

# C10



Origin at non-motor side: Lead 20 • 10

## Ordering method

| <b>C10</b> |                                |   |   |                              |   | <b>SR1-X</b>   | <b>05</b>        |                                     |                                     |   |  |
|------------|--------------------------------|---|---|------------------------------|---|--|------------------|-------------------------------------|-------------------------------------|---|--|
| Model      | Lead                           | Brake                                     | Option  | Stroke                       | Cable length <sup>Note 2</sup>            | Controller   | Driver           | Usable for CE                       | Regenerative unit <sup>Note 4</sup> | Input/Output selection  | Battery  |
|            | 20: 20mm<br>10: 10mm<br>5: 5mm | No entry: With no brake<br>BK: With brake | Origin position change<br>None: Standard<br>Z: Non-motor side <sup>Note 5</sup> | 150 to 1050<br>(100mm pitch) | 3L: 3.5m (Standard)<br>5L: 5m<br>10L: 10m | SR1-X<br>TS-X <sup>Note 3</sup><br>RDX <sup>Note 3</sup> | 05: 100W or less | 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: YG-Link <sup>Note 5</sup> | No entry: None<br>(Incremental specification)<br>B: With battery<br>(Absolute specification) |

Note 1. If selecting 5mm lead specifications then the origin point cannot be changed to the non-motor side.  
 Note 2. 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 3. 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 4. When using the SR1-X, TS-X, a regenerative unit is required when the movement stroke is 700mm or more and used perpendicularly. When using the RDX, the regenerative unit RBR1 is required regardless of the installation conditions.  
 Note 5. Available only for the slave.

## Basic specifications

|  |                               |            |
|--|-------------------------------|------------|
| AC servo motor output (W)                            | 100                           |            |
| Repeatability <sup>Note 1</sup> (mm)                 | ±0.01                         |            |
| Deceleration mechanism                               | Ball screw (Class C7)         |            |
| Ball screw lead (mm)                                 | 20                            | 10         |
| Maximum speed <sup>Note 2</sup> (mm/sec)             | 1000                          | 500        |
| Maximum payload (kg)                                 | Horizontal                    | Vertical   |
|  | 20                            | 40         |
| Rated thrust (N)                                     | 84                            | 169        |
| Stroke (mm)  | 150 to 1050 (100mm pitch)     |            |
| Overall length (mm)                                  | Horizontal                    | Stroke+283 |
|  | Vertical                      | Stroke+313 |
| Maximum outside dimension of body cross-section (mm) | W104 × H85                    |            |
| Cable length (m)                                     | Standard: 3.5 / Option: 5, 10 |            |
| Degree of cleanliness                                | CLASS10 <sup>Note 3</sup>     |            |
| Intake air (Nl/min)                                  | 30 to 90 <sup>Note 4</sup>    |            |

Note 1. Positioning repeatability in one direction.  
 Note 2. When the stroke is longer than 750mm, 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 <sup>Note</sup>

| Horizontal installation (Unit: mm) | Wall installation (Unit: mm) |      |     | Vertical installation (Unit: mm) |      |
|------------------------------------|------------------------------|------|-----|----------------------------------|------|
|                                    | A                            | B    | C   | A                                | B    |
| Lead 20                            | 5kg                          | 1875 | 530 | 510                              | 1826 |
|                                    | 10kg                         | 1079 | 247 | 242                              | 1002 |
|                                    | 20kg                         | 628  | 106 | 107                              | 497  |
| Lead 10                            | 15kg                         | 765  | 156 | 164                              | 1036 |
|                                    | 30kg                         | 425  | 62  | 66                               | 506  |
|                                    | 40kg                         | 350  | 38  | 42                               | 311  |
| Lead 5                             | 30kg                         | 960  | 63  | 68                               | 2716 |
|                                    | 50kg                         | 565  | 25  | 28                               | 1206 |
|                                    | 60kg                         | 470  | 16  | 17                               | 711  |

