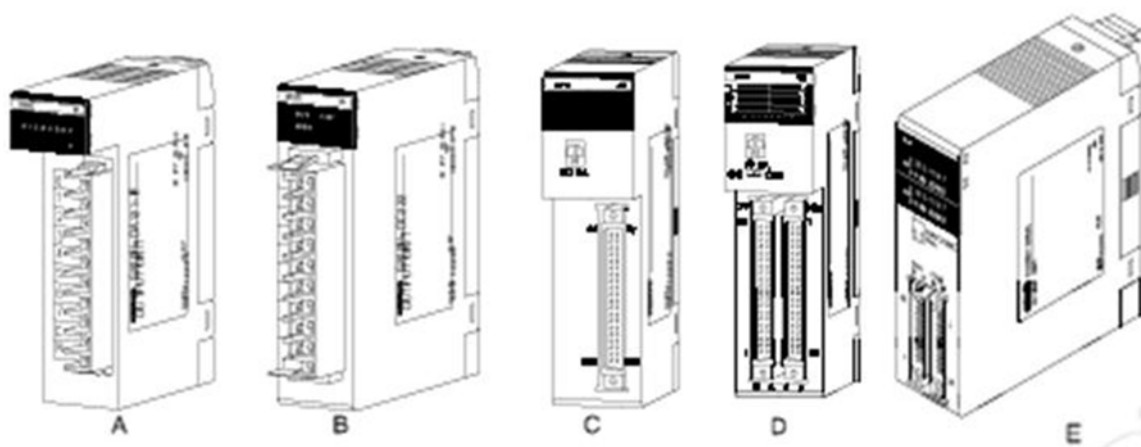


C200H-OD212

OMRON |

Can Ship ASAP | SYSMAC - System C200H
Discrete I/O Modules



Presented by - MRO Electric and Supply Company, Inc.

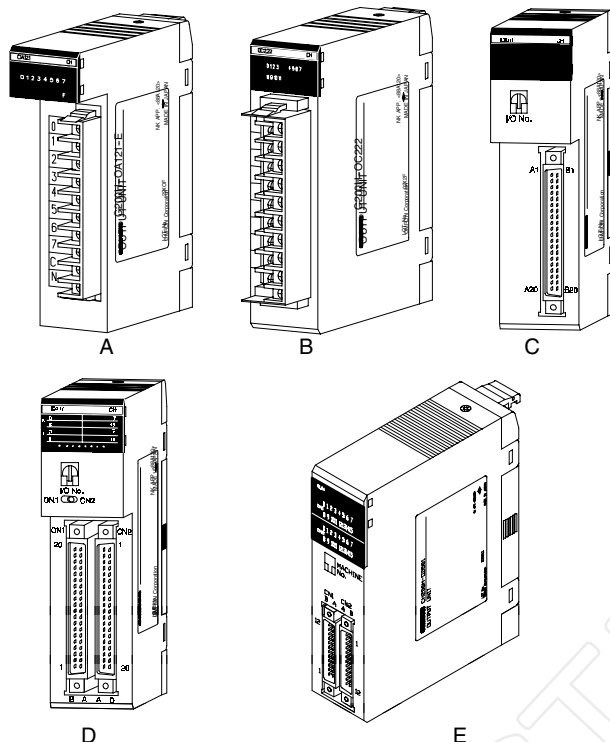
For Product Needs:

Email: sales@MROELECTRIC.COM

Call: 1-800-691-8511

Fax: 919-415-1614

<http://www.MROELECTRIC.com/>



General Information

Discrete I/O modules are available in a number of voltages, densities, terminal block, and connector types. Connector-style high-density I/O modules with 32 or 64 discrete I/O points per module have solder connectors included with the module.

Optional wiring methods are available using Omron's I/O blocks, screw terminal, crimp and ribbon connectors, and pre-terminated cables. These versatile high-density configuration options minimize rack space and wiring time. The Omron I/O Blocks provide single-point isolation and up to 5 A current capacity per point. Replaceable relays and solid-state plug-in modules allow easy maintenance.

