

YK150XG

Standard type: Extra small type

- Arm length 150mm
- Maximum payload 1kg

Ordering method

YK150XG - 50

Model	Z-axis stroke	Cable
	50: 50mm	2L: 2m
		3L: 3.5m
		5L: 5m
		10L: 10m

RCX340-4

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

Specify various controller setting items. RCX340 ▶ **P.678**

Specifications

		X-axis	Y-axis	Z-axis	R-axis
Axis specifications	Arm length	75 mm	75 mm	50 mm	-
	Rotation angle	+/-125 °	+/-145 °	-	+/-360 °
AC servo motor output		30 W	30 W	30 W	30 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		3.4 m/sec	0.9 m/sec	1700 °/sec	
Maximum payload		1.0 kg			
Standard cycle time: with 0.1kg payload ^{Note 2}		0.33 sec			
R-axis tolerable moment of inertia ^{Note 3}		0.01 kgm ²			
User wiring		0.1 sq × 8 wires			
User tubing (Outer diameter)		φ 4 × 2			
Travel limit		1.Soft limit 2.Mechanical stopper (X,Y,Z axis)			
Robot cable length		Standard: 2 m Option: 3.5 m, 5 m, 10 m			
Weight (Excluding robot cable) ^{Note 4}		4.0 kg			
Robot cable weight		0.9 kg (2 m)	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. (X,Y axes)

Note 2. When moving 25mm in vertical direction and 100mm in horizontal direction reciprocally.

Note 3. The acceleration coefficient is set automatically in accordance with the tip weight and R-axis moment of inertia settings.

Note 4. The total robot weight is the sum of the robot body weight and the cable weight.

Controller

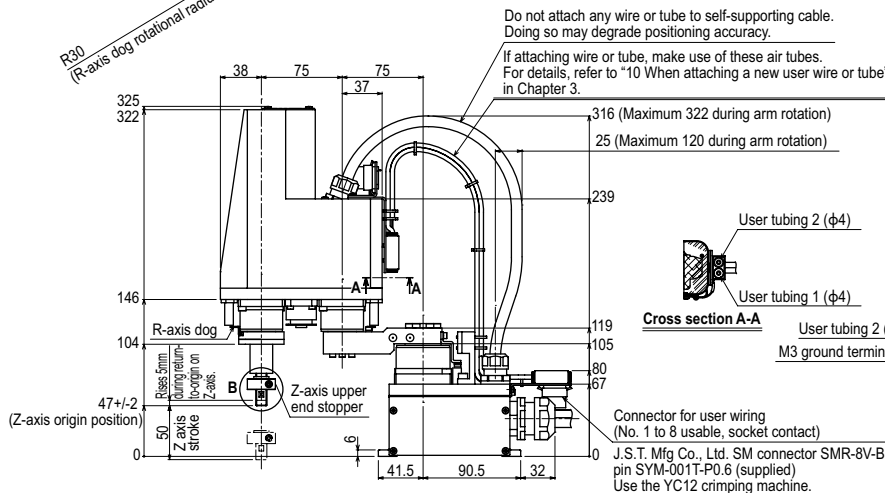
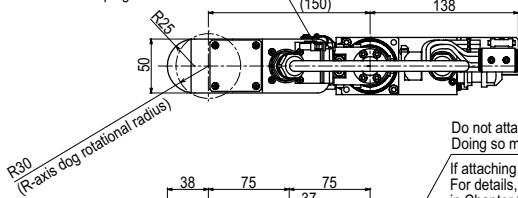
Controller	Power capacity (VA)	Operation method
RCX340	300	Programming / I/O point trace / Remote command / Operation using RS-232C communication

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.

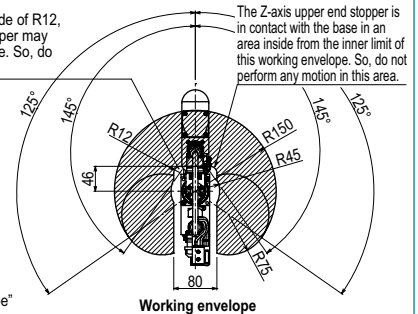
Our robot manuals (installation manuals) can be downloaded from our website at the address below:
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YK150XG

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 tool.



