

# MR12/MR12D

Can be used for wall-mount

## Ordering method

### Single carriage model

<b>MR12</b>																						
<b>Model</b>	MR12: Incremental MR12A: Semi-absolute <sup>Note 1</sup>	<b>Cable carrier entry location</b>	RH: Horizontal, right LH: Horizontal, left RW: Wall mounted, right LW: Wall mounted, left	<b>Optional cable carrier for users</b>	No entry: None S: S type M: M type	<b>Origin position change</b>	Horizontal: No entry: L side (Standard) Z: R side Wall: No entry: R side (Standard) Z: L side	<b>Grease type</b>	No entry: Standard GC: Clean	<b>Stroke</b>	50 to 1050 (100mm pitch)	<b>Cable length</b> <sup>Note 2</sup>	3L: 3.5m 5L: 5m 10L: 10m 3K/5K/10K (Flexible cable) <sup>Note 3</sup>	<b>TSP</b>	<b>Positioner</b> <sup>Note 4</sup>	TS-P	<b>Driver: Power-supply voltage / Power capacity</b>	105: 100V/100W or less 205: 200V/100W or less	<b>LCD monitor</b>	No entry: None L: With LCD	<b>I/O selection</b>	NP: NPN PN: PNP CC: CC-Link DN: DeviceNet™ EP: EtherNet/IP™ GW: No I/O board <sup>Note 5</sup>
<b>Controller</b>	SR1-P	<b>05</b>												<b>Driver: Power capacity</b>	05: 100W or less	<b>Usable for CE</b>	No entry: Standard E: CE marking	<b>I/O selection</b>	N: NPN P: PNP CC: CC-Link DN: DeviceNet™ PB: PROFIBUS			
<b>Driver</b>	RDV-P	<b>2</b>												<b>Power-supply voltage</b>	2: AC200V	<b>Driver: Power capacity</b>	05: 100W or less					

### Double carriage model

<b>MR12D</b>										<b>RCX221</b>											
<b>Model</b>	MR12D: Incremental MR12AD: Semi-absolute <sup>Note 1</sup>	<b>Installing direction</b>	H: Horizontal installation W: Wall mounted installation	<b>Optional cable carrier for users</b>	No entry: None S: S type M: M type	<b>Grease type</b>	No entry: Standard GC: Clean	<b>Stroke</b>	50 to 1050 (100mm pitch)	<b>Cable length</b>	3L: 3.5m 5L: 5m 10L: 10m 3K/5K/10K (Flexible cable) <sup>Note 3</sup>	<b>Controller</b>	RCX221 SR1-P (2 units) TS-P (2 units) RDV-P (2 units)	<b>Usable for CE</b>	No entry: Standard E: CE marking	<b>I/O selection 1</b>	N: NPN P: PNP CC: CC-Link DN: DeviceNet™ PB: PROFIBUS EN: Ethernet	<b>I/O selection 2</b>	No entry: None Nt: OPDIO24/16 (PNP) Pt: OPDIO24/17 (PNP) EN: Ethernet		

Note 1. Semi-absolute models are supported by the SR1-P, TS-P and RCX221. For the details of the semi-absolute model, please refer to P.23. RDV-P has an incremental model only.  
 Note 2. The robot cable is standard cable (3L/5L/10L), but can be changed to flexible cable. See P.510 for details on robot cable.  
 Note 3. If a flexible cable is needed for the SR1-P, TS-P, or RDV-P, then select 3K/5K/10K. On the RCX221, the standard cable is a flexible cable, so enter 3L/5L/10L when ordering.  
 Note 4. These controllers can be mounted on DIN rails. See P.446 for details.  
 Note 5. Select this selection when using the gateway function. For details, see P.439.  
 Note. It is possible to provide the model without a cable carrier. To find information on wiring (cable terminals) within the cable carrier see P.518.

