

# YK400XG

Standard type: Small type

- Arm length 400mm
- Maximum payload 5kg

## Ordering method

**YK400XG - 150**

<b>Model</b>	<b>Z axis stroke</b> 150: 150mm	<b>Tool flange</b> No entry: None F: With tool flange	<b>Hollow shaft</b> No entry: None S: With hollow shaft	<b>Cable</b> 3L: 3.5m 5L: 5m 10L: 10m
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**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>	250 mm	150 mm	150 mm	-
	<b>Rotation angle</b>	+/-140 °	+/-144 °	-	+/-360 °
<b>AC servo motor output</b>		200 W	150 W	50 W	100 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> <sup>Note 1</sup>	+/-0.01 mm		+/-0.01 mm	+/-0.004 °	
<b>Maximum speed</b>		6.1 m/sec		1.1 m/sec	1020 °/sec
<b>Maximum payload</b>		5 kg (Standard specification), 4 kg (Option specifications <sup>Note 4</sup> )			
<b>Standard cycle time: with 2kg payload</b> <sup>Note 2</sup>		0.49 sec			
<b>R-axis tolerable moment of inertia</b> <sup>Note 3</sup>		0.05 kgm <sup>2</sup> (0.5 kgfcm <sup>2</sup> )			
<b>User wiring</b>		0.2 sq × 10 wires			
<b>User tubing (Outer diameter)</b>		φ 4 × 3			
<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</b>		19.5 kg			

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.  
 Note 3. There are limits to acceleration coefficient settings. See P.538.  
 Note 4. Maximum payload of option specifications (with tool flange attached or with user wiring and tubing routed through spline shaft) is 4kg.

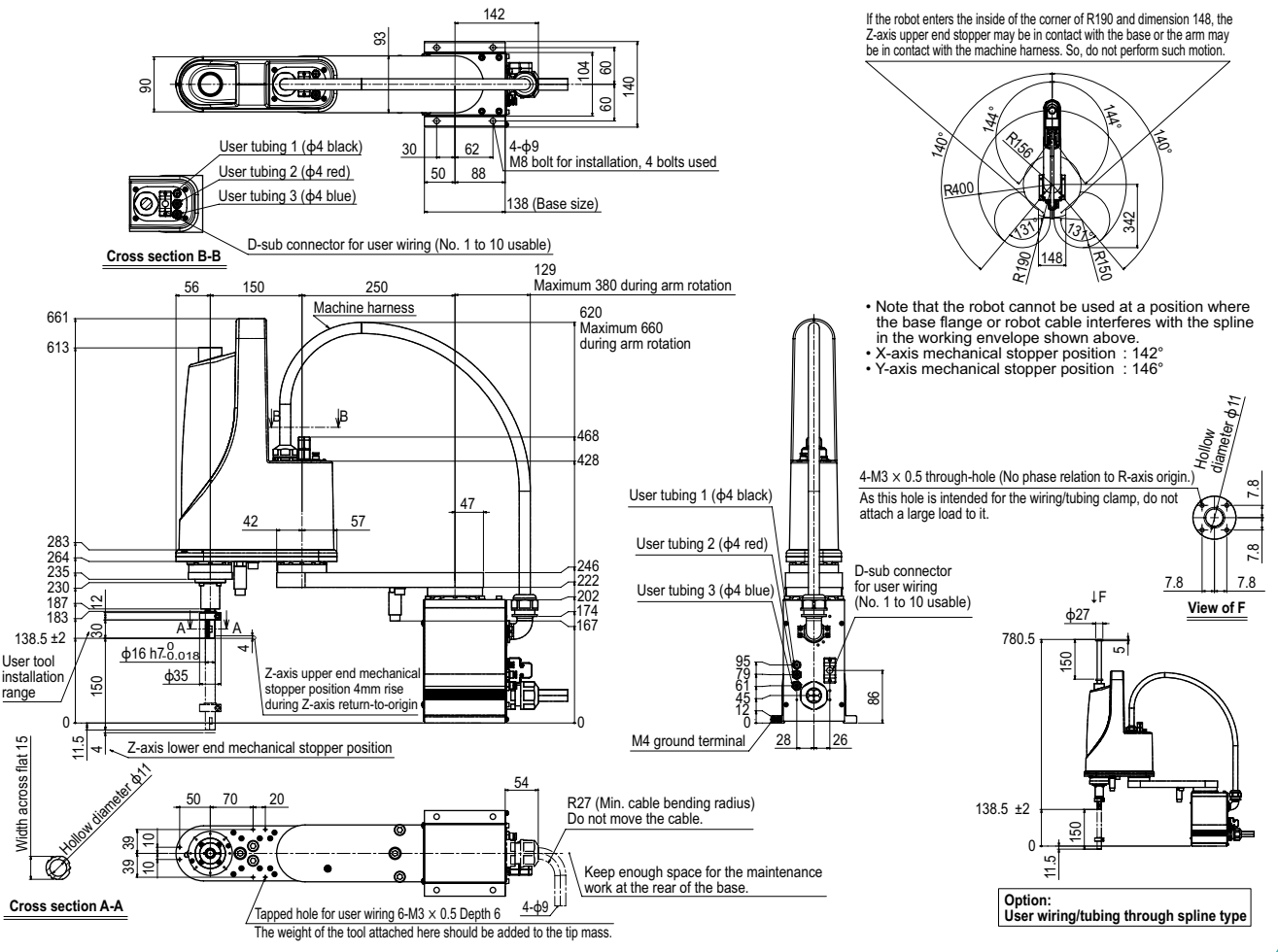
## Controller

Controller	Power capacity (VA)	Operation method
RCX340 RCX240S	1000	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.  
 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.

