HC10 Series IO Module
Installation and User Manual
# (HC10-L0808R/HC10-L1600/HC10-L0016R)

⚠️ **Warning**	• Be sure to check the terminal label carefully when wiring. • Avoid installation in places exposed to direct sunlight, moisture, or water. • Avoid installation in places with flammable and explosive gases and liquids. • Avoid installation in areas with oily dust, fibers and metal particles. • Use rails or M3 screws for installation.

Dimensions Size (mm)

Gross weight: 0.26kg
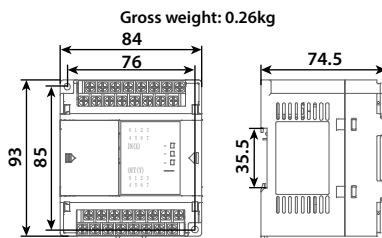
Structure Description
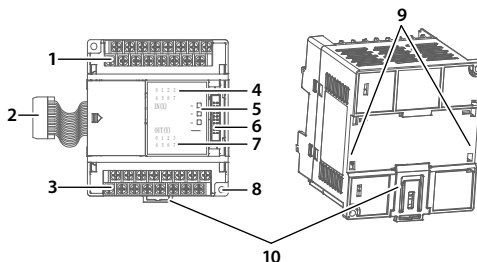
1/3	Input/output terminal	5	Power/run/fault indicator LED	9	DIN guideway groove
2	Extension cable	6	Expansion port	10	DIN rail fixing buckle
4/7	Input/output indicator	8	Mounting hole (M3)		

Terminal Description

HC10-L0808R

| X0 ~ X7, S/S | Digital input |
| Y0 ~ Y3, COM0 Y4 ~ Y7, COM1 | Relay output |

	X0	X2	X4	X6	·	·	·	·
S/S	X1	X3	X5	X7	·	·	·	

	Y1	Y3	COM1	Y5	Y7	·	·	·
Y0	Y2	COM0	Y4	Y6	·	·	·	

HC10-L1600

| X0 ~ X7, S/S X10 ~ X17, S/S | Digital input |

	X0	X2	X4	X6	·	·	·	·
S/S	X1	X3	X5	X7	·	·	·	

	X11	X13	X15	X17	·	·	·	·
X10	X12	X14	X16	·	·	·	·	

HC10-L0016R

| Y0 ~ Y3, COM0 Y4 ~ Y7, COM1 Y10 ~ Y13, COM2 Y14 ~ Y17, COM3 | Relay output |

Y0	Y2	COM0	Y4	Y6	·	·	·
·	Y1	Y3	COM1	Y5	Y7	·	·

Y11	Y13	COM3	Y15	Y17	·	·	·
Y10	Y12	COM2	Y14	Y16	·	·	·

Product Specifications

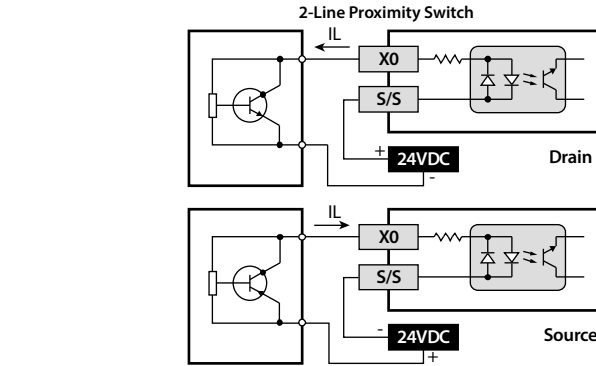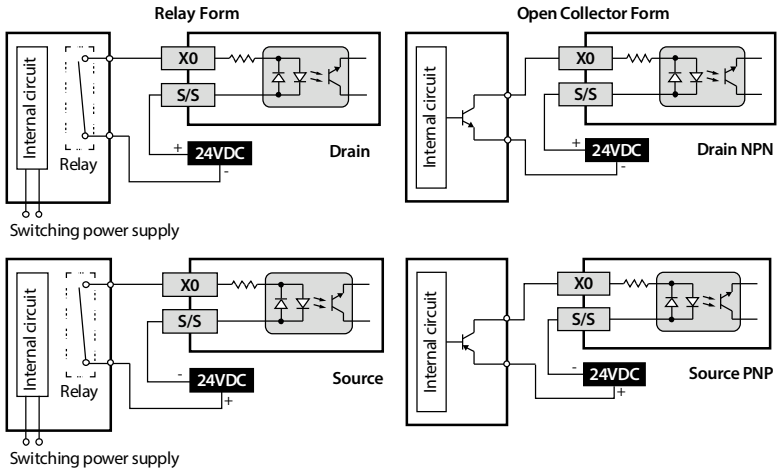| General Specifications	
Environmental temperature	Run: -10 ~ +55℃; Storage: -40 ~ +70℃
Relative humidity	<95%, no condensation
Altitude	Run: <2000m; Storage: 0 ~ 3000m (not less than 70kPa)
Pollution level	Pollution level 2