## Specifications

Model	MR12	MR12D
<b>Driving method / Shaft diameter</b>	Shaft motor / $\phi 12$	
<b>Repeatability (<math>\mu\text{m}</math>)</b>	+/-5 or less	
<b>Scale (<math>\mu\text{m}</math>)</b>	Magnetic type: resolution of 1	
<b>Maximum speed</b> <sup>Note 1</sup> (mm/sec)	2500	
<b>Rated thrust (N)</b>	18	
<b>Maximum payload</b> <sup>Note 2</sup> (kg)	5	
<b>Stroke (mm)</b>	50 to 1050 (50mm pitch)	
<b>Linear guide</b>	4 rows of circular arc grooves $\times$ 2 rail	
<b>Maximum cross-section outside dimensions (mm)</b>	W60 $\times$ H90 (except the cable carrier section)	
<b>Total length (mm)</b>	Stroke+288	Stroke+488
<b>Cable length (m)</b>	Standard: 3.5 / Option: 5, 10	

Note. A vertical model (with brake) is not available with the PHASER series.  
 Note. The basic specifications of semi-absolute model are the same as those of the incremental model.  
 Note 1. Maximum speed may not be obtained depending on operating conditions.  
 Note 2. Maximum payload per carriage.

## Allowable overhang

**Horizontal installation** (Unit: mm)

	A	B	C
1kg	600	600	600
2kg	1200	1200	598
3kg	1800	1800	406
5kg	3000	1561	241

**Wall installation** (Unit: mm)

	A	B	C
1kg	600	600	600
2kg	529	1200	1200
3kg	323	1450	1800
5kg	162	589	3000

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

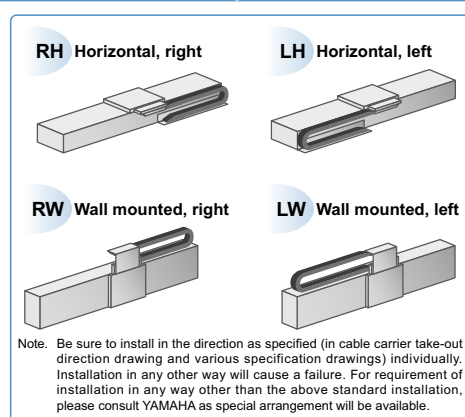
MY	MP	MR
107	107	89

(Unit: N·m)

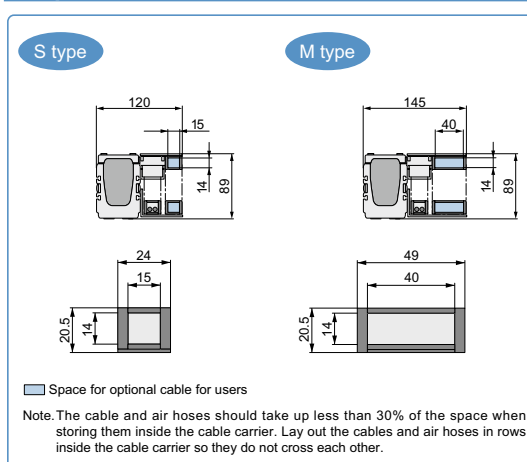
## Controller

Controller	Operating method
SR1-P05	Programming / I/O point trace / Remote command / Operation using RS-232C communication
RCX221 RCX240/340	Operation using RS-232C communication
TS-P105	I/O point trace / Remote command
TS-P205	Remote command
RDV-P205	Pulse train control

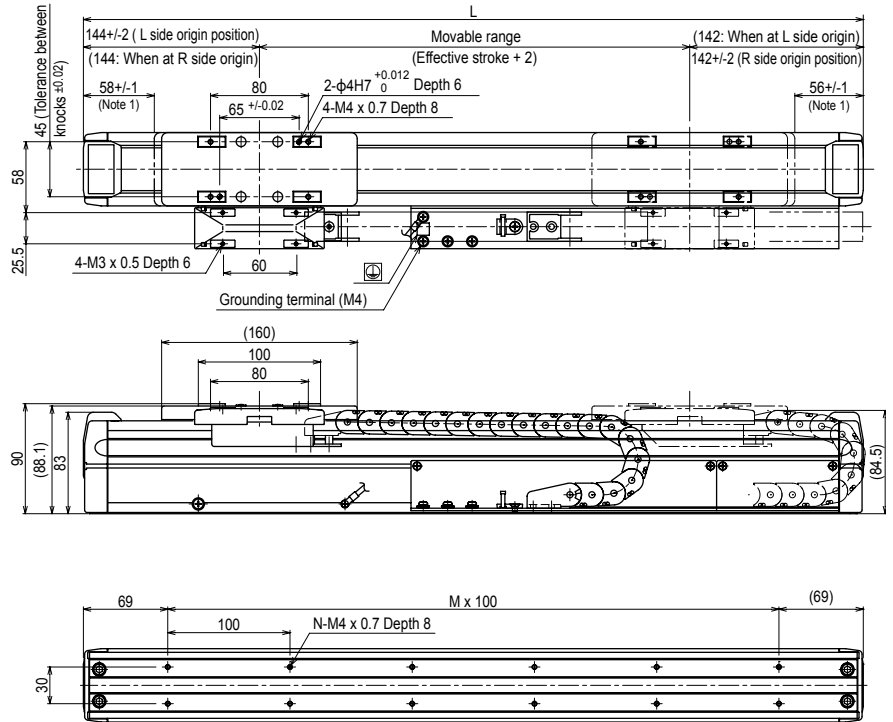
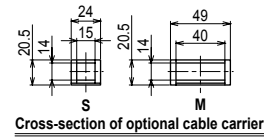
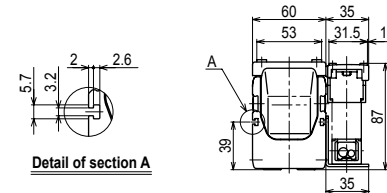
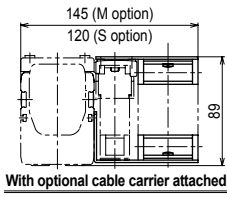
## Cable carrier entry location



