

RCS2-SRA7BD

ROBO Cylinder Rod Type 75mm Width 200V Servo Motor
Short-Length Type

■ Configuration: **RCS2** — **SRA7BD** — — — — — — — — —

Series — Type — Encoder — Motor — Lead — Stroke — Compatible Controllers — Cable Length — Option

I : Incremental
60 : 60W Servo Motor
100 : 100W Servo Motor
150 : 150W Servo Motor

16 : 16mm
8 : 8mm
4 : 4mm

50 : 50mm
300 : 300mm (50mm pitch increments)

T1 : XSEL-J/K
T2 : SCON
SSEL
XSEL-P/Q

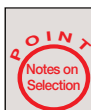
N : None
P : 1m
S : 3m
M : 5m
X : Custom
R : Robot cable

See Options below

* See page Pre-35 for an explanation of the naming convention.



Technical References P. A-5



- (1) When operated at the rated acceleration, the maximum load capacity is the load capacity at the rated acceleration.
- (2) When operated at the maximum acceleration, the maximum load capacity is the load capacity at the maximum acceleration.
- (3) If positioning repeatability and/or lost motion is required, the rotation of the rod must be restricted. In this case, select a model with a guide, or add a separate guide.
- (4) The standard model may exhibit vibration of the rod at long strokes. If this is an issue, select a model with a guide, or add a separate guide.

Actuator Specifications

Lead and Load Capacity

| Model | Motor Output (W) | Lead (mm) | Rated Acceleration (G) | Load Capacity at Rated Acceleration | | Maximum Acceleration (G) | Load Capacity at Max. Acceleration | | Rated Thrust (N) | Stroke (mm) |
|------------------------------|------------------|-----------|------------------------|-------------------------------------|---------------|--------------------------|------------------------------------|---------------|------------------|-------------|
| | | | | Horizontal (kg) | Vertical (kg) | | Horizontal (kg) | Vertical (kg) | | |
| RCS2-SRA7BD-I-60-16-①-②-③-④ | 60 | 16 | 0.25 | 5 | 2 | 0.35 | 2.5 | 1 | 63 | |
| RCS2-SRA7BD-I-60-8-①-②-③-④ | | 8 | 0.15 | 10 | 5 | 0.25 | 5 | 2.5 | | 127 |
| RCS2-SRA7BD-I-60-4-①-②-③-④ | | 4 | 0.05 | 20 | 10 | 0.15 | 10 | 5 | | 254 |
| RCS2-SRA7BD-I-100-16-①-②-③-④ | 100 | 16 | 0.3 | 10 | 3.5 | 0.4 | 5 | 1.5 | 103 | |
| RCS2-SRA7BD-I-100-8-①-②-③-④ | | 8 | 0.2 | 22 | 9 | 0.3 | 10 | 4.5 | | 207 |
| RCS2-SRA7BD-I-100-4-①-②-③-④ | | 4 | 0.1 | 40 | 19.5 | 0.2 | 20 | 9 | | 414 |
| RCS2-SRA7BD-I-150-16-①-②-③-④ | 150 | 16 | 0.3 | 15 | 6.5 | 0.4 | 7.5 | 3 | 157 | |
| RCS2-SRA7BD-I-150-8-①-②-③-④ | | 8 | 0.2 | 35 | 14.5 | 0.3 | 17.5 | 7 | | 314 |
| RCS2-SRA7BD-I-150-4-①-②-③-④ | | 4 | 0.1 | 55 | 22.5 | 0.2 | 27.5 | 11 | | 628 |

Legend ① Stroke ② Compatible controller ③ Cable length ④ Options

Stroke and Maximum Speed

| Stroke Lead | Stroke | 50 ~ 300 (50mm increments) |
|-------------|--------|----------------------------|
| | | Maximum Speed (mm/s) |
| 16 | 16 | 800 |
| 8 | 8 | 400 |
| 4 | 4 | 200 |

(Unit: mm/s)

