

# YK180XG

Standard type: Tiny type

- Arm length 180mm
- Maximum payload 1kg

## Ordering method

<b>YK180XG - 50</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> <sup>Note 1</sup>	<b>Network option</b>	<b>Battery</b>
	50: 50mm	2L: 2m (Standard) 3L: 3.5m 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: 88/56 N4, P4: 112/72	No entry: None CC: CC-Link DN: DeviceNet PB: Profibus EN: Ethernet YC: YC-Link <sup>Note 2</sup>	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.

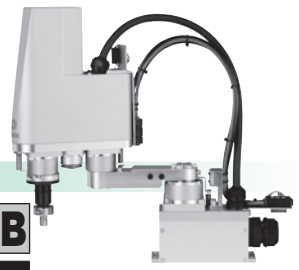
## Specifications

		X-axis	Y-axis	Z-axis	R-axis
<b>Axis specifications</b>	<b>Arm length (mm)</b>	105	75	50	-
	<b>Rotation angle (°)</b>	+/-125	+/-145	-	+/-360
<b>AC servo motor output (W)</b>		30	30	30	30
<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> <sup>Note 1</sup> (XYZ mm) (R °)		+/-0.005		+/-0.01	+/-0.004
<b>Maximum speed (XYZ m/sec) (R °/sec)</b>		3.3		0.9	1700
<b>Maximum payload (kg)</b>		1.0			
<b>Standard cycle time with 0.1kg payload</b> <sup>Note 2</sup> (sec)		0.33			
<b>R-axis tolerable moment of inertia</b> <sup>Note 3</sup> (kgm <sup>2</sup> )		0.01			
<b>User wiring (sq x wires)</b>		0.1 x 8			
<b>User tubing (Outer diameter)</b>		φ4 x 2			
<b>Travel limit</b>		1.Soft limit 2.Mechanical stopper (X,Y,Z axis)			
<b>Robot cable length (m)</b>		Standard: 2 Option: 3.5, 5, 10			
<b>Weight (kg) (Excluding robot cable)</b> <sup>Note 4</sup>		4.1			
<b>Robot cable weight</b>		0.9kg (2m)	1.5kg (3.5m)	2.1kg (5m)	4.2kg (10m)

Note 1. This is the value at a constant ambient temperature. (X,Y axes)  
Note 2. When moving 25mm in vertical direction and 100mm in horizontal direction reciprocally.  
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.

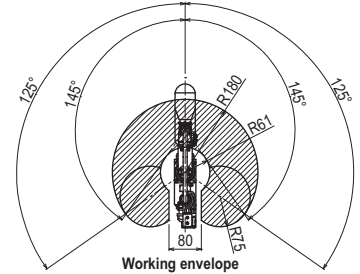
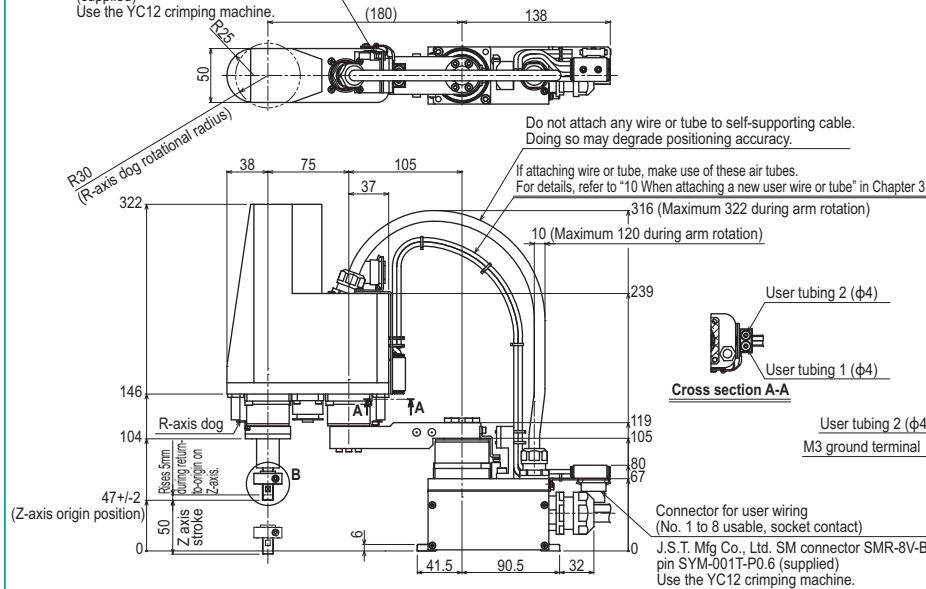
## Controller

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



## YK180XG

Connector for user wiring (No. 1 to 8 usable, socket contact)  
J.S.T. Mfg Co., Ltd. SM connector SMR-8V-B, pin SYM-001T-P0.6 (supplied)  
Use the YC12 crimping machine.



X, Y-axis origin is at ±5° with respect to front of robot base  
When performing return-to-origin, move the axes counterclockwise in advance from the position shown above.

