

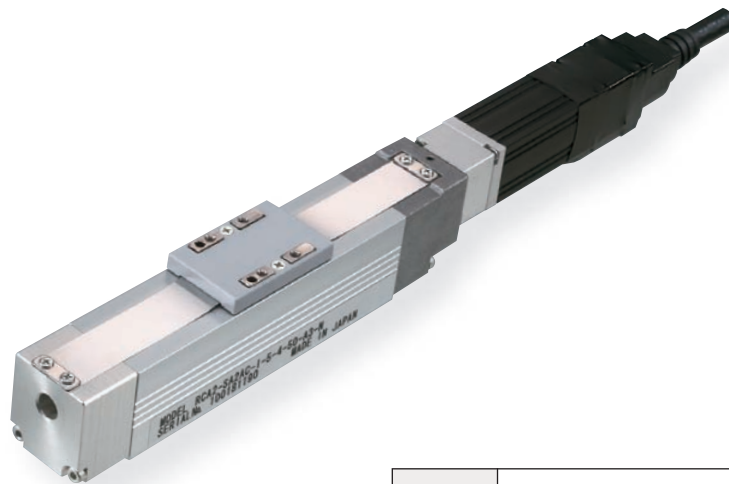
RCA2-SA2AC

RoboCylinder Mini Slider Type Motor Unit Coupling Type Actuator Width 20 mm 24 V Servo Motor Ball Screw Specification

■ Model Description **RCA2 – SA2AC – I – 5 –** [] – [] – [] – [] – []

| Series | Type | Encoder type | Motor type | Lead | Stroke | Compatible Controllers | Cable Length | Option |
|--------|------|--|-------------------|----------------------------|--|------------------------|--|--|
| | | I: Incremental specification * Model number is "I" when used with simple absolute unit. | 5: Servo Motor 5W | 4: 4mm 2: 2mm 1: 1mm | 25: 25mm 1 100: 100mm (every 25mm) | A3: ASEP | N: None P: 1m S: 3m M: 5m X[]: Length Designation | Following options Refer to below table |

*See page 13 for details on the model descriptions.



POINT
Notes on selection

(1) The payload is the value when operated at 0.3G acceleration. The acceleration upper limit is the value indicated above.
(2) Take note that, since there is no brake, the slider may come down when the power is turned off if the actuator is used vertically.

Actuator Specification Table

Leads and Payloads

| Model | Feed screw | Lead (mm) | Maximum payload | | Positioning Repeatability (mm) | Stroke (mm) |
|---------------------------|------------|-----------|-----------------|---------------|--------------------------------|------------------------|
| | | | Horizontal (kg) | Vertical (kg) | | |
| RCA2-SA2AC-I-5-4-①-A3-②-③ | Ball screw | 4 | 0.5 | 0.25 | ±0.02 | 25 to 100 (every 25mm) |
| RCA2-SA2AC-I-5-2-①-A3-②-③ | | 2 | 1 | 0.5 | | |
| RCA2-SA2AC-I-5-1-①-A3-②-③ | | 1 | 2 | 1 | | |

Legend ① Stroke ② Cable length ③ Option

Stroke and Maximum Speed

| Lead | Stroke | Maximum Speed | |
|------------|--------|---------------|----------------|
| | | 25 (mm) | 50 to 100 (mm) |
| Ball screw | 4 | 180 | 200 |
| | 2 | 100 | |
| | 1 | 50 | |

(Unit = mm/s)

Cable length

| Type | Cable symbol |
|-----------------------------|------------------------|
| Standard type (Robot cable) | P (1m) |
| | S (3m) |
| | M (5m) |
| Special length | X06 (6m) to X10 (10m) |
| | X11 (11m) to X15 (15m) |
| | X16 (16m) to X20 (20m) |

*The standard cable for the RCA2 is the robot cable.

