# C17

**Origin at non-motor side**

## Ordering method

| C17 - | | - | | - | | - | | - | SR1-X | - | 20 | - | | - | | - | | - | | - | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Model** | **Lead** | | **Brake** | | **Option** | | **Stroke** | | **Cable length** Note 1 | | **Controller** | | **Driver** | | **Usable for CE** | | **Regenerative unit** Note 4 | | **Input/Output selection** | | **Battery** | |
| | 20: 20mm<br>10: 10mm | | No entry: With no brake<br>BK: With brake | | Origin position change | None: Standard<br>Z: Non-motor side | 250 to 1250<br>100mm pitch) | | 3L: 3.5m (Standard)<br>5L: 5m<br>10L: 10m | | SR1-X<br>TS-X Note 2<br>RDX Note 2 | | 20: 400 to 600W | | No entry: Standard<br>E: CE marking | | No entry: None<br>R: RG1 | | N: NPN<br>P: PNP<br>CC: CC-Link<br>DN: DeviceNet<br>PB: Profibus<br>YC: YC-Link Note | | No entry: None<br>(Incremental specification)<br>B: With battery<br>(Absolute specification) | |

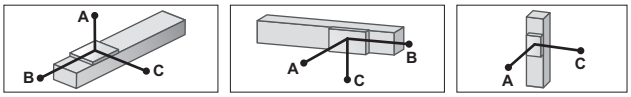
Note 1. The robot cable is a standard cable and may be changed to a flex-resistant type (except RDX). See P.423 for more information on robot cables.
Note 2. To find TS-X, RDX selection options, see the ordering method listed on each controller's page (TS-X: P.355, RDX: P.365).
Note 3. When using the SR1-X, the regenerative unit RG1 is required when using in perpendicular specifications and the maximum speed exceeds 1000mm/sec. When using RDX, a regeneration unit RBR is required regardless of installation conditions.
Note 4. Available only for the slave.

## Basic specifications

| | | | |
|---|---|---|---|
| **AC servo motor output (W)** | | 400 | |
| **Repeatability** Note 1 **(mm)** | | +/-0.01 | |
| **Deceleration mechanism** | | Ball screw (Class C7) | |
| **Ball screw lead (mm)** | | 20 | 10 |
| **Maximum speed** Note 2 **(mm/sec)** | | 1000 | 600 |
| **Maximum payload (kg)** | **Horizontal** | 80 | 120 |
| | **Vertical** | 15 | 35 |
| **Rated thrust (N)** | | 339 | 678 |
| **Stroke (mm)** | | 250 to 1250 (100mm pitch) | |
| **Overall length (mm)** | **Horizontal** | Stroke+395 | |
| | **Vertical** | Stroke+425 | |
| **Maximum outside dimension of body cross-section (mm)** | | W168 × H114 | |
| **Cable length (m)** | | Standard: 3.5 / OP: 5, 10 | |
| **Degree of cleanliness** | | CLASS 10 Note 3 | |
| **Intake air (Nℓ/min)** | | 30 to 90 Note | |

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 (0.1μm 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)

| | | A | B | C |
|---|---|---|---|---|
| Lead 20 | 30kg | 2660 | 871 | 1040 |
| | 50kg | 1911 | 508 | 615 |
| | 80kg | 1541 | 303 | 377 |
| Lead 10 | 60kg | 2443 | 418 | 580 |
| | 100kg | 2000 | 237 | 330 |
| | 120kg | 1841 | 192 | 268 |

**Wall installation** (Unit: mm)

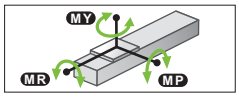
| | | A | B | C |
|---|---|---|---|---|
| Lead 20 | 30kg | 1017 | 789 | 2576 |
| | 50kg | 583 | 426 | 1808 |
| | 80kg | 338 | 221 | 1380 |
| Lead 10 | 60kg | 525 | 336 | 2443 |
| | 100kg | 271 | 155 | 2000 |
| | 120kg | 207 | 109 | 1841 |

**Vertical installation** (Unit: mm)

| | | A | C |
|---|---|---|---|
| Lead 20 | 5kg | 3000 | 3000 |
| | 10kg | 2443 | 2443 |
| | 15kg | 1633 | 1633 |
| Lead 10 | 15kg | 1728 | 1728 |
| | 25kg | 1013 | 1013 |
| | 35kg | 707 | 707 |

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




(Unit: N·m)

