

# SRD04

Rod type (With support guide)



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

## Ordering method

### SRD04

<b>Model</b>	<b>Lead</b>	<b>Model</b>	<b>Brake</b>	<b>Origin position</b> <small>Note 1</small>	<b>Bracket plate</b>	<b>Stroke</b>	<b>Cable length</b> <small>Note 2</small>	<b>Robot positioner</b>	<b>I/O</b>	<b>Battery</b> <small>Note 6</small>
	12: 12mm 06: 6mm 02: 2mm	S: Straight model J: Space-saving model <small>Note 3</small> (motor installed on top)	N: With no brake B: With brake	N: Standard Z: Non-motor side	N: No plate H: With plate	50 to 300 (50mm pitch)	1L: 1m 3L: 3m 5L: 5m 10L: 10m	S2: TS-S2 <small>Note 4</small> SH: TS-SH	NP: NPN PN: PNP CC: CC-Link DN: DeviceNet™ EP: EtherNet/IP™ GW: No I/O board <small>Note 5</small>	B: With battery (Absolute) N: None (Incremental)
								<b>SD</b>	<b>1</b>	
								<b>Robot driver</b>	<b>I/O cable</b>	
								SD: TS-SD	t: 1m	

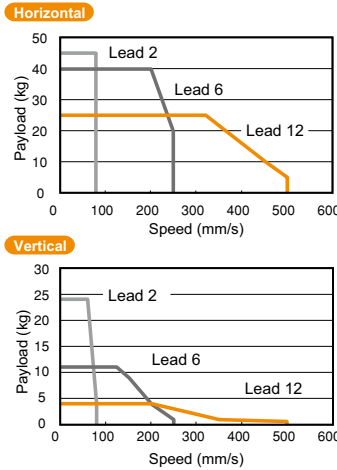
Note 1. When "2mm lead" is selected, the origin position cannot be changed (to non-motor side).  
 Note 2. The robot cable is flexible and resists bending.  
 Note 3. See P.85 for grease gun nozzles.  
 Note 4. See P.446 for DIN rail mounting bracket.  
 Note 5. Select this selection when using the gateway function. For details, see P.439.  
 Note 6. Select whether or not the battery is provided only when using the TS-SH.

## Basic specifications

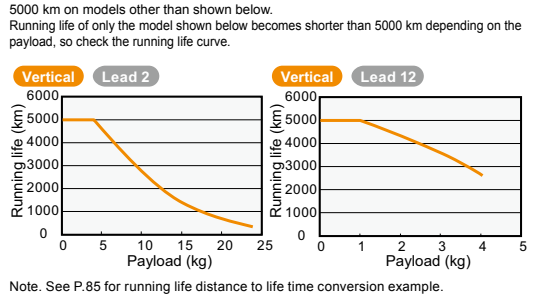
<b>Motor</b>	42 □ Step motor	
<b>Resolution (Pulse/rotation)</b>	20480	
<b>Repeatability (mm)</b>	±0.02	
<b>Deceleration mechanism</b>	Ball screw φ8 (Class C10)	Ball screw φ10 (Class C10)
<b>Ball screw lead (mm)</b>	12    6    2	
<b>Maximum speed (mm/sec)</b>	500    250    80	
<b>Maximum payload (kg)</b>	<b>Horizontal</b> 25    40    45	<b>Vertical</b> 4    11    24
<b>Max. pressing force (N)</b>	150    300    600	
<b>Stroke (mm)</b>	50 to 300 (50pitch)	
<b>Lost motion</b>	0.1mm or less	
<b>Rotating backlash (°)</b>	±0.05	
<b>Overall length (mm)</b>	<b>Horizontal</b> Stroke+263	<b>Vertical</b> Stroke+303
<b>Maximum outside dimension of body cross-section (mm)</b>	W48 × H58	
<b>Cable length (m)</b>	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. 84.  
 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



