P3-TA30

Model Specification Items

RCP3 - TA3C -

20P — Encoder type — Motor type

I: Incremental

encoder is also

considered type "I".

20P: Pulse motor, The Simple absolute 20□ size

References

6:6mm 4:4mm 2 · 2mm

20: 20mm 100: 100mm (10mm pitch increments)

Stroke

PSEL P3: PCON-CA PMEC/PSEP MSEP

Applicable controller — P1: PCON-PL/PO/SE

N: None P: 1m S: 3m M:5m

Cable length

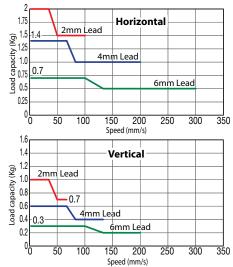
X□□: Custom Length

Options

See Options below.

■ Speed vs. Load Capacity

Due to the characteristics of the pulse motor, the RCP3 series' load capacity decreases at high speeds. In the table below, check if your desired speed and load capacity are supported.



* See page Pre-47 for details on the model descriptions. ϵ RoHS Technical



- (1) The payload is the value when operated with acceleration of 0.3G (or 0.2G in the case of 2mm-lead and vertical usage). The upper limit for acceleration is 0.3G (or 0.2G in the case of 2mm-lead and vertical usage).
- (2) See page A-71 for details on push motion.

Actuator Specifications

■ Leads and Payloads

Feed Lead Max. Load Capacity (Note 1) Rated

| Model number | Screw | (mm) | Horizontal (kg) | Vertical (kg) | thrust (N) | (mm) | | Lea | d |
|---------------------------------------|---------------|------|-----------------|---------------|------------|------------------------|----|----------|---------|
| RCP3-TA3C-I-20P-6-①-②-③-④ | | 6 | ~0.7 | ~0.3 | 15 | | | ew | 6 |
| RCP3-TA3C-I-20P-4-①-②-③-④ | Ball screw | 4 | ~1.4 | ~0.6 | 22 | 20~100 (every 10mm) | | all scre | 4 |
| RCP3-TA3C-I-20P-2-①-②-③-④ | | 2 | ~2 | ~1 | 45 | | | Bē | 2 |
| Code explanation ① Stroke ② Applicabl | le Controll | er ③ | Cable len | gth ④Op | tions *See | page A-71 for details | on | push | motion. |

■ Stroke and Maximum Speed (Unit: mm/s) (Note 1) Please note that the maximum load capacity decreases as the speed increases. Stroke 20~100 (mm) Lead 300<200> 6 screw 4 200<133> Ball 2 100<67> * The values enclosed in < > apply to vertical settings.

①Stroke

①Stroke Standard price (mm) 20

30 50 70 80 90 100

| 4 Options | | | |
|-----------------------------|-------------|----------|----------------|
| Name | Option code | See page | Standard price |
| Brake | В | → A-42 | |
| Non-motor end specification | NM | → A-52 | |

③Cable Length

| Туре | Cable symbol | Standard price |
|----------------|------------------------------------|----------------|
| Standard | P (1m) | _ |
| (Robot Cables) | S (3m) | _ |
| (Robot Cables) | M (5m) | _ |
| | X06 (6m) ~ X10 (10m) | _ |
| Special length | X11 (11m) ~ X15 (15m) | _ |
| | X16 (16m) ~ X20 (20m) | _ |

*The standard cable for the RCP3 is the robot cable.
*See page A-59 for cables for maintenance.

Actuator Specifications

| ltem | Description |
|---|--|
| Drive System | Ball screw, ø6mm, rolled C10 |
| Positioning Repeatability | ±0.02mm |
| Lost Motion | 0.1mm or less |
| Base | Material: Aluminum, white alumite treated |
| Allowable static moment (*) | Ma: 3.2 N·m, Mb: 4.6 N·m, Mc: 5.1 N·m |
| Ambient operating temperature, humidity | 0 to 40°C, 85% RH or less (Non-condensing) |

(*) Based on 5,000km of traveling life





ST: Stroke ME: Mechanical end

SE: Stroke end

Table/ Flat Type

Dimensional Drawings ings can be downloaded www.intelligentactuator.com For Special Orders 2D CAD 3D CAD Motor/encoder Cable connector*1 Gx40 H-M3 Depth 5mm ø3H7 Depth 3.5mm (From the table top) For brake specification: * The above brake unit is added to area (A).

3-M4 Reference position for the moment o set Depth 6mr MF 18.5 50 (Reamer and oblong hole pitch) J-M3 Depth 5mm 3H7. <u>o</u> 0 0 0 0 00

■ Dimensions and Weight by Stroke

*Brake-equipped models are heavier by 0.1kg. 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 Stroke 254 | 264 | 274 | 284 | 294 | 304 Without brake 224 234 244 With brake 262 272 282 292 302 312 322 332 342 87.5 97.5 | 107.5 | 117.5 | 127.5 | 137.5 | 147.5 | 157.7 | 167.5 125.5 135.5 145.5 155.5 165.5 175.5 151.5 161.5 171.5 181.5 191.5 201.5 95.5 105.5 115.1 131.5 141.5 121.5 131 91 101 111 121 141 151 161 171 1 1 2 2 1 1 2 2 28.5 38.5 48.5 58.5 18.5 28.5 38.5 48.5 58.5 1 2 4 4 4 6 6 6 6 6 6 6 6 6 8 8 8 8 8 Weight (kg) 0.5 0.5 0.5 0.6 | 0.6 | 0.6 | 0.7 | 0.7

Allow for at least 100mm

(*1) Connect the motor-encoder integrated cable here. See page A-59 for details on cables. (*2) After homing, the slider moves to the ME, therefore, please watch for any interference

with surrounding objects.

② Applicable Controllers

ø3H7 Depth 3.5mm (From the bottom of the base)

RCP3 series actuators can be operated with the controllers indicated below. Select the type according to your intended application

| ner 5 series decadeors ear | | T | rated below. Select the type according to you | | | | | | | | |
|---|------------------|------------------------|---|---|------------------|-----------------------|-------------------|-------------------|--|----------|--|
| Name | External view | Model number | Features | Maximum number of positioning points | Input power | Power-supply capacity | Standard price | Reference page | | | |
| Solenoid Valve Type | 100 | PMEC-C-20PI-①-2-⑪ | Easy-to-use controller, even for beginners | | AC100V AC200V | Refer to P541 | _ | → P537 | | | |
| Solenoid Valve Type | | PSEP-C-20PI-①-2-0 | Simple controller operable with the same signal as a solenoid valve | 3 points | | Refer to P555 | _ | → P547 | | | |
| Solenoid valve multi-axis type PIO specification | diam' | MSEP-C-((1)-~-(1)-2-0 | Positioner type based on PIO control, allowing up to 8 axes to be connected | | | | | | | Refer to | |
| Solenoid valve multi-axis type Network specification | iiii | MSEP-C-(11)-~-(1V)-0-0 | Field network-ready positioner type, allowing up to 8 axes to be connected | 256 points | | P572 | _ | → P563 | | | |
| Positioner type High-output specification | á) | PCON-CA-20PI-①-2-0 | Equipped with a high-output driver Positioner type based on PIO control | 512 points | | | _ | | | | |
| Pulse-train type High-output specification | 1 | PCON-CA-20PI-PL□-2-0 | Equipped with a high-output driver Pulse-train input type | (—) | DC24V | Refer to P618 | _ | → P607 | | | |
| Field network type High-output specification | | PCON-CA-20PI-®-0-0 | Equipped with a high-output driver Supporting 7 major field networks | 768 points | DC24V | | _ | | | | |
| Pulse Train Input Type (Differential Line Driver) | e l | PCON-PL-20PI-①-2-0 | Pulse train input type with differential line driver support | (—) | | | _ | | | | |
| Pulse Train Input Type (Open Collector) | | PCON-PO-20PI-①-2-0 | Pulse train input type with open collector support | (—) | | Refer to P628 | _ | → P623 | | | |
| Serial Communication Type | | PCON-SE-20PI-N-0-0 | Dedicated Serial Communication | 64 points | | | _ | | | | |
| Program Control Type | | PSEL-CS-1-20PI-①-2-0 | Programmed operation is possible. Can operate up to 2 axes | 1,500 points | | Refer to P671 | _ | → P66 | | | |

*This is for the single-axis PSEL. * ⊕ indicates I/O type (NP/PN). * ⊕ indicates power supply voltage (1:100V / 2:100~240V). * ⊕ indicates number of axes (1 to 8). * ⊕ indicates field network specification symbol. * □ indicates N (NPN specification) or P (PNP specification) symbol.

IAI

Arm Flat Type



Model Specification Items

RCP3 - TA4C -

- 28P — Encoder type — Motor type I: Incremental

encoder is also

considered type "I".

28P: Pulse motor, The Simple absolute 28□ size

Lead 6:6mm 4:4mm 2:2mm

20: 20mm 100: 100mm (10mm pitch increments)

Stroke

Applicable controller P1: PCON-PL/PO/SE **PSEL** P3: PCON-CA

MSEP

S: 3m PMEC/PSEP

Cable length **Options** N: None See Options below. P: 1m

M:5m X□□:Custom Length



Technical References

(Note 1) Please note that the maximum load capacity decreases as the speed increases.

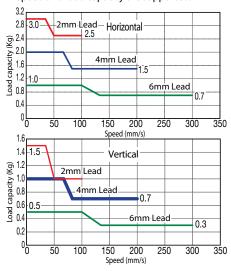


(1) The payload is the value when operated with acceleration of 0.3G (or 0.2G in the case of 2mm-lead and vertical usage). The upper limit for acceleration is 0.3G (or 0.2G in the case of 2mm-lead and vertical usage).

(2) See page A-71 for details on push motion.

■ Speed vs. Load Capacity

Due to the characteristics of the pulse motor, the RCP3 series' load capacity decreases at high speeds. In the table below, check if your desired speed and load capacity are supported.



Actuator Specifications

■ Leads and Payloads

Max. Load Capacity (Note 1) Rated Feed Lead Stroke Model number Screw thrust (N) (mm) (mm) Horizontal (kg) Vertical (kg) RCP3-TA4C-I-28P-6-①-②-③-④ 6 ~0.5 25 Ball 20~100 RCP3-TA4C-I-28P-4-10-2-3-4 4 ~2 ~1 37 RCP3-TA4C-I-28P-2-①-②-③-④ 2 **~**3 ~1.5 75

| Stroke Lead | | 20~100 (mm) | | | | | | |
|----------------|---|----------------|--|--|--|--|--|--|
| W | 6 | 300 | | | | | | |
| Ball screw | 4 | 200 | | | | | | |
| Bã | 2 | 100 | | | | | | |

■ Stroke and Maximum Speed

Code explanation ① Stroke ② Applicable Controller ③ Cable length ④ Options *See page A-71 for details on push motion.