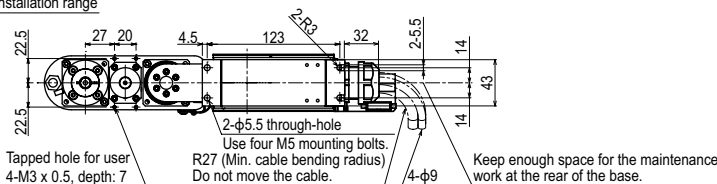
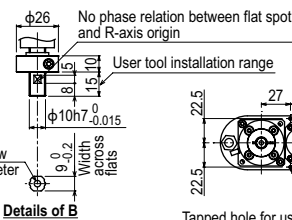
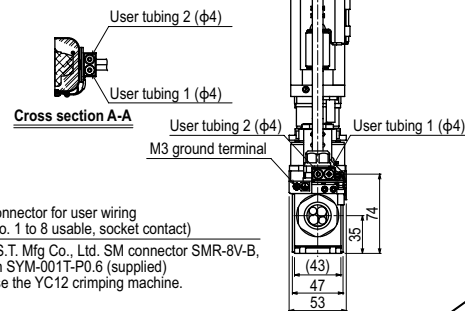
If the robot enters the inside of R12, the Z-axis upper end stopper may be in contact with the base. So, do not perform such motion.



Working envelope

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.



Articulated robots YA
Linear conveyor modules LCM
Single-axis robots CX
Motor-less single-axis actuator Robotomy
single-axis robots TRANSEVO
Compact 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
Extra small type
Small / Medium type
Large type
Wall mount / Inverse type
Dust-proof & drip-proof type

YK180X

Standard type: Extra small type



- Arm length 180mm
- Maximum payload 1kg

Ordering method

YK180X - 100

RCX340-4

Model	Z axis stroke 100: 100mm	Cable 3L: 3.5m 5L: 5m 10L: 10m	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
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Specify various controller setting items. RCX340 ▶ **P.678**

Specifications

		X-axis	Y-axis	Z-axis	R-axis
Axis specifications	Arm length	71 mm	109 mm	100 mm	-
	Rotation angle	+/-120 °	+/-140 °	-	+/-360 °
AC servo motor output		50 W	30 W	30 W	30 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		3.3 m/sec	0.7 m/sec	1700 °/sec	
Maximum payload		1.0 kg			
Standard cycle time: with 0.1kg payload ^{Note 2}		0.39 sec			
R-axis tolerable moment of inertia ^{Note 3}		0.01 kgm ²			
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) ^{Note 4}		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. The acceleration coefficient is set automatically in accordance with the tip weight and R-axis moment of inertia settings.
 Note 4. The total robot weight is the sum of the robot body weight and the cable weight.

Controller

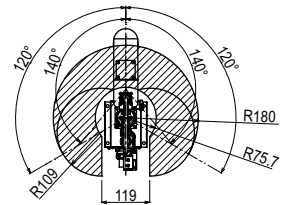
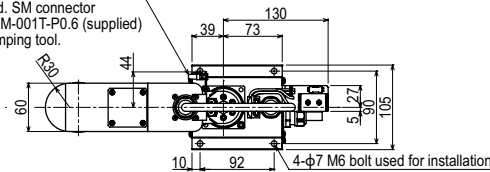
Controller	Power capacity (VA)	Operation method
RCX340	500	Programming / I/O point trace / Remote command / Operation using RS-232C communication

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.

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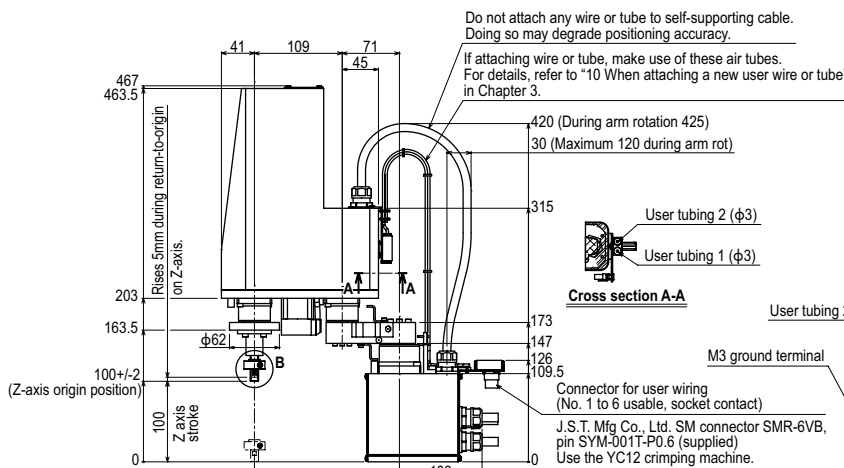
YK180X

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.



Working envelope

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



Cross section A-A

User tubing 2 (φ3)

User tubing 1 (φ3)

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.