Actuator Specification

| Item | Description |
|-----------------------------------|--|
| Drive System | Ball screw, φ4mm, rolled C10 |
| Lost Motion | 0.1mm or less |
| Base | Material: Aluminum, white alumite treated |
| Guide | Linear guide |
| Allowable Dynamic Moment | Ma: 0.22N-m Mb: 0.31N-m Mc: 0.28N-m |
| Allowable Overhang | 40mm or less in Ma, Mb and Mc directions |
| Ambient Operating Temp., Humidity | 0 to 40 °C, 85% RH or less (No condensation) |
| Service life | 5000km |

Options

| Title | Option code | See page |
|-----------------------------|-------------|----------|
| Reversed-home specification | NM | — |

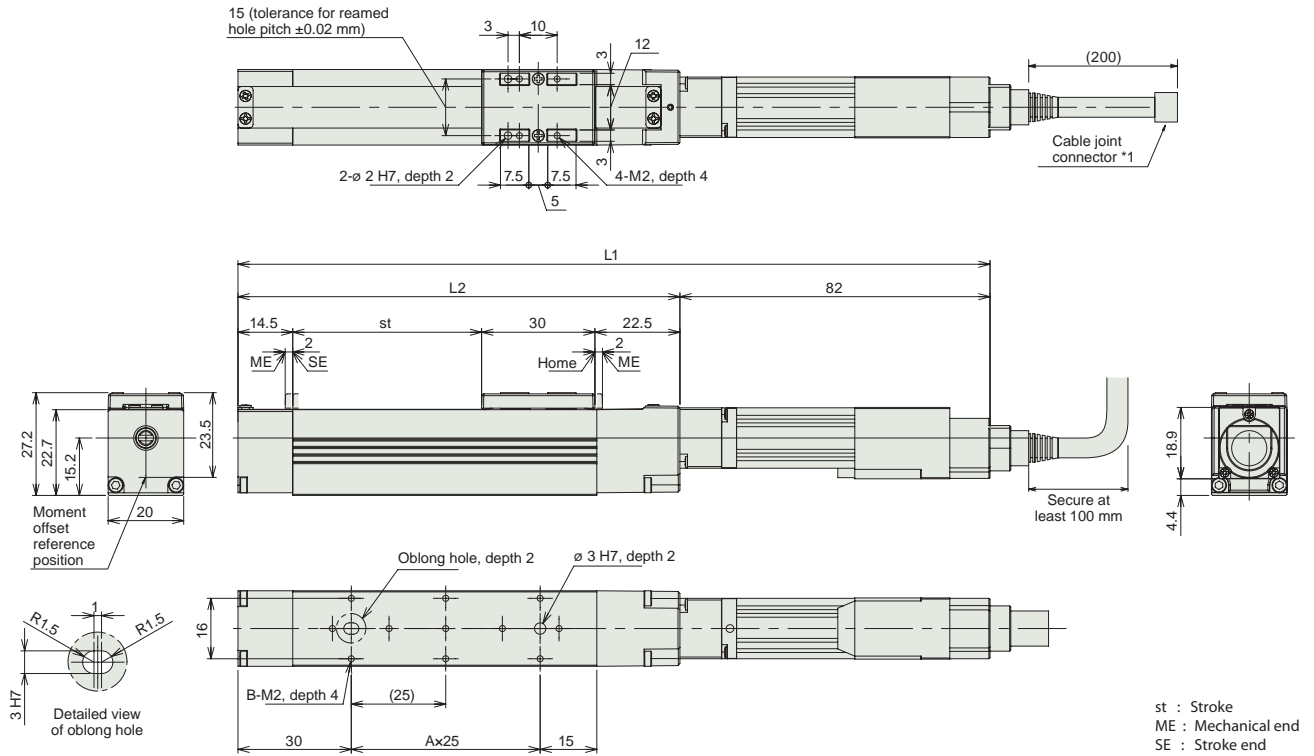
Dimensional Drawings

CAD drawings can be downloaded from the website.

www.robocylinder.de



- *1 Connect the motor and encoder cables.
- *2 During home return, be careful to avoid interference from peripheral objects because the slider travels until the mechanical end.
- *3 The direction of the surface across flats varies depending on the product.



■ Dimensions and Weight by Stroke

| Stroke | 25 | 50 | 75 | 100 |
|-----------|-----|------|------|------|
| L1 | 174 | 199 | 224 | 249 |
| L2 | 92 | 117 | 142 | 167 |
| A | 1 | 2 | 3 | 4 |
| B | 4 | 6 | 8 | 10 |
| Mass (kg) | 0.2 | 0.22 | 0.23 | 0.25 |

Compatible Controllers

RCA2 series actuators can be operated with the controllers indicated below. Select the type according to your intended application.

| Title | External View | Model | Features | Maximum number of positioning points | Input power | Power-supply capacity | Reference Page |
|--------------------------------|---------------|--------------------|--|--------------------------------------|-------------|---------------------------------------|----------------|
| Solenoid valve type | | ASEP-C-SSI-NP-2-0 | Simple controller capable of operating with the same signal as the solenoid valve. Supports the use of both the single solenoid and the double solenoid types. Simple Absolute type makes the return to home unnecessary. | 3 points | DC24V | (Standard) 1.5A rated 2.5A max. | →P123 |
| Dust-proof solenoid valve type | | PSEP-CW-SSI-NP-2-0 | | | | | |