## Optional cable carrier for users



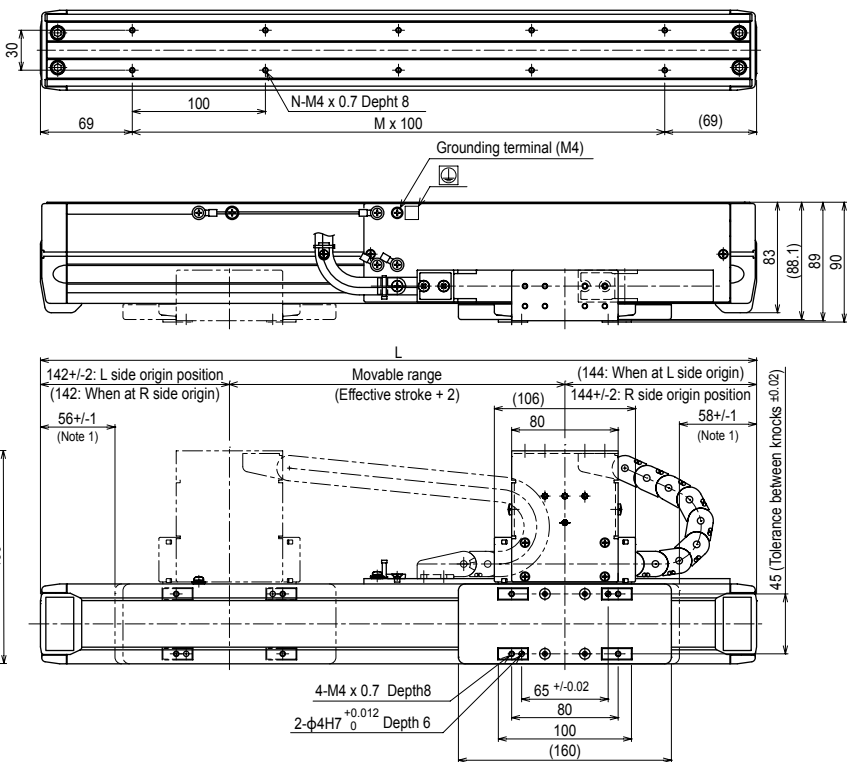
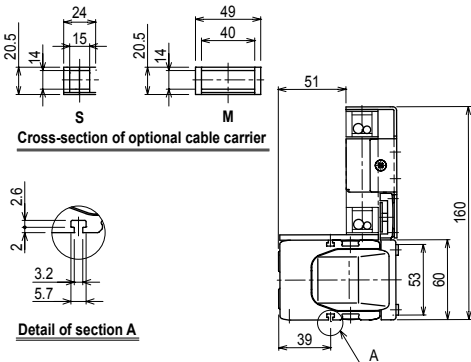
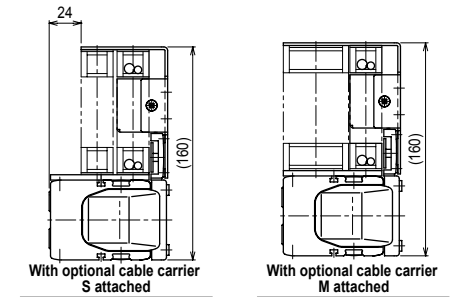
## MR12 single carriage horizontal mount model **RH**



Effective stroke	50	150	250	350	450	550	650	750	850	950	1050
<b>L</b>	338	438	538	638	738	838	938	1038	1138	1238	1338
<b>M</b>	2	3	4	5	6	7	8	9	10	11	12
<b>N</b>	6	8	10	12	14	16	18	20	22	24	26
<b>Weight (kg)</b>	3.9	4.4	5.0	5.6	6.1	6.7	7.3	7.9	8.4	9.0	9.5

Note1. Distance from both ends to the mechanical stopper.  
Note. The origin is set on the L side at the time of shipment. It can be changed to the R side by parameter setting.

