

## RC7 Controller

Item		Specifications				
Robot series		VM-G series	VS-G series	VP-G series	HM-G series	HS-G series
Model (RC7-)		VMG-6****-**	VSG-6****-**	VPG-5/6****-**	HMG-4****-**	HSG-4****-**
Controllable axes		6 axes		5 or 6 axes	4 axes	
Control system		PTP, CP 3-dimensional linear, 3-dimensional circular				
Drive system		All axes: Full-digital AC servo				
Language used		DENSRO robot language (conforming to SLIM)				
Memory capacity		3.25 MB (equivalent to 10,000 steps, 30,000 points)				
Teaching system		1) Remote teaching 2) Numerical input (MDI)		1) Direct teaching 2) Remote teaching 3) Numerical input (MDI)		
External signals (I/O)	Standard I/O	Mini I/O	Input: 8 user open points + 11 fixed system points Output: 8 user open points + 12 fixed system points (Note: The global type of the controller cannot use system-fixed emergency-stop I/Os.)			
		Hand I/O	Input: 8 user open points + Output: 8 fixed system points			
	Safety I/O (only on global type)		Input: 6 fixed system points + Output: 5 fixed system points			
	Parallel I/O extension boards (option)	2 boards mounted	Input: 80 user open points + Output: 96 user open points (addition possible)			
		Single board mounted	Input: 40 user open points + Output: 48 user open points (addition possible)			
	DeviceNet board (option)	Master/Slave	Input: 1024 points (master) + 256 points (slave) Output: 1024 points (master) + 256 points (slave)			
		Master	Input: 1024 points Output: 1024 points			
		Slave	Input: 256 points Output: 256 points			
	CC-Link board (option)	Slave	Input: 128 points Output: 128 points			
	External communication		RS-232C: 1 line Ethernet: 1 line USB: 2 lines (supports flash memory)			
Extension slots		3 (for optional boards)				
Self-diagnosis function		Overrun, servo error, memory error, input error, etc.				
Timer function		0.02 to 10 sec. (in units of 1/60 sec.)				
Error display		Error codes output on external I/O Error messages displayed in English on Teach Pendant (option) Error codes displayed on Mini Pendant (option)				
Cables	Robot control cable (option)		Standard: 4 m, 6 m, 12 m (standard type/splashproof type)			
	I/O cable (option)		8 m, 15 m (for mini I/O, hand I/O, parallel I/O extension boards, safety I/O board)			
	Power cable		5 m			

Environmental conditions (in operation)		Temperature: 0 to 40°C Humidity: 90% RH or less (no condensation allowed)	
Power source	VM-G series	Three-phase, 200 VAC -15% to 230 VAC +10%, 50/60 Hz, 3.3 kVA	
	VS-G series	Three-phase, 200 VAC -15% to 230 VAC +10%, 50/60 Hz, 1.9 kVA Single-phase, 230 VAC -10% to 230 VAC +10%, 50/60 Hz, 1.9 kVA	
	VP-G series	200 VAC type	Three-phase, 200 VAC -15% to 230 VAC +10%, 50/60 Hz, 1 kVA Single-phase, 230 VAC -10% to 230 VAC +10%, 50/60 Hz, 1 kVA
		100 VAC type	Single-phase, 100 VAC -10% to 110 VAC +10%, 50/60 Hz, 1 kVA
	HM-G series	Three-phase, 200 VAC -15% to 230 VAC +10%, 50/60 Hz, 2.5 kVA Single-phase, 230 VAC -10% to 230 VAC +10%, 50/60 Hz, 2.5 kVA	
	HS-G series	Three-phase, 200 VAC -15% to 230 VAC +10%, 50/60 Hz, 1.8 kVA Single-phase, 230 VAC -10% to 230 VAC +10%, 50/60 Hz, 1.8 kVA	
Degree of protection		IP20	
Weight (Mass)		4-axis standard type: Approx. 17 kg 6-axis standard type: Approx. 18 kg 4-axis global type (w/ safety board): Approx. 18 kg 6-axis global type (w/ safety board): Approx. 19 kg 4-axis global type (w/ safety box): Approx. 21 kg 6-axis global type (w/ safety box): Approx. 22 kg	

**⚠ WARNING**

- **DO NOT touch fins. Their hot surfaces may cause severe burns.**
- **DO NOT insert fingers or foreign objects into openings. Doing so may cause bodily injury.**
- **Before opening the controller cover and accessing the inside of the controller for maintenance, be sure to turn off the power switch, disconnect the power cable, and wait 3 minutes or more. This is for protecting you from electric shock.**
- **DO NOT connect or disconnect connectors to/from the controller while the power switch is on. Doing so may cause electric shock or controller failure.**

**⚠ CAUTION IN INSTALLATION**

- **This controller is not designed to be dust-proof, splash-proof, or explosion-proof.**
- **Read operation manuals before installation.**
- **Do not place anything on the controller.**

**⚠ Caution:** The robot controller connectors are of a screw-lock type or ring-lock type. Lock the connectors securely. If even one of the connectors is not locked, weak contact may result thereby causing an error. Be sure to turn the robot controller OFF before connecting/ disconnecting the power connector or motor connector. Otherwise, the internal circuits of the robot controller may be damaged.

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## Outer Dimensions and Workable Space

