

YK400XGP

Dust-proof & drip-proof type



- Arm length 400mm
- Maximum payload 4kg

Ordering method

YK400XGP - 150 **S** **RCX340-4**

Model	Z axis stroke	Tool flange	Hollow shaft	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
	150: 150mm	No entry: None F: With tool flange	S: With hollow shaft	3L: 3.5m 5L: 5m 10L: 10m								

Specify various controller setting items. RCX340 ▶ **P.566**

Specifications

		X-axis	Y-axis	Z-axis	R-axis
Axis specifications	Arm length	250 mm	150 mm	150 mm	-
	Rotation angle	+/-129 °	+/-144 °	-	+/-360 °
AC servo motor output		200 W	150 W	50 W	100 W
Deceleration mechanism	Transmission method	Direct-coupled			
	Motor to speed reducer Speed reducer to output	Direct-coupled			
Repeatability ^{Note 1}		+/-0.01 mm	+/-0.01 mm	+/-0.004 °	
Maximum speed		6.1 m/sec	1.1 m/sec	1020 °/sec	
Maximum payload		4 kg			
Standard cycle time: with 2kg payload ^{Note 2}		0.50 sec			
R-axis tolerable moment of inertia ^{Note 3}		0.05 kgm ²			
Protection class ^{Note 4}		Equivalent to IP65 (IEC 60529)			
User wiring		0.2 sq × 10 wires			
User tubing (Outer diameter)		φ 4 × 4			
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		22.5 kg			

Note 1. This is the value at a constant ambient temperature. (X,Y axes)
 Note 2. When reciprocating 25mm in vertical direction and 300mm in horizontal direction (rough-positioning arch motion).
 Note 3. The acceleration coefficient is set automatically in accordance with the tip weight and R-axis moment of inertia settings.
 Note 4. Do not use robots where the bellows section is directly exposed to water jet. Contact our distributor for information on drip-proof structure preventing liquid other than water.

Controller

Controller	Power capacity (VA)	Operation method
RCX340	1000	Programming / I/O point trace / Remote command / Operation using RS-232C communication

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:
<https://global.yamaha-motor.com/business/robot/>

YK400XGP

Connector for user wiring (No.1 to 10 usable, cable clamp size: φ13.1 to 15)
 Cover with the caps provided when not used.

User tubing 1 (φ4 black)
 Insert the plug provided when not used.

User tubing 2 (φ4 red)

User tubing 3 (φ4 blue)

User tubing 4 (φ4 white)

4-M3 × 0.5 Depth 5 (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.

Hollow diameter: φ11

View of F

Machine Harness

Z-axis bellows

Z-axis upper end mechanical stopper position
 Z-axis rises 4mm during return-to-origin.

Z-axis lower end mechanical stopper position

Width across flats: 15

Hollow diameter: φ11

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

R32 (Min. cable bending radius)

4-φ11

Z axis tip shape

• Note that the robot cannot be used at a position where the base flange, robot cable, spline, bellows, and tool flange interfere with each other in the working envelope shown above.
 • X-axis mechanical stopper position : 131°
 • Y-axis mechanical stopper position : 146°

User tubing 1 (φ4 black)
 Insert the plug provided when not used.

User tubing 2 (φ4 red)
 Since this port is not used, cover it with the cap supplied with the joint.

User tubing 3 (φ4 blue)

User tubing 4 (φ4 white)

Connector for user wiring (No.1 to 10 usable, cable clamp size: φ13.1 to 15)
 Cover with the caps provided when not used.

M4 ground terminal

User tool installation range

Articulated robots
YA

Linear conveyor modules
LCM100

Motor-less single axis actuator
Robonity

Compact single-axis robots
TRANSEURO

Single-axis robots
FLIP-X

Linear motor single-axis robots
PHASER

Cartesian robots
XY-X

SCARA robots
YK-X

Pick & place robots
YP-X

CLEAN

CONTROLLER INFORMATION

Orbit/Extra small type

Small / Medium type

Large type

Wall mount / Inverse type

Dust-proof & drip-proof type

YK400XGP Tool flange mount type