M3 ground terminal

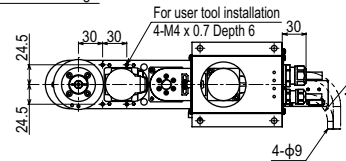
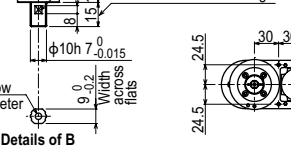
55
50
25
10
0

11 15 74

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



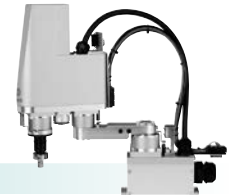
R27 (Min. cable bending radius)
 Do not move the cable.

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

- Articulated robots
YA
- Linear conveyor modules
LCM
- Single-axis robots
CX
- Motor-less single-axis actuator
Robonity
- Compact single-axis robots
TRANSEVO
- 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
- Extra small type
- Small / Medium type
- Large type
- Wall mount / Inverse type
- Dust-proof & drip-proof type

YK180XG

Standard type: Extra small type



- Arm length 180mm
- Maximum payload 1kg

Ordering method

YK180XG - 50

Model	Z axis stroke	Cable
	50: 50mm	2L: 2m
		3L: 3.5m
		5L: 5m
		10L: 10m

RCX340-4

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

Specify various controller setting items. RCX340 ▶ **P.678**

Specifications

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

Note 2. When moving 25mm in vertical direction and 100mm in horizontal direction reciprocally.

Note 3. The acceleration coefficient is set automatically in accordance with the tip weight and R-axis moment of inertia settings.

Note 4. The total robot weight is the sum of the robot body weight and the cable weight.

Controller

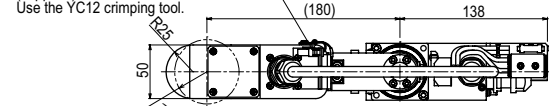
Controller	Power capacity (VA)	Operation method
RCX340	500	Programming / I/O point trace / Remote command / Operation using RS-232C communication

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.)
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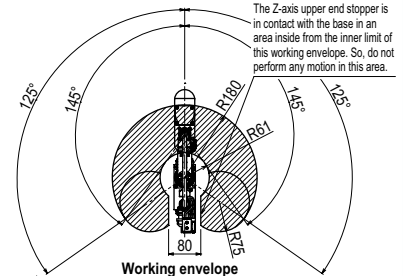
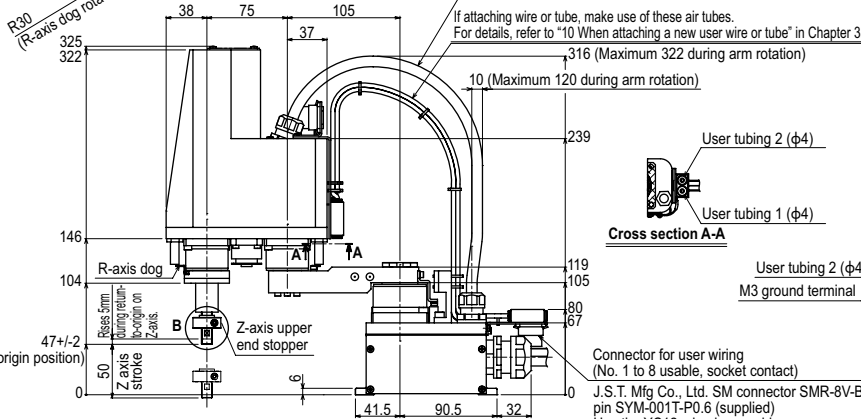
YK180XG

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 tool.



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

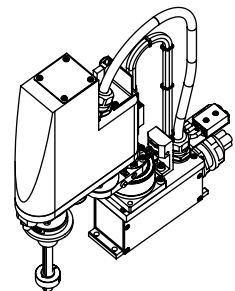
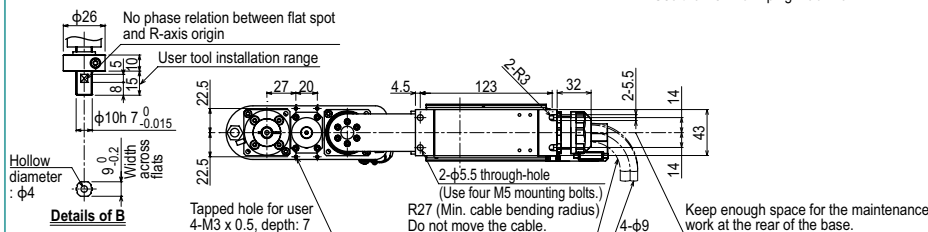
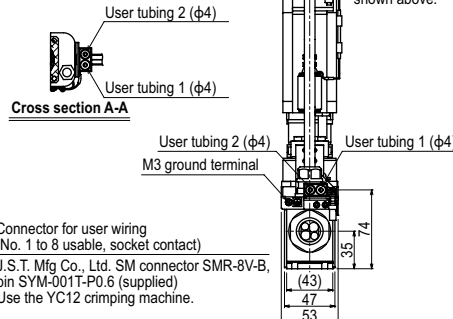
If attaching wire or tube, make use of these air tubes.
For details, refer to "10 When attaching a new user wire or tube" in Chapter 3.



