

# YK220X

Standard type: Tiny type



- Arm length 220mm
- Maximum payload 1kg

## Ordering method

**YK220X - 100**

Model	Z axis stroke	Cable	Controller / Number of controllable axes	Safety standard	Option A (OP.A)	Option B (OP.B)	Option C (OP.C)	Option D (OP.D)	Option E (OP.E)	Absolute battery
	100: 100mm	3L: 3.5m 5L: 5m 10L: 10m	<b>RCX340-4</b>							
			Specify various controller setting items. RCX340 ▶ <b>P.508</b>							
			<b>RCX240S</b>							<b>BB</b>
			Specify various controller setting items. RCX240/RCX240S ▶ <b>P.495</b>							

## Specifications

		X-axis	Y-axis	Z-axis	R-axis
Axis specifications	Arm length	111 mm	109 mm	100 mm	-
	Rotation angle	+/-120 °	+/-140 °	-	+/-360 °
AC servo motor output		50 W	30 W	30 W	30 W
Deceleration mechanism	Speed reducer	Harmonic drive	Harmonic drive	Ball screw	Harmonic drive
	Transmission method	Direct-coupled			
	Motor to speed reducer Speed reducer to output	Direct-coupled			
Repeatability <sup>Note 1</sup>		+/-0.01 mm	+/-0.01 mm	+/-0.01 mm	+/-0.004 °
Maximum speed		3.4 m/sec	0.7 m/sec		1700 °/sec
Maximum payload		1.0 kg			
Standard cycle time: with 0.1kg payload <sup>Note 2</sup>		0.42 sec			
R-axis tolerable moment of inertia <sup>Note 3</sup>		0.01 kgm <sup>2</sup>			
User wiring		0.1 sq × 6 wires			
User tubing (Outer diameter)		φ 3 × 2			
Travel limit		1.Soft limit 2.Mechanical stopper (X,Y,Z axis)			
Robot cable length		Standard: 3.5 m Option: 5 m, 10 m			
Weight (Excluding robot cable) <sup>Note 4</sup>		5.5 kg			
Robot cable weight		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

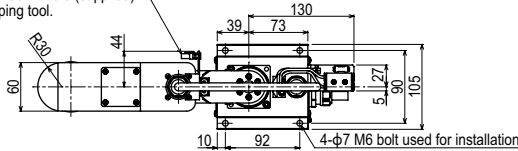
Note. "Harmonic" and "Harmonic drive" are the registered trademarks of Harmonic Drive Systems Inc.

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/>

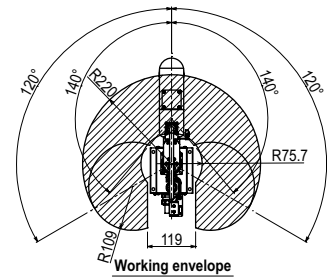
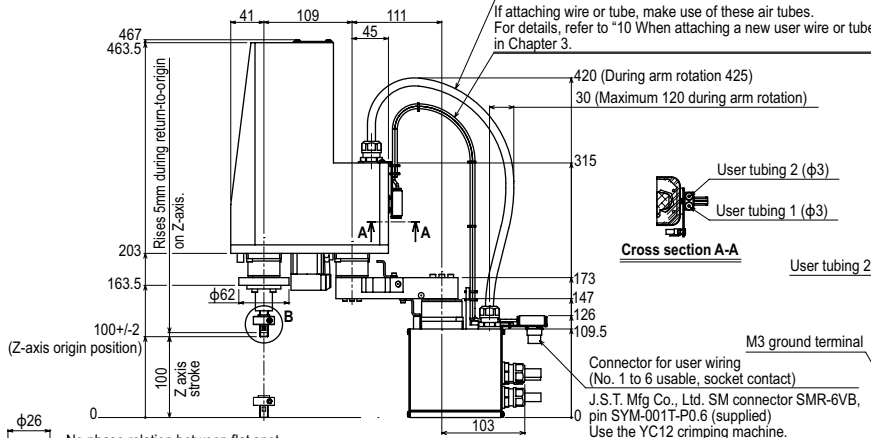
## YK220X

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.

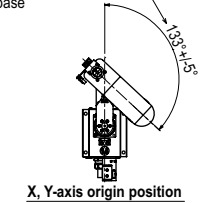


Do not attach any wire or tube to self-supporting cable. Doing so may degrade positioning accuracy.

If attaching wire or tube, make use of these air tubes. For details, refer to "10 When attaching a new user wire or tube" in Chapter 3.



X-axis origin is at 0°±5° with respect to front of robot base



No phase relation between flat spot and R-axis origin

User tool installation range