RCA2-SA2AR

RoboCylinder Mini Slider Type Motor Unit Reverse-mounted Type Actuator Width 20 mm 24 V Servo Motor Ball Screw Specification

■ Model Description **RCA2** – **SA2AR** – **I** – **5** – – – – –

| Series | Type | Encoder type | Motor type | Lead | Stroke | Compatible Controllers | Cable Length | Option |
|--------|------|--|-------------------|----------------------------|--|------------------------|--|--|
| | | I: Incremental specification * Model number is "I" when used with simple absolute unit. | 5: Servo Motor 5W | 4: 4mm 2: 2mm 1: 1mm | 25: 25mm 1 100: 100mm (every 25mm) | A3: ASEP | N: None P: 1m S: 3m M: 5m X <input type="checkbox"/> <input type="checkbox"/> : Length Designation | Following options Refer to below table * Be sure to specify which side the motor is to be mounted (ML/MR) |

*See page 13 for details on the model descriptions.



POINT
Notes on selection

(1) The payload is the value when operated at 0.3G acceleration. The acceleration upper limit is the value indicated above.
 (2) Take note that, since there is no brake, the slider may come down when the power is turned off if the actuator is used vertically.

Actuator Specification Table

Leads and Payloads

| Model | Feed screw | Lead (mm) | Maximum payload | | Positioning Repeatability (mm) | Stroke (mm) |
|---|------------|-----------|-----------------|---------------|--------------------------------|------------------------|
| | | | Horizontal (kg) | Vertical (kg) | | |
| RCA2-SA2AR-I-5-4- <input type="text"/> -A3- <input type="text"/> - <input type="text"/> | Ball screw | 4 | 0.5 | 0.25 | ±0.02 | 25 to 100 (every 25mm) |
| RCA2-SA2AR-I-5-2- <input type="text"/> -A3- <input type="text"/> - <input type="text"/> | | 2 | 1 | 0.5 | | |
| RCA2-SA2AR-I-5-1- <input type="text"/> -A3- <input type="text"/> - <input type="text"/> | | 1 | 2 | 1 | | |

Legend Stroke Cable length Option

Stroke and Maximum Speed

| Lead | Stroke | Maximum Speed | |
|------------|--------|---------------|----------------|
| | | 25 (mm) | 50 to 100 (mm) |
| Ball screw | 4 | 180 | 200 |
| | 2 | 100 | |
| | 1 | 50 | |

(Unit = mm/s)

Cable length

| Type | Cable symbol |
|-----------------------------|------------------------|
| Standard type (Robot cable) | P (1m) |
| | S (3m) |
| | M (5m) |
| Special length | X06 (6m) to X10 (10m) |
| | X11 (11m) to X15 (15m) |
| | X16 (16m) to X20 (20m) |

* The standard cable for the RCA2 is the robot cable.

Actuator Specification

| Item | Description |
|-----------------------------------|--|
| Drive System | Ball screw, φ4mm, rolled C10 |
| Lost Motion | 0.1mm or less |
| Base | Material: Aluminum, white alumite treated |
| Guide | Linear guide |
| Allowable Dynamic Moment | Ma: 0.22N-m Mb: 0.31N-m Mc: 0.28N-m |
| Allowable Overhang | 40mm or less in Ma, Mb and Mc directions |
| Ambient Operating Temp., Humidity | 0 to 40 °C, 85% RH or less (No condensation) |
| Service life | 5000km |

Options

| Title | Option code | See page |
|---------------------------------|-------------|----------|
| Reversed-home specification | NM | – |
| Motor side mounted to the right | MR | – |
| Motor side mounted to the left | ML | – |

