



> Main units

Models	Description
HCR2-24MT/R-A	14 input points, 10 output points, transistor/relay output
HCR2-40MT/R-A	24 input points, 16 output points, transistor/relay output
HCR2-60MT/R-A	36 input points, 24 output points, transistor/relay output

> Environment Specifications

Items	Specifications
Working temperature	0~55°C
Storage temperature	-25~70°C (No condensation)
Relative humidity	10%~95% (No condensation)
Working altitude	2000m Max.
Electromagnetic interference	EFT 2KV (Power cable, signal cable)
Vibration	5~8.4Hz, amplitude 3.5mm, 8.4~150Hz, Acceleration 9.8m/s ² , scan at a rate of one multiplication frequency per minute, ten times in each direction (X-, Y-, and Z-axis directions)
Impact (collision)	147m/s ² , three times in each direction (X-, Y-, and Z-axis directions)
Pollution level	Pollution degree 2
Protection level	IP20
Cooling method	Natural air cooling
Installation method	DIN rail mounting 35mm

> Power Specifications

Items	Specifications
Input voltage	AC 100~240V 50/60Hz
Max. input current	220V/320mA
Power efficiency	80%
Allowable instantaneous power-failure time	Continue to operate for instantaneous power failures below 10ms When the power supply voltage is 200VAC, it can be changed to 10~100ms by user program
Protection functions	Overload protection (110%~150% of rated output power); Protection mode: hiccup mode, Can restore automatically after the abnormal load condition is removed
Output voltage	External 24VDC power: 24V/0.8A
Power consumption	45W Max.
Output power right-extension modules	5V/2A 24V/0.8A
Number of right extension modules	Up to 8 (without extension power supply)

> Performance specifications

Items		Specifications	
Number of control axes		4 axes	
Pulse output form		Transistor	
Max. frequency		Pulse 200kHz	
Positioning	Pulse output mode		PULSE/SIGN mode
	Positioning range	Control unit	Motor Unit System
		Positioning range	-2147483648~+2147483647
	Speed instruction	Speed instruction unit	pps
		Base speed	0~200Kpps
		Max. speed	1pps~200Kpps
		Homing return speed	1pps~200Kpps
		Creeping speed	1pps~200Kpps
		Acceleration time	0~32767ms
		Deceleration time	0~32767ms
Acceleration/deceleration processing		Trapezoidal acceleration/deceleration	
Interpolation function		N/A	

> Input specifications

high-speed input		Specifications	
Input points		8点 (X000~X007)	
Input form		NPN/PNP	
Input voltage	All inputs	DC 24V±10%	
Input resistance	All inputs	2.7kΩ	
Input current	All inputs	8.5mA/DC 24V	
Input sensitivity current	On-current	All inputs	5.3mA以上
	OFF-current	All inputs	1mA以下
Input response frequency	All inputs	200kHz	
Input signal form	All inputs	NPN/PNP Open collector transistor	
Circuit isolation	All inputs	Digital isolation	
Input operation display	-	LED lit at power-ON	

Low-speed input		Specifications	
Input points		X010 or more	
Input form		NPN/PNP	
Input voltage	All inputs	DC 24V±10%	
Input resistance	All inputs	4.3kΩ	
Input current	All inputs	5.3mA/DC 24V	
Input sensitivity current	On-current	All inputs	2.13mA or more
	OFF-current	All inputs	1.8mA or less
Input response frequency	All inputs	5kHz	
Input signal form	All inputs	NPN/PNP Open collector transistor	
Circuit isolation	All inputs	Optocoupler isolation	
Input operation display	-	LED lit at power-ON	

> Output specifications

Items		Transistor output specifications	
Output points		10 points/16 points/24 points	
Output type		Transistor/NPN (PNP needs to be customized)	
External voltage		All outputs DC 5~30V	
Max. load	Resistive load	All outputs	0.5A/1点 Make sure that the total load current per common terminal should be the following: - 1 output point:0.5A - 4 output points:0.8A - 8 output points:1.6A
	Inductive load	All outputs	12W/DC 24V
Open circuit leakage current		All outputs	0.1mA or less /DC 30V
ON-voltage drop		All outputs	1.5V or less
Response time	OFF→ON	Y000~Y007	2.5μs or less/10mA or more(DC 5~24V)
		Y010 or more	0.2ms or less/200mA or more(DC 24V时)
	ON→OFF	Y000~Y007	2.5μs or less/10mA or more(DC 5~24V)
		Y010 or more	0.2ms or less/200mA or more(DC 24V时)
Circuit isolation		All outputs	Optocoupler isolation
Output operation display		-	LED lit when driving

Items		Relay output specifications	
Output points		10 points/16 points/24 points	
Output type		Relay	
External voltage		DC 30V or less AC 240V or less	
Max. load	2A/1 point Make sure that the total load current per common terminal should be the following: ·4 output points/common terminal:8A or less ·8 output points/common terminal:8A or less		
	-		
Open circuit leakage current		-	
Response time	OFF→ON	About 10ms	
	ON→OFF	About 10ms	
Circuit isolation	All outputs	Mechanical isolation	
Output operation display		LED lit when output is ON	

> Ethernet specifications

Items	Specifications
Interface type	RJ45 connector
Data transmission speed	100/10Mbps
Communication mode	Full/half-duplex
Max. transmission distance	100m
Supported protocol	Download monitoring protocol Modbus TCP/IP slave
Transmission medium	Cat.5E twisted pair cables

> RS485 specifications

Items	Specifications
Interface type	RS485
Data transmission speed	Max.115200bps
Communication mode	Half-duplex
Max. transmission distance	100m (At a specific baud rate)
Supported protocol	Modbus RTU master/slave station Download monitoring protocol Free communication protocol
Isolation status	Non-isolated
Terminating resistor	Not built-in

> RS232 specifications

Items	Specifications
Interface type	RS232
Data transmission speed	Max.115200bps
Communication mode	Full-duplex
Max. transmission distance	5m
Supported protocol	Download monitoring protocol Free communication protocol
Isolation status	Non-isolated

> RS422 specifications

Items	Specifications
Interface type	RS422
Data transmission speed	Max.115200bps
Communication mode	Full-duplex
Max. transmission distance	100m (At a specific baud rate)
Supported protocol	Download monitoring protocol Free communication protocol
Isolation status	Non-isolated