There are five styles of discrete I/O modules in the C200H family. The profiles of each are shown here. Each module in the following pages is cross-referenced to the module style.

Modules include the appropriate connectors. Replacement connectors and terminal blocks for each style are shown here.

Style	Replacement Connector/Terminal
A	4571022-4, PTC-2103
B	4571023-2, PTC-219
C,D	C500-CE401 Solder, 40-pin C500-CE402 Crimp, 40-pin C500-CE403 Ribbon, 40-pin C500-CE404 Solder, right angle C500-CE405 Crimp, right angle
E	C500-CE241 Solder, 24-pin C500-CE242 Crimp, 24 pin C500-CE243 Ribbon, 24 pin

Specifications

Part number	C200H-ID001	C200H-ID002
Number of inputs (per common)	8 pts (8 pts/com, 1 circuit)	8 pts (8 pts/com, 1 circuit)
Input voltage	No-voltage contact/NPN output type (negative common)	No-voltage contact/NPN output type positive common)
Input current	7 mA, typical	7 mA, typical
Operating voltage		
ON	14.4 VDC min.	14.4 VDC min.
OFF	5.0 VDC max.	5.0 VDC max.
Input response time		
ON	1.5 ms max.	1.5 ms max.
OFF	1.5 ms max.	1.5 ms max.
Style/External connections	A/Removable terminal block	
Input device requirement	-	
Manual	C200H Installation Guide: W111	

Specifications

Part number	C200H-ID211	C200H-ID212
Number of inputs (per common)	8 pts (8 pts/com, 1 circuit)	16 pts (16 pts/com, 1 circuit)
Input voltage	12 to 24 VDC +10%/-15%	24 VDC +10%/-15%
Input current	10 mA, 24 VDC	7 mA, typical 24 VDC
Operating voltage		
ON	10.2 VDC min.	14.4 VDC min.
OFF	3.0 VDC max.	5.0 VDC max.
Input response time		
ON	1.5 ms max.	1.5 ms max.
OFF	1.5 ms max.	1.5 ms max.
Style/External connections	A/Removable terminal block	B/Removable terminal block
Input device requirement	Sinking (NPN) or sourcing (PNP)	Sinking (NPN) or sourcing (PNP)
Manual	C200H Installation Guide: W111	

Specifications

Part number	C200H-IA121	C200H-IA122
Number of inputs (per common)	8 pts (8 pts/com, 1 circuit)	16 pts (16 pts/com, 1 circuit)
Input voltage	100 to 120 VAC +10%/-15%	100 to 120 VAC +10%/-15%
Input current	10 mA, 100 VAC	10 mA, 200 VAC
Operating voltage		
ON	60 VAC min	60 VAC min
OFF	20 VAC max	20 VAC max
Input response time		
ON	35 ms max	35 ms max
OFF	55 ms max	55 ms max
Style/External connections	A/Removable terminal block	B/Removable terminal block
Manual	C200H Installation Guide: W111	

Specifications

Part number	C200H-IA221	C200H-IA222
Number of inputs (per common)	8 pts (8 pts/com, 1 circuit)	16 pts (16 pts/com, 1 circuit)
Input voltage	200 to 240 VAC +10%/-15%	200 to 240 VAC +10%/-15%
Input current	10 mA, 100 VAC	10 mA, 200 VAC
Operating voltage		
ON	120 VAC min	120 VAC min
OFF	40 VAC max	40 VAC max
Input response time		
ON	35 ms max	35 ms max
OFF	55 ms max	55 ms max
Style/External connections	A/Removable terminal block	B/Removable terminal block
Manual	C200H Installation Guide: W111	