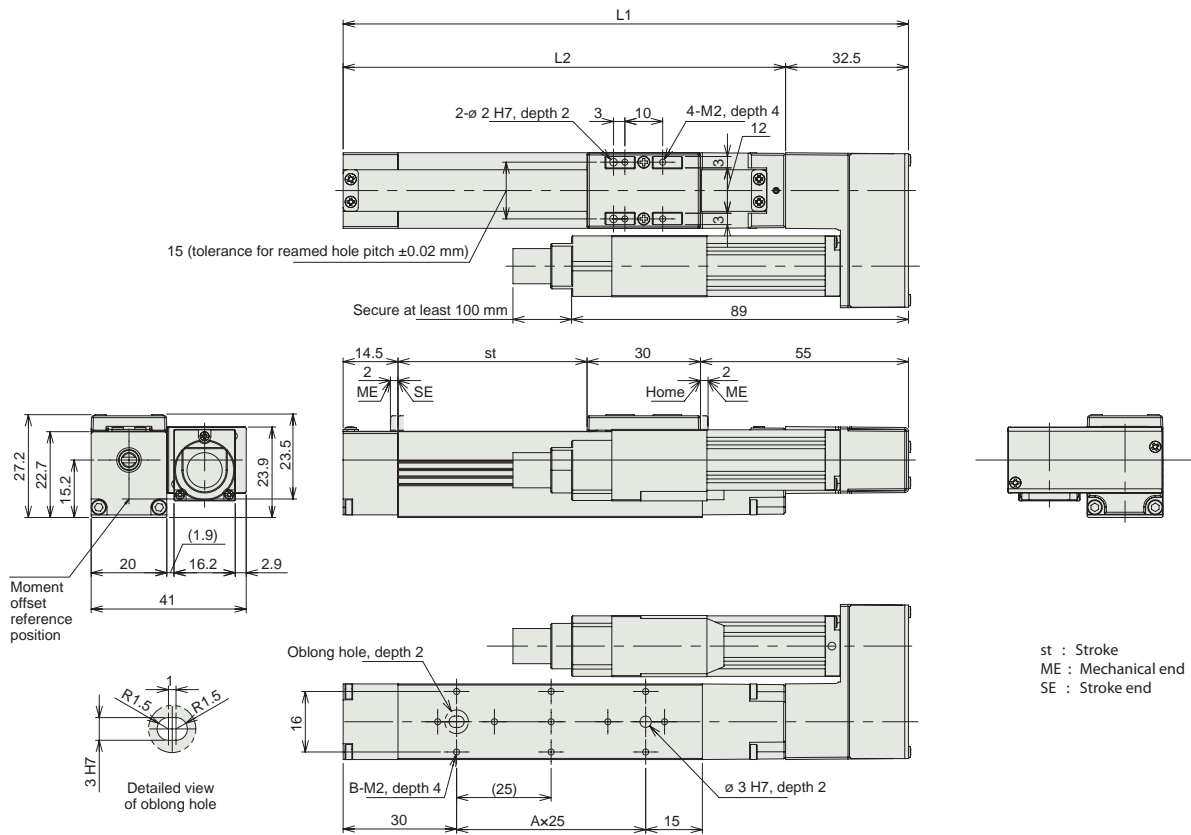
Dimensional Drawings

CAD drawings can be downloaded from the website.

www.robocylinder.de



- *1 Connect the motor and encoder cables.
- *2 During home return, be careful to avoid interference from peripheral objects because the slider travels until the mechanical end.
- *3 The direction of the surface across flats varies depending on the product.



st : Stroke
ME : Mechanical end
SE : Stroke end

■ Dimensions and Weight by Stroke

| Stroke | 25 | 50 | 75 | 100 |
|-----------|-------|-------|-------|-------|
| L1 | 124.5 | 149.5 | 174.5 | 199.5 |
| L2 | 92 | 117 | 142 | 167 |
| A | 1 | 2 | 3 | 4 |
| B | 4 | 6 | 8 | 10 |
| Mass (kg) | 0.23 | 0.25 | 0.26 | 0.28 |

Compatible Controllers

RCA2 series actuators can be operated with the controllers indicated below. Select the type according to your intended application.