Digital Input Specification (HC10-L0808R/-L1600)	
Points	Digital input
Connection	Barrier terminal block (end point distance: 7.62mm)
Action display	LED light goes on with system's operation, LED light goes out when system is shut-down
Common	S/S
Signal form	Contact input or source (drain) mode
Circuit insulation	Photoelectrical coupling insulation
Voltage range	15 ~ 30VDC
Current	ON: >3.5mA (>15V); OFF: <1.2mA (<5V)
Resistance	4.7kΩ
Hardware filtering time	About 200us

Digital Output Specification (HC10-L0808R/-L0016R)		
Points	Relay output	
Connection	Barrier terminal block (end point distance: 7.62mm)	
Action display	LED light goes on with system's operation, LED light goes out when system is shut-down	
Common	Every four groups of one common, group and group isolated	
Circuit insulation	Mechanical insulation	
Response time	/	
External voltage	250VAC, below 30VDC	
Max. load	Resistive	3A/1 point (5A/COM)
	Inductive	80VAC
	Light bulb	2W (DC)/100W (AC)

Instructions

1. The IO module wiring is as follows.
   - Digital input wiring

Relay Form

Drain

Switching power supply

Open Collector Form

Drain NPN

Source

Switching power supply

Source PNP

2-Line Proximity Switch

IL

Drain

IL

Source

   - Digital input wiring

Fuse 5~10A

Load

< AC 250V
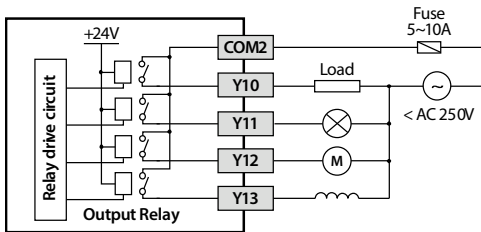
Note:
In order to prevent the load from short-circuiting and other blows to burn out the output unit, please select the fuse for each load.

2. Connect the expansion module. Connect up to 8 through the expansion cable.

3. Power on, the expansion module will be identified automatically.
   - According to the distance from the main module, the expansion modules are automatically numbered as 0,1,2,3,4,5,6,7.
   - D8265 ~ D8279 can view module type, HC10-L0808R module type is 0x10, HC10-L1600 module type is 0x11, HC10-L0016R module type is 0x12.

HC10-L0808R (0x10)/HC10-L1600 (0x11)/HC10-L0016R (0x12)								
Number	1st	2nd	3rd	4th	5th	6th	7th	8th
Auto Number	0	1	2	3	4	5	6	7
Mapped Address	D8265	D8267	D8269	D8271	D8273	D8275	D8277	D8279

4. Module address mapping and usage.

Module Data Address	Data Content	Read/Write
0	Module type (0x10/0x11/0x12)	Read only
1	Software version (V100)	Read only
2 ~ 4	Reserved	/
5[1]	X terminal status (X0 ~ X7, X10 ~ X17)	Read only
6	Reserved	/
7[2]	Y terminal status (Y0 ~ Y7, Y10 ~ Y17)	Read only
8	Reserved	/
9	X terminal filter time	Read&write

1): The status of the X terminal will be automatically synchronized to the X register mapping area of the main module (automatically arranged in order according to the module number from small to large, and each module is arranged according to the octal integer group), without automatically reading through command.

2): The Y terminal status is automatically synchronized to the Y register mapping area of the main module, and only need to change the value of the Y module mapping area of the main module to control the output of the corresponding expansion module.

   - Read the input data through FROM command (FROM S1 S2 S3 S4).
     - S1: Module number.
     - S2: Module data read starting address.
     - S3: Read data and store in register. When reading multiple data, store them in successive data registers from this address in sequence.
     - S4: Read data length.
   - Write the output data through TO command and select the type of output current and voltage (TO S1 S2 S3 S4).
     - S1: Module number.
     - S2: Module data write start address.
     - S3: Write data. When writing multiple data, write them in successive data registers from this address.
     - S4: Write data length.