(Unit: mm/s)

①Stroke

| ①Stroke (mm) | Standard price |
|-----------------|----------------|
| 20 | _ |
| 30 | _ |
| 40 | - |
| 50 | _ |
| 60 | _ |
| 70 | _ |
| 80 | _ |
| 90 | _ |
| 100 | _ |

4 Options

| Name | Option code | See page | Standard price |
|-------------------------------|-------------|----------|----------------|
| Brake | В | → A-42 | _ |
| Cable exit direction (top) | CJT | → A-42 | _ |
| Cable exit direction (right) | CJR | → A-42 | _ |
| Cable exit direction (left) | CJL | → A-42 | _ |
| Cable exit direction (bottom) | CJB | → A-42 | _ |
| Non-motor end specification | NM | → A-52 | _ |

③Cable Length

| Type | Cable symbol | Standard price |
|----------------|------------------------------------|----------------|
| Standard | P (1m) | _ |
| (Robot Cables) | S (3m) | _ |
| (RODOL Cables) | M (5m) | _ |
| | X06 (6m) ~ X10 (10m) | _ |
| Special length | X11 (11m) ~ X15 (15m) | _ |
| | X16 (16m) ~ X20 (20m) | _ |

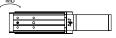
*The standard cable for the RCP3 is the robot cable.
*See page A-59 for cables for maintenance.

Actuator Specifications

| - | |
|---|--|
| ltem | Description |
| Drive System | Ball screw, ø6mm, rolled C10 |
| Positioning Repeatability | ±0.02mm |
| Lost Motion | 0.1mm or less |
| Base | Material: Aluminum, white alumite treated |
| Allowable static moment (*) | Ma: 4.2 N·m, Mb: 6 N·m, Mc: 8.2 N·m |
| Ambient operating temperature, humidity | 0 to 40°C, 85% RH or less (Non-condensing) |

(*) Based on 5,000km of traveling life







Flat Type

169

6

0.9 0.9

Dimensional Drawings CAD drawings can be downloaded www.intelligentactuator.com For Special Orders Motor/encoder cable connector *1 2D CAD 3D H-M4 Depth 6mm CAD ø4H7 Depth 4.5mm (From the table top) For the brake specification: * The above brake unit is 40 (Reamer and oblong hole pitch) added to area (A). Allow for at least 100mm Reference position for Home the moment offset 20 (Reamer and oblong hole pitch) √_(Top: Model number CJT)

0 <u>⊚</u>]" <u>o</u> 0 0 ø4H7 Depth 4.5mm (From the bottom of the base)

(Left: Model number CJL) . 25 . The direction indicated by the model number is when viewed from (B) *Brake-equipped models ■ Dimensions and Weight by Stroke

109

50.5

0.7

20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100

214.5 | 224.5 | 234.5 | 244.5 | 254.5 | 264.5 | 274.5 | 284.5 | 294.5

259 269 279 289 299 309 319 329 339

20.5 30.5 40.5 50.5 60.5

60.5

6 8 8 8 8 8

0.8

119 129 139 149 159

6 6 6

0.8 0.8 0.9

127 | 137 | 147 | 157 | 167 | 177

152.5 162.5 172.5 182.5 192.5 202.5 120.5 130.5 140.5 150.5 160.5 170.5 1 2 2 2 2 2 2

Optional cable exit direction

99

107 117

90.5 | 100.5 | 110.5

132.5 142.5

89

122.5

30.5 40.5

Stroke

D

Without brake With brake

(*1) Connect the motor-encoder integrated cable here. See page A-59 for details on cables.

(*2) After homing, the slider moves to the ME, therefore, please watch for any interference with surrounding objects.

ST: Stroke ME: Mechanical end SE: Stroke end

② Applicable Controllers

| | 4 | 4 | |
|-------------|-----|-----|--|
| J | 6 | 6 | |
| Weight (kg) | 0.7 | 0.7 | |
| | | | |
| | | | |
| | | | |

| Name | External view | Model number | Features | Maximum number of positioning points | Input power | Power-supply capacity | Standard price | Reference page | | |
|---|---------------|------------------------|---|--------------------------------------|------------------|-----------------------|-------------------|-------------------|----------|--|
| Colored Market | 101 | PMEC-C-28PI-①-2-⑪ | Easy-to-use controller, even for beginners | | AC100V AC200V | Refer to P541 | _ | → P537 | | |
| Solenoid Valve Type | | PSEP-C-28PI-①-2-0 | Simple controller operable with the same signal as a solenoid valve | 3 points | | Refer to P555 | _ | → P547 | | |
| Solenoid valve multi-axis type PIO specification | | MSEP-C-(1)-~-(1)-2-0 | Positioner type based on PIO control, allowing up to 8 axes to be connected | | | | | | Refer to | |
| Solenoid valve multi-axis type Network specification | | MSEP-C-(11)-~-(10)-0-0 | Field network-ready positioner type, allowing up to 8 axes to be connected | 256 points | | P572 | _ | → P56 | | |
| Positioner type High-output specification | 4 | PCON-CA-28PI-①-2-0 | Equipped with a high-output driver Positioner type based on PIO control | 512 points | | | _ | | | |
| Pulse-train type High-output specification | | PCON-CA-28PI-PL□-2-0 | Equipped with a high-output driver Pulse-train input type | (—) | DC24V | Refer to P618 | _ | → P60 | | |
| Field network type High-output specification | | PCON-CA-28PI-®-0-0 | Equipped with a high-output driver Supporting 7 major field networks | 768 points | DC24V | | _ | | | |
| Pulse Train Input Type (Differential Line Driver) | | PCON-PL-28PI-①-2-0 | Pulse train input type with differential line driver support | (—) | | | _ | | | |
| Pulse Train Input Type (Open Collector) | | PCON-PO-28PI-①-2-0 | Pulse train input type with open collector support | (—) | | Refer to P628 | _ | → P623 | | |
| Serial Communication Type | | PCON-SE-28PI-N-0-0 | Dedicated Serial Communication | 64 points | | | _ | | | |
| Program Control Type | | PSEL-CS-1-28PI-①-2-0 | Programmed operation is possible. Can operate up to 2 axes | 1,500 points | | Refer to P671 | _ | → P66 | | |

*This is for the single-axis PSEL. * ① indicates I/O type (NP/PN). * ① indicates power supply voltage (1: 100V / 2: 100~240V).
* ② indicates number of axes (1 to 8). * ② indicates field network specification symbol. * □ indicates N (NPN specification) or P (PNP specification) symbol.

Arm Flat Type



Model Specification Items RCP3 - TA5C ı 35P — Encoder type — Motor type

I: Incremental The Simple absolute encoder is also considered type "I".

35P: Pulse motor, 10: 10mm 35□ size 2.5: 2.5mm

Stroke 25: 25mm 100: 100mm (25mm pitch increments)

Applicable controller P1: PCON-PL/PO/SE **PSEL** P3: PCON-CA

PMEC/PSEP MSEP

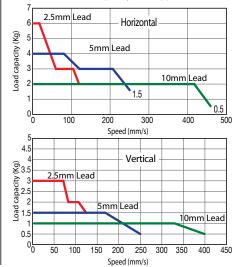
Cable length N: None P: 1m S: 3m

- Options See Options below.

M:5m X□□:Custom Length

■ Speed vs. Load Capacity

Due to the characteristics of the pulse motor, the RCP3 series' load capacity decreases at high speeds. In the table below, check if your desired speed and load capacity are supported.



RoHS



Technical References



- (1) Since the RCP3 series use a pulse motor, the load capacity decreases at high speeds. Check in the Speed vs. Load Capacity graph to see if your desired speed and load capacity are supported.
- (2) Please note that the maximum speed is different when used horizontally versus vertically.
- (3) The load capacity is based on operation at an acceleration of 0.3G (0.2G for the 2.5mm-lead model, or when used vertically). This is the upper limit of the acceleration.
- (4) See page A-71 for details on push motion.

Actuator Specifications

■ Leads and Payloads (Note 1) Please note that the maximum load capacity decreases as the speed increases.

| Model number | Lead (mm) | Max. Load Cap Horizontal (kg) | vertical (kg) | Rated thrust (N) | Stroke (mm) |
|-----------------------------|--------------|----------------------------------|---------------|---------------------|------------------------|
| RCP3-TA5C-I-35P-10-①-②-③-④ | 10 | ~2 | ~1 | 34 | |
| RCP3-TA5C-I-35P-5-①-②-③-④ | 5 | ~4 | ~1.5 | 68 | 25~100 (every 25mm) |
| RCP3-TA5C-I-35P-2.5-①-②-③-④ | 2.5 | ~6 | ~3 | 136 | |

| Stroke and Maximum Speed Contention | | | | | |
|-------------------------------------|------------------------|--|--|--|--|
| Stroke Lead | 25~100 (every 25mm) | | | | |
| 10 | 465<400> | | | | |
| 5 | 250 | | | | |
| 2.5 | 125 | | | | |
| | | | | | |

①Stroke

| ①Stroke (mm) | Standard price | | | |
|-----------------|----------------|--|--|--|
| 25 | _ | | | |
| 50 | _ | | | |
| 75 | _ | | | |
| 100 | _ | | | |

| 4 Options | | | |
|-------------------------------|-------------|----------|----------------|
| Name | Option code | See page | Standard price |
| Brake | В | → A-42 | _ |
| Cable exit direction (top) | CJT | → A-42 | _ |
| Cable exit direction (right) | CJR | → A-42 | _ |
| Cable exit direction (left) | CJL | → A-42 | _ |
| Cable exit direction (bottom) | CJB | → A-42 | _ |
| Non-motor end specification | NM | → A-52 | _ |

③Cable Length

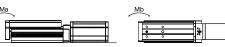
| Туре | Cable symbol | Standard price |
|----------------|------------------------------------|----------------|
| Standard | P (1m) | _ |
| (Robot Cables) | S (3m) | _ |
| | M (5m) | _ |
| | X06 (6m) ~ X10 (10m) | _ |
| Special length | X11 (11m) ~ X15 (15m) | _ |
| | X16 (16m) ~ X20 (20m) | _ |

* The standard cable is the motor-encoder integrated robot cable.
* See page A-59 for cables for maintenance.