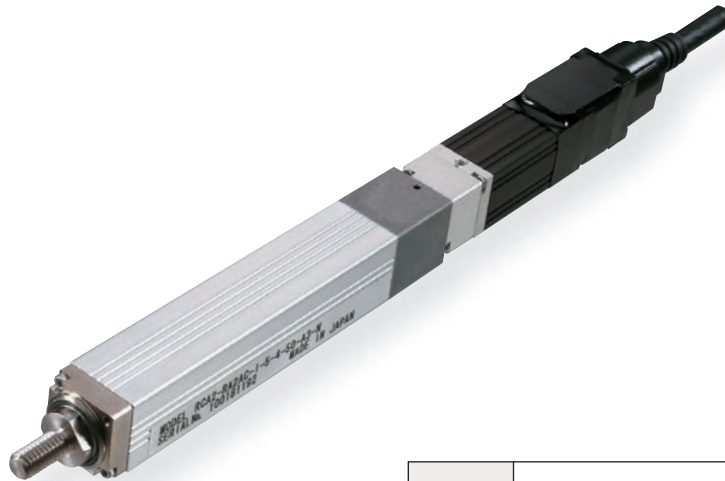
| Title | External View | Model | Features | Maximum number of positioning points | Input power | Power-supply capacity | | Reference Page |
|--------------------------------|---------------|--------------------|--|--------------------------------------|-------------|---------------------------------------|--|----------------|
| Solenoid valve type | | ASEP-C-SSI-NP-2-0 | Simple controller capable of operating with the same signal as the solenoid valve. | 3 points | DC24V | (Standard) 1.5A rated 2.5A max. | | →P123 |
| Dust-proof solenoid valve type | | PSEP-CW-SSI-NP-2-0 | Supports the use of both the single solenoid and the double solenoid types. Simple Absolute type makes the return to home unnecessary. | | | | | |

RCA2-RA2AC

RoboCylinder Mini Rod Type Motor Unit Coupling Type Actuator Width 18 mm 24 V Servo Motor Ball Screw Specification

| | | | | | | | | | |
|---------------------|--------------|--|----------------------|----------------------------|---|------------------------|---|---|--|
| ■ Model Description | | | | | | | | | |
| RCA2 | RA2AC | I | 5 | | | | | | |
| Series | Type | Encoder type | Motor type | Lead | Stroke | Compatible Controllers | Cable Length | Option | |
| | | I: Incremental specification * Model number is "I" when used with simple absolute unit. | 5: Servo Motor 5W | 4: 4mm 2: 2mm 1: 1mm | 25: 25mm 1 100: 100mm (every 25mm) | A3: ASEP | N: None P: 1m S: 3m M: 5m X□□: Length Designation | Following options Refer to below table | |

*See page 13 for details on the model descriptions.



POINT

Notes on selection

(1) The payload is the value when operated at 0.3G acceleration. The acceleration upper limit is the value indicated above.

(2) Take note that, since there is no brake, the slider may come down when the power is turned off if the actuator is used vertically.

Actuator Specification Table

Leads and Payloads

| Model | Feed screw | Lead (mm) | Maximum payload | | Positioning Repeatability (mm) | Stroke (mm) |
|---------------------------|------------|-----------|-----------------|---------------|--------------------------------|------------------------|
| | | | Horizontal (kg) | Vertical (kg) | | |
| RCA2-RA2AC-I-5-4-①-A3-②-③ | Ball screw | 4 | 0.5 | 0.25 | ±0.02 | 25 to 100 (every 25mm) |
| RCA2-RA2AC-I-5-2-①-A3-②-③ | | 2 | 1 | 0.5 | | |
| RCA2-RA2AC-I-5-1-①-A3-②-③ | | 1 | 2 | 1 | | |

Legend ① Stroke ② Cable length ③ Option

Stroke and Maximum Speed

| Lead | Stroke | |
|------------|---------|----------------|
| | 25 (mm) | 50 to 100 (mm) |
| Ball screw | 4 | 180 |
| | 2 | 100 |
| | 1 | 50 |

(Unit = mm/s)

Cable length

| Type | Cable symbol |
|-----------------------------|------------------------|
| Standard type (Robot cable) | P (1m) |
| | S (3m) |
| | M (5m) |
| Special length | X06 (6m) to X10 (10m) |
| | X11 (11m) to X15 (15m) |
| | X16 (16m) to X20 (20m) |

* The standard cable for the RCA2 is the robot cable.

Actuator Specification

| Item | Description |
|-----------------------------------|--|
| Drive System | Ball screw, φ4mm, rolled C10 |
| Lost Motion | 0.1mm or less |
| Base | Material: Aluminum, white alumite treated |
| Non-rotating accuracy of rod | ±3.0 deg |
| Ambient Operating Temp., Humidity | 0 to 40 °C, 85% RH or less (No condensation) |
| Service life | 5000km |

Options

| Title | Option code | See page |
|-----------------------------|-------------|----------|
| Reversed-home specification | NM | - |