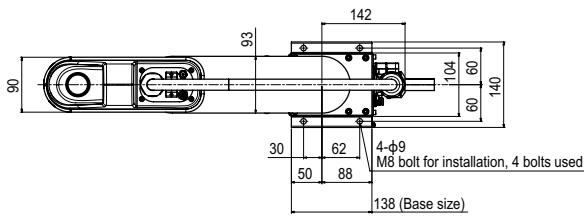
Our robot manuals (installation manuals) can be downloaded from our website at the address below:  
<http://global.yamaha-motor.com/business/robot/>

## YK400XG

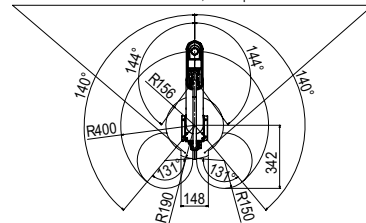


APPLICATION  
 Linear conveyor  
 modules  
 LCM100  
 Compact  
 single-axis robots  
 TRANSERVO  
 Single-axis robots  
 FLIP-X  
 Linear motor  
 single-axis robots  
 PHASER  
 Cartesian  
 robots  
 X-Y-X  
 SCARA  
 robots  
 YK-X  
 Pick & place  
 robots  
 YP-X  
 CLEAN  
 CONTROLLER  
 INFORMATION  
 Orbit / T/T  
 type  
 Small type  
 Large type  
 Inverse type  
 Walk-mount /  
 Inverse type  
 Dust-proof  
 & drip-proof  
 type

## YK400XG Tool flange mount type



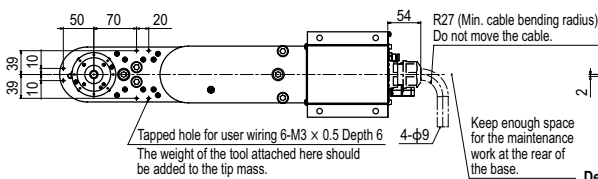
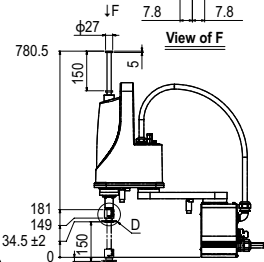
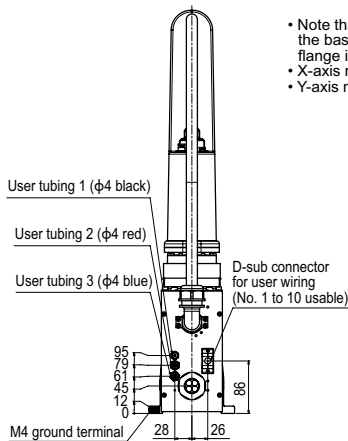
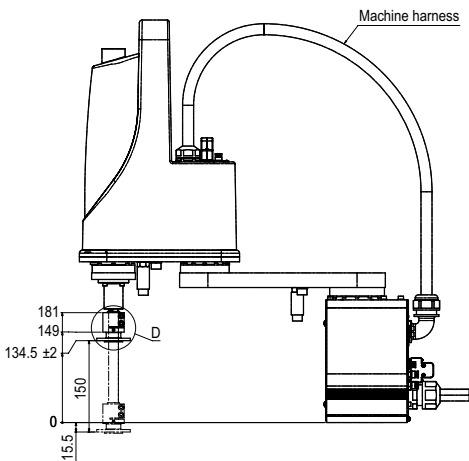
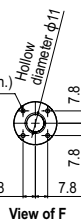
If the robot enters the inside of the corner of R190 and dimension 148, the tool flange may be in contact with the base or the arm may be in contact with the machine harness. So, do not perform such motion.



- Note that the robot cannot be used at a position where the base flange or robot cable interferes with the tool flange in the working envelope shown above.
- X-axis mechanical stopper position : 142°
- Y-axis mechanical stopper position : 146°

4-M3 x 0.5 through-hole (No phase relation to R-axis origin.)

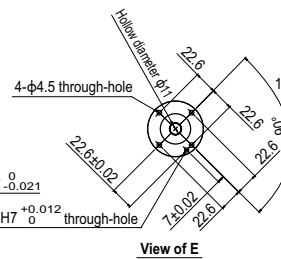
As this hole is intended for the wiring/tubing clamp, do not attach a large load to it.



The weight of the tool attached here should be added to the tip mass.

Keep enough space for the maintenance work at the rear of the base.

Detailed drawing D



View of E

Option: User wiring/tubing through spline type