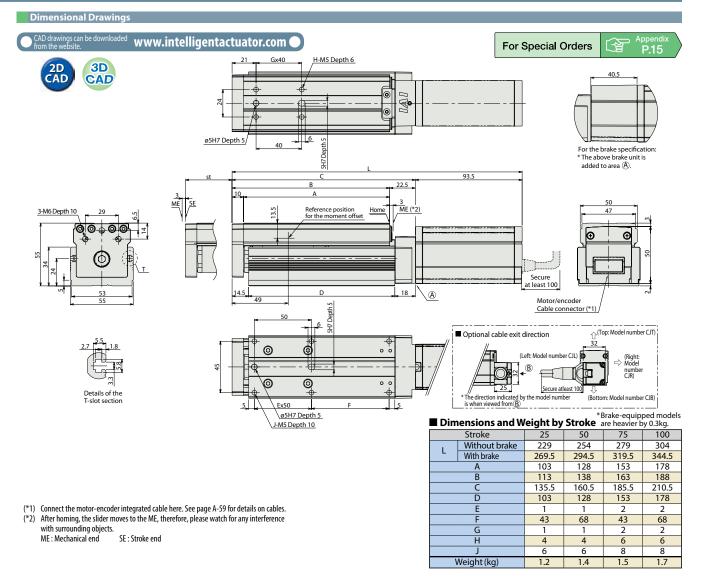
Actuator Specifications

| rictuator specifications | |
|---|---|
| ltem | Description |
| Drive System | Ball screw, ø8mm, rolled C10 |
| Positioning Repeatability | ±0.02mm |
| Lost Motion | 0.1mm or less |
| Base | Material: Aluminum, special alumite treated |
| Allowable static moment | Ma: 25.5 N·m, Mb: 36.5 N·m, Mc: 56.1 N·m |
| Allowable dynamic moment (*) | Ma: 6.57 N·m, Mb: 9.32 N·m, Mc: 14.32 N·m |
| Overhang load length | Within the load moment range |
| Ambient operating temperature, humidity | 0 to 40°C, 85% RH or less (Non-condensing) |

(*) Based on 5,000km of traveling life







| Name | External view | Model number | Features | Maximum number of positioning points | Input power | Power-supply capacity | Standard price | Referen page |
|---|------------------|----------------------|---|--------------------------------------|------------------|-----------------------|-------------------|-----------------|
| Calanaid Valua Tura | 100 | PMEC-C-35PI-①-2-⑪ | Easy-to-use controller, even for beginners | | AC100V AC200V | Refer to P541 | _ | → P53 |
| Solenoid Valve Type | 1 | PSEP-C-35PI-①-2-0 | Simple controller operable with the same signal as a solenoid valve | 3 points | | Refer to P555 | _ | → P54 |
| Solenoid valve multi-axis type PIO specification | Acces 1 | MSEP-C-(1)-~-(1)-2-0 | Positioner type based on PIO control, allowing up to 8 axes to be connected | | | Refer to | | DE C |
| Solenoid valve multi-axis type Network specification | HILL | MSEP-C | Field network-ready positioner type, allowing up to 8 axes to be connected | 256 points | | P572 | _ | → P563 |
| Positioner type High-output specification | á | PCON-CA-35PI-①-2-0 | Equipped with a high-output driver Positioner type based on PIO control | 512 points | | | _ | |
| Pulse-train type High-output specification | | PCON-CA-35PI-PL□-2-0 | Equipped with a high-output driver Pulse-train input type | (—) | DC24V | Refer to P618 | _ | → P60 |
| Field network type High-output specification | | PCON-CA-35PI-®-0-0 | Equipped with a high-output driver Supporting 7 major field networks | 768 points | 768 points DC24V | | _ | |
| Pulse Train Input Type (Differential Line Driver) | C | PCON-PL-35PI-①-2-0 | Pulse train input type with differential line driver support | () | | | _ | |
| Pulse Train Input Type (Open Collector) | | PCON-PO-35PI-①-2-0 | Pulse train input type with open collector support | - () | | Refer to P628 | _ | → P6: |
| Serial Communication Type | Ĩ | PCON-SE-35PI-N-0-0 | Dedicated Serial Communication | 64 points | | | _ | |
| Program Control Type | | PSEL-CS-1-35PI-①-2-0 | Programmed operation is possible. Can operate up to 2 axes | 1,500 points | | Refer to P671 | _ | → P6 |

1A1 RCP3-TA5C 308

Slider Type

Mini

Controller

Rod Type

Mini

Controllara

Table/ Arm/ Flat Type

Mini

Standard

Gripper/ Rotary Type

Linear Servo Type

Cleanoom vpe

Splash Proof ype

> ulse lotor

ervo lotor (4V)

Servo Motor 200V)

inear iervo lotor

Arm Flat Typ

P3-TA6C

Model Specification Items

RCP3 - TA6C -

— Encoder type — Motor type

I: Incremental

encoder is also

The Simple absolute

considered type "I".

42P

42P: Pulse motor, 12:12mm 6: 6mm 3: 3mm Stroke 25: 25mm 150: 150mm

(25mm pitch increments)

Applicable controller P1: PCON-PL/PO/SE **PSEL**

P3: PCON-CA PMEC/PSEP MSEP

Cable length N: None

See Options below. P: 1m S: 3m

M:5m X□□:Custom Length

42□ size

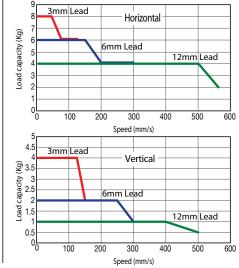


Technical References

- (1) Since the RCP3 series use a pulse motor, the load capacity decreases at high speeds. Check in the Speed vs. Load Capacity graph to see if your desired speed and load capacity are supported.
- (2) Please note that the maximum speed is different when used horizontally versus vertically.
- (3) The load capacity is based on operation at an acceleration of 0.3G (0.2G for the 3mm-lead model, or when used vertically). This is the upper limit of the acceleration.
- (4) See page A-71 for details on push motion.

■ Speed vs. Load Capacity

Due to the characteristics of the pulse motor, the RCP3 series' load capacity decreases at high speeds. In the table below, check if your desired speed and load capacity are supported.



Actuator Specifications

■ Leads and Payloads (Note 1) Please note that the maximum load capacity decreases as the speed increases.

| Model number | Lead (mm) | Max. Load Capacity (Note 1) Horizontal (kg) Vertical (kg) | | Rated thrust (N) | Stroke (mm) |
|----------------------------|--------------|---|----|---------------------|------------------------|
| RCP3-TA6C-I-42P-12-①-②-③-④ | 12 | ~4 | ~1 | 60 | |
| RCP3-TA6C-I-42P-6-①-②-③-④ | 6 | ~6 | ~2 | 110 | 25~150 (every 25mm) |
| RCP3-TA6C-I-42P-3-①-②-③-④ | 3 | ~8 | ~4 | 189 | |
| | | | | | |

| Stroke and Maximum Speed (Unit: mm/s, | | | | | |
|---------------------------------------|------------------------|---|--|--|--|
| Stroke Lead | 25~100 (every 25mm) | | | | |
| 12 | 560<500> | | | | |
| 6 | 300 | | | | |
| 3 | 150 | | | | |
| | 1 1 11 11 11 11 11 | _ | | | |

Code explanation Stroke Applicable Controller Cable length Options *See page A-71 for details on push motion. *The values enclosed in < > apply to vertical settings.

①Stroke

| ①Stroke (mm) | Standard price |
|-----------------|----------------|
| 25 | _ |
| 50 | _ |
| 75 | _ |
| 100 | _ |
| 125 | _ |
| 150 | _ |

| ④ Options | | | | | | |
|-------------------------------|-------------|----------|----------------|--|--|--|
| Name | Option code | See page | Standard price | | | |
| Brake | В | → A-42 | - | | | |
| Cable exit direction (top) | CJT | → A-42 | _ | | | |
| Cable exit direction (right) | CJR | → A-42 | _ | | | |
| Cable exit direction (left) | CJL | → A-42 | _ | | | |
| Cable exit direction (bottom) | CJB | → A-42 | _ | | | |
| Non-motor end specification | NM | → A-52 | _ | | | |

③Cable Length

| Туре | Cable symbol | Standard price |
|----------------|-------------------------------------|----------------|
| Standard | P (1m) | _ |
| (Robot Cables) | S (3m) | _ |
| (RODOL Cables) | M (5m) | _ |
| | X06 (6m) ~ X10 (10m) | _ |
| Special length | X11 (11m) ~ X15 (15m) | _ |
| | X16 (16m) ~ X20 (20m) | _ |

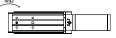
* The standard cable is the motor-encoder integrated robot cable. * See page A-59 for cables for maintenance.

Actuator Specifications

| Item | Description |
|---|---|
| Drive System | Ball screw, ø10mm, rolled C10 |
| Positioning Repeatability | ±0.02mm |
| Lost Motion | 0.1mm or less |
| Base | Material: Aluminum, special alumite treated |
| Allowable static moment | Ma: 29.4 N·m, Mb: 42.0 N·m, Mc: 74.1 N·m |
| Allowable dynamic moment (*) | Ma: 7.26 N·m, Mb: 10.3 N·m, Mc: 18.25 N·m |
| Overhang load length | Within the load moment range |
| Ambient operating temperature, humidity | 0 to 40°C, 85% RH or less (Non-condensing) |

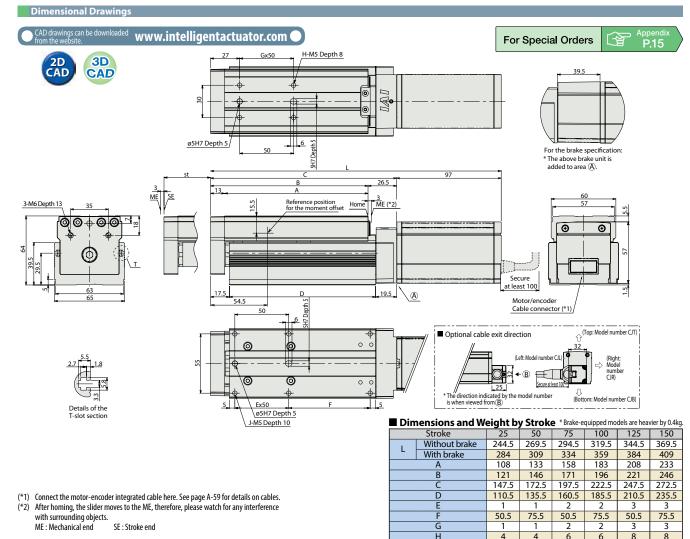
(*) Based on 5,000km of traveling life







Flat Type



| | RCP3 series actuators car | RCP3 series actuators can be operated with the controllers indicated below. Select the type according to your intended application. | | | | | | | |
|--|--|---|--|---|--------------------------------------|------------------|-----------------------|-------------------|-------------------|
| | Name | External view | Model number | Features | Maximum number of positioning points | Input power | Power-supply capacity | Standard price | Reference page |
| | Solenoid Valve Type | *** | PMEC-C-42PI-①-2-⑪ | Easy-to-use controller, even for beginners | | AC100V AC200V | Refer to P541 | _ | → P537 |
| | Solenoid valve multi-axis type PIO specification Solenoid valve multi-axis type Network specification | | PSEP-C-42PI-①-2-0 | Simple controller operable with the same signal as a solenoid valve | 3 points | | Refer to P555 | _ | → P547 |
| | | | MSEP-C | Positioner type based on PIO control, allowing up to 8 axes to be connected | | | Refer to | | → P563 |
| | | MSEP-C-(11)-~-(10)-0-0 | Field network-ready positioner type, allowing up to 8 axes to be connected | 256 points | | P572 | | 7 7303 | |
| | Positioner type High-output specification | | PCON-CA-42PI-①-2-0 | Equipped with a high-output driver Positioner type based on PIO control | 512 points | | | _ | |
| | Pulse-train type | | PCON-CA-42PI-PL□-2-0 | Equipped with a high-output driver | (—) | | Refer to | _ | → P607 |

| | The second second | | | | | I IICICI LO | | 1 PEC3 |
|---|--------------------|--|--|--------------|-------|------------------|---|--------|
| Solenoid valve multi-axis type Network specification | HIII , | MSEP-C | Field network-ready positioner type, allowing up to 8 axes to be connected | 256 points | | P572 | _ | → P563 |
| Positioner type High-output specification | PCON-CA-42PI-①-2-0 | Equipped with a high-output driver Positioner type based on PIO control | 512 points | | | _ | | |
| Pulse-train type High-output specification | | PCON-CA-42PI-PL□-2-0 | Equipped with a high-output driver Pulse-train input type | (—) | DC24V | Refer to P618 | _ | → P607 |
| Field network type High-output specification | | PCON-CA-42PI-®-0-0 | Equipped with a high-output driver Supporting 7 major field networks | 768 points | DC24V | | _ | |
| Pulse Train Input Type (Differential Line Driver) | Ü | PCON-PL-42PI-①-2-0 | Pulse train input type with differential line driver support | () | | | _ | |
| Pulse Train Input Type (Open Collector) | | PCON-PO-42PI-①-2-0 | Pulse train input type with open collector support | (—) | | Refer to P628 | _ | → P623 |
| Serial Communication Type | | PCON-SE-42PI-N-0-0 | Dedicated Serial Communication | 64 points | | | _ | |
| Program Control Type | | PSEL-CS-1-42PI-①-2-0 | Programmed operation is possible. Can operate up to 2 axes | 1,500 points | | Refer to P671 | _ | → P665 |

② Applicable Controllers

Weight (kg)

1.8

2.2

2.4

10

2.6

10

2.8

^{*}This is for the single-axis PSEL. * ① indicates I/O type (NP/PN). * ① indicates power supply voltage (1: 100V / 2: 100~240V).
* ① indicates number of axes (1 to 8). * ② indicates field network specification symbol. * □ indicates N (NPN specification) or P (PNP specification) symbol.