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Specifications

Part number	C200H-IM211	C200H-IM212
Number of inputs (per common)	8 pts (8 pts/com, 1 circuit)	16 pts (16 pts/com, 1 circuit)
Input voltage	12 to 24 VAC/DC +10%/-15%	24 VAC/DC +10%/-15%
Input current	10 mA, 24 VAC/DC	7 mA, 24 VAC/DC
Operating voltage		
ON	10.2 VAC/DC	14.4 VAC/DC
OFF	3.0 VAC/DC	5.0 VAC/DC
Input response time		
ON	1.5 ms max.	1.5 ms max.
OFF	1.5 ms max.	1.5 ms max.
Style/External connections	A/Removable terminal block	B/Removable terminal block
Type of common	Bipolar common	Bipolar common
Manual	C200H Installation Guide: W111	

Specifications

Part number	C200H-OD211	C200H-OD212
Number of outputs (per common)	12 pts (12 pt/com, 1 circuit)	16 pts (16 pts/com, 1 circuit)
Max. load current	0.3 mA/pt, 2 A/module	0.3 mA/pt, 2 A/module
Rated load voltage	24 VDC $\pm 10\%$ /-15%	24 VDC $\pm 10\%$ /-15%
Min. switching capacity	Residual voltage: 1.4 V max.	Residual voltage: 1.4 V max.
Output response times		
ON	0.2 ms max.	0.2 ms max.
OFF	0.3 ms max.	0.3 ms max.
Style/External connections	B/Removable terminal block	B/Removable terminal block
Leakage current	0.1 mA max.	0.1 mA max.
Fuse	125 V, 5 A	125 V, 8 A
External power supply	24 VDC, 25 mA min.	24 VDC, 35 mA min.
Operation	Sinking (NPN)	Sinking (NPN)
Manual	C200H Installation Guide: W111	

Specifications

Part number	C200H-OD213	C200H-OD214
Number of outputs (per common)	8 pts (8 pts/com, 1 circuit)	8 pts (8 pts/com, 1 circuit)
Max. load current	2.1 A/pt, 5.2 A/module	0.8 A/pt, 2.4 A/module
Rated load voltage	24 VDC $\pm 10\%$ /-15%	24 VDC $\pm 10\%$ /-15%
Min. switching capacity	Residual voltage: 1.4 V max.	Residual voltage: 1.5 V max.
Output response times		
ON	0.2 ms max.	1 ms max.
OFF	0.3 ms max.	1 ms max.
Style/External connections	A/Removeable terminal block	A/Removeable terminal block
Leakage current	0.1 mA max.	0.1 mA max.
Fuse	125 V, 8 A	Short-circuit protection
External power supply	24 VDC, 30 mA min.	24 VDC, 150 mA min.
Operation	Sinking (NPN)	Sourcing (PNP)
Manual	C200H Installation Guide: W111	

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Specifications

Part number	C200H-OD216	C200H-OD217
Number of outputs (per common)	8 pts (8 pts/com, 1 circuit)	12 pts (12 pts/com, 1 circuit)
Max. load current	0.3 A/pt	0.3 A/pt
Rated load voltage	5 to 24 VDC, +10%/-15%	5 to 24 VDC, +10%/-15%
Min. switching capacity	10 mA, 5 VDC	10 mA, 5 VDC
Output response times		
ON	1.5 ms max.	1.5 ms max.
OFF	2 ms max.	2 ms max.
Style/External connections	A/Removeable terminal block	B/Removeable terminal block
Leakage current	0.1 mA max.	0.1 mA max.
Fuse	–	–
External power supply	–	–
Operation	Sourcing (PNP)	Sourcing (PNP)
Manual	C200H Installation Guide: W111	

Specifications

Part number	C200H-OD411
Number of outputs (per common)	8 pts (8 pts/com, 1 circuit)
Max. load current	1 A/pt, (3 A/module)
Rated load voltage	12 to 48 VDC, +10%/-15%
Min. switching capacity	Residual voltage: 1.4 V max.
Output response times	
ON	0.2 ms max.
OFF	0.3 ms max.
Style/External connections	A/Removeable terminal block
Leakage current	0.1 mA max.
Fuse	125 V, 5 A
External power supply	12 to 48 VDC, 30 mA min.
Operation	Sinking (NPN)
Manual	C200H Installation Guide: W111

