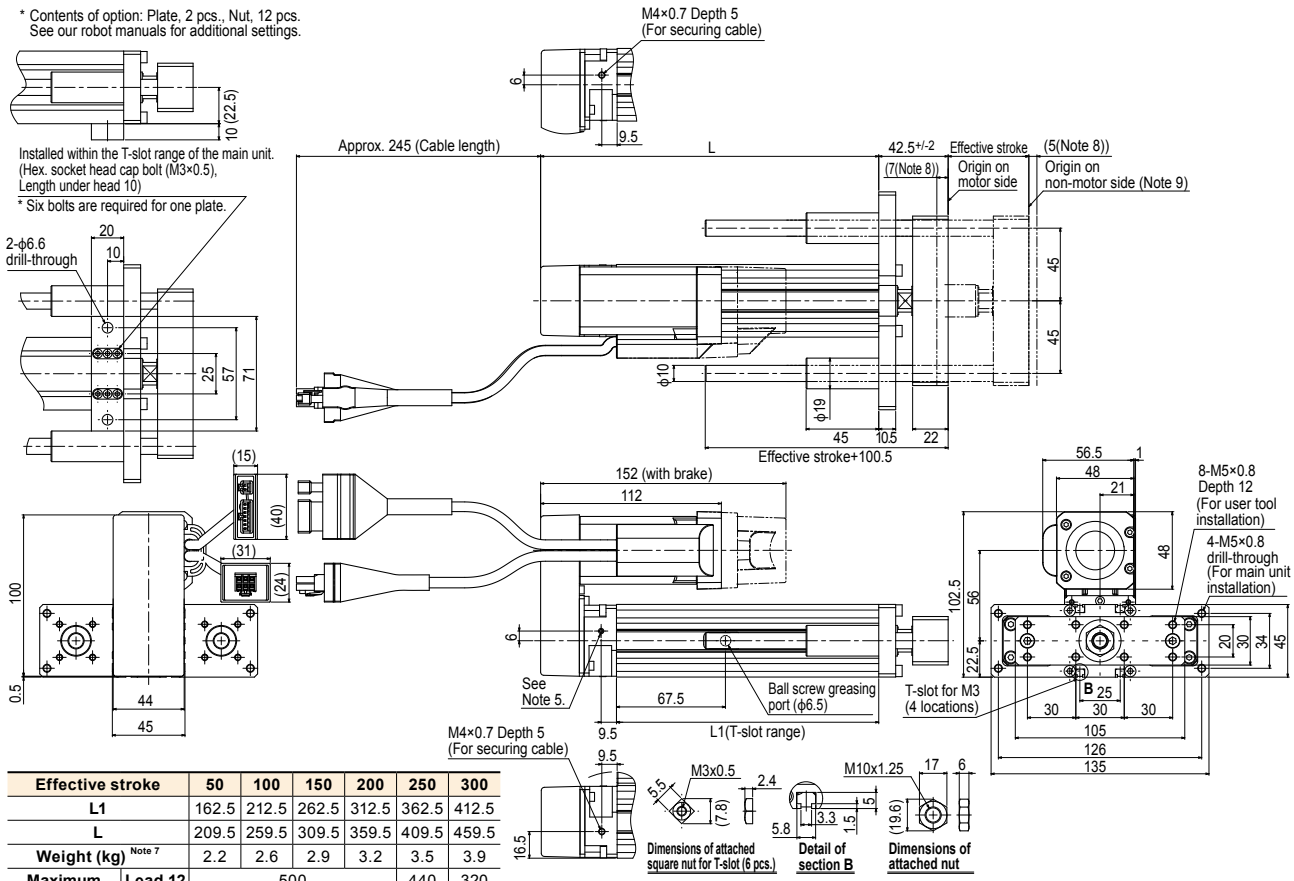
Note 1. It is possible to apply only the axial load.
Use the external guide together so that any radial load is not applied to the rod.
Note 2. For lead 2mm specifications, the origin on the non-motor side cannot be set.
Note 3. When running the cables, secure cables so that any load is not applied to them.
Note 4. Remove the M4 hex. socket head cap set bolts and use them to secure the cables. (Effective screw thread depth 5)
Note 5. The cable's minimum bend radius is R30.
Note 6. Models with a brake will be 0.2kg heavier.
Note 7. Distance to mechanical stopper.

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

SRD04 Space-saving model (motor installed on top) U

Option: Horizontal installation plate (foot)

* Contents of option: Plate, 2 pcs., Nut, 12 pcs.
See our robot manuals for additional settings.



Effective stroke		50	100	150	200	250	300
L1		162.5	212.5	262.5	312.5	362.5	412.5
L		209.5	259.5	309.5	359.5	409.5	459.5
Weight (kg) Note 7		2.2	2.6	2.9	3.2	3.5	3.9
Maximum speed for each stroke (mm/sec)	Lead 12	500				440	320
	Lead 6	250				220	160
	Lead 2	80				72	53

Note 1. It is possible to apply only the axial load.
Use the external guide together so that any radial load is not applied to the rod.
Note 2. The orientation of the width across flat part is undefined to the base surface.
Note 3. Use the support guide together to maintain the straightness.
Note 4. When running the cables, secure cables so that any load is not applied to them.
Note 5. Remove the M4 hex. socket head cap set bolts and use them to secure the cables. (Effective screw thread depth 5)
Note 6. The cable's minimum bend radius is R30.
Note 7. Models with a brake will be 0.2kg heavier.
Note 8. Distance to mechanical stopper.
Note 9. For lead 2mm specifications, the origin on the non-motor side cannot be set.