Robot ordering method description

In the order format for the YAMAHA cartesian robots XY-X series, the notation (letters/numbers) for the mechanical section is shown linked to the controller section notation.

[Example]

■ **2-axis specifications**

● **Mechanical ▶ FXYx (Arm type)**

- Cable variations ▷ Cable carrier
- Combination (Arm variations) ▷ A1
- X-axis stroke ▷ 450mm
- Y-axis stroke ▷ 350mm
- Robot cable length ▷ 3.5M

● **Controller ▶ RCX222**

- Input/Output selection ▷ NPN

● **Ordering method**

FXYx-C-A1-45-35-3L-RCX222-N

Mechanical section | Controller section

To find detailed controller information see the controller page. **RCX222 ▶ P.395, DRCX ▶ P.387**

① Model	② Cable	③ Combination Note 1	④ X-axis stroke	⑤ Y-axis stroke	⑧ Cable length	⑨ Controller Note 2	⑩ Usable for CE	⑪ Regenerative unit	⑫ Input/Output selection 1	⑬ Input/Output selection 2
PXYx	C Cable carrier	A1 to 4 Arm type			3L 3.5m (Standard)	RCX222	No entry Standard	No entry None	N NPN Note3	No entry None
FXYx	S Whipover	G1 to 4 Gantry type			5L 5m		E CE marking	R RG2	P PNP	N1 OP.DIO 24/16 (NPN) Note3
FXYBx		M1 / 3 Moving arm type			10L 10m				CC CC-Link	P1 OP.DIO 24/17 (PNP)
SXYx		P1 to 2 Pole type							DN DeviceNet	EN Ethernet Note3 Note5
SXYBx		F1 / F3 XZ type							PB Profibus	
NXY									EN Ethernet Note3	
MXYx									YC YC-Link No e4	
HXYx										
HXYLx										

Note 1. To find detailed information on arm variations (combinations) see P.141.
Note 2. DRCX is also selectable.
Note 3. NPN and Ethernet cannot be selected if using CE marking.
Note 4. Available only for the master.
Note 5. Only when CC-Link or DeviceNet or Profibus was selected for I/O select 1 above. Ethenet can be selected in I/O select 2.

[Example]

■ **3 / 4-axis specifications**

● **Mechanical ▶ SXYx (Moving arm type)**

- Cable variations ▷ Whipover
- Combination (Arm variations) ▷ M3
- X-axis stroke ▷ 850mm
- Y-axis stroke ▷ 150mm
- Z-axis stroke ▷ 150mm
- Robot cable length ▷ 5M

● **Controller ▶ RCX240**

- Regeneratine unit ▷ Yes
- Option I/O ▷ NPN Standard 16/8
- Network option ▷ CC-Link
- Battery ▷ 4 pcs

● **Ordering method**

SXYx-S-M3-85-15-ZFH-15-5L-RCX240-R-N-CC-BB

Mechanical section | Controller section

To find detailed controller information see the controller page. **RCX240 ▶ P.402**

① Model	② Cable	③ Combination Note 1	④ X-axis stroke	⑤ Y-axis stroke	⑥ ZR-axis	⑦ Z-axis stroke	⑧ Cable length	⑨ Controller	⑩ Usable for CE	⑪ Regenerative unit	⑭ Option I/O Note 1	⑮ Network option	⑯ Battery
FXYx	C Cable carrier	A1 to 4 Arm type		ZS Shaft vertical type			3L 3.5m (Standard)	RCX240	No entry Standard	No entry None	N Standard I/O 16/8(NPN)	No entry None	BB
SXYx	S Whipover	G1 to 4 Gantry type		ZT Clamped base • moving table type (60W)			5L 5m		E CE marking	R RGU-2	N1 40/24(NPN)	CC CC-Link	
SXYBx		M1/3 Moving arm type		ZF Clamped base • moving table type (100W)			10L 10m				N2 64/40(NPN)	DN DeviceNet	
NXY		P1 to 2 Pole type		ZFL/ZL Clamped base • moving table type (200W)							N3 88/55(NPN)	PB Profibus	
MXYx				ZFH/ZH Clamped table • moving base type (200W)							N4 12/72(NPN)	EN Ethernet	
HXYx				ZPMH/ZPH Clamped table • moving base type (200W) for Pole type							P Standard I/O 16/8(PNP)	YC YC-Link No e1	
				ZRF Clamped base • moving table type (100W)+R-axis							P1 40/24(PNP)		
				ZRS Shaft vertical type ZR-axis integrated type							P2 64/40(PNP)		
				ZRFL/ZRL Clamped base • moving table type (200W)+R-axis							P3 88/55(PNP)		
				ZRFH/ZRH Clamped table • moving base type (200W)+R-axis							P4 112/72(PNP)		

Note 1. Available only for the master.

Robot ordering method terminology

① **Model**	Enter the robot unit model.
② **Cable**	Cable specs can be selected. To find detailed information see P. 140. C: Cable carrier S: Whipover
③ **Combination (Arm variations)**	Select the arm variation and combination method. **●Arm type** The type with moving Y-axis carriage.  **●Gantry type** The type with a guide railing at the end of Y-axis for support.  **●Moving arm type** The type with a moving Y-axis arm.  **●Pole type** The type with vertically moving Y-axis carriage.  **●XZ type** The type with combination of X-axis for horizontal movement and Z-axis for vertical movement.  **●Clean type** Special model for clean rooms with moving Y-axis carriage installed upward.  To find information on combinations see P. 141.
④ **X-axis stroke**	Select the X axis stroke. Enter in centimeters (cm). (For example enter 50 for a stroke of 500mm.)
⑤ **Y-axis stroke**	Select the Y axis stroke. Enter in centimeters (cm). (For example enter 50 for a stroke of 500mm.)
⑥ **ZR-axis**	Select the Z axis installation direction. The R axis is installed with 4-axis specifications. To find more information see P. 023. **[3-axes]** ZS : Shaft vertical type ZT : Clamped base · moving table type (60W) ZF : Clamped base · moving table type (100W) ZFL/ZL : Clamped base · moving table type (200W) ZFH/ZH : Clamped table · moving base type (200W) ZPMH/ZPH : Clamped table · moving base type (200W) for pole type **[4-axes]** ZRF : Clamped base · moving table type (100W)+R axis ZRS : ZR axis integrated type ZRL/ZRFL : Clamped base · moving table type (200W)+R axis ZRH/ZRFH : Clamped table · moving base type (200W)+R axis
⑦ **Z-axis stroke**	Select the Z axis stroke. Enter in centimeters (cm). (For example enter 50 for a stroke of 500mm.)
⑧ **Cable length**	Select the length of the robot cable connecting the robot and controller. 3L : 3.5m(Standard) 5L : 5m 10L : 10m
⑨ **Controller**	2-axis specifications: Select either RCX222 or DRCX. 3 / 4-axis specifications: RCX240.
⑩ **Usable for CE**	CE marking is selectable.
⑪ **Regeneratine unit**	Some models require a regenerative unit. See the model's page to find out whether or not a regenerative unit is needed.
⑫ **Input/Output selection 1** ⑬ **Input/Output selection 2**	This is a RCX222 controller option. It allows selecting an expansion I/O board and network board to add for use with the standard I/O board.
⑭ **Option I/O**	This is a RCX240 controller option. It allows selecting an expansion I/O board to add for use with the standard I/O board.
⑮ **Network option**	This is a RCX240 controller option. It allows selecting a network board to add for use with the standard I/O board.
⑯ **Battery**	This is an absolute data backup battery (not required if using incremental specifications).