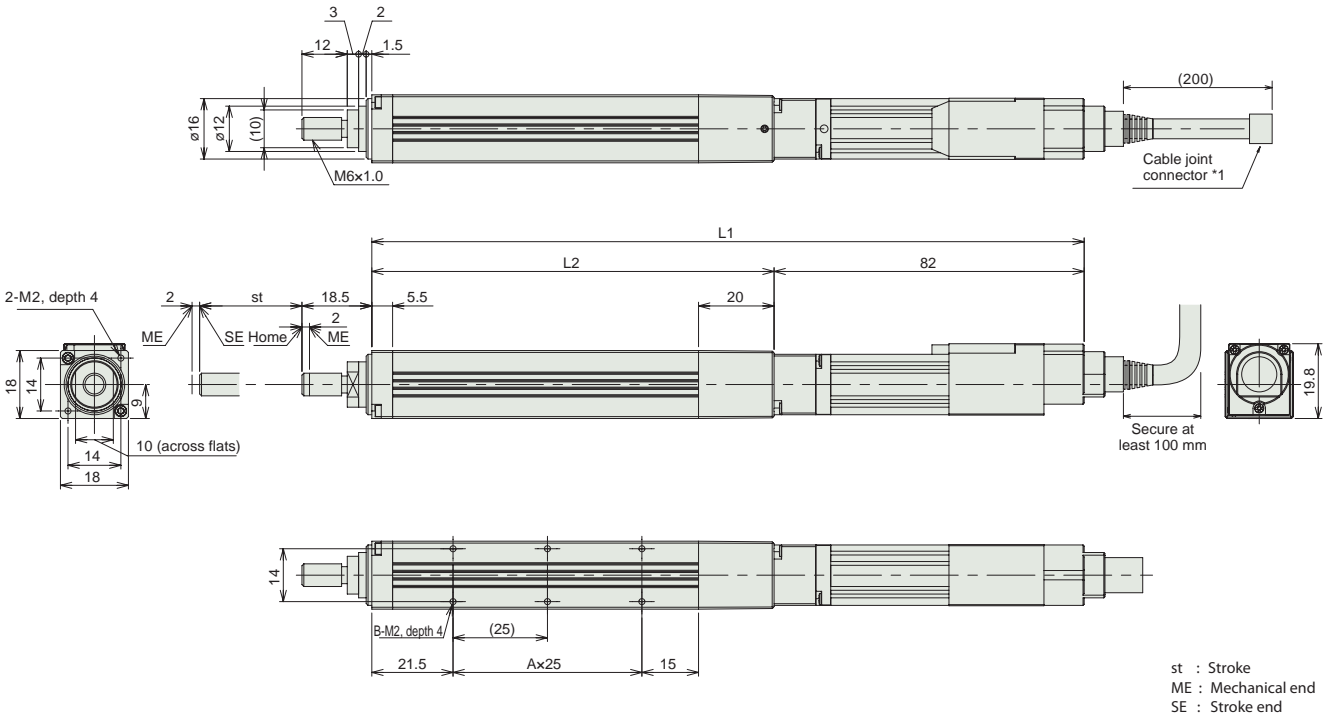
Dimensional Drawings

CAD drawings can be downloaded from the website.

www.robocylinder.de



- *1 Connect the motor and encoder cables.
- *2 During home return, be careful to avoid interference from peripheral objects because the slider travels until the mechanical end.
- *3 The direction of the surface across flats varies depending on the product.



■ Dimensions and Weight by Stroke

| Stroke | 25 | 50 | 75 | 100 |
|-----------|-------|-------|-------|-------|
| L1 | 163.5 | 188.5 | 213.5 | 238.5 |
| L2 | 81.5 | 106.5 | 131.5 | 156.5 |
| A | 1 | 2 | 3 | 4 |
| B | 4 | 6 | 8 | 10 |
| Mass (kg) | 0.17 | 0.19 | 0.2 | 0.22 |

Compatible Controllers

RCA2 series actuators can be operated with the controllers indicated below. Select the type according to your intended application.

| Title | External View | Model | Features | Maximum number of positioning points | Input power | Power-supply capacity | Reference Page |
|--------------------------------|---------------|--------------------|--|--------------------------------------|-------------|---------------------------------------|----------------|
| Solenoid valve type | | ASEP-C-SSI-NP-2-0 | Simple controller capable of operating with the same signal as the solenoid valve. | 3 points | DC24V | (Standard) 1.5A rated 2.5A max. | →P123 |
| Dust-proof solenoid valve type | | PSEP-CW-SSI-NP-2-0 | Supports the use of both the single solenoid and the double solenoid types. Simple Absolute type makes the return to home unnecessary. | | | | |