P3-TA7C

Model Specification Items

RCP3 — TA7C —

— Encoder type — Motor type

I: Incremental

encoder is also

The Simple absolute

considered type "I".

42P

42□ size

42P: Pulse motor, 12:12mm 6: 6mm 3: 3mm

Stroke 25: 25mm 200: 200mm

(25mm pitch increments)

Applicable controller P1: PCON-PL/PO/SE **PSEL** P3: PCON-CA

PMEC/PSEP MSEP

Cable length N: None P: 1m S: 3m

See Options below.

- Options

M:5m X□□:Custom Length

RoHS

* See page Pre-47 for details on the model descriptions.



Technical References

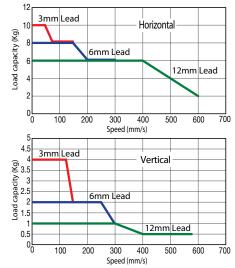
(1) Since the RCP3 series use a pulse motor, the load capacity decreases at high speeds. Check in the Speed vs. Load Capacity graph to see if your desired speed and load capacity are supported. (2) Please note that the maximum speed is different when used horizontally versus vertically.

(3) The load capacity is based on operation at an acceleration of 0.3G (0.2G for the 3mm-lead model, or when used vertically). This is the upper limit of the acceleration.

(4) See page A-71 for details on push motion.

■ Speed vs. Load Capacity

Due to the characteristics of the pulse motor, the RCP3 series' load capacity decreases at high speeds. In the table below, check if your desired speed and load capacity are supported.



Actuator Specifications

■ Leads and Payloads (Note 1) Please note that the maximum load capacity decreases as the speed increases.

| | ., . icase more | triat tire maxi | mam road cap | acity accieus | es as the speed mercase |
|----------------------------|-----------------|----------------------------------|----------------------------------|---------------------|-------------------------|
| Model number | Lead (mm) | Max. Load Cap Horizontal (kg) | pacity (Note 1) Vertical (kg) | Rated thrust (N) | Stroke (mm) |
| RCP3-TA7C-I-42P-12-①-②-③-④ | 12 | ~6 | ~1 | 60 | |
| RCP3-TA7C-I-42P-6-①-②-③-④ | 6 | ~8 | ~2 | 110 | 25~200 (every 25mm) |
| RCP3-TA7C-I-42P-3-①-②-③-④ | 3 | ~10 | ~4 | 189 | |

| ■ Stroke and | (Unit: mm/s) | |
|----------------|------------------------|--|
| Stroke Lead | 25~100 (every 25mm) | |
| 12 | 600<580> | |
| 6 | 300 | |
| 3 | 150 | |

Code explanation Stroke Applicable Controller Cable length Options *See page A-71 for details on push motion. *The values enclosed in < > apply to vertical settings.

| ①Stroke | |
|--------------|----------------|
| ①Stroke (mm) | Standard price |
| 25 | _ |
| 50 | _ |
| 75 | _ |
| 100 | _ |
| 125 | _ |
| 150 | _ |
| 175 | _ |
| 200 | _ |

| ④ Options | | | |
|-------------------------------|-------------|----------|----------------|
| Name | Option code | See page | Standard price |
| Brake | В | → A-42 | _ |
| Cable exit direction (top) | CJT | → A-42 | _ |
| Cable exit direction (right) | CJR | → A-42 | _ |
| Cable exit direction (left) | CJL | → A-42 | |
| Cable exit direction (bottom) | CJB | → A-42 | _ |
| Non-motor end specification | NM | → A-52 | _ |

③Cable Length

| Туре | Cable symbol | Standard price |
|----------------------------|------------------------------------|----------------|
| Standard (Robot Cables) | P (1m) | _ |
| | S (3m) | _ |
| (Nobol Cables) | M (5m) | _ |
| | X06 (6m) ~ X10 (10m) | _ |
| Special length | X11 (11m) ~ X15 (15m) | _ |
| | X16 (16m) ~ X20 (20m) | _ |

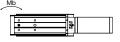
^{*}The standard cable is the motor-encoder integrated robot cable. * See page A-59 for cables for maintenance.

Actuator Specifications

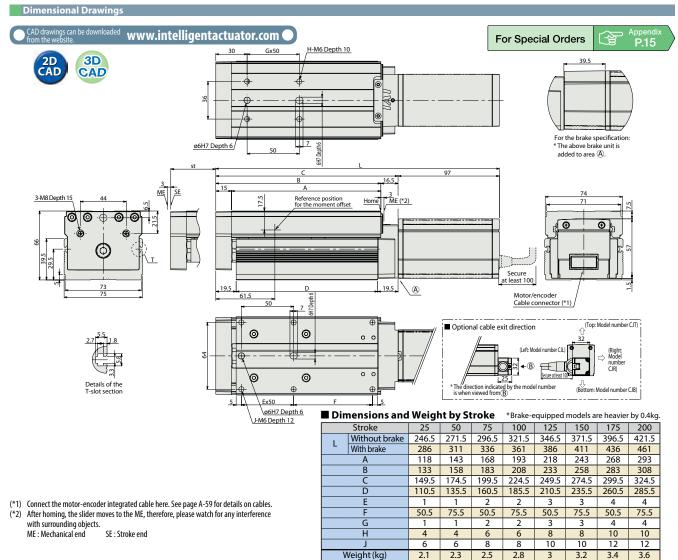
| ltem | Description |
|---|---|
| Drive System | Ball screw, ø10mm, rolled C10 |
| Positioning Repeatability | ±0.02mm |
| Lost Motion | 0.1mm or less |
| Base | Material: Aluminum, special alumite treated |
| Allowable static moment | Ma: 42.6 N·m, Mb: 60.8 N·m, Mc:123.2 N·m |
| Allowable dynamic moment (*) | Ma: 9.91 N·m, Mb: 14.13 N·m, Mc: 28.65 N·m |
| Overhang load length | Within the load moment range |
| Ambient operating temperature, humidity | 0 to 40°C, 85% RH or less (Non-condensing) |

(*) Based on 5,000km of traveling life









| ② Applicable Controllers | | ②Apr | olicable | Control | lers |
|--------------------------|--|------|----------|---------|------|
|--------------------------|--|------|----------|---------|------|

 $RCP3\ series\ actuators\ can\ be\ operated\ with\ the\ controllers\ indicated\ below.\ Select\ the\ type\ according\ to\ your\ intended\ application.$

| Name | External view | Model number | Features | Maximum number of positioning points | Input power | Power-supply capacity | Standard price | Reference page |
|---|---------------|-----------------------------|---|---|------------------|-----------------------|-------------------|-------------------|
| Colonoid Valva Typa | *** | PMEC-C-42PI-①-2-⑪ | Easy-to-use controller, even for beginners | | AC100V AC200V | Refer to P541 | _ | → P53 |
| Solenoid Valve Type | 1 | PSEP-C-42PI-①-2-0 | Simple controller operable with the same signal as a solenoid valve | 3 points | | Refer to P555 | _ | → P54 |
| Solenoid valve multi-axis type PIO specification | | MSEP-C-((1)-~-(1)-2-0 | Positioner type based on PIO control, allowing up to 8 axes to be connected | | | Refer to | | → P56 |
| Solenoid valve multi-axis type Network specification | | MSEP-C-()-~-(\vec{V}-0-0 | Field network-ready positioner type, allowing up to 8 axes to be connected | 256 points | | P572 | _ | 7 750 |
| Positioner type High-output specification | | PCON-CA-42PI-①-2-0 | Equipped with a high-output driver Positioner type based on PIO control | 512 points | | | _ | |
| Pulse-train type High-output specification | | PCON-CA-42PI-PL□-2-0 | Equipped with a high-output driver Pulse-train input type | (—) | DC24V | Refer to P618 | _ | → P60 |
| Field network type High-output specification | | | PCON-CA-42PI-®-0-0 | Equipped with a high-output driver Supporting 7 major field networks | 768 points | DC24V | | _ |
| Pulse Train Input Type (Differential Line Driver) | | PCON-PL-42PI-①-2-0 | Pulse train input type with differential line driver support | (—) | | | _ | |
| Pulse Train Input Type (Open Collector) | - 10 | PCON-PO-42PI-①-2-0 | Pulse train input type with open collector support | (—) | | Refer to P628 | | → P62 |
| Serial Communication Type | | PCON-SE-42PI-N-0-0 | Dedicated Serial Communication | 64 points | | | _ | |
| Program Control Type | | PSEL-CS-1-42PI-①-2-0 | Programmed operation is possible. Can operate up to 2 axes | 1,500 points | | Refer to P671 | _ | → P66 |

- *This is for the single-axis PSEL. * ① indicates I/O type (NP/PN). * ① indicates power supply voltage (1: 100V / 2: 100~240V). * ② indicates number of axes (1 to 8). * ② indicates field network specification symbol. * □ indicates N (NPN specification) or P (PNP specification) symbol.



Model Specification Items

RCP3 - TA3R -

The Simple absolute

considered type "I".

I: Incremental

encoder is also

20P — Encoder type — Motor type

20□ size

20P: Pulse motor, 6:6mm

4:4mm

2 · 2mm

Stroke 20: 20mm

100: 100mm (10mm pitch increments)

Applicable controller P1: PCON-PL/PO/SE **PSEL** P3: PCON-CA

PMEC/PSEP **MSEP**

N: None P: 1m S: 3m M:5m X□□:Custom Length

Cable length

See Options below.
*Be sure to specify
which side the
motor is to be mounted (ML/MR).

- Options

* See page Pre-47 for details on the model descriptions $C \in$



Technical References

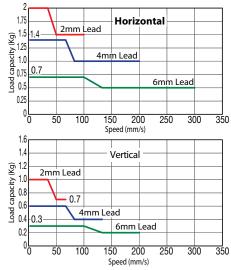


(1) The payload is the value when operated with acceleration of 0.3G (or 0.2G in the case of 2mm-lead and vertical usage). The upper limit for acceleration is 0.3G (or 0.2G in the case of 2mm-lead and vertical usage).

(2) See page A-71 for details on push motion.