Specifications

Part number	C200H-OA221	C200H-OA222
Number of outputs (per common)	8 pts (8 pts/com, 1 circuit)	12 pts (8 pts/com, 2 circuits)
Max. load current	1 A/pt, 4 A/module	.3 A/pt, 5 A/module
Rated load voltage	200 to 240 VAC	100 to 240 VAC
Min. switching capacity	Resistance load: 10 mA inductive load: 40 mA 10 VAC	Resistance load: 10 mA inductive load: 40 mA 10 VAC
Output response times		
ON	1 ms max.	1 ms max.
OFF	1/2 load frequency max.	1/2 load frequency max.
Style/External connections	A/Removeable terminal block	B/Removeable terminal block
Leakage current		
200 VAC	6 mA max.	6 mA max.
100 VAC	3 mA max.	3 mA max.
Fuse	250 V, 5 A	250 V, 3 A
External power supply	—	—
Manual	C200H Installation Guide: W111	

Specifications

Part number	C200H-OA121-E
Number of outputs (per common)	8 pts (8 pts/com, 1 circuit)
Max. load current	1 A/pt, 4 A/module
Rated load voltage	100 to 120 VAC
Min. switching capacity	Resistance load: 10 mA inductive load: 40 mA 10 VAC
Output response times	
ON	1 ms max.
OFF	1/2 load frequency max.
Style/External connections	A/Removeable terminal block
Leakage current	
200 VAC	3 mA max.
100 VAC	—
Fuse	125 V, 5 A
External power supply	—
Manual	C200H Installation Guide: W111

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Specifications

Part number	C200H-OC221	C200H-OC222
Number of outputs (per common)	8 pts (8 pts/com, 1 circuit)	12 pts (12 pt/com, 1 circuit), max. 8 ON simultaneously
Max. load current		
AC	2 A/pt. (p.f. = 1), 2 A/pt. (p.f. = 0.4)	2 A/pt. (p.f. = 1), 2 A/pt. (p.f. = 0.4)
DC	2 A/pt., 8 A/module	2 A/pt., 8 A/module
Rated load voltage	250 VAC, 24 VDC max.	250 VAC, 24 VDC max.
Min. switching capacity	10 mA, 5 VDC	10 mA, 5 VDC
Output response times		
ON	10 ms max.	10 ms max.
OFF	10 ms max.	10 ms max.
Style/External connections	A/Removeable terminal block	B/Removeable terminal block
External power supply	10 mA, 24 VDC/pt	10 mA, 24 VDC/pt
Manual	C200H Installation Guide: W111	

Specifications

Part number	C200H-OC223	C200H-OC224
Number of outputs (per common)	5 pts (1 pt/com, 5 circuits)	8 pts (1 pt/com, 8 circuits)
Max. load current		
AC	2 A/pt. (p.f. = 1), 2 A/pt. (p.f. = 0.4)	2 A/pt. (p.f. = 1), 2 A/pt. (p.f. = 0.4)
DC	2 A/pt., 8 A/module	2 A/pt., 8 A/module
Rated load voltage	250 VAC, 24 VDC max.	250 VAC, 24 VDC max.
Min. switching capacity	10 mA, 5 VDC	10 mA, 5 VDC
Output response times		
ON	10 ms max.	10 ms max.
OFF	10 ms max.	10 ms max.
Style/External connections	A/Removeable terminal block	A/Removeable terminal block
External power supply	10 mA, 24 VDC/pt	10 mA, 24 VDC/pt
Manual	C200H Installation Guide: W111	