RCA2-RA2AR

RoboCylinder Mini Rod Type Motor Unit Reverse-mounted Type Actuator Width 18 mm 24 V Servo Motor Ball Screw Specification

| Model Description | | RCA2 | — | RA2AR | — | I | — | 5 | — | | — | | — | | — | | — | | | | | | | | | |
|-------------------|--|--------|---|-------|------|---|---|--|---|--|----------------------|---|---|----------------------------|---|--|---|---|--|------------------------|---|--|---|---|--|---|
| | | Series | — | | Type | — | | Encoder type | — | | Motor type | — | | Lead | — | | Stroke | — | | Compatible Controllers | — | | Cable Length | — | | Option |
| | | | | | | | | I: Incremental specification * Model number is "I" when used with simple absolute unit. | | | 5: Servo Motor 5W | | | 4: 4mm 2: 2mm 1: 1mm | | | 25: 25mm 1 100: 100mm (every 25mm) | | | A3: ASEP | | | N: None P: 1m S: 3m M: 5m X□□: Length Designation | | | Following options Refer to below table * Be sure to specify which side the motor is to be mounted (ML/MR/MT) |

*See page 13 for details on the model descriptions.



POINT

Notes on selection

(1) The payload is the value when operated at 0.3G acceleration. The acceleration upper limit is the value indicated above.

(2) Take note that, since there is no brake, the slider may come down when the power is turned off if the actuator is used vertically.

Actuator Specification Table

Leads and Payloads

| Model | Feed screw | Lead (mm) | Maximum payload | | Positioning Repeatability (mm) | Stroke (mm) |
|---------------------------|------------|-----------|-----------------|---------------|--------------------------------|------------------------|
| | | | Horizontal (kg) | Vertical (kg) | | |
| RCA2-RA2AR-I-5-4-①-A3-②-③ | Ball screw | 4 | 0.5 | 0.25 | ±0.02 | 25 to 100 (every 25mm) |
| RCA2-RA2AR-I-5-2-①-A3-②-③ | | 2 | 1 | 0.5 | | |
| RCA2-RA2AR-I-5-1-①-A3-②-③ | | 1 | 2 | 1 | | |

Legend ① Stroke ② Cable length ③ Option

Stroke and Maximum Speed

| Lead | Stroke | Maximum Speed | |
|------------|--------|---------------|----------------|
| | | 25 (mm) | 50 to 100 (mm) |
| Ball screw | 4 | 180 | 200 |
| | 2 | 100 | |
| | 1 | 50 | |

(Unit = mm/s)

Cable length

| Type | Cable symbol | |
|-----------------------------|------------------------|--|
| Standard type (Robot cable) | P (1m) | |
| | S (3m) | |
| | M (5m) | |
| Special length | X06 (6m) to X10 (10m) | |
| | X11 (11m) to X15 (15m) | |
| | X16 (16m) to X20 (20m) | |

*The standard cable for the RCA2 is the robot cable.

Actuator Specification

| Item | Description |
|-----------------------------------|--|
| Drive System | Ball screw, φ4mm, rolled C10 |
| Lost Motion | 0.1mm or less |
| Base | Material: Aluminum, white alumite treated |
| Non-rotating accuracy of rod | ±3.0 deg |
| Ambient Operating Temp., Humidity | 0 to 40 °C, 85% RH or less (No condensation) |
| Service life | 5000km |

