

C20

Origin on the non-motor side is selectable



Ordering method

C20

Model

Lead Note 1
20: 20mm
10: 10mm

Brake
No entry: With no brake
BK: With brake

Option
Origin position change
None: Standard
Z: Non-motor side

Stroke
200 to 1250 (50mm pitch)

Cable length Note 2
3L: 3.5m
5L: 5m
10L: 10m
3K/5K/10K (Flexible cable)

TSX

Positioner Note 3
TS-X

220

Driver: Power supply voltage / Power capacity Note 4
220: 200V/400 to 600W

Regenerative unit
No entry: None
R: With RGT

LCD monitor
No entry: None
L: With LCD

I/O selection
NP: NPN
PN: PNP
CC: CC-Link
EP: EtherNet/IP™
DN: DeviceNet™
PT: PROFINET
GW: No I/O board Note 5

Battery
B: With battery (Absolute)
N: None (Incremental)

SR1-X

Controller

20

Driver: Power capacity Note 4
20: 400 to 600W

Usable for CE
No entry: Standard
E: CE marking

Regenerative unit
No entry: None
R: With RG1

I/O selection
N: NPN
P: PNP
CC: CC-Link
DN: DeviceNet™
PB: PROFIBUS

Battery
B: With battery (Absolute)
N: None (Incremental)

RDV-X

Driver

2

Power supply voltage
2: AC200V

20

Driver: Power capacity Note 4
20: 400W or less

Regenerative unit
RBR1 (Horizontal)
RBR2 (Vertical)

Note 1. Only the model with specifications with brake (vertical specifications) can select a lead of 10mm.
Note 2. The robot cable is standard cable (3L/5L/10L), but can be changed to flexible cable. See P.594 for details on robot cable.
Note 3. See P.498 for DIN rail mounting bracket.
Note 4. Acceleration / deceleration is different depending the Positioner or Controller or Driver.
Note 5. Select this selection when using the gateway function. For details, see P.60.

Basic specifications

| | |
|--|--|
| AC servo motor output (W) | 600 |
| Repeatability Note 1 (mm) | +/-0.01 |
| Deceleration mechanism | Ball screw (Class C7) |
| Ball screw lead (mm) | 20 10 |
| Maximum speed (mm/sec) Note 2 | 1000 500 |
| Maximum payload (kg) | Horizontal 120 Vertical 25 45 |
| Rated thrust (N) | 510 1020 |
| Stroke (mm) | 200 to 1250 (50mm pitch) |
| Overall length (mm) | Horizontal Stroke+441 Vertical Stroke+471 |
| Maximum outside dimension of body cross-section (mm) | W202 x H117 |
| Cable length (m) | Standard: 3.5 / Option: 5, 10 |
| Degree of cleanliness | CLASS 10 Note 3 |
| Intake air (Nl/min) | 30 to 90 Note 4 |

Note 1. Positioning repeatability in one direction.
Note 2. When the stroke is longer than 950mm, resonance of the ball screw may occur depending on the operation conditions (critical speed). In this case, reduce the speed setting on the program by referring to the maximum speeds shown in the table below.
Note 3. Per 1cf (0.1um base), when suction blower is used.
Note 4. The necessary intake amount varies depending on the use conditions and environment.

Allowable overhang Note

Horizontal installation (Unit: mm)

| Lead | 20 | 50kg | 2602 | 869 | 1145 |
|-------|------|------|------|-----|------|
| 50kg | 2602 | 869 | 1145 | | |
| 80kg | 2193 | 528 | 720 | | |
| 120kg | 1841 | 339 | 505 | | |

Wall installation (Unit: mm)

| Lead | 20 | 50kg | 1144 | 798 | 2602 |
|-------|------|------|------|-----|------|
| 50kg | 1144 | 798 | 2602 | | |
| 80kg | 717 | 456 | 2193 | | |
| 120kg | 466 | 267 | 1841 | | |

Vertical installation (Unit: mm)

| Lead | 10 | Lead | 20 | 15kg | 2711 | 2711 |
|------|------|------|----|------|------|------|
| 15kg | 2711 | 2711 | | | | |
| 20kg | 2045 | 2045 | | | | |
| 20kg | 2182 | 2182 | | | | |
| 30kg | 1437 | 1437 | | | | |
| 45kg | 939 | 939 | | | | |

Static loading moment (Unit: N·m)

| MY | MP | MR |
|------|------|-----|
| 1101 | 1103 | 968 |

Note. Distance from center of slider top to center of gravity of object being carried at a guide service life of 10,000 km.

