MF20/MF20D

### Ordering method

**Single carriage model**

<table>
<thead>
<tr>
<th>Model</th>
<th>MF20</th>
<th>MF20D</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td></td>
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</tr>
<tr>
<td>Stroke (mm)</td>
<td>150 to 4050 (1000mm pitch)</td>
<td>150 to 3850 (1500mm pitch)</td>
</tr>
<tr>
<td>Linear guide</td>
<td>4 rows of circular anti-grooves × 2 rail</td>
<td></td>
</tr>
<tr>
<td>Maximum speed (mm/sec)</td>
<td>2500</td>
<td></td>
</tr>
<tr>
<td>Rated thrust (N)</td>
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<td></td>
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**Double carriage model**

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### Specifications

**Note**

- MF20A: Semi-absolute model, please refer to P.33. RDV-P has an incremental model.
- For models with a 2,050mm or longer stroke, optional L type cable carriers can only be used.
- The robot cable is standard cable (3L/5L/10L), but can be changed to flexible cable. See P.594 for details.
- It is possible to provide the model without a cable carrier. To find information on wiring (cable terminals) within the cable carrier see P.602.
- Note 1. For the details of the semi-absolute model, please refer to P.33.
- Note 2. For models with a 2,050mm or longer stroke, optional L type cable carriers can only be used.
- Note 3. 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 4. If a flexible cable is needed for the SR1-P, TS-P, or RDV-P, then select 3K/5K/10K. On the SRX221, the standard cable is a flexible cable, so enter 3L/5L/10L when ordering.
- Note 5. These controllers can be mounted on DIN rails. See P.498 for details.
- Note 6. Select this selection when using the gateway function. For details, see P.60.

### Allowable overhang

**Note**

- Horizontal installation (Unit: mm)
  - A: 10kg | 15kg | 20kg | 30kg | 40kg
  - B: 11.56 | 17.47 | 19.38 | 25.60 | 34.28
  - C: 11.96 | 16.06 | 18.05 | 24.05 | 32.81
- Wall installation (Unit: mm)
  - A: 10kg | 15kg | 20kg | 30kg | 40kg
  - B: 13.05 | 18.05 | 19.78 | 27.30 | 36.21
  - C: 16.06 | 21.65 | 22.55 | 30.27 | 39.20

**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

**Note**

- MY: 373 | MP: 373 | MR: 328

### Controller

**Operating method**

- SR1-P: 10
- RCX221: 516
- TS-P: 524
- TS-P: 490
- RDV-P: 504

**Controller Driver**

- Power capacity: 200W or less
- Operation using RS-232C
- Use as interface (PNP) or CE marking (NPN)
- DeviceNet™
- EtherCAT™
- Profinet™
- CANopen™
- CC-Link™

**Cable and air tube guide**

- S type: 6 flexible cable x 1, 4 flexible tube x 1
- M type: 6 flexible cable x 2, 6 flexible tube x 2
- L type: 6 flexible cable x 2, 6 flexible tube x 3

**Optional cable carrier for users**

- Space for cable carrier for users

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Note: Be sure to install in the direction as specified (in cable carrier take-out direction drawing and various specification drawings) individually. Installation in any other way will cause a failure. For requirement of installation in any way other than the above standard installation, please consult YAMAHA as special arrangement will be available.
MF20 single carriage horizontal mount model RH

Note 1. Stop positions are determined by the mechanical stoppers at both ends.
Note 2. The origin is set on the L side at the time of shipment. It can be changed to the R side by parameter setting.

MF20 single carriage vertical mount model RW

Note 4. For models with a 3.050mmm or longer stroke and an optional L type cable carrier, a roller is installed to prevent the cable carrier from sagging.
Note 5. Protrusion is the distance the cable carrier extends from the edge of unit when an optional L type cable carrier is used.
Note 6. When using Ø10H7 hole, do not insert the pin more than the depth stated in the drawing. Otherwise, the motor may break.
Note 7. Depending on the stroke and the operating conditions, the cable carrier bending radius might be larger, making it higher than the dimensions shown in the diagram.
MF20/MF20D

MF20D double carriage horizontal mount model

Note 1. Position of table carriage when returned to the origin.
Note 2. Stop positions are determined by the mechanical stoppers at both ends.
Note 3. For models with a 2,050mm or longer stroke, optional L type cable carriers can only be used.
Note 4. For models with a 3,050mm or longer stroke and an optional L type cable carrier, a roller is installed to prevent the cable carrier from sagging.
Note 5. Protrusion is the distance the cable carrier extends from the edge of unit when an optional L type cable carrier is used.
Note 6. When using ⌀10 H7 hole, do not insert the pin more than the depth stated in the drawing. Otherwise, the motor may break.
Note 7. Depending on the stroke and the operating conditions, the cable carrier bending radius might be larger, making it higher than the dimensions shown in the diagram.

Effective stroke 150 250 350 450 550 650 750 850 950 1050 1150 1250 1350 1450 1550 1650 1750 1850 1950 2050 2150 2250 2350 2450 2550 2650 2750 2850 2950 3050 3150 3250 3350 3450 3550 3650 3750 3850

Weight range

MF20D double carriage wall mount model

Note 1. Position of table carriage when returned to the origin.
Note 2. Stop positions are determined by the mechanical stoppers at both ends.
Note 3. For models with a 2,050mm or longer stroke, optional L type cable carriers can only be used.
Note 4. For models with a 3,050mm or longer stroke and an optional L type cable carrier, a roller is installed to prevent the cable carrier from sagging.
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Weight range