

YK400XEC-4

Clean type: Small type

LOW COST HIGH PERFORMANCE MODEL



- Arm length 400mm
- Maximum payload 4kg

Ordering method

YK400XEC-4-150

Model	Maximum payload	Z axis stroke	Brake release switch	Cable length
			No entry: None BS: With brake release switch	3L: 3.5m 5L: 5m 10L: 10m

RCX340-4

Controller / Number of controllable axes	Safety standard	Option A to E (OPA to E)	Absolute battery

Specify various controller setting items. RCX340 ▶ **P.636**

Basic specifications

		X axis	Y axis	Z axis	R axis
Axis specifications	Arm length (mm)	225	175	150	-
	Rotation angle (°)	+/-132	+/-145	-	+/-360
AC servo motor output (W)		200	100	100	100
Deceleration mechanism	Transmission method	Direct-coupled		Timing belt	
	Motor to speed reducer	Direct-coupled		Timing belt	
Speed reducer to output	Speed reducer to output	Direct-coupled		Timing belt	
	Repeatability ^{Note 1} (XYZ: mm) (R: °)	+/-0.01		+/-0.01	+/-0.01
Maximum speed (XYZ: m/sec) (R: °/sec)		6		1.1	2600
Maximum payload (kg)				4	
Standard cycle time: with 2kg payload (sec) ^{Note 2}				0.45	
R-axis tolerable moment of inertia ^{Note 3} (kgm ²)				0.05	
User wiring (sq × wires)				0.2×10	
User tubing (Outer diameter)				φ4×3	
Travel limit		1.Soft limit, 2.Mechanical stopper (X, Y, Z axes)			
Robot cable length (m)		Standard: 3.5 Option: 5, 10			
Weight (kg)		18			
Degree of cleanliness		ISO CLASS 4 (ISO 14644-1)			
Intake air (Nℓ/min)		55 ^{Note 4}			

Note 1. This is the value at a constant ambient temperature. (X,Y axes)

Note 2. When reciprocating 300mm in horizontal and 25mm in vertical directions and performing the coarse positioning arch operation.

Note 3. The acceleration coefficient is set automatically in accordance with the tip weight and R-axis moment of inertia settings.

Note 4. Set within the range of ±1NT/min. When the suction volume is not appropriate, it may adversely affect the cleanliness degree or deform the bellows.

Controller

Controller	Power capacity (VA)	Operation method
RCX340	1000	Programming / I/O point trace / Remote command / Operation using RS-232C communication

Note. User wiring/tubing can be passed through from the top to the tip of the Z-axis shaft. For details, see the manual (installation manual).

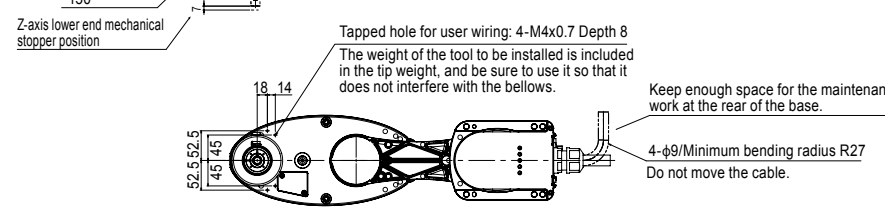
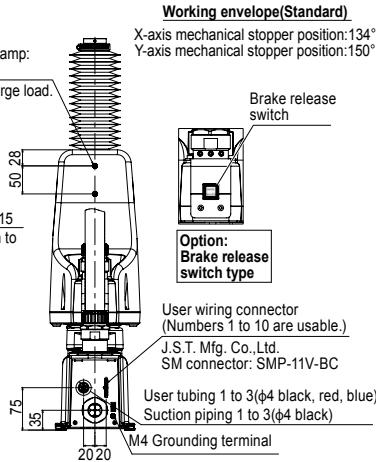
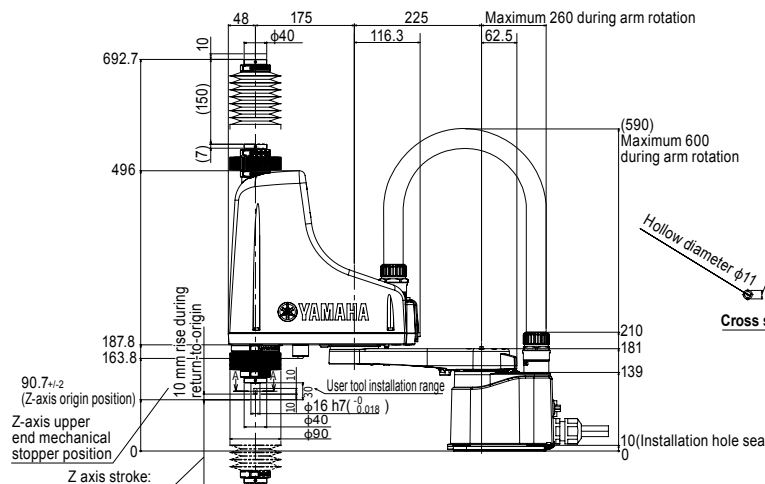
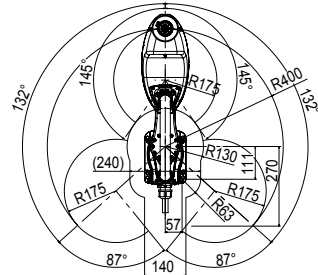
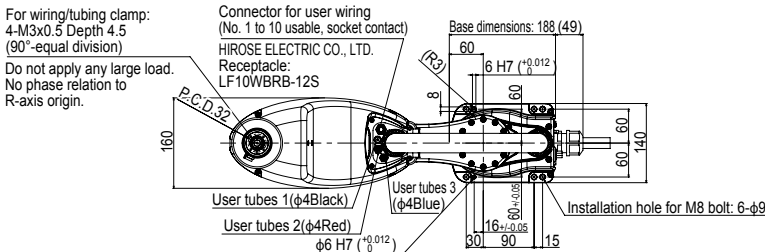
Note. The movement range can be restricted by adding the X- and Y-axis mechanical stoppers. (The maximum movement range was set at shipment.)

