

# YK220X

Standard type: Tiny type



- Arm length 220mm
- Maximum payload 1kg

## Ordering method

<b>YK220X - 100</b>		<b>RCX240</b>				<b>BB</b>	
<b>Model</b>	<b>Z axis stroke</b>	<b>Cable length</b>	<b>Controller</b>	<b>Usable for CE</b>	<b>Expansion I/O</b> <small>Note 1</small>	<b>Network option</b>	<b>Battery</b>
	100: 100mm	3L: 3.5m (Standard) 5L: 5m 10L: 10m		No entry: Standard E: CE marking	N, P: Standard I/O 16/8 N1, P1: 40/24 N2, P2: 64/40 N3, P3: 88/66 N4, P4: 112/72	No entry: None CC: CC-Link DN: DeviceNet PB: Profibus EN: Ethernet YC: YC-Link <small>No. 2</small>	BB: 4 pcs

Note 1. Use N to N4 when NPN is selected on the I/O board, and P to P4 when PNP is selected.  
Note 2. Available only for the master.

## Specifications

	X-axis	Y-axis	Z-axis	R-axis
<b>Axis specifications</b>				
Arm length (mm)	111	109	100	-
Rotation angle (°)	+/-120	+/-140	-	+/-360
<b>AC servo motor output (W)</b>	50	30	30	30
<b>Deceleration mechanism</b>	Speed reducer	Harmonic drive	Harmonic drive	Ball screw
	Transmission method	Direct-coupled		
	Motor to speed reducer	Direct-coupled		
	Speed reducer to output	Direct-coupled		
<b>Repeatability</b> <small>Note 1</small> (XYZ mm) (R °)	+/-0.01		+/-0.01	+/-0.004
<b>Maximum speed</b> (XYZ m/sec) (R °/sec)	3.4		0.7	1700
<b>Maximum payload (kg)</b>	1.0			
<b>Standard cycle time with 0.1kg payload</b> <small>Note 2</small> (sec)	0.42			
<b>R-axis tolerable moment of inertia</b> <small>Note 3</small> (kgm <sup>2</sup> )	0.01			
<b>User wiring (sq x wires)</b>	0.1 x 6			
<b>User tubing (Outer diameter)</b>	φ3 x 2			
<b>Travel limit</b>	1.Soft limit 2.Mechanical stopper (X,Y,Z axis)			
<b>Robot cable length (m)</b>	Standard: 3.5 Option: 5,10			
<b>Weight (kg) (Excluding robot cable)</b> <small>Note 4</small>	5.5			
<b>Robot cable weight</b>	1.5kg (3.5m)	2.1kg (5m)	4.2kg (10m)	

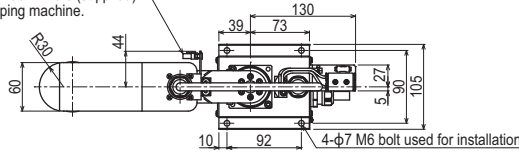
Note 1. This is the value at a constant ambient temperature.  
Note 2. When reciprocating 100mm in horizontal and 25mm in vertical directions.  
Note 3. There are limits to acceleration coefficient settings. See P.430.  
Note 4. The total robot weight is the sum of the robot body weight and the cable weight.

## Controller

Controller	Power capacity (VA)	Operation method
RCX240	500	Programming / I/O point trace / Remote command / Operation using RS-232C communication

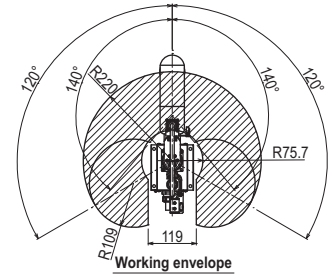
## YK220X

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 machine.

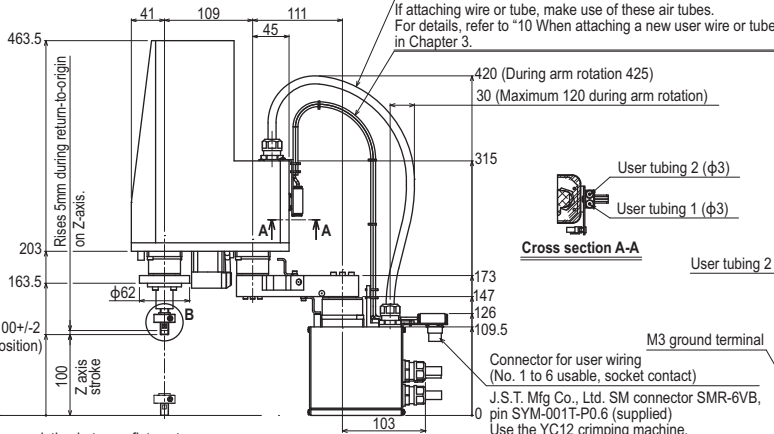


Do not attach any wire or tube to self-supporting cable. Doing so may degrade positioning accuracy.

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.



Working envelope



Cross section A-A

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 machine.

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

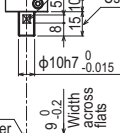


X, Y-axis origin position

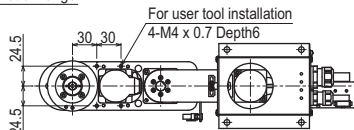
When performing return-to-origin, move the axes counterclockwise in advance from the position shown above.

No phase relation between flat spot and R-axis origin

User tool installation range



Details of B



For user tool installation 4-M4 x 0.7 Depth6