■ Speed vs. Load Capacity

Due to the characteristics of the pulse motor, the RCP3 series' load capacity decreases at high speeds. In the table below, check if your desired speed and load capacity are supported.



Actuator Specifications

■ Leads and Payloads (Note 1) Please note that the maximum load capacity decreases as the speed increases. Positioning repeatability Max. Load Capacity (Note 1) Rated Model number Screw (mm) thrust (N) (mm) Horizontal (kg) Vertical (kg) RCP3-TA3R-I-20P-6-10-20-30-4 15 ~0.7 ~0.3 Ball 20~100 RCP3-TA3R-I-20P-4-10-2-3-4 4 ~1.4 ~0.6 22 ±0.02 screw (every 10mm) RCP3-TA3R-I-20P-2-10-20-30-4 2 ~2 ~1 45

| ■ St | roke and | Maximum Speed (Unit: mm/s) |
|------------|-------------|--|
| Lea | Stroke d | 20~100 (mm) |
| W | 6 | 300<200> |
| Ball screw | 4 | 200<133> |
| Bã | 2 | 100<67> |
| | * The | values enclosed in < > apply to vertical settings. |

Code explanation ① Stroke ② Applicable Controller ③ Cable length ④ Options *See page A-71 for details on push motion. *

| ① Stroke | |
|--------------|----------------|
| ①Stroke (mm) | Standard price |
| 20 | _ |
| 30 | |
| 40 | _ |
| 50 | _ |
| 60 | |
| 70 | _ |
| 80 | 1 |
| 90 | _ |
| 100 | <u> </u> |

| ④ Options | | | |
|---|-------------|----------|----------------|
| Name | Option code | See page | Standard price |
| Brake | В | → A-42 | _ |
| Side-mounted motor to the left (standard) | ML | → A-52 | _ |
| Side-mounted motor to the right | MR | → A-52 | |
| Non-motor end specification | NM | → A-52 | _ |

| ③ Cable Length | | |
|----------------|------------------------------------|----------------|
| Type | Cable symbol | Standard price |
| Standard | P (1m) | _ |
| (Robot Cables) | S (3m) | _ |
| (NODOL Cables) | M (5m) | _ |
| | X06 (6m) ~ X10 (10m) | _ |
| Special length | X11 (11m) ~ X15 (15m) | _ |
| | X16 (16m) ~ X20 (20m) | _ |

*The standard cable for the RCP3 is the robot cable. *See page A-59 for cables for maintenance.

| Actuator Specifications | |
|---|--|
| ltem | Description |
| Drive System | Ball screw, ø6mm, rolled C10 |
| Lost Motion | 0.1mm or less |
| Base | Material: Aluminum, white alumite treated |
| Allowable dynamic moment (*) | Ma: 3.2 N·m, Mb: 4.6 N·m, Mc: 5.1 N·m |
| Ambient operating temperature, humidity | 0 to 40°C, 85% RH or less (Non-condensing) |

(*) Based on 5,000km of traveling life





⊕

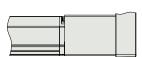
ST : Stroke ME: Mechanical end

SE: Stroke end

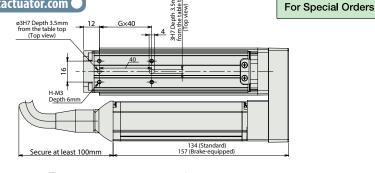
Flat Type

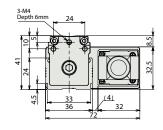
Dimensional Drawings

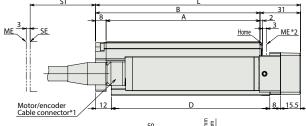


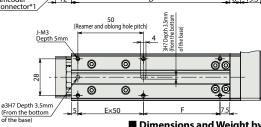


With the brake: (see drawing on the right for dimensions)









The reference position for moment offset is the same as the position on the TA3C (P304).

■ Dimensions and Weight by Stroke* Brake-equipped models are heavier by 0.1kg.

| | | • | | | | | | | , , , |
|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Stroke | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 |
| L | 126.5 | 136.5 | 146.5 | 156.5 | 166.5 | 176.5 | 186.5 | 196.5 | 206.5 |
| Α | 87.5 | 97.5 | 107.5 | 117.5 | 127.5 | 137.5 | 147.5 | 157.5 | 167.5 |
| В | 95.5 | 105.5 | 115.5 | 125.5 | 135.5 | 145.5 | 155.5 | 165.5 | 175.5 |
| D | 91 | 101 | 111 | 121 | 131 | 141 | 151 | 161 | 171 |
| E | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 |
| F | 28.5 | 38.5 | 48.5 | 58.5 | 18.5 | 28.5 | 38.5 | 48.5 | 58.5 |
| G | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 |
| Н | 4 | 4 | 4 | 4 | 6 | 6 | 6 | 6 | 6 |
| J | 6 | 6 | 6 | 6 | 8 | 8 | 8 | 8 | 8 |
| Weight (kg) | 0.5 | 0.6 | 0.6 | 0.6 | 0.6 | 0.7 | 0.7 | 0.7 | 0.7 |

(*1) Connect the motor-encoder integrated cable here. See page A-59 for details on cables. (*2) After homing, the slider moves to the ME, therefore, please watch for any interference with surrounding objects.

| Name | External view | Model number | Features | Maximum number of positioning points | Input power | Power-supply capacity | Standard price | Reference page | |
|---|------------------|------------------------|---|--------------------------------------|------------------|-----------------------|-------------------|-------------------|-------|
| Colored IV/Lotter | 101 | PMEC-C-20PI-①-2-⑪ | Easy-to-use controller, even for beginners | | AC100V AC200V | Refer to P541 | _ | → P53 | |
| Solenoid Valve Type | 8 | PSEP-C-20PI-①-2-0 | Simple controller operable with the same signal as a solenoid valve | 3 points | | Refer to P555 | _ | → P54 | |
| Solenoid valve multi-axis type PIO specification | diam'r | MSEP-C-()-~-()-2-0 | Positioner type based on PIO control, allowing up to 8 axes to be connected | | | | Refer to | | → P56 |
| Solenoid valve multi-axis type Network specification | 1111 | MSEP-C-(11)-~-(1V)-0-0 | Field network-ready positioner type, allowing up to 8 axes to be connected | 256 points | | P572 | _ | 7 2503 | |
| Positioner type High-output specification | ii) | PCON-CA-20PI-①-2-0 | Equipped with a high-output driver Positioner type based on PIO control | 512 points | | | _ | | |
| Pulse-train type High-output specification | | PCON-CA-20PI-PL□-2-0 | Equipped with a high-output driver Pulse-train input type | (—) | DC24V | Refer to P618 | _ | → P60 | |
| Field network type High-output specification | | PCON-CA-20PI-®-0-0 | Equipped with a high-output driver Supporting 7 major field networks | 768 points | DC24V | | _ | | |
| Pulse Train Input Type (Differential Line Driver) | | PCON-PL-20PI-①-2-0 | Pulse train input type with differential line driver support | (—) | | | _ | | |
| Pulse Train Input Type (Open Collector) | | PCON-PO-20PI-①-2-0 | Pulse train input type with open collector support | (—) | | Refer to P628 | _ | → P623 | |
| Serial Communication Type | Ĩ | PCON-SE-20PI-N-0-0 | Dedicated Serial Communication | 64 points | | | _ | | |
| Program Control Type | | PSEL-CS-1-20PI-①-2-0 | Programmed operation is possible. Can operate up to 2 axes | 1,500 points | | Refer to P671 | _ | → P6 | |

*This is for the single-axis PSEL. * ⊕ indicates I/O type (NP/PN). * ⊕ indicates power supply voltage (1: 100V / 2: 100~240V). * ⊕ indicates number of axes (1 to 8). * ⊕ indicates field network specification symbol. * □ indicates N (NPN specification) or P (PNP specification) symbol.



Model Specification Items

RCP3 - TA4R -

— Encoder type — Motor type

The Simple absolute

considered type "I".

I: Incremental

encoder is also

28P

28□ size

28P: Pulse motor, 6: 6mm 4mm

2: 2mm

Stroke 20: 20mm 100: 100mm

(10mm pitch increments)

Applicable controller P1: PCON-PL/PO/SE **PSEL**

P3: PCON-CA PMEC/PSEP **MSEP**

N: None P: 1m S: 3m M:5m X□□:Custom Length

Cable length

- Options See Options below.
*Be sure to specify which side the motor is to be mounted (ML/MR).

* See page Pre-47 for details on the model descriptions





Technical References

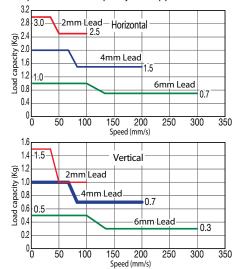


(1) The payload is the value when operated with acceleration of 0.3G (or 0.2G in the case of 2mm-lead and vertical usage). The upper limit for acceleration is 0.3G (or 0.2G in the case of 2mm-lead and vertical usage).

(2) See page A-71 for details on push motion.

■ Speed vs. Load Capacity

Due to the characteristics of the pulse motor, the RCP3 series' load capacity decreases at high speeds. In the table below, check if your desired speed and load capacity are supported.



Actuator Specifications

■ Leads and Payloads (Note 1) Please note that the maximum load capacity decreases as the speed increases. Positioning repeatability Max. Load Capacity (Note 1) Lead Rated Model number Screw (mm) thrust (N) lorizontal (kg) Vertical (kg) RCP3-TA4R-I-28P-6-10-20-30-4 25 ~0.5 Ball 20~100 RCP3-TA4R-I-28P-4-10-2-3-4 4 ~2 ~1 37 ±0.02 screw (every 10mm) RCP3-TA4R-I-28P-2-10-20-30-4 2 **~**3 ~1.5 75

| ■ St | ■ Stroke and Maximum Speed | | | | | |
|------------|----------------------------|----------------|--|--|--|--|
| Lea | Stroke | 20~100 (mm) | | | | |
| A. | 6 | 300 | | | | |
| Ball screw | 4 | 200 | | | | |
| B B | 2 | 100 | | | | |

| (Un | it: r | nm. | s' |
|-----|-------|-----|----|

| ①Stroke | |
|--------------|----------------|
| ①Stroke (mm) | Standard price |
| 20 | _ |
| 30 | _ |
| 40 | _ |
| 50 | _ |
| 60 | _ |
| 70 | _ |
| 80 | _ |
| 90 | _ |
| 100 | _ |

| ④ Options | | | |
|---|-------------|----------|----------------|
| Name | Option code | See page | Standard price |
| Brake | В | → A-42 | _ |
| Cable exit direction (top) | CJT | → A-42 | _ |
| Cable exit direction (outside) | CIO | → A-42 | _ |
| Cable exit direction (bottom) | CJB | → A-42 | _ |
| Side-mounted motor to the left (standard) | ML | → A-52 | _ |
| Side-mounted motor to the right | MR | → A-52 | _ |
| Non-motor end specification | NM | → A-52 | _ |

| (3) | Ca | Ы | е | Le | ın | g | th | |
|-----|----|---|---|----|----|---|----|--|
| | | | | | | | | |

| <u> </u> | | |
|----------------|------------------------------------|----------------|
| Type | Cable symbol | Standard price |
| Standard | P (1m) | _ |
| (Robot Cables) | S (3m) | _ |
| (RODOL Cables) | M (5m) | _ |
| | X06 (6m) ~ X10 (10m) | _ |
| Special length | X11 (11m) ~ X15 (15m) | _ |
| | X16 (16m) ~ X20 (20m) | _ |

*The standard cable for the RCP3 is the robot cable. *See page A-59 for cables for maintenance.