① Stroke List

| Stroke (mm) | Standard Price | | |
|-------------|--------------------|------|------|
| | Motor power output | | |
| | 60W | 100W | 150W |
| 50 | - | - | - |
| 100 | - | - | - |
| 150 | - | - | - |
| 200 | - | - | - |
| 250 | - | - | - |
| 300 | - | - | - |

③ Cable List

| Type | Cable Symbol | Standard Price |
|-----------------|-----------------------|----------------|
| Standard | P (1m) | - |
| | S (3m) | - |
| | M (5m) | - |
| Special Lengths | X06 (6m) ~ X10 (10m) | - |
| | X11 (11m) ~ X15 (15m) | - |
| | X16 (16m) ~ X20 (20m) | - |
| Robot Cable | R01 (1m) ~ R03 (3m) | - |
| | R04 (4m) ~ R05 (5m) | - |
| | R06 (6m) ~ R10 (10m) | - |
| | R11 (11m) ~ R15 (15m) | - |
| | R16 (16m) ~ R20 (20m) | - |
| | | |

* See page A-39 for cables for maintenance.

④ Option List

| Name | Option Code | See Page | Standard Price |
|--------------------------------|-------------|----------|----------------|
| Connector cable exit direction | A1 ~ A3 | → A-25 | - |
| Brake | B | → A-25 | - |
| Flange | FL | → A-27 | - |
| Foot bracket | FT | → A-29 | - |
| Extended rod tip | RE | → A-35 | - |

Actuator Specifications

| Item | Description |
|----------------------------------|--|
| Drive System | Ball screw ø12mm C10 grade |
| Positioning Repeatability | ±0.02mm |
| Lost Motion | 0.1mm or less |
| Base | Material: Aluminum (white alumite treated) |
| Rod Diameter | ø35mm |
| Non-rotating accuracy of rod | - |
| Ambient Operating Temp./Humidity | 0 ~ 40°C, 85% RH or less (non-condensing) |

241

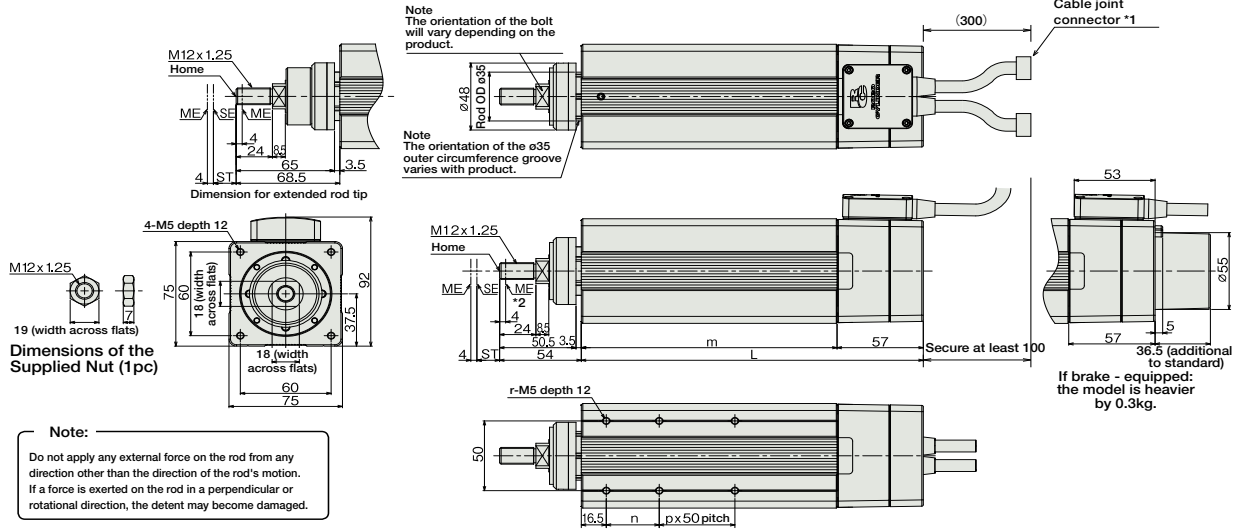
RCS2-SRA7BD

Dimensions

For Special Orders P. A-9

* The SRA7BD is not available in reversed-home configuration, due to its construction.