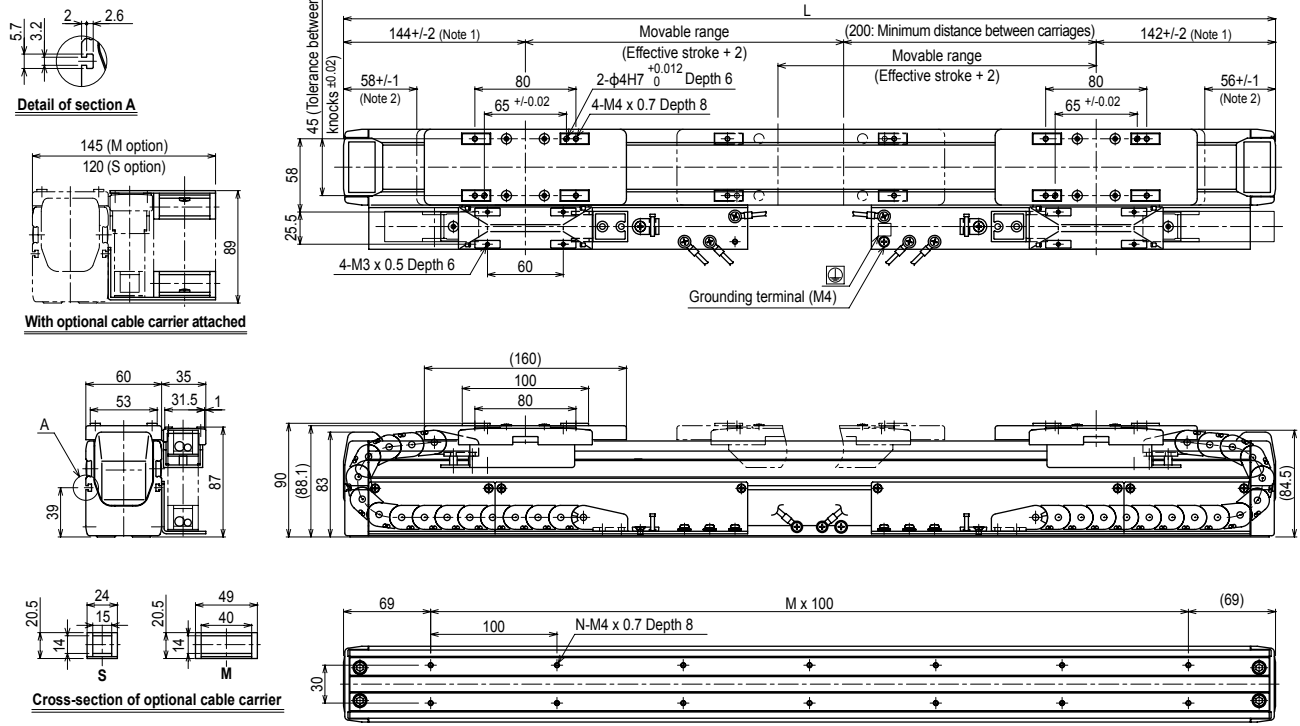
## MR12 single carriage wall mount model **RW**



Effective stroke	50	150	250	350	450	550	650	750	850	950	1050
<b>L</b>	338	438	538	638	738	838	938	1038	1138	1238	1338
<b>M</b>	2	3	4	5	6	7	8	9	10	11	12
<b>N</b>	6	8	10	12	14	16	18	20	22	24	26
<b>Weight (kg)</b>	3.9	4.4	5.0	5.6	6.1	6.7	7.3	7.9	8.4	9.0	9.5

Note1. Distance from both ends to the mechanical stopper.  
Note. The origin is set on the R side at the time of shipment. It can be changed to the L side by parameter setting.

## MR12D double carriage horizontal mount model H



## MR12D double carriage wall mount model W