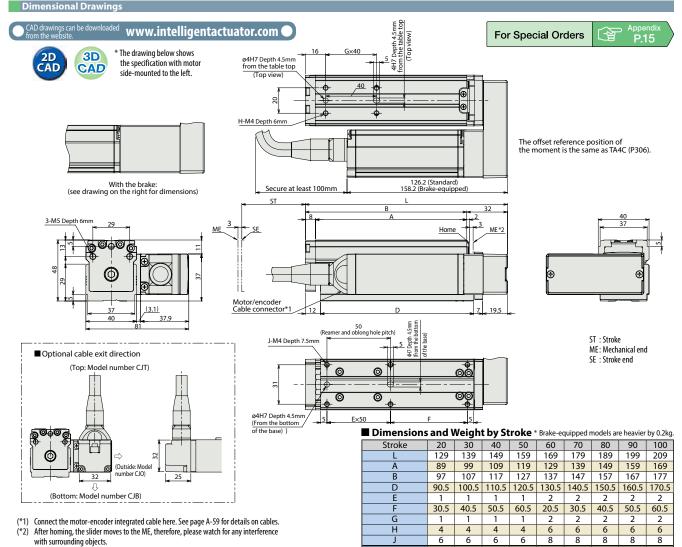
Actuator Specifications

| Item | Description |
|---|--|
| Drive System | Ball screw, ø6mm, rolled C10 |
| Lost Motion | 0.1mm or less |
| Base | Material: Aluminum, white alumite treated |
| Allowable dynamic moment (*) | Ma: 4.2 N·m, Mb: 6 N·m, Mc: 8.2 N·m |
| Ambient operating temperature, humidity | 0 to 40°C, 85% RH or less (Non-condensing) |

(*) Based on 5,000km of traveling life







② Applicable Controllers

| Name | External view | Model number | Features | Maximum number of positioning points | Input power | Power-supply capacity | Standard price | Referenc page | | |
|---|---------------|------------------------|---|--------------------------------------|------------------|-----------------------|-------------------|------------------|---|--------|
| Calanaid Valua Tura | 100 | PMEC-C-28PI-①-2-⑪ | Easy-to-use controller, even for beginners | | AC100V AC200V | Refer to P541 | _ | → P537 | | |
| Solenoid Valve Type | 1 | PSEP-C-28PI-①-2-0 | Simple controller operable with the same signal as a solenoid valve | 3 points | | Refer to P555 | _ | → P547 | | |
| Solenoid valve multi-axis type PIO specification | 1000 | MSEP-C-(1)-~-(1)-2-0 | Positioner type based on PIO control, allowing up to 8 axes to be connected | | | Refer to | | | | |
| Solenoid valve multi-axis type Network specification | | MSEP-C-(11)-~-(10)-0-0 | Field network-ready positioner type, allowing up to 8 axes to be connected | 256 points | | P572 | | P572 | _ | → P563 |
| Positioner type High-output specification | ń | PCON-CA-28PI-①-2-0 | Equipped with a high-output driver Positioner type based on PIO control | 512 points | DC24V | Refer to P618 | _ | | | |
| Pulse-train type High-output specification | | PCON-CA-28PI-PL□-2-0 | Equipped with a high-output driver Pulse-train input type | (—) | | | _ | → P60 | | |
| Field network type High-output specification | (1) | PCON-CA-28PI-®-0-0 | Equipped with a high-output driver Supporting 7 major field networks | 768 points | DC24V | | _ | | | |
| Pulse Train Input Type (Differential Line Driver) | O) | PCON-PL-28PI-①-2-0 | Pulse train input type with differential line driver support | (—) | | | _ | | | |
| Pulse Train Input Type (Open Collector) | | PCON-PO-28PI-①-2-0 | Pulse train input type with open collector support | (—) | | Refer to P628 | _ | → P62 | | |
| Serial Communication Type | | PCON-SE-28PI-N-0-0 | Dedicated Serial Communication | 64 points | | | _ | | | |
| Program Control Type | | PSEL-CS-1-28PI-①-2-0 | Programmed operation is possible. Can operate up to 2 axes | 1,500 points | | Refer to P671 | _ | → P66 | | |

Weight (kg)

0.7

0.8

0.8 0.8 0.9 0.9 0.9

1.0

1.0

*This is for the single-axis PSEL. * ① indicates I/O type (NP/PN). * ① indicates power supply voltage (1: 100V / 2: 100~240V).
* ① indicates number of axes (1 to 8). * ② indicates field network specification symbol. * □ indicates N (NPN specification) or P (PNP specification) symbol.

P3-TA5R

Model Specification Items

RCP3 - TA5R -

- 35P ı — Encoder type — Motor type

35□ size

35P: Pulse motor, 10: 10mm 2.5: 2.5mm

Stroke 25: 25mm 100: 100mm

Applicable controller — P1: PCON-PL/PO/SE **PSEL** P3: PCON-CA (25mm pitch increments) PMEC/PSEP

MSEP

N: None P: 1m S: 3m M:5m X□□:Custom

Cable length

Options See Options below. which side the motor is to be mounted (ML/MR).

* See page Pre-47 for details on the model descriptions.







I: Incremental

encoder is also

The Simple absolute

considered type "I".

Technical References

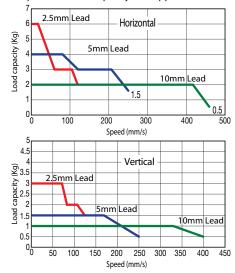


- (1) Since the RCP3 series use a pulse motor, the load capacity decreases at high speeds. Check in the Speed vs. Load Capacity graph to see if your desired speed and load capacity are supported.
- (2) Please note that the maximum speed is different when used horizontally versus vertically.
- (3) The load capacity is based on operation at an acceleration of 0.3G (0.2G for the 2.5mm-lead model, or when used vertically). This is the upper limit of the acceleration.
- (4) See page A-71 for details on push motion.

■ Speed vs. Load Capacity

Due to the characteristics of the pulse motor, the RCP3 series' load capacity decreases at high speeds. In the table below, check if your desired speed and load capacity are supported.

Length



Actuator Specifications

■ Leads and Pavloads

| Model number | Lead (mm) | Max. Load Capacity Horizontal (kg) Vertical (kg) | | | | Rated thrust (N) | Stroke (mm) |
|-----------------------------|--------------|---|------|-----|------------------------|---------------------|----------------|
| RCP3-TA5R-I-35P-10-①-②-③-④ | 10 | ~2 | ~1 | 34 | | | |
| RCP3-TA5R-I-35P-5-①-②-③-④ | 5 | ~4 | ~1.5 | 68 | 25~200 (every 25mm) | | |
| RCP3-TA5R-I-35P-2.5-①-②-③-④ | 2.5 | ~ 6 | ~3 | 136 | | | |

| Stroke and | (Unit: mm/s) | |
|----------------|------------------------|--|
| Stroke Lead | 25~100 (every 25mm) | |
| 10 | 465<400> | |
| 5 | 250 | |
| 2.5 | 125 | |

Code explanation Stroke Applicable Controller Cable length Options *See page A-71 for details on push motion. *The values enclosed in < > apply to vertical settings.

① Stroke

4 Options

Cable exit direction (top)

Right-mounted motor

Cable exit direction (outside)

Cable exit direction (bottom)

Non-motor end specification

Left-mounted motor (standard)

Brake

| ①Stroke (mm) | Standard price |
|-----------------|----------------|
| 25 | _ |
| 50 | _ |
| 75 | _ |
| 100 | _ |

Option code

В

CJT

CJO

CJB

ML

MR

NM

See page

→ A-42

→ A-42

→ A-42

→ A-42

→ A-52

→ A-52

→ A-52

Standard price

| © cubic Echigin |
|-----------------|
| |

| Туре | Cable symbol | Standard price |
|--|------------------------------------|----------------|
| Standard (Robot Cables) Special length | P (1m) | _ |
| | S (3m) | _ |
| | M (5m) | _ |
| | X06 (6m) ~ X10 (10m) | _ |
| | X11 (11m) ~ X15 (15m) | _ |
| | X16 (16m) ~ X20 (20m) | _ |

^{*} The standard cable is the motor-encoder integrated robot cable. * See page A-59 for cables for maintenance.

Actuator Specifications

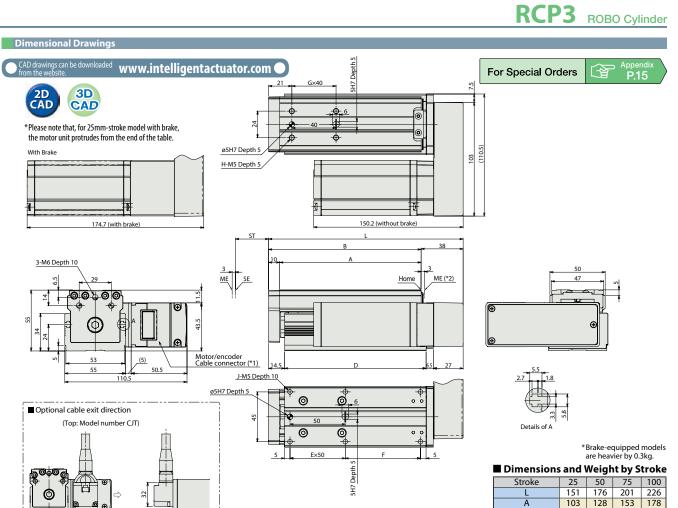
| Item | Description |
|---|---|
| Drive System | Ball screw, ø8mm, rolled C10 |
| Positioning Repeatability | ±0.02mm |
| Lost Motion | 0.1mm or less |
| Base | Material: Aluminum, special alumite treated |
| Allowable static moment | Ma: 25.5 N·m, Mb: 36.5 N·m, Mc:56.1 N·m |
| Allowable dynamic moment | Ma: 6.57 N·m, Mb: 9.32 N·m, Mc: 14.32 N·m |
| Overhang load length | Within the load moment range |
| Ambient operating temperature, humidity | 0 to 40℃, 85% RH or less (Non-condensing) |

Directions of allowable load moments





Name



(*1) Connect the motor-encoder integrated cable here. See page A-59 for details on cables. (*2) After homing, the slider moves to the ME, therefore, please watch for any interference

with surrounding objects.