- *1. The motor-encoder cable is connected here. See page A-39 for details on cables.
- *2. When homing, the rod moves to the mechanical end position; therefore, please watch for any interference with the surrounding objects.
ST: Stroke
SE: Stroke end
ME: Mechanical end
- *3. The orientation of the bolt will vary depending on the product.



Dimensions/Weight by Stroke

| Stroke | Stroke | | | | | | |
|-------------|--------|-----|-----|-----|-----|-----|-----|
| | 50 | 100 | 150 | 200 | 250 | 300 | |
| L | 60W | 126 | 176 | 226 | 276 | 326 | 376 |
| | 100W | 133 | 176 | 226 | 276 | 326 | 376 |
| | 150W | 145 | 176 | 226 | 276 | 326 | 376 |
| m | 60W | 69 | 119 | 169 | 219 | 269 | 319 |
| | 100W | 76 | 119 | 169 | 219 | 269 | 319 |
| | 150W | 88 | 119 | 169 | 219 | 269 | 319 |
| n | 25 | 35 | 35 | 35 | 35 | 35 | |
| p | 0 | 0 | 1 | 2 | 3 | 4 | |
| r | 4 | 4 | 6 | 8 | 10 | 12 | |
| Weight (kg) | 60W | 2.4 | 2.9 | 3.5 | 4.1 | 4.6 | 5.2 |
| | 100W | 2.6 | 3.1 | 3.7 | 4.2 | 4.8 | 5.4 |
| | 150W | 2.9 | 3.3 | 3.9 | 4.4 | 5 | 5.6 |

② Compatible Controllers

The RCS2 series actuators can operate with the controllers below. Select the controller according to your usage.

| Name | External View | Model | Description | Max. Positioning Points | Input Voltage | Power Supply Capacity | Standard Price | See Page |
|--------------------------------|---------------|------------------------|---|-------------------------|---|---|----------------|----------|
| Positioner Mode | | SCON-C-①I-NP-2-② | Positioning is possible for up to 512 points | 512 points | Single-Phase AC 100V Single-Phase AC 200V Three-phase AC 200V (XSEL-P/Q only) | 360VA max. * When operating a 150W single-axis model | - | → P547 |
| Solenoid Valve Mode | | | Operable with same controls as solenoid valve. | 7 points | | | | |
| Serial Communication Type | | | Dedicated to serial communication | 64 points | | | | |
| Pulse Train Input Control Type | | | Dedicated to Pulse Train Input | (-) | | | | |
| Program Control 1-2 Axes Type | | SSEL-C-1-①I-NP-2-② | Programmed operation is possible. Operation is possible on up to 2 axes | 20000 points | | | - | → P577 |
| Program Control 1-6 Axes Type | | XSEL-③-1-①I-NI-EEE-2-④ | Programmed operation is possible. Operation is possible on up to 6 axes | 20000 points | | | - | → P587 |

Note: The SRA7BD type actuator cannot be connected to the 5th and 6th axis of the XSEL-P/Q controller.

- * For SSEL and XSEL, only applicable to the single-axis model.
- * ① is a placeholder for the motor output (W) (60, 100, 150).
- * ② is a placeholder for the power supply voltage (1: 100V, 2: single-phase 200V).
- * ③ is a placeholder for the XSEL type name ("J", "K", "P", or "Q").
- * ④ is a placeholder for the power supply voltage (1: 100V, 2: single-phase 200V, or 3: three-phase 200V).



- Slider Type
- Mini
- Standard
- Controllers Integrated
- Rod Type
- Mini
- Standard
- Controllers Integrated
- Table/Arm/Flat Type
- Mini
- Standard
- Gripper/Rotary Type
- Linear Servo Type
- Cleanroom Type
- Splash Proof
- Controllers
- PMEC/AMEC
- PSEP/ASEP
- ROBO NET
- ERC2
- PCON
- ACON
- SCON
- PSEL
- ASEL
- SSEL
- XSEL
- Pulse Motor
- Servo Motor (24V)
- Servo Motor (200V)
- Linear Servo Motor