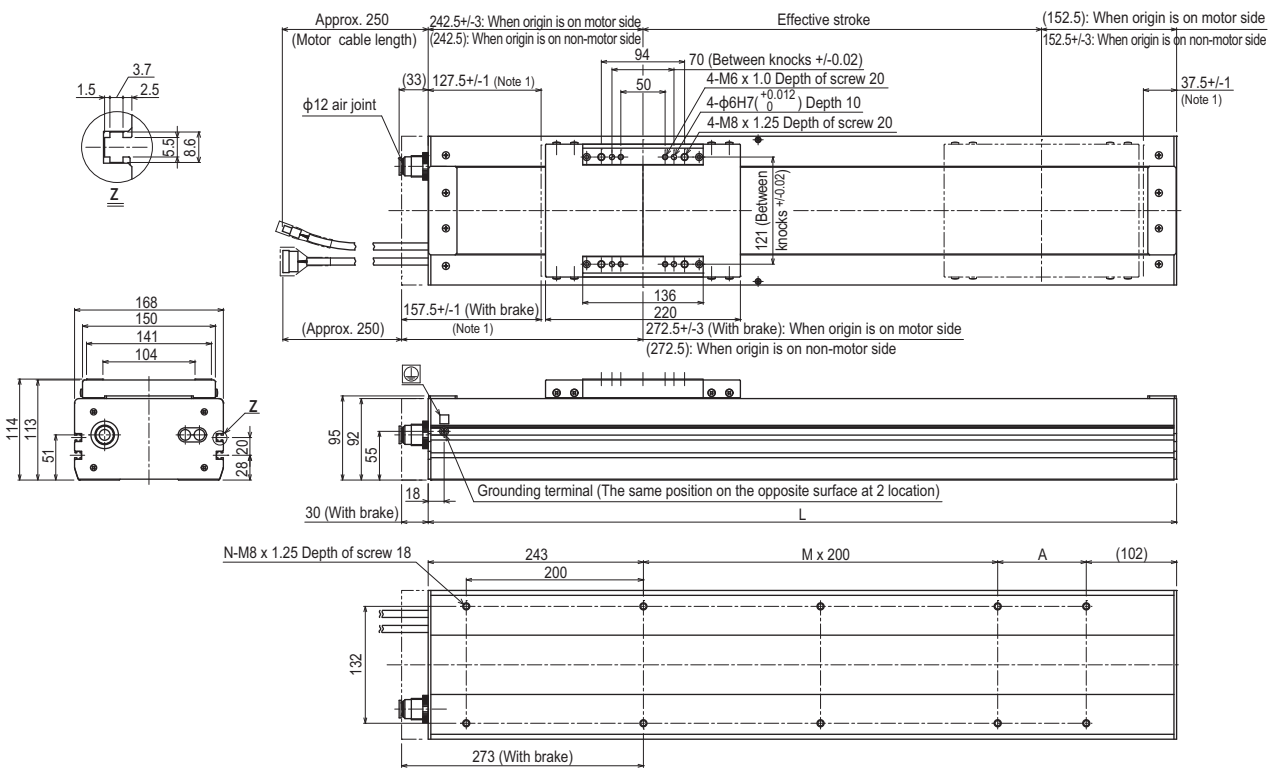
| MY | MP | MR |
|---|---|---|
| 1032 | 1034 | 908 |

## Controller

| Controller | Operation method |
|---|---|
| SR1-X-20 Note | Programming / I/O point trace / Remote command / Operation using RS-232C communication |
| TS-X220 Note | I/O point trace |
| RDX-20-RBR1 | Pulse train control (Horizontal) |
| RDX-20-RBR2 | Pulse train control (Vertical) |

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

## C17




| Effective stroke | | 250 | 350 | 450 | 550 | 650 | 750 | 850 | 950 | 1050 | 1150 | 1250 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **L** | | 645 | 745 | 845 | 945 | 1045 | 1145 | 1245 | 1345 | 1445 | 1545 | 1645 |
| **A** | | 100 | 200 | 100 | 200 | 100 | 200 | 100 | 200 | 100 | 200 | 100 |
| **M** | | 1 | 1 | 2 | 2 | 3 | 3 | 4 | 4 | 5 | 5 | 6 |
| **N** | | 8 | 8 | 10 | 10 | 12 | 12 | 14 | 14 | 16 | 16 | 18 |
| **Weight (kg)** Note 3 | | 16.0 | 17.9 | 19.8 | 21.7 | 23.6 | 25.5 | 27.4 | 29.3 | 31.2 | 33.1 | 35.0 |
| **Maximum speed** Note 4 **(mm/sec)** | **Lead 20** | 1000 | | | | | | | 800 | 700 | 600 | 500 |
| | **Lead 10** | 600 | | | | | | | 400 | 350 | 300 | 250 |
| | **Speed setting** | – | | | | | | | 80% | 70% | 60% | 50% |

Note 1. Distance from both ends to the mechanical stopper.
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 1.5 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 ▶ 377 | TS-X ▶ 354 | RDX ▶ 365