

C4



APPLICATION
Compact
single-axis robots

TRANSERO
Single-axis robots

FLIP-X
Single-axis robots

PHASER
Linear motor
single-axis robots

XY-X
Cartesian
robots

YK-XG
SCARA
robots

YP-X
Pick & place
robots

CLEAN

CONTROLLER INFORMATION

Single-axis

Cartesian

SCARA

Ordering method

C4						ERCX			
Model	Lead	Brake	Direction of air coupler installation	Stroke	Cable length ^{Note 1}	Controller	Usable for CE	Network option	Battery
	12: 12mm 6: 6mm 2: 2mm	No entry: With no brake BK: With brake	L: Left (Standard) R: Right	50 to 300 (50mm pitch)	3L: 3.5m (Standard) 5L: 5m 10L: 10m	ERCX ERCD ^{Note 2}	No entry: Standard E: CE marking	No entry: None CC: CC-Link DN: DeviceNet PB: Profibus EN: Ethernet	B1: 700mAh B2: 2000mAh

Note 1. The robot cable is standard cable and may be changed to a flex-resistant type. See P.423 for more information on robot cables.
Note 2. To find ERCD selection options, see the ordering method on P.370.

Basic specifications

AC servo motor output (W)	30		
Repeatability ^{Note 1} (mm)	±0.02		
Deceleration mechanism	Ball screw (Class C10)		
Ball screw lead (mm)	12	6	2
Maximum speed (mm/sec)	720	360	120
Maximum payload (kg)	Horizontal	4.5	6
	Vertical	1.2	2.4
Rated thrust (N)	Horizontal	32	64
	Vertical	64	153
Stroke (mm)	50 to 300 (50mm pitch)		
Overall length (mm)	Horizontal	Stroke+205	
	Vertical	Stroke+240	
Maximum outside dimension of body cross-section (mm)	W45 × H55		
Cable length (m)	Standard: 3.5 / Option: 5, 10		
Degree of cleanliness	CLASS 10 ^{Note 2}		
Intake air (Nl/min)	20 to 30 ^{Note 3}		

Note 1. Positioning repeatability in one direction.
Note 2. Per 1cf (0.1µm base), when suction blower is used.
Note 3. The necessary intake amount varies depending on the use conditions and environment.
Note 4. Please consult YAMAHA when using the specification with the origin at non-motor side.

Allowable overhang ^{Note}

Horizontal installation (Unit: mm)					Wall installation (Unit: mm)					Vertical installation (Unit: mm)				
	A	B	C		A	B	C		A	C		A	C	
Lead 12	2kg	429	87	179	2kg	145	52	368	1.2kg	121	122			
Lead 6	4.5kg	219	32	74	4.5kg	46	0	139	2.4kg	52	54			
Lead 3	3kg	511	58	135	3kg	103	22	370	3kg	37	39			
Lead 2	6kg	336	26	62	6kg	27	0	185	7.2kg	0	0			
Lead 2	3kg	1571	58	142	3kg	109	23	1150						
Lead 2	6kg	751	27	66	6kg	27	0	420						

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

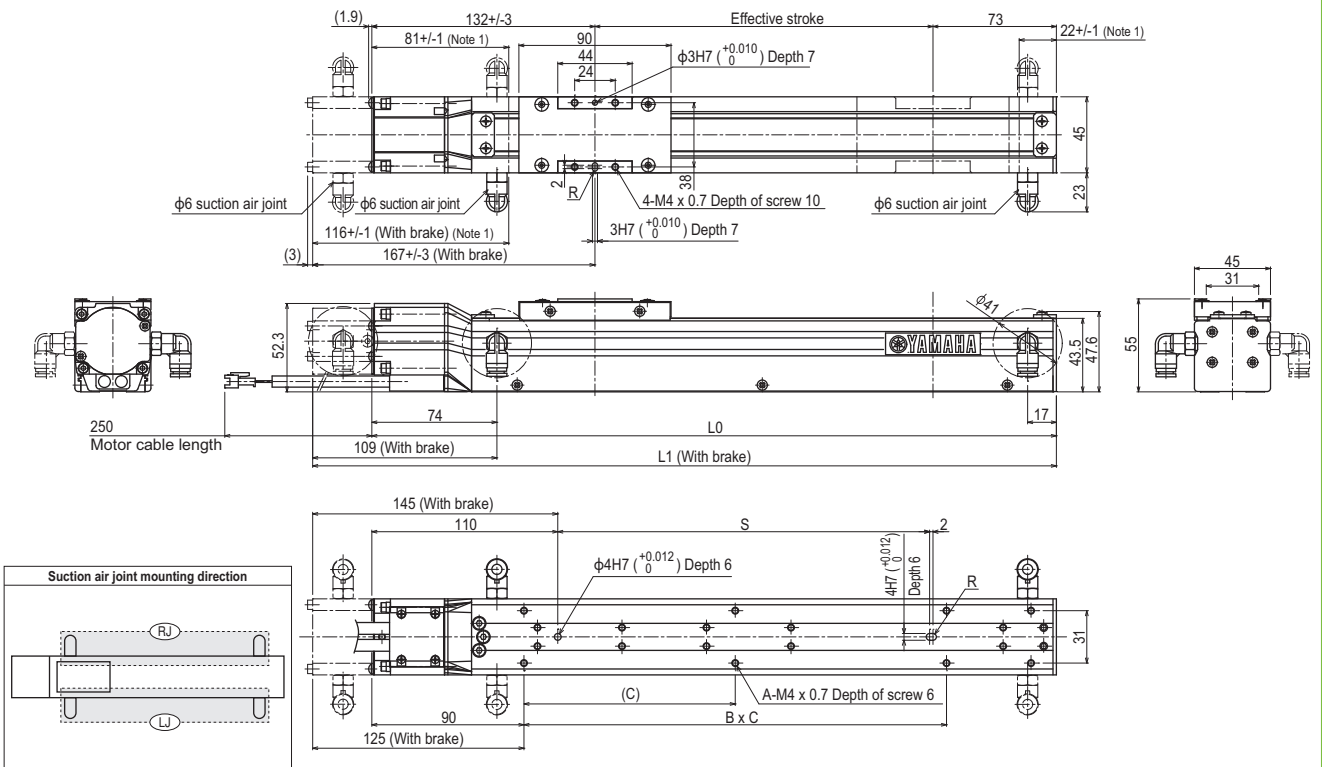
Static loading moment

(Unit: N-m)		
MY	MP	MR
15	19	18

Controller

Controller	Operation method
ERCX	Programming / I/O point trace / Remote command / Operation using RS-232C communication
ERCD	Pulse train control / Programming / I/O point trace / Remote command / Operation using RS-232C communication

C4



Effective stroke	50	100	150	200	250	300
A	4	6	6	8	8	10
B	1	2	2	2	2	3
C	150	100	125	125	125	125
E	0	0	0	50	100	25
L0	255	305	355	405	455	505
L1	290	340	390	440	490	540
S	70	120	170	220	270	320
Weight (kg) ^{Note 4}	1.3	1.4	1.6	1.7	1.8	2.0

Note 1. Distance from both ends to the mechanical stopper.
Note 2. Either right or left can be selected for the installation direction for the φ6 intake air joint.
Note 3. Minimum bend radius of motor cable is R50.
Note 4. Weight of models with no brake. The weight of brake-attached models is 0.2 kg heavier than the models with no brake shown in the table.