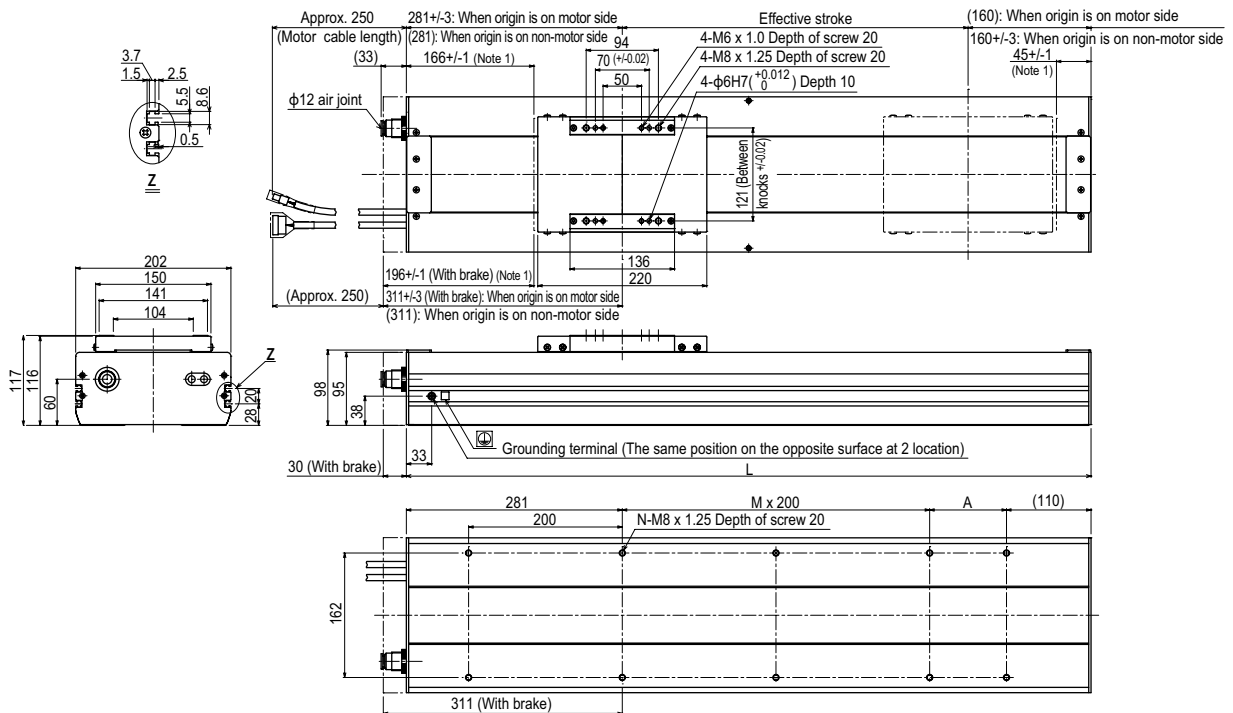
Static loading moment

Controller

| Controller | Operation method |
|---------------|--|
| SR1-X20 Note | Programming / I/O point trace / Remote command / Operation using RS-232C communication |
| TS-X220 Note | I/O point trace / Remote command |
| RDV-X220-RBR1 | Pulse train control (Horizontal) |
| RDV-X220-RBR2 | Pulse train control (Vertical) |

Note. Regenerative unit is required when used vertically and moving at maximum speeds exceeding 1000mm/sec.

C20



| Effective stroke | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 550 | 600 | 650 | 700 | 750 | 800 | 850 | 900 | 950 | 1000 | 1050 | 1100 | 1150 | 1200 | 1250 | |
|----------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--|
| L | 641 | 691 | 741 | 791 | 841 | 891 | 941 | 991 | 1041 | 1091 | 1141 | 1191 | 1241 | 1291 | 1341 | 1391 | 1441 | 1491 | 1541 | 1591 | 1641 | 1691 | |
| A | 50 | 100 | 150 | 200 | 50 | 100 | 150 | 200 | 50 | 100 | 150 | 200 | 50 | 100 | 150 | 200 | 50 | 100 | 150 | 200 | 50 | 100 | |
| M | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 6 | 6 | |
| N | 8 | 8 | 8 | 8 | 10 | 10 | 10 | 10 | 12 | 12 | 12 | 12 | 14 | 14 | 14 | 14 | 16 | 16 | 16 | 16 | 18 | 18 | |
| Weight (kg) Note 3 | 25.0 | 26.0 | 27.0 | 28.0 | 29.0 | 30.0 | 31.0 | 32.0 | 33.0 | 34.0 | 35.0 | 36.0 | 37.0 | 38.0 | 39.0 | 40.0 | 41.0 | 42.0 | 43.0 | 44.0 | 45.0 | 46.0 | |
| Maximum speed Note 4 | | | | | | | | | | | | 800 | 800 | 700 | 700 | 600 | 600 | 500 | | | | | |
| (mm/sec) | | | | | | | | | | | | 400 | 400 | 350 | 350 | 300 | 300 | 250 | | | | | |
| Speed setting | | | | | | | | | | | | 80% | 80% | 70% | 70% | 60% | 60% | 50% | | | | | |

Note 1. Stop positions are determined by the mechanical stoppers at both ends.
Note 2. Minimum bend radius of motor cable is R50.
Note 3. Weight of models with no brake. The weight of brake-attached models is 2.0 kg heavier than the models with no brake shown in the table.
Note 4. When the stroke is longer than 950mm, resonance of the ball screw may occur depending on the operation conditions (critical speed). In this case, reduce the speed setting on the program by referring to the maximum speeds shown in the table at the left.

Controller

SR1-X ▶ 516 TS-X ▶ 490 RDV-X ▶ 504