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

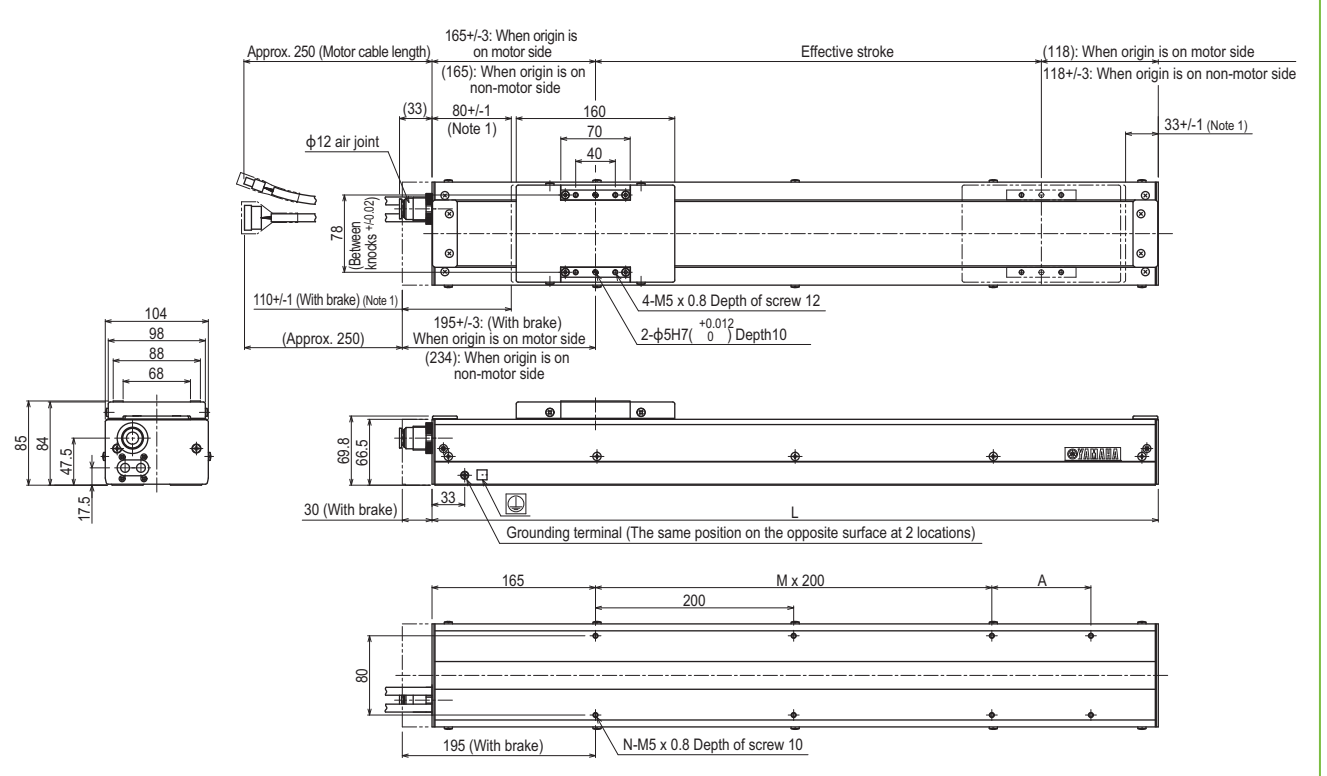
| (Unit: N·m) |     |     |
|-------------|-----|-----|
| MY          | MP  | MR  |
| 119         | 119 | 105 |

## Controller

| Controller               | Operation method   |
|--------------------------|--|
| SR1-X-05 <sup>Note</sup> | Programming / I/O point trace / Remote command / Operation using RS-232C communication |
| TS-X205                  | I/O point trace  |
| RDX-05-RBR1              | Pulse train control  |

Note. Regenerative unit is required when the models used vertically and with 700mm or larger stroke.

## C10



| Effective stroke                         | 150           | 250  | 350 | 450 | 550 | 650  | 750  | 850  | 950  | 1050 |
|--|---------------|------|-----|-----|-----|------|------|------|------|------|
| L  | 433           | 533  | 633 | 733 | 833 | 933  | 1033 | 1133 | 1233 | 1333 |
| A  | 200           | 100  | 200 | 100 | 200 | 100  | 200  | 100  | 200  | 100  |
| M  | 0             | 1    | 1   | 2   | 2   | 3    | 3    | 4    | 4    | 5    |
| N  | 4             | 6    | 6   | 8   | 8   | 10   | 10   | 12   | 12   | 14   |
| Weight (kg) <sup>Note 3</sup>            | 4.4           | 5.5  | 6.7 | 7.8 | 9.0 | 10.1 | 11.3 | 12.4 | 13.6 | 14.7 |
| Maximum speed <sup>Note 4</sup> (mm/sec) | Lead 20       | 1000 |     |     |     |      |      |      |      |      |
|  | Lead 10       | 500  |     |     |     |      |      |      |      |      |
|  | Lead 5        | 250  |     |     |     |      |      |      |      |      |
|  | Speed setting | -    |     |     |     |      |      |      |      |      |

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 0.4 kg heavier than the models with no brake shown in the table.  
 Note 4. When the stroke is longer than 750mm, 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.