## Running life

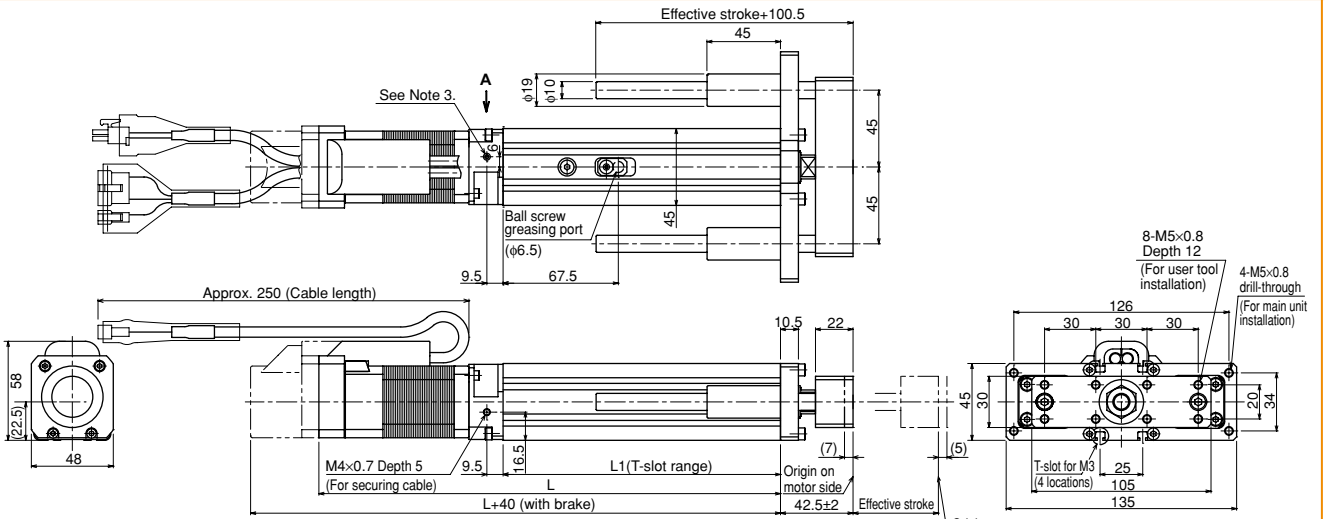


Note. See P.85 for running life distance to life time conversion example.

## Controller

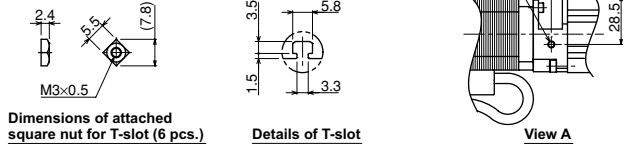
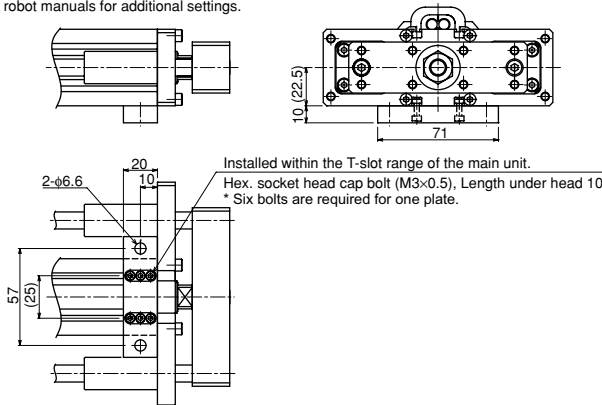
Controller	Operation method	Controller	Operation method
TS-S2 TS-SH	I/O point trace / Remote command	TS-SD	Pulse train control

