

# YA-R5F

6-axis

- Maximum payload 5 kg
- Longest Reach R706 mm

Note. The YA series does not comply with the EU RoHS directive.



## Ordering method

<b>YA-R5F</b>	<b>4L</b>	<b>YAC100</b>	<b>N</b>			
Model	Power cable length 4L: 4m	Controller	Safety standard N: Normal	Language setting J/E: Japanese/English J/C: Japanese/Chinese E/J: English/Japanese E/C: English/Chinese	Option I/O N, P: Standard I/O 28/28 N1, P1: 56/56 points N2, P2: 84/84 points N3, P3: 112/112 points N4, P4: 140/140 points	Network option No entry: None CC: CC-Link DM: DeviceNet master DS: DeviceNet slave PB: PROFIBUS EP: EtherNet/IP™ PM: Profinet master PT: Profinet slave ES: EtherCAT slave

Note. Thanks to the higher control rate of the YAC100 controller and vibration-damping control of the arm, we have reduced the residual vibration when the arm stops moving, while shortening the cycle time and achieving the fastest speed in this class.

Note. Longest reach in a respective class (706 mm)

Note. Floor-mounted, wall-mounted, and ceiling-mounted types are available. Please contact us separately regarding wall-mounted or ceiling-mounted installations.

Note. This unit can also be used in combination with a travel axis or other external axis. Please contact us.

## Specifications

<b>Controlled Axis</b>	6	<b>Allowable Moment</b>	<b>R-axis (wrist roll)</b>	12 N·m	
<b>Payload</b>	5 kg	<b>Allowable Inertia (GD<sup>2</sup>/4)</b>	<b>B-axis (wrist pitch/yaw)</b>	12 N·m	
<b>Repeatability</b>	+/-0.02 mm	<b>Mass</b>	<b>T-axis (wrist twist)</b>	7 N·m	
<b>Range of Motion</b>	<b>S-axis (turning)</b>	-170° to +170° <sup>Note 1</sup>	<b>R-axis (wrist roll)</b>	0.3 kg·m <sup>2</sup>	
	<b>L-axis (lower Arm)</b>	-65° to +150°	<b>B-axis (wrist pitch/yaw)</b>	0.3 kg·m <sup>2</sup>	
	<b>U-axis (upper arm)</b>	-136° to +255°	<b>T-axis (wrist twist)</b>	0.1 kg·m <sup>2</sup>	
	<b>R-axis (wrist roll)</b>	-190° to +190°	<b>Ambient Conditions</b>	<b>Temperature</b>	0 to +45°C
	<b>B-axis (wrist pitch/yaw)</b>	-135° to +135°	<b>Humidity</b>	20 to 80%RH (non-condensing)	
	<b>T-axis (wrist twist)</b>	-360° to +360°	<b>Vibration</b>	4.9 m/s <sup>2</sup> or less	
<b>Maximum Speed</b>	<b>S-axis (turning)</b>	6.56 rad/s, 376°/s	<b>Others</b>	<ul style="list-style-type: none"> <li>Free from corrosive gasses or liquids, or explosive gasses</li> <li>Free from exposure to water, oil, or dust</li> <li>Free from excessive electrical noise (plasma)</li> </ul>	
	<b>L-axis (lower Arm)</b>	6.11 rad/s, 350°/s	<b>Power Requirements</b> <sup>Note 2</sup>	1.0 kVA	
	<b>U-axis (upper arm)</b>	6.98 rad/s, 400°/s			
	<b>R-axis (wrist roll)</b>	7.85 rad/s, 450°/s			
	<b>B-axis (wrist pitch/yaw)</b>	7.85 rad/s, 450°/s			
	<b>T-axis (wrist twist)</b>	12.57 rad/s, 720°/s			

Note 1. For wall-mounted installation, the S-axis operating range is +/-30°.

Note 2. Varies in accordance with applications and motion patterns.

Note. SI units are used for specifications.

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