

YK120XG

Standard type: Tiny type

- Arm length 120mm
- Maximum payload 1kg

Ordering method

YK120XG - 50		RCX240				BB	
Model	Z axis stroke	Cable length	Controller	Usable for CE	Expansion I/O ^{Note 1}	Network option	Battery
	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 ^{Note 2}	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
Axis specifications	Arm length (mm)	45	75	50	-
	Rotation angle (°)	+/-125	+/-145	-	+/-360
AC servo motor output (W)		30	30	30	30
Deceleration mechanism	Speed reducer	Harmonic drive	Harmonic drive	Ball screw	Harmonic drive
	Transmission method	Direct-coupled			
	Motor to speed reducer	Direct-coupled			
	Speed reducer to output	Direct-coupled			
Repeatability ^{Note 1} (XYZ mm) (R °)		+/-0.005		+/-0.01	+/-0.004
Maximum speed (XYZ m/sec) (R °/sec)		3.3		0.9	1700
Maximum payload (kg)				1.0	
Standard cycle time with 0.1kg payload ^{Note 2} (sec)				0.33	
R-axis tolerable moment of inertia ^{Note 3} (kgm ²)				0.01	
User wiring (sq x wires)				0.1 x 8	
User tubing (Outer diameter)				φ4 x 2	
Travel limit		1.Soft limit 2.Mechanical stopper (X,Y,Z axis)			
Robot cable length (m)		Standard: 2 Option: 3.5, 5, 10			
Weight (kg) (Excluding robot cable) ^{Note 4}		3.9			
Robot cable weight		0.9kg (2m)	1.5kg (3.5m)	2.1kg (5m)	4.2kg (10m)

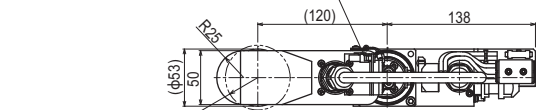
Note 1. This is the value at a constant ambient temperature. (X,Y axes)
Note 2. When moving 25mm in vertical direction and 100mm in horizontal direction reciprocally.
Note 3. There are limits to acceleration coefficient settings. See P.430.
Note 4. The total robot weight is the sum of the robot body weight and the cable weight.

Controller

Controller	Power capacity (VA)	Operation method
RCX240	300	Programming / I/O point trace / Remote command / Operation using RS-232C communication

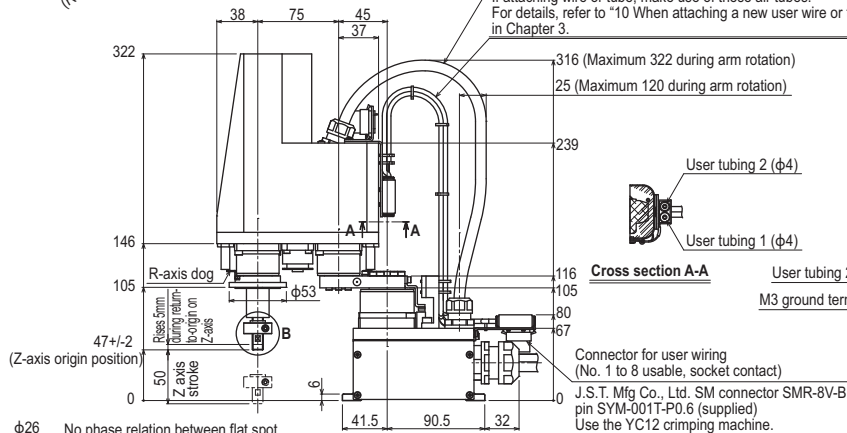
YK120XG

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 machine.



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.



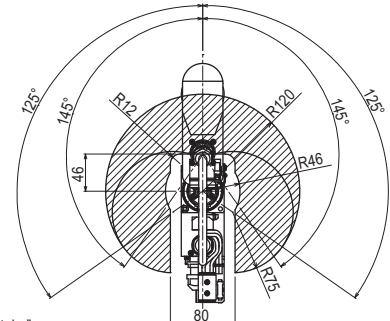
No phase relation between flat spot and R-axis origin

User tool installation range

φ26
φ10h 7.0
0.015
9.0
Width across flats
Hollow diameter
φ4

Details of B

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



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.