Options

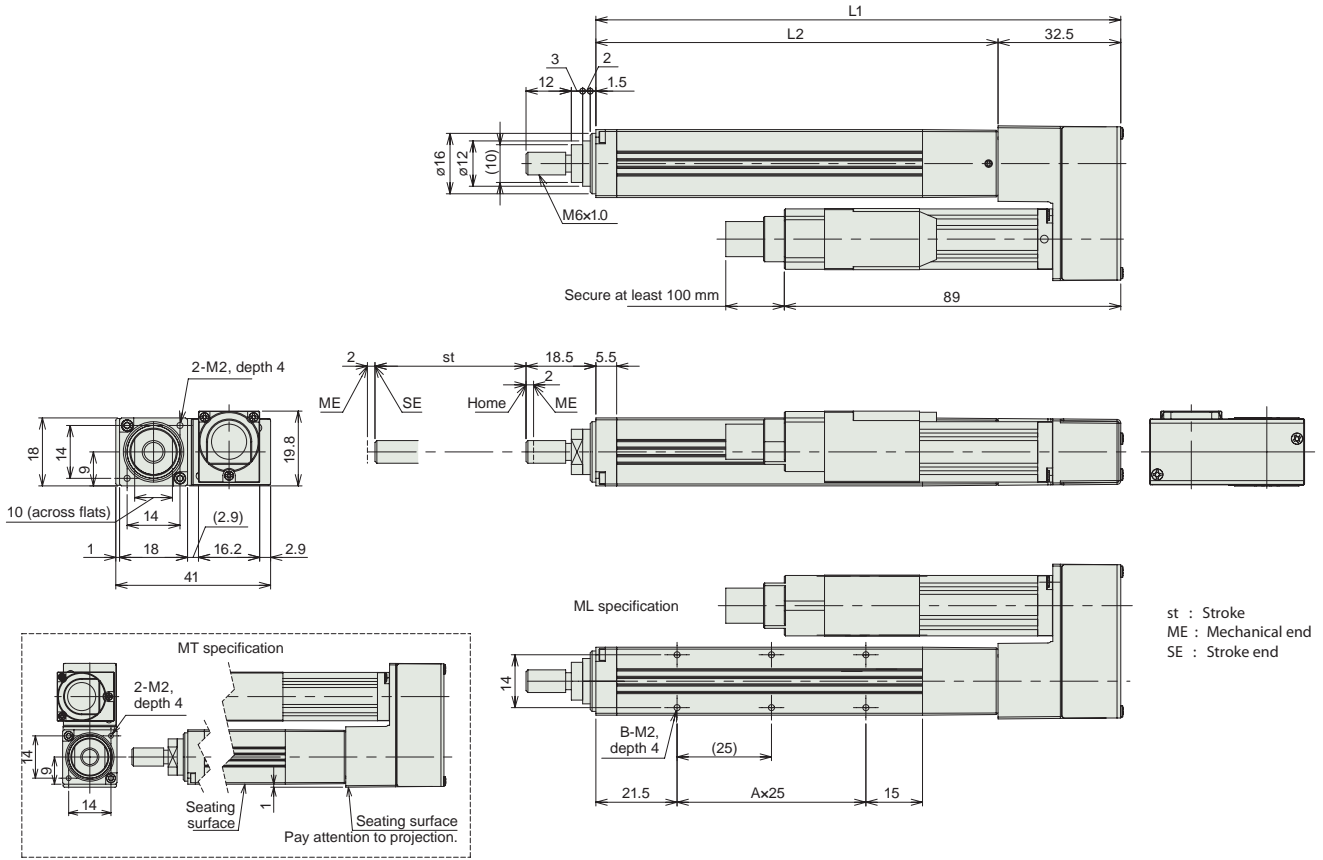
| Title | Option code | See page | |
|---------------------------------|-------------|----------|--|
| Reversed-home specification | NM | — | |
| Motor side mounted to the right | MR | — | |
| Motor side mounted to the left | ML | — | |
| Motor side mounted to the top | MT | — | |

Dimensional Drawings

CAD drawings can be downloaded from the website. www.robocylinder.de



- *1 Connect the motor and encoder cables.
- *2 During home return, be careful to avoid interference from peripheral objects because the slider travels until the mechanical end.
- *3 The direction of the surface across flats varies depending on the product.



st : Stroke
ME : Mechanical end
SE : Stroke end

■ Dimensions and Weight by Stroke

| Stroke | 25 | 50 | 75 | 100 |
|-----------|------|-------|-------|-------|
| L1 | 114 | 139 | 164 | 189 |
| L2 | 81.5 | 106.5 | 131.5 | 156.5 |
| A | 1 | 2 | 3 | 4 |
| B | 4 | 6 | 8 | 10 |
| Mass (kg) | 0.21 | 0.22 | 0.24 | 0.25 |

Compatible Controllers

RCA2 series actuators can be operated with the controllers indicated below. Select the type according to your intended application.

| Title | External View | Model | Features | Maximum number of positioning points | Input power | Power-supply capacity | Reference Page |
|--------------------------------|---------------|--------------------|--|--------------------------------------|-------------|---------------------------------------|----------------|
| Solenoid valve type | | ASEP-C-SSI-NP-2-0 | Simple controller capable of operating with the same signal as the solenoid valve. | 3 points | DC24V | (Standard) 1.5A rated 2.5A max. | →P123 |
| Dust-proof solenoid valve type | | PSEP-CW-SSI-NP-2-0 | Supports the use of both the single solenoid and the double solenoid types. Simple Absolute type makes the return to home unnecessary. | | | | |