The Z-axis upper end stopper is in contact with the base in an area inside from the inner limit of this working envelope. So, do not perform any motion in this area.

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.



YK220X

Standard type: Extra small type



- Arm length 220mm
- Maximum payload 1kg

Ordering method

YK220X - 100		RCX340-4								
Model	Z axis stroke 100: 100mm	Cable 3L: 3.5m 5L: 5m 10L: 10m	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

Specify various controller setting items. RCX340 ▶ **P.678**

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	Transmission method	Direct-coupled			
	Motor to speed reducer	Direct-coupled			
Speed reducer to output		Direct-coupled			
Repeatability ^{Note 1}		+/-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 ^{Note 2}		0.42 sec			
R-axis tolerable moment of inertia ^{Note 3}		0.01 kgm ²			
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) ^{Note 4}		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. The acceleration coefficient is set automatically in accordance with the tip weight and R-axis moment of inertia settings.
 Note 4. The total robot weight is the sum of the robot body weight and the cable weight.

Controller

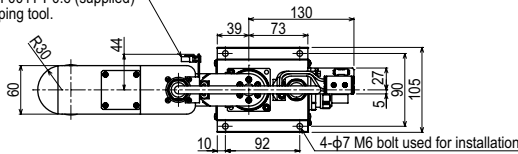
Controller	Power capacity (VA)	Operation method
RCX340	500	Programming / I/O point trace / Remote command / Operation using RS-232C communication

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.

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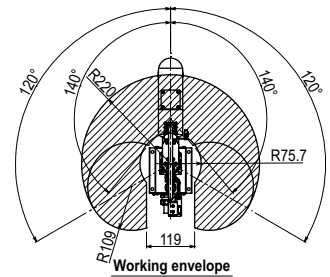
YK220X

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.



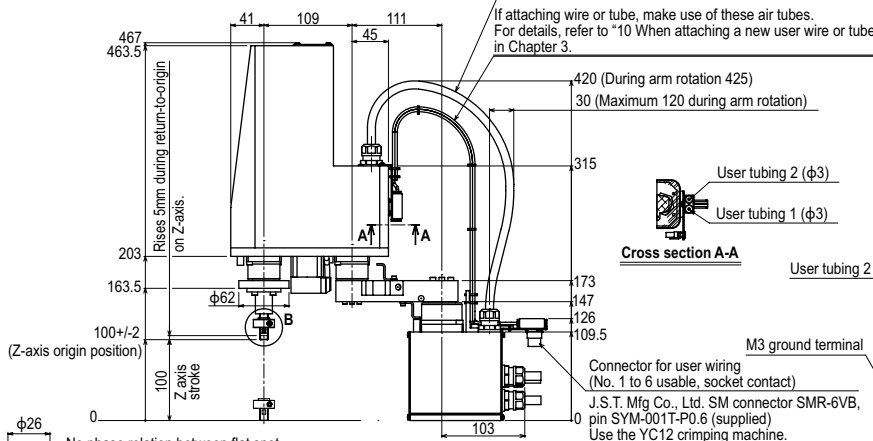
Working envelope

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

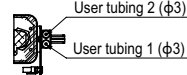


X, Y-axis origin position

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



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.

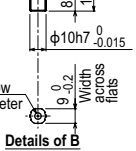
No phase relation between flat spot and R-axis origin

User tool installation range

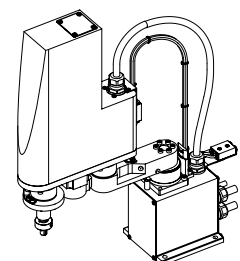
For user tool installation
 4-M4 x 0.7 Depth6

R27 (Min. cable bending radius)
 Do not move the cable.