See our robot manuals (installation manuals) for detailed information.

Note. To set the standard coordinates with high accuracy, use a standard coordinate setting jig (option). Refer to the user's manual (installation manual) for more details.

Our robot manuals (installation manuals) can be downloaded from our website at the address below:
<https://global.yamaha-motor.com/business/robot/>

YK400XEC-4



YK710XEC-10

Clean type: Large type

LOW COST HIGH PERFORMANCE MODEL



- Arm length 710mm
- Maximum payload 10kg

Ordering method

YK710XEC-10-200						RCX340-4			
Model	Maximum payload	Z axis stroke	Tool flange	Brake release switch	Cable length	Controller / Number of controllable axes	Safety standard	Option A to E (OPA to E)	Absolute battery
			No entry: None F: With tool flange	No entry: None BS: With brake release switch	3L: 3.5m 5L: 5m 10L: 10m				

Specify various controller setting items. RCX340 ▶ **P.636**

Basic specifications

Axis specifications	Arm length (mm)	X axis	Y axis	Z axis	R axis
	Rotation angle (°)	+/-134	+/-147.5	-	+/-360
AC servo motor output (W)		400	200	200	200
Deceleration mechanism	Transmission method	Direct-coupled		Timing belt	
	Motor to speed reducer	Direct-coupled		Timing belt	
	Speed reducer to output	Direct-coupled		Timing belt	
Repeatability ^{Note 1} (XYZ: mm) (R: °)		+/-0.01		+/-0.01	
Maximum speed (XYZ: m/sec) (R: °/sec)		9.5		2	
Maximum payload (kg)		10 kg (Standard specification)		9 kg (With tool flange)	
Standard cycle time: with 2kg payload (sec) ^{Note 2}		0.49			
R-axis tolerable moment of inertia ^{Note 3} (kgm ²)		0.3			
User wiring (sq × wires)		0.2×20			
User tubing (Outer diameter)		φ6×3			
Travel limit		1.Soft limit, 2.Mechanical stopper (X, Y, Z axes)			
Robot cable length (m)		Standard: 3.5 Option: 5, 10			
Weight (kg)		28			
Degree of cleanliness		ISO CLASS 4 (ISO 14644-1)			
Intake air (Nℓ/min)		60 ^{Note 4}			

Note 1. This is the value at a constant ambient temperature. (X,Y axes)

Note 2. When reciprocating 300mm in horizontal and 25mm in vertical directions and performing the coarse positioning arch operation.

Note 3. The acceleration coefficient is set automatically in accordance with the tip weight and R-axis moment of inertia settings.

Note 4. Set within the range of ±1NT/min. When the suction volume is not appropriate, it may adversely affect the cleanliness degree or deform the bellows.

Controller

Controller	Power capacity (VA)	Operation method
RCX340	1700	Programming / I/O point trace / Remote command / Operation using RS-232C communication

Note. User wiring/tubing can be passed through from the top to the tip of the Z-axis shaft. For details, see the manual (installation manual).

Note. The movement range can be restricted by adding the X- and Y-axis mechanical stoppers. (The maximum movement range was set at shipment.)

See our robot manuals (installation manuals) for detailed information.

Note. To set the standard coordinates with high accuracy, use a standard coordinate setting jig (option). Refer to the user's manual (installation manual) for more details.

