# YK700XGP

**Dust-proof & drip-proof type**

- Arm length 700mm
- Maximum payload 20kg

## Ordering method

| YK700XGP - | | F | - | RCX340-4 | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Model | Z axis stroke<br>200: 200mm<br>400: 400mm | Tool flange<br>F: With tool flange | Cable<br>3L: 3.5m<br>5L: 5m<br>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.636

## Specifications

| | | | X-axis | Y-axis | Z-axis | R-axis |
|---|---|---|---|---|---|---|
| Axis specifications | Arm length | | 300 mm | 400 mm | 200 mm / 400 mm | – |
| | Rotation angle | | +/-130 ° | +/-150 ° | – | +/-360 ° |
| AC servo motor output | | | 750 W | 400 W | 400 W | 200 W |
| Deceleration mechanism | Transmission method | Motor to speed reducer | Direct-coupled | | | |
| | | Speed reducer to output | Direct-coupled | | | |
| Repeatability Note 1 | | | +/-0.02 mm | | +/-0.01 mm | +/-0.004 ° |
| Maximum speed | | | 8.4 m/sec | | 2.3 m/sec / 1.7 m/sec | 920 °/sec |
| Maximum payload | | | 20 kg | | | |
| Standard cycle time: with 2kg payload Note 2 | | | 0.52 sec | | | |
| R-axis tolerable moment of inertia Note 3 | | | 1.0 kgm² | | | |
| Protection class Note 4 | | | Equivalent to IP65 (IEC 60529) | | | |
| User wiring | | | 0.2 sq × 20 wires | | | |
| User tubing (Outer diameter) | | | φ 6 × 3 | | | |
| 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 | | | Z axis 200 mm: 54 kg Z axis 400 mm: 56 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.

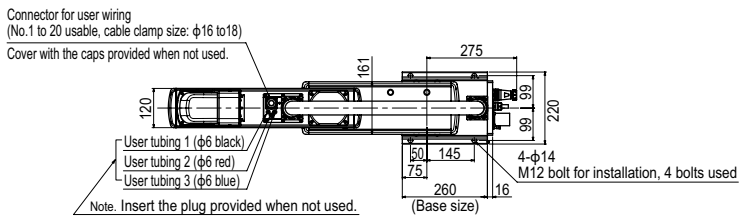
## Controller

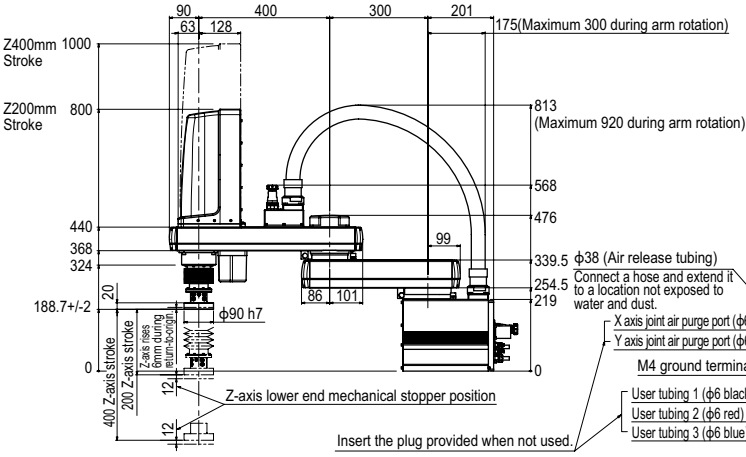
| Controller | Power capacity (VA) | Operation method |
|---|---|---|
| RCX340 | 2500 | Programming / I/O point trace / Remote command / Operation using RS-232C communication |

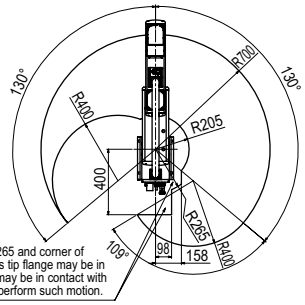
Note. The movement range can be limited by changing the positions of X and Y axis mechanical stoppers. (The movement range is set to the maximum at the time of shipment.) See our robot manuals (installation manuals) for detailed information.
Note. To set the standard coordinates with high accuracy, use 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/**

## YK700XGP

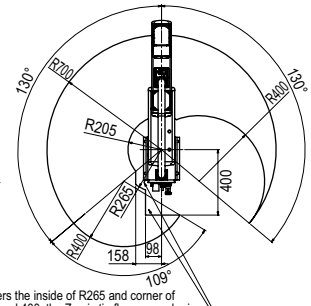



If the robot enters the inside of R265 and corner of dimensions 98 and 400, the Z-axis tip flange may be in contact with the base or the arm may be in contact with the machine harness. So, do not perform such motion.

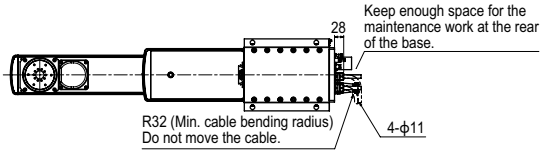
**Working envelope of left-handed system**

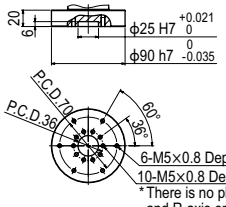



If the robot enters the inside of R265 and corner of dimensions 98 and 400, the Z-axis tip flange may be in contact with the base or the arm may be in contact with the machine harness. So, do not perform such motion.

**Working envelope of right-handed system**

- Note that the robot cannot be used at a position where the base flange, robot cable, spline, and bellows interfere with each other in the working envelope shown above.
- X-axis mechanical stopper position : 132°
- Y-axis mechanical stopper position : 152°




Z axis tip shape

* There is no phase relation between each position of M5 tapped holes and R-axis origin position.