(Outside: Model number CJO)

ME: Mechanical end SE: Stroke end

(Bottom: Model number CJB)

3D CAD

2D CAD

With Brake

3-M6 Depth 10

| ■ Dimensions | and \ | Weigh | t by S | troke |
|--------------|-------|-------|--------|-------|
| Stroke | 25 | 50 | 75 | 100 |
| L | 151 | 176 | 201 | 226 |
| Α | 103 | 128 | 153 | 178 |
| В | 113 | 138 | 163 | 188 |
| D | 103 | 128 | 153 | 178 |
| E | 1 | 1 | 2 | 2 |
| F | 43 | 68 | 43 | 68 |
| G | 1 | 1 | 2 | 2 |
| Н | 4 | 4 | 6 | 6 |
| J | 6 | 6 | 8 | 8 |
| Weight (kg) | 1.4 | 1.6 | 1.7 | 1.9 |

| Name | External view | Model number | Features | Maximum number of positioning points | Input power | Power-supply capacity | Standard price | Reference page | |
|---|------------------|------------------------|---|--------------------------------------|------------------|-----------------------|-------------------|-------------------|------|
| Solenoid Valve Type | | PMEC-C-35PI-①-2-⑪ | Easy-to-use controller, even for beginners | | AC100V AC200V | Refer to P541 | _ | → P53 | |
| Solenoid valve Type | 1 | PSEP-C-35PI-①-2-0 | Simple controller operable with the same signal as a solenoid valve | 3 points | | Refer to P555 | _ | → P54 | |
| Solenoid valve multi-axis type PIO specification | | MSEP-C-(1)-2-0 | Positioner type based on PIO control, allowing up to 8 axes to be connected | | DC24V | | Refer to | | . DE |
| Solenoid valve multi-axis type Network specification | iiii . | MSEP-C-(11)-~-(10)-0-0 | Field network-ready positioner type, allowing up to 8 axes to be connected | 256 points | | P572 | _ | → P56 | |
| Positioner type High-output specification | | PCON-CA-35PI-①-2-0 | Equipped with a high-output driver Positioner type based on PIO control | 512 points | | Refer to P618 | _ | → P607 | |
| Pulse-train type High-output specification | | PCON-CA-35PI-PL□-2-0 | Equipped with a high-output driver Pulse-train input type | (—) | | | _ | | |
| Field network type High-output specification | | PCON-CA-35PI-௵-0-0 | Equipped with a high-output driver Supporting 7 major field networks | 768 points | DC24V | | _ | | |
| Pulse Train Input Type (Differential Line Driver) | Ĉ | PCON-PL-35PI-①-2-0 | Pulse train input type with differential line driver support | () | | | _ | | |
| Pulse Train Input Type (Open Collector) | | PCON-PO-35PI-①-2-0 | Pulse train input type with open collector support | (—) | | Refer to P628 | _ | → P62 | |
| Serial Communication Type | | PCON-SE-35PI-N-0-0 | Dedicated Serial Communication | 64 points | | | _ | | |
| Program Control Type | | PSEL-CS-1-35PI-①-2-0 | Programmed operation is possible. Can operate up to 2 axes | 1,500 points | Refer to P671 | | _ | → P66 | |

The reference position for moment offset is

the same as the position. on the TA5C (P308).

RCP3-TA5R 318

Flat Type

Arm Flat Typ

P3-TA6R

Model Specification Items

RCP3 - TA6R -— Type

— 42P — Encoder type — Motor type

42P: Pulse motor,

42□ size

12: 12mm 6: 6mm 3: 3mm

Stroke 25: 25mm 150: 150mm

(25mm pitch increments)

Applicable controller P1: PCON-PL/PO/SE **PSEL** P3: PCON-CA

PMEC/PSEP **MSEP**

N: None P: 1m S: 3m M:5m X□□:Custom Length

Cable length

- Options See Options below. *Be sure to specify which side the motor is to be mounted (ML/MR).

CE RoHS



I: Incremental

encoder is also

The Simple absolute

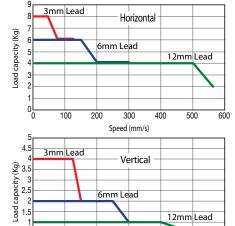
considered type "I".

Technical References

- (1) Since the RCP3 series use a pulse motor, the load capacity decreases at high speeds.
- Check in the Speed vs. Load Capacity graph to see if your desired speed and load capacity are supported.
- (2) Please note that the maximum speed is different when used horizontally versus vertically. (3) The load capacity is based on operation at an acceleration of 0.3G (0.2G for the 3mm-lead model, or when used vertically). This is the upper limit of the acceleration.
- (4) See page A-71 for details on push motion.

■ Speed vs. Load Capacity

Due to the characteristics of the pulse motor, the RCP3 series' load capacity decreases at high speeds. In the table below, check if your desired speed and load capacity are supported.



Actuator Specifications

■ Leads and Payloads

| Model number | Lead (mm) | Max. Load Horizontal (kg) | Capacity Vertical (kg) | Rated thrust (N) | Stroke (mm) |
|----------------------------|--------------|------------------------------|-------------------------|---------------------|------------------------|
| RCP3-TA6R-I-42P-12-①-②-③-④ | 12 | ~4 | ~1 | 60 | |
| RCP3-TA6R-I-42P-6-①-②-③-④ | 6 | ~ 6 | ~2 | 110 | 25~150 (every 25mm) |
| RCP3-TA6R-I-42P-3-①-②-③-④ | 3 | ~8 | ~4 | 189 | |

| Stroke and | (Unit: mm/s) | |
|----------------|------------------------|--|
| Stroke Lead | 25~150 (every 25mm) | |
| 12 | 560<500> | |
| 6 | 300 | |
| 3 | 150 | |

300

Speed (mm/s)

500

Code explanation Stroke Applicable Controller Cable length Options *See page A-71 for details on push motion. * The values enclosed in < > apply to vertical settings.

①Stroke

| ①Stroke (mm) | Standard price |
|-----------------|----------------|
| 25 | _ |
| 50 | _ |
| 75 | _ |
| 100 | _ |
| 125 | _ |
| 150 | _ |

| ④ Options | | | |
|--------------------------------|-------------|----------|----------------|
| Name | Option code | See page | Standard price |
| Brake | В | → A-42 | _ |
| Cable exit direction (top) | CJT | → A-42 | _ |
| Cable exit direction (outside) | CJO | → A-42 | _ |
| Cable exit direction (bottom) | CJB | → A-42 | _ |
| Left-mounted motor (standard) | ML | → A-52 | _ |
| Right-mounted motor | MR | → A-52 | _ |
| Non-motor end specification | NM | → A-52 | _ |

③Cable Length

| Type | Cable symbol | Standard price |
|----------------|------------------------------------|----------------|
| Standard | P (1m) | _ |
| (Robot Cables) | S (3m) | _ |
| (RODOL Cables) | M (5m) | _ |
| Special length | X06 (6m) ~ X10 (10m) | _ |
| | X11 (11m) ~ X15 (15m) | _ |
| | X16 (16m) ~ X20 (20m) | _ |

*The standard cable is the motor-encoder integrated robot cable.

0.5

100

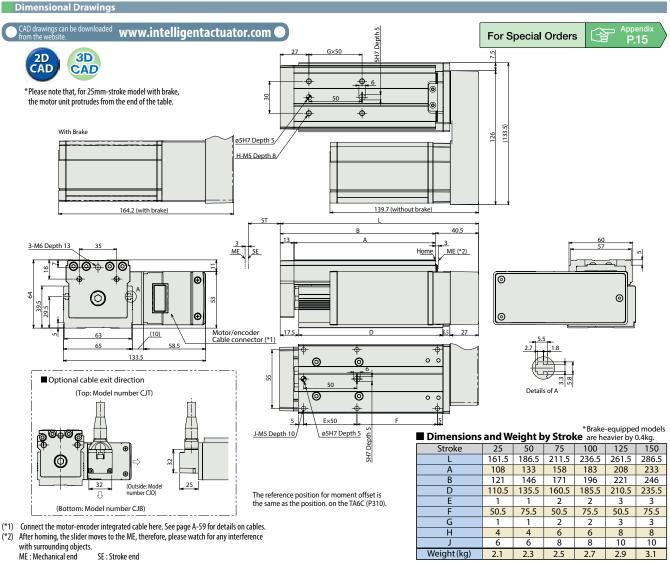
200

Actuator Specifications

| ltem | Description |
|---|---|
| Drive System | Ball screw, ø10mm, rolled C10 |
| Positioning Repeatability | ±0.02mm |
| Lost Motion | 0.1mm or less |
| Base | Material: Aluminum, special alumite treated |
| Allowable static moment | Ma: 29.4 N·m, Mb: 42.0 N·m, Mc:74.1 N·m |
| Allowable dynamic moment | Ma: 7.26 N·m, Mb: 10.3 N·m, Mc: 18.25 N·m |
| Overhang load length | Within the load moment range |
| Ambient operating temperature, humidity | 0 to 40°C, 85% RH or less (Non-condensing) |







| 21 | hoblicak | Jo Cor | trollor | |
|----|----------|--------|---------|--|

RCP3 series actuators can be operated with the controllers indicated below. Select the type according to your intended application.

| External view | Model number | Features | Maximum number of positioning points | Input power | Power-supply capacity | Standard price | Reference page |
|---------------|----------------------|--|--|---|--|--|--|
| | PMEC-C-42PI-①-2-⑪ | Easy-to-use controller, even for beginners | | AC100V AC200V | Refer to P541 | _ | → P53 |
| 1 | PSEP-C-42PI-①-2-0 | Simple controller operable with the same signal as a solenoid valve | 3 points | | Refer to P555 | _ | → P54 |
| | MSEP-C | Positioner type based on PIO control, allowing up to 8 axes to be connected | | | Refer to | | → P56 |
| | MSEP-C | Field network-ready positioner type, allowing up to 8 axes to be connected | 256 points | | P572 | _ | → P50 |
| á | PCON-CA-42PI-①-2-0 | Equipped with a high-output driver Positioner type based on PIO control | 512 points | | | _ | |
| 1 | PCON-CA-42PI-PL□-2-0 | Equipped with a high-output driver Pulse-train input type | (—) | DC24V | Refer to P618 | _ | → P60 |
| | PCON-CA-42PI-®-0-0 | Equipped with a high-output driver Supporting 7 major field networks | 768 points | DC24V | | _ | |
| C) | PCON-PL-42PI-①-2-0 | Pulse train input type with differential line driver support | () | | | _ | |
| | PCON-PO-42PI-①-2-0 | Pulse train input type with open collector support | (—) | | Refer to P628 | _ | → P62 |
| | PCON-SE-42PI-N-0-0 | Dedicated Serial Communication | 64 points | | | _ | |
| | PSEL-CS-1-42PI-①-2-0 | Programmed operation is possible. Can operate up to 2 axes | 1,500 points | | Refer to P671 | _ | → P66 |
| | | PMEC-C-42PI-①-2-① PSEP-C-42PI-①-2-0 MSEP-C-①-~-①-2-0 MSEP-C-①-~-①-0-0 PCON-CA-42PI-①-2-0 PCON-CA-42PI-①-2-0 PCON-PL-42PI-①-2-0 PCON-PO-42PI-①-2-0 PCON-SE-42PI-①-2-0 | PMEC-C-42PI-①-2-① Easy-to-use controller, even for beginners Simple controller operable with the same signal as a solenoid valve MSEP-C-⑪①-2-0 Positioner type based on PIO control, allowing up to 8 axes to be connected MSEP-C-⑩①-0-0 Field network-ready positioner type, allowing up to 8 axes to be connected PCON-CA-42PI-①-2-0 Equipped with a high-output driver Positioner type based on PIO control Equipped with a high-output driver Pulse-train input type PCON-CA-42PI-①-0-0 Equipped with a high-output driver Supporting 7 major field networks PCON-PL-42PI-①-2-0 Pulse train input type with differential line driver support PCON-SE-42PI-N-0-0 Dedicated Serial Communication PCSEL CS 1 42PI ① 2.0 Programmed operation is possible. | PMEC-C-42PI-①-2-① Easy-to-use controller, even for beginners PSEP-C-42PI-①-2-0 Simple controller operable with the same signal as a solenoid valve | PMEC-C-42PI-①-2-① Easy-to-use controller, even for beginners PSEP-C-42PI-①-2-0 Simple controller operable with the same signal as a solenoid valve MSEP-C-①①-2-0 Positioner type based on PIO control, allowing up to 8 axes to be connected MSEP-C-①②-0-0 Field network-ready positioner type, allowing up to 8 axes to be connected PCON-CA-42PI-①-2-0 Equipped with a high-output driver Positioner type based on PIO control PCON-CA-42PI-①-2-0 Equipped with a high-output driver Pulse-train input type PCON-CA-42PI-①-0-0 Equipped with a high-output driver Supporting 7 major field networks PCON-PC-42PI-①-2-0 Pulse train input type with differential line driver support PCON-PO-42PI-①-2-0 Pulse train input type with open collector support PCON-SE-42PI-N-0-0 Dedicated Serial Communication PCON-SE-42PI-N-0-0 Programmed operation is possible. | PMEC-C-42PI-①-2-① Easy-to-use controller, even for beginners PSEP-C-42PI-①-2-0 Simple controller operable with the same signal as a solenoid valve MSEP-C-①①-2-0 Positioner type based on PIO control, allowing up to 8 axes to be connected MSEP-C-①②-0-0 Field network-ready positioner type, allowing up to 8 axes to be connected PCON-CA-42PI-①-2-0 Equipped with a high-output driver Positioner type based on PIO control PCON-CA-42PI-①-2-0 Equipped with a high-output driver Pulse-train input type PCON-CA-42PI-①-0-0 Equipped with a high-output driver Support graph rajor field networks PCON-PC-42PI-①-2-0 Pulse train input type with differential line driver support PCON-PC-42PI-①-2-0 Pulse train input type with open collector support PCON-SE-42PI-N-0-0 Dedicated Serial Communication PCON-SE-42PI-N-0-0 Programmed operation is possible. PSEL CS 1.42PI ① 2.0 Programmed operation is possible. PSEL CS 1.42PI ② 2.0 Programmed operation is possible. Refer to P551 Refer to P618 PCON-positioner type based on PIO control P | PMEC-C-42PI-①-2-① Easy-to-use controller, even for beginners PSEP-C-42PI-①-2-① Simple controller operable with the same signal as a solenoid valve Positioner type based on PIO control, allowing up to 8 axes to be connected PS55 |