Specifications

Part number	C200H-OC225
Number of outputs (per common)	16 pts (1 pt/com, 1 circuit), 8 ON simultaneously
Max. load current	
AC	2 A/pt. (p.f. = 1), 2 A/pt. (p.f. = 0.4)
DC	2 A/pt., 8 A/module
Rated load voltage	250 VAC, 24 VDC max.
Min. switching capacity	10 mA, 5 VDC
Output response times	
ON	10 ms max.
OFF	10 ms max.
Style/External connections	B/Removeable terminal block
External power supply	10 mA, 24 VDC/pt
Manual	C200H Installation Guide: W111

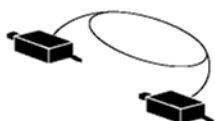
System Configuration

CPU Racks



8-slot Rack (Example)

C200H-CN 1



Connect with C200H-CN 1 I/O Connecting Cable

Connects the CPU Rack to one or more Expansion I/O Racks. Cables are available in 0.3, 0.7, 2, 5 and 10 m lengths.

Expansion I/O Racks



8-slot Rack (Example)

Up to two Expansion I/O Racks can be connected to each CPU Rack.

Slave Racks



8-slot Rack (Example)

One or more Slave Racks can be connected via optical or wire cable to a Remote I/O Master Module mounted on either a CPU or Expansion I/O Rack. Up to five Slave Racks can be connected per CPU Rack.

CPUs



C200HS-CPU31

CPUs with Communications

100/200 VAC:

C200HS-CPU31-E

24 VAC:

C200H-CPU31-E

C200HS-CPU33-E



C200HS-CPU21-E

Standard CPUs

100/200 VAC:

C200HS-CPU01/21-E

24 VAC:

C200H-CPU01/21-E

C200HS-CPU03/23-E

C200H-CPU03/23-E

CPU Memory

C200H

RAM

C200H-MR

EPROM

C200H-ME 1

EEPROM

C200H-ME 2

C200HS

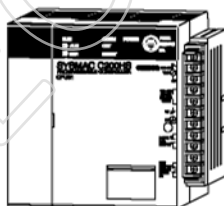
EPROM

C200HS-MP16K

EEPROM

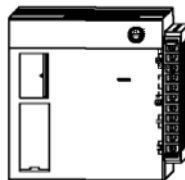
C200HS-ME16K

I/O Power Supplies



100/200 VAC: C200H-PS221
24 VAC: C200H-PS211

Remote I/O Slave Modules



100/200 VAC

Optical: C200H-RT001-P

Wired: C200H-RT201

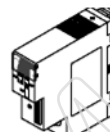
24 VAC

Optical: C200H-RT002-P

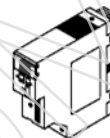
Wired: C200H-RT202

Communications Modules

SYSMAC Link Modules
C200HS-SLK12/22



SYSMAC Net Modules
C200HS-SNT32



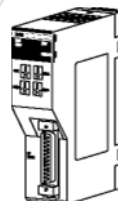
Link Modules

Host Link Modules

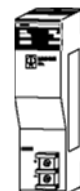
Optical: C200H-LK101-PV1

RS-422: C200H-LK202-V1

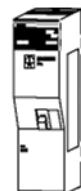
RS-232C: C200H-LK201-V1



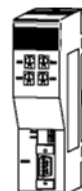
Remote I/O Master Modules PC Link Modules



C200H-RM201



C200H-RM001



C200H-LK401

Interrupt Input Module

The interrupt function of this Module is available only when it is mounted to the CPU Rack (see note). When mounted to an Expansion Rack, the Module can be used only as a Standard I/O Module.



C200HS-INT01

High-Density I/O Modules (Group-2 Modules)

Input Modules



32 points



64 points

C200H-I16

Output Modules



32 points



64 points

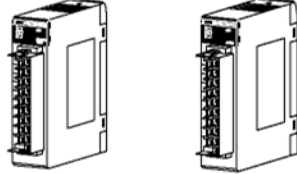
C200H-O16

Note: Only one Interrupt Input Module can be used with a CPU.