## 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.



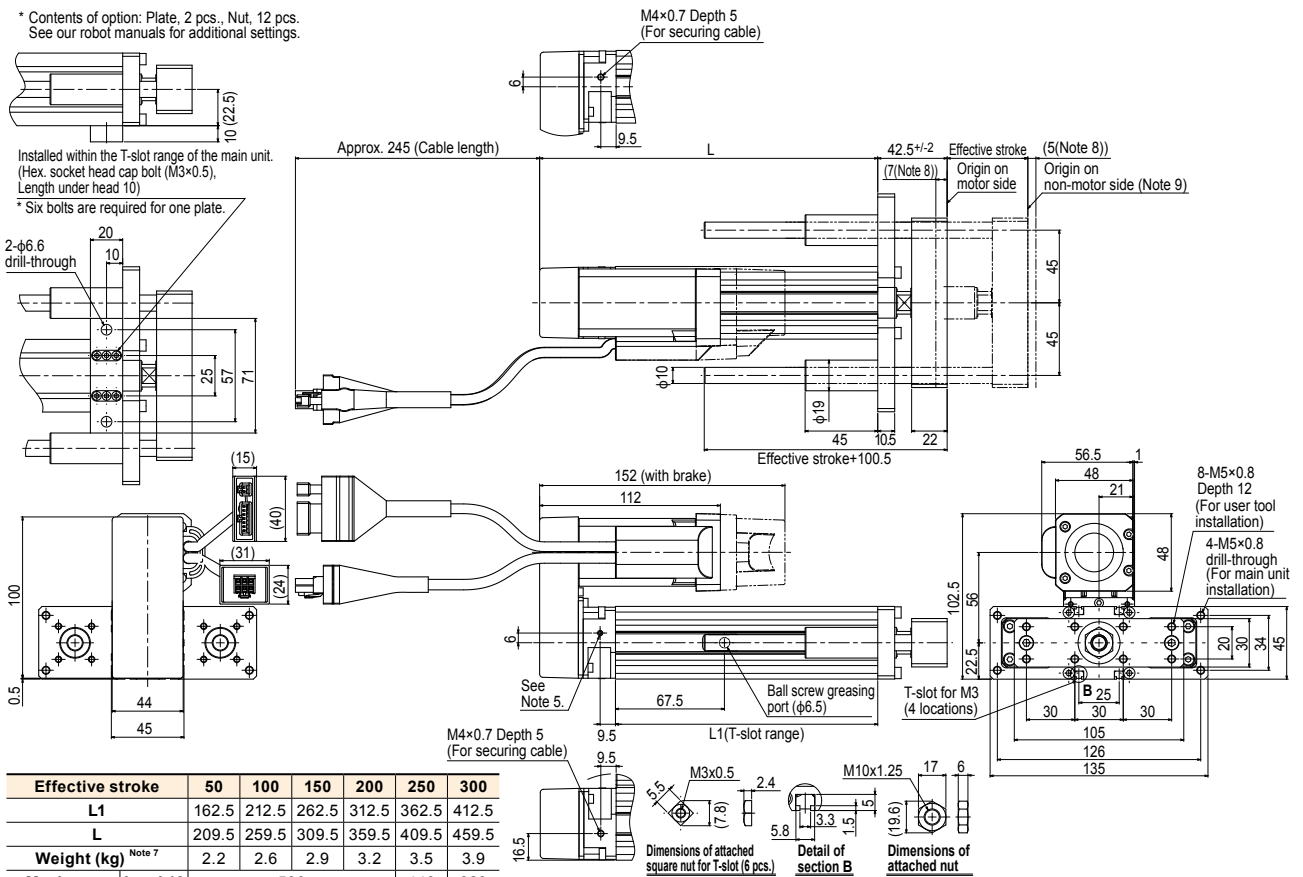
Effective stroke	50	100	150	200	250	300
<b>L1</b>	162.5	212.5	262.5	312.5	362.5	412.5
<b>L</b>	270.5	320.5	370.5	420.5	470.5	520.5
<b>Weight (kg)</b> <small>Note 6</small>	2.0	2.4	2.7	3.0	3.3	3.7
<b>Maximum speed for each stroke (mm/sec)</b>						
Lead 12		500			440	320
Lead 6			250		220	160
Lead 2	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

Note1. 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.  
 Note2. For lead 2mm specifications, the origin on the non-motor side cannot be set.  
 Note3. When running the cables, secure cables so that any load is not applied to them.  
 Note4. Remove the M4 hex. socket head cap set bolts and use them to secure the cables.  
 (Effective screw thread depth 5)  
 Note5. The cable's minimum bend radius is R30.  
 Note6. Models with a brake will be 0.2kg heavier.  
 Note7. Distance to mechanical stopper.

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.



Note1. 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.  
Note2. The orientation of the width across flat part is undefined to the base surface.

Note3. Use the support guide together to maintain the straightness.  
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.