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YK710 XEC-10

Connector for user wiring (No. 1 to 20 usable, socket contact)

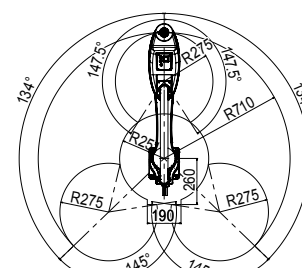
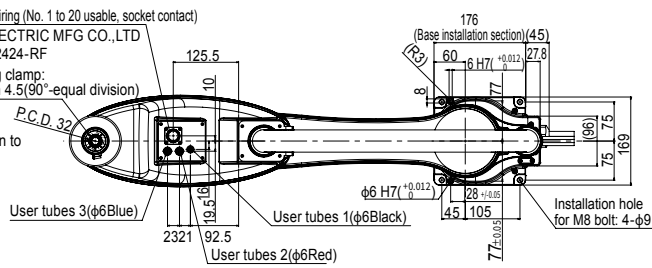
NANABOSHI ELECTRIC MFG CO.,LTD

Receptacle: NR-2424-RF

For wiring/tubing clamp: 4-M3x0.5 Depth 4.5(90°-equal division)

Do not apply any large load.

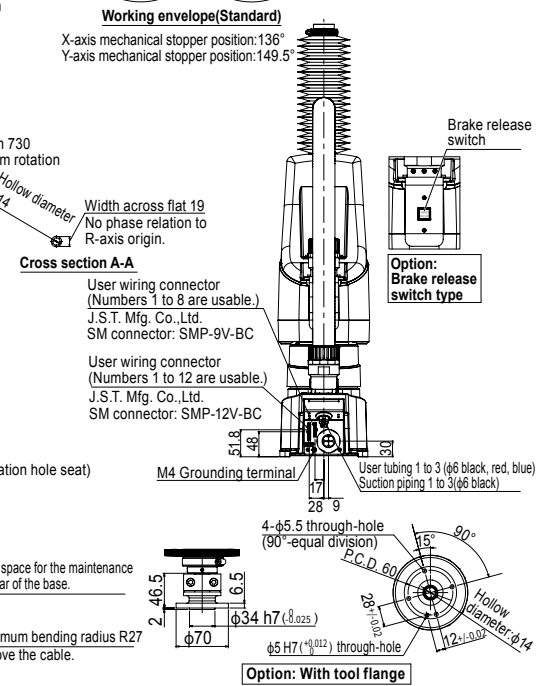
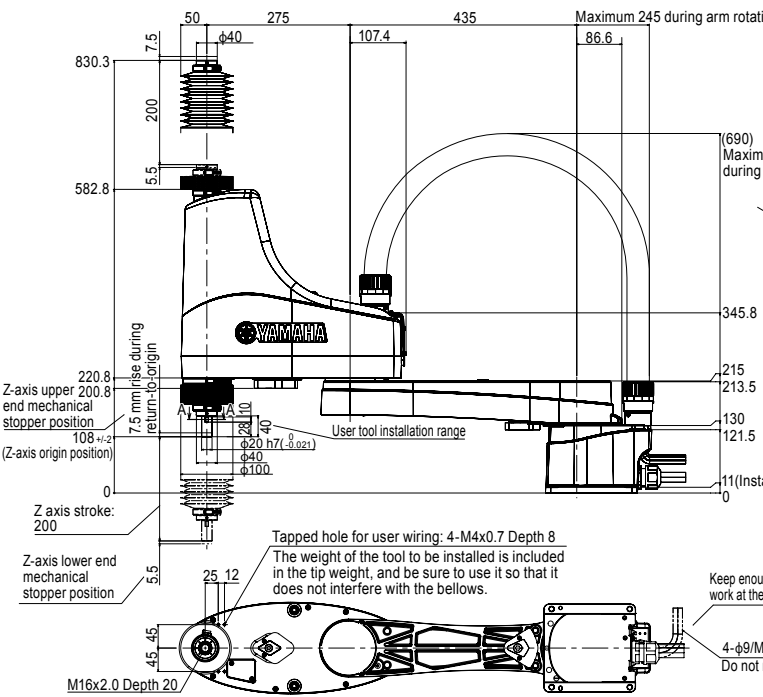
No phase relation to R-axis origin.



Working envelope(Standard)

X-axis mechanical stopper position:136°

Y-axis mechanical stopper position:149.5°



Cross section A-A

User wiring connector (Numbers 1 to 8 are usable.)

J.S.T. Mfg. Co.,Ltd.

SM connector: SMP-9V-BC

User wiring connector (Numbers 1 to 12 are usable.)

J.S.T. Mfg. Co.,Ltd.

SM connector: SMP-12V-BC

M4 Grounding terminal

User tubing 1 to 3 (φ6 black, red, blue)

Suction piping 1 to 3(φ6 black)

11(Installation hole seat)

28 9

4-φ5.5 through-hole (90°-equal division)

P.C.D. 60

Hollow diameter:φ14

12±0.05

φ5 H7 (+0.012) through-hole

Option: With tool flange