System Configuration

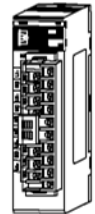
Special I/O Modules

Analog Input Modules Analog Output Modules



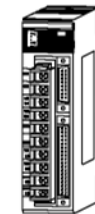
C200H-AD001/002 C200H-DA001

Temperature Sensor Modules



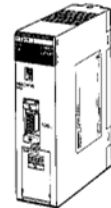
C200H-TS

Temperature Control Modules



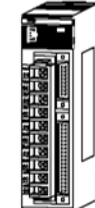
C200H-TC

Fuzzy Logic Module



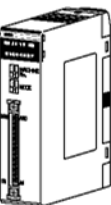
C200H-FZ001

PID Control Modules



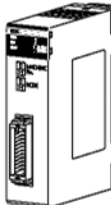
C200H-PID

High Speed Counter Modules



C200H-CT

Position Control Modules



C200H-NCL

Cam Position Modules



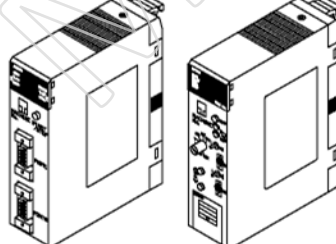
C200H-CP114

ID Sensor Module



C200H-IDS

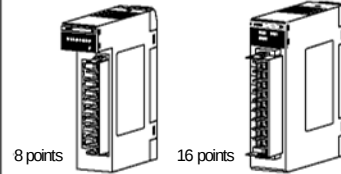
ASCII Module Voice Module



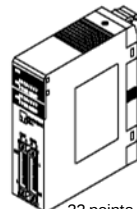
C200H-ASC02 C200H-OV001

I/O Modules

Input Modules (C200H-I)

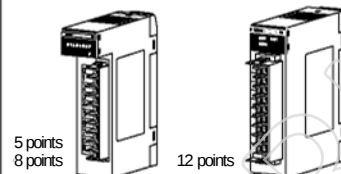


8 points 16 points
(AC, DC, AC/DC, transistor inputs)

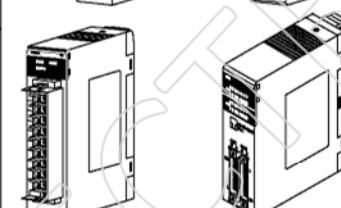


32 points
(Treated as Special I/O Module)

Output Modules (C200H-O)



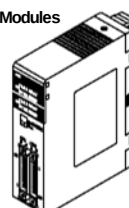
5 points 12 points



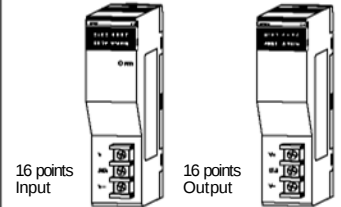
16 points 32 points
(Treated as Special I/O Module)

DC Input Transistor Output Modules

C200H-MD
(16 inputs and 16 outputs; treated as Special I/O Module.)

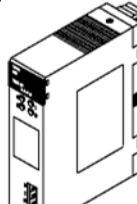


B7A Interface Modules



16 points Input 16 points Output
C200H-B7A1 C200H-B7A01

Analog Timer Module

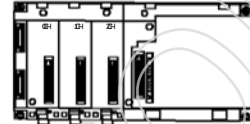


C200H-TM001

Backplanes

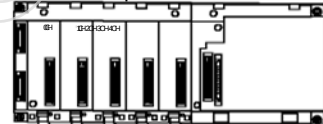
The same Backplanes are used for CPU, Expansion I/O, and Slave Packs.

3-slot Backplane



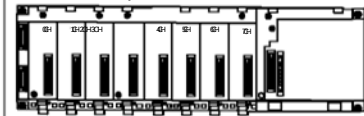
C200H-BC031-V2

5-slot Backplane



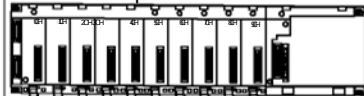
C200H-BC051-V2

8-slot Backplane



C200H-BC081-V2

10-slot Backplane



C200H-BC101-V2