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



Details of B



YK120XG

Standard type: Extra small type

- Arm length 120mm
- Maximum payload 1kg

Ordering method

YK120XG - 50

Model	Z axis stroke	Cable
	50: 50mm	2L: 2m 3L: 3.5m 5L: 5m 10L: 10m

RCX340-4

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

Specify various controller setting items. RCX340 ▶ **P.678**

Specifications

		X-axis	Y-axis	Z-axis	R-axis
Axis specifications	Arm length	45 mm	75 mm	50 mm	-
	Rotation angle	+/-125 °	+/-145 °	-	+/-360 °
AC servo motor output		30 W	30 W	30 W	30 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		3.3 m/sec	0.9 m/sec	1700 °/sec	
Maximum payload		1.0 kg			
Standard cycle time: with 0.1kg payload ^{Note 2}		0.33 sec			
R-axis tolerable moment of inertia ^{Note 3}		0.01 kgm ²			
User wiring		0.1 sq × 8 wires			
User tubing (Outer diameter)		φ 4 × 2			
Travel limit		1.Soft limit 2.Mechanical stopper (X,Y,Z axis)			
Robot cable length		Standard: 2 m Option: 3.5 m, 5 m, 10 m			
Weight (Excluding robot cable) ^{Note 4}		3.9 kg			
Robot cable weight		0.9 kg (2 m)	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. (X,Y axes)

Note 2. When moving 25mm in vertical direction and 100mm in horizontal direction reciprocally.

Note 3. The acceleration coefficient is set automatically in accordance with the tip weight and R-axis moment of inertia settings.

Note 4. The total robot weight is the sum of the robot body weight and the cable weight.

Controller

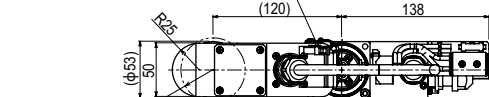
Controller	Power capacity (VA)	Operation method
RCX340	300	Programming / I/O point trace / Remote command / Operation using RS-232C communication

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.)
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YK120XG

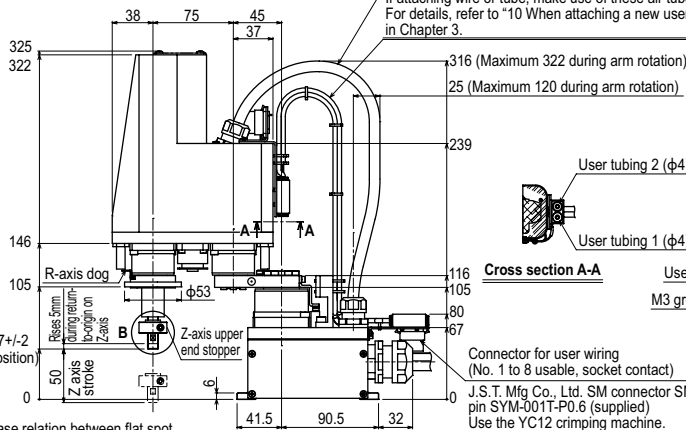
Connector for user wiring
(No. 1 to 8 usable, socket contact)
J.S.T. Mfg Co., Ltd. SM connector
SMR-8V-B, pin SYM-001T-P0.6
(supplied)
Use the YC12 crimping tool.



R30
(R-axis dog rotational radius)

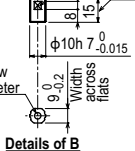
Do not attach any wire or tube to self-supporting cable.
Doing so may degrade positioning accuracy.

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.

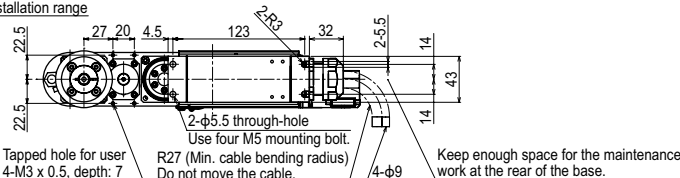


No phase relation between flat spot
and R-axis origin

User tool installation range



Details of B

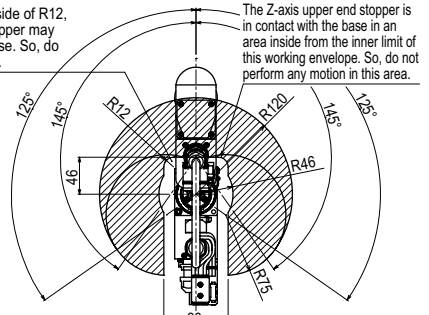


Tapped hole for user
4-M3 x 0.5, depth: 7

R27 (Min. cable bending radius)
Do not move the cable.

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

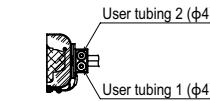
If the robot enters the inside of R12,
the Z-axis upper end stopper may
be in contact with the base. So, do
not perform such motion.



Working envelope

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.



Cross section A-A

User tubing 2 (φ4)

User tubing 1 (φ4)

M3 ground terminal

User tubing 2 (φ4)

User tubing 1 (φ4)

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.

