

# YK180X

Standard type: Tiny type

- Arm length 180mm
- Maximum payload 1kg



## Ordering method

**YK180X - 100**

<b>Model</b>	<b>Z axis stroke</b>	<b>Cable</b>
	100: 100mm	3L: 3.5m 5L: 5m 10L: 10m

**RCX340-4**

<b>Controller / Number of controllable axes</b>	<b>Safety standard</b>	<b>Option A (OP.A)</b>	<b>Option B (OP.B)</b>	<b>Option C (OP.C)</b>	<b>Option D (OP.D)</b>	<b>Option E (OP.E)</b>	<b>Absolute battery</b>
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Specify various controller setting items. RCX340 ▶ **P.508**

**RCX240S**

<b>Controller</b>	<b>CE Marking</b>	<b>Expansion I/O</b>	<b>Network option</b>	<b>iVY System</b>	<b>Gripper</b>	<b>Battery</b>
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Specify various controller setting items. RCX240/RCX240S ▶ **P.495**

## Specifications

		X-axis	Y-axis	Z-axis	R-axis
<b>Axis specifications</b>	<b>Arm length</b>	71 mm	109 mm	100 mm	—
	<b>Rotation angle</b>	+/-120 °	+/-140 °	—	+/-360 °
<b>AC servo motor output</b>		50 W	30 W	30 W	30 W
<b>Deceleration mechanism</b>	<b>Speed reducer</b>	Harmonic drive	Harmonic drive	Ball screw	Harmonic drive
	<b>Transmission method</b>	Direct-coupled			
	<b>Motor to speed reducer</b> <b>Speed reducer to output</b>	Direct-coupled			
<b>Repeatability</b> <small>Note 1</small>	+/-0.01 mm		+/-0.01 mm	+/-0.004 °	
<b>Maximum speed</b>		3.3 m/sec		0.7 m/sec	1700 °/sec
<b>Maximum payload</b>		1.0 kg			
<b>Standard cycle time: with 0.1kg payload</b> <small>Note 2</small>		0.39 sec			
<b>R-axis tolerable moment of inertia</b> <small>Note 3</small>		0.01 kgm <sup>2</sup>			
<b>User wiring</b>		0.1 sq × 6 wires			
<b>User tubing (Outer diameter)</b>		φ 3 × 2			
<b>Travel limit</b>		1.Soft limit 2.Mechanical stopper (X,Y,Z axis)			
<b>Robot cable length</b>		Standard: 3.5 m Option: 5 m, 10 m			
<b>Weight (Excluding robot cable)</b> <small>Note 4</small>		5.5 kg			
<b>Robot cable weight</b>		1.5 kg (3.5 m)	2.1 kg (5 m)	4.2 kg (10 m)	

Note 1. This is the value at a constant ambient temperature.  
 Note 2. When reciprocating 100mm in horizontal and 25mm in vertical directions.  
 Note 3. There are limits to acceleration coefficient settings. See P.536.  
 Note 4. The total robot weight is the sum of the robot body weight and the cable weight.

## Controller

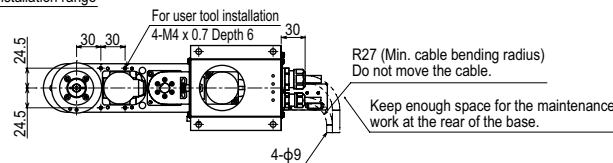
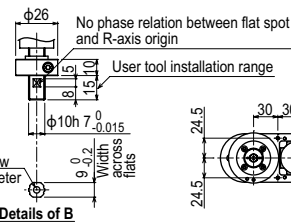
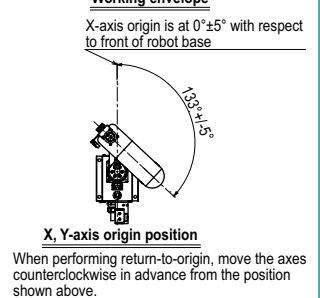
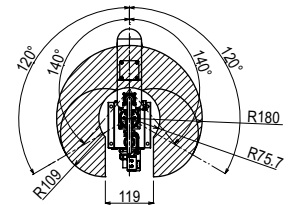
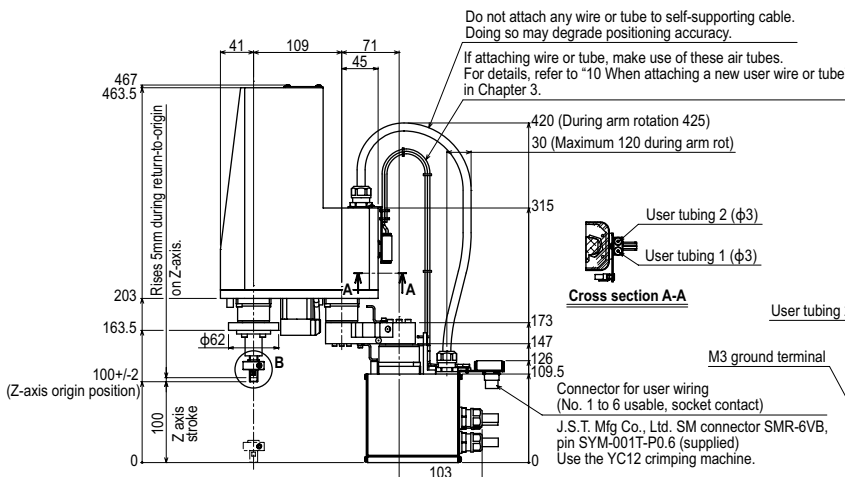
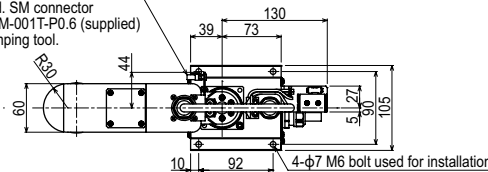
Controller	Power capacity (VA)	Operation method
RCX340 RCX240S	500	Programming / I/O point trace / Remote command / Operation using RS-232C communication

Note. "Harmonic" and "Harmonic drive" are the registered trademarks of Harmonic Drive Systems Inc.  
 Note. The movement range can be limited by changing the positions of X and Y axis mechanical stoppers. (The movement range is set to the maximum at the time of shipment.)  
 See our robot manuals (installation manuals) for detailed information.

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

## YK180X

Connector for user wiring (No. 1 to 6 usable, socket contact)  
 J.S.T. Mfg Co., Ltd. SM connector SMR-6VB, pin SYM-001T-P0.6 (supplied)  
 Use the YC12 crimping tool.



Controller

**RCX340 ▶ 508 RCX240S ▶ 495**

APPLICATION  
 Linear conveyor modules  
 LCM100

TRANSEURO  
 Compact single-axis robots

FLIP-X  
 Single-axis robots

PHASER  
 Linear motor single-axis robots

XX-X  
 Cartesian robots

YK-X  
 SCARA robots

YP-X  
 Pick & place robots

CLEAN  
 CONTROLLER INFORMATION

Tiny type  
 Small / Medium type  
 Large type  
 Walk-mount / Inverse type  
 Dust-proof & drip-proof type