Flat Type

P3-TA7R

Model Specification Items RCP3 - TA7R -- 42P ı — Туре — Encoder type — Motor type —

I: Incremental The Simple absolute encoder is also considered type "I".

Lead 42P: Pulse motor, 12: 12mm 6mm 42□ size 3: 3mm

Stroke 25: 25mm 200: 200mm (25mm pitch increments)

Applicable controller P1: PCON-PL/PO/SE **PSEL** P3: PCON-CA PMEC/PSEP

MSEP

N: None P: 1m S: 3m M:5m X□□:Custom Length

Cable length — Options

See Options below. *Be sure to specify which side the motor is to be mounted (ML/MR).

 $C \in$ RoHS

* See page Pre-47 for details on the model descriptions.

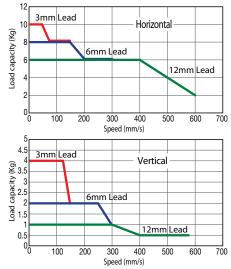


Technical References

- (1) Since the RCP3 series use a pulse motor, the load capacity decreases at high speeds. Check in the Speed vs. Load Capacity graph to see if your desired speed and load capacity are supported.
- (2) Please note that the maximum speed is different when used horizontally versus vertically.
- (3) The load capacity is based on operation at an acceleration of 0.3G (0.2G for the 3mm-lead model, or when used vertically). This is the upper limit of the acceleration.
- (4) See page A-71 for details on push motion.

■ Speed vs. Load Capacity

Due to the characteristics of the pulse motor, the RCP3 series' load capacity decreases at high speeds. In the table below, check if your desired speed and load capacity are supported.



Actuator Specifications

■ Leads and Payloads

| Model number | Lead (mm) | Max. Load Horizontal (kg) | Capacity Vertical (kg) | Rated thrust (N) | Stroke (mm) |
|----------------------------|--------------|------------------------------|-------------------------|---------------------|------------------------|
| RCP3-TA7R-I-42P-12-①-②-③-④ | 12 | ~6 | ~1 | 60 | |
| RCP3-TA7R-I-42P-6-①-②-③-④ | 6 | ~8 | ~2 | 110 | 25~200 (every 25mm) |
| RCP3-TA7R-I-42P-3-①-②-③-④ | 3 | ~10 | ~4 | 189 | |

■ Stroke and Maximum Speed (Unit: mm/s) Stroke 25~200 (every 25mm) Lead 12 600<580> 6 300 3 150

* The values enclosed in < > apply to vertical settings. Code explanation ① Stroke ② Applicable Controller ③ Cable length ④ Options *See page A-71 for details on push motion.

| n | Ç. | 17 | ٦ŀ | 70 |
|---|----|----|----|----|

| ①Stroke (mm) | Standard price |
|--------------|----------------|
| 25 | _ |
| 50 | _ |
| 75 | _ |
| 100 | _ |
| 125 | _ |
| 150 | _ |
| 175 | _ |
| 200 | _ |

4 Options

| Name | Option code | See page | Standard price |
|--------------------------------|-------------|----------|----------------|
| Brake | В | → A-42 | _ |
| Cable exit direction (top) | CJT | → A-42 | _ |
| Cable exit direction (outside) | CJO | → A-42 | _ |
| Cable exit direction (bottom) | CJB | → A-42 | _ |
| Left-mounted motor (standard) | ML | → A-52 | _ |
| Right-mounted motor | MR | → A-52 | _ |
| Non-motor end specification | NM | → A-52 | _ |

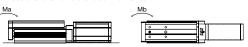
③Cable Length

| Туре | Cable symbol | Standard price |
|----------------|-------------------------------------|----------------|
| Standard | P (1m) | _ |
| (Robot Cables) | S (3m) | _ |
| (RODOL Cables) | M (5m) | _ |
| Special length | X06 (6m) ~ X10 (10m) | _ |
| | X11 (11m) ~ X15 (15m) | _ |
| | X16 (16m) ~ X20 (20m) | _ |

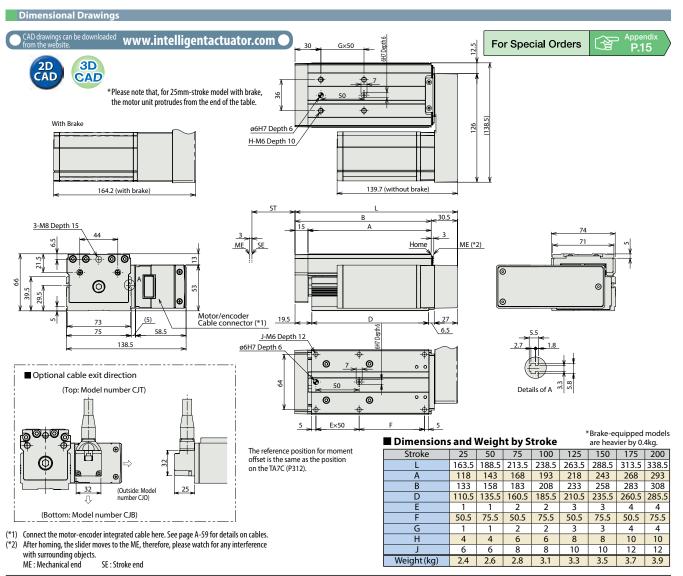
* The standard cable is the motor-encoder integrated robot cable. * See page A-59 for cables for maintenance.

Actuator Specifications

| Item | Description |
|---|---|
| Drive System | Ball screw, ø10mm, rolled C10 |
| Positioning Repeatability | ±0.02mm |
| Lost Motion | 0.1mm or less |
| Base | Material: Aluminum, special alumite treated |
| Allowable static moment | Ma: 42.6 N·m, Mb: 60.8 N·m, Mc:123.2 N·m |
| Allowable dynamic moment (*) | Ma: 9.91 N·m, Mb: 14.13 N·m, Mc: 28.65 N·m |
| Overhang load length | Within the load moment range |
| Ambient operating temperature, humidity | 0 to 40°C, 85% RH or less (Non-condensing) |







| ②Applicable Controllers | |
|------------------------------------|----|
| RCP3 series actuators can be opera | te |

| RCP3 series actuators can be operated with the controllers indicated below. Select the type according to your intended application. | | | | | | | | | | |
|---|------------------|------------------------|---|--------------------------------------|--------------------------------------|-----------------------|-------------------|-----------------|--|--|
| Name | External view | Model number | Features | Maximum number of positioning points | Input power | Power-supply capacity | Standard price | Referen page | | |
| Solenoid Valve Type | | PMEC-C-42PI-①-2-⑪ | Easy-to-use controller, even for beginners | AC100V AC200V | | Refer to P541 | _ | → P53 | | |
| | | PSEP-C-42PI-①-2-0 | Simple controller operable with the same signal as a solenoid valve | | Refer to P555 | _ | → P54 | | | |
| Solenoid valve multi-axis type PIO specification | | MSEP-C | Positioner type based on PIO control, allowing up to 8 axes to be connected | | DC24V Doints —) Dioints —) Dioints | Refer to P572 | _ | → P563 | | |
| Solenoid valve multi-axis type Network specification | | MSEP-C-(11)-~-(1V)-0-0 | Field network-ready positioner type, allowing up to 8 axes to be connected | 256 points | | | | | | |
| Positioner type High-output specification | | PCON-CA-42PI-①-2-0 | Equipped with a high-output driver Positioner type based on PIO control | 512 points | | Refer to P618 | _ | → P607 | | |
| Pulse-train type High-output specification | | PCON-CA-42PI-PL□-2-0 | Equipped with a high-output driver Pulse-train input type | (—) | | | _ | | | |
| Field network type High-output specification | | PCON-CA-42PI-®-0-0 | Equipped with a high-output driver Supporting 7 major field networks | 768 points | | | _ | | | |
| Pulse Train Input Type (Differential Line Driver) | | PCON-PL-42PI-①-2-0 | Pulse train input type with differential line driver support | - () | | Refer to P628 | _ | → P623 | | |
| Pulse Train Input Type (Open Collector) | | PCON-PO-42PI-①-2-0 | Pulse train input type with open collector support | | | | _ | | | |
| Serial Communication Type | | PCON-SE-42PI-N-0-0 | Dedicated Serial Communication | 64 points | | | _ | | | |
| Program Control Type | | PSEL-CS-1-42PI-①-2-0 | Programmed operation is possible. Can operate up to 2 axes | 1,500 points | | Refer to P671 | _ | → P66 | | |

Table/ Flat Type

^{*}This is for the single-axis PSEL. * ① indicates I/O type (NP/PN). * ① indicates power supply voltage (1: 100V / 2: 100~240V).
* ① indicates number of axes (1 to 8). * ② indicates field network specification symbol. * □ indicates N (NPN specification) or P (PNP specification) symbol.