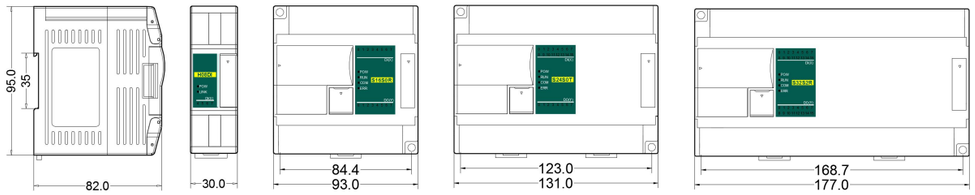
Haiwell User's Manual of DI/O Extension Module

1.Product Model List

Type with ethernet	24VDC power supply	Type with ethernet	220VAC power supply	Type	24VDC power supply	Type	220VAC power supply	Dimension
				H08DI	0.3 VA			30×95×82mm
				H08DOR	1.9 VA			
				H08DOT	1.4 VA			
				H08XDR	1.1 VA			
				H08XDT	0.9 VA			
				H16DI	0.6 VA			
				H16DOR	3.7 VA			70×95×82mm
				H16DOT	2.5 VA			
				H16XDR	2 VA			
				H16XDT	1.6 VA			
H24DI-e	1.1VA	H24DI2-e	1.6 VA	H24DI	0.6 VA	H24DI2	1.0 VA	93×95×82mm
H24XDR-e	3.6VA	H24XDR2-e	4.1VA	H24XDR	3 VA	H24XDR2	3.5VA	
H24XDT-e	2.7VA	H24XDT2-e	3.1VA	H24XDT	2.1 VA	H24XDT2	2.5VA	
H40DI-e	1.4VA	H40DI2-e	2.1 VA	H40DI	0.8 VA	H40DI2	1.5 VA	131×95×82mm
H36DOR-e	8.1VA	H36DOR2-e	8.6VA	H36DOR	7.5 VA	H36DOR2	8.0 VA	
H36DOT-e	5.3VA	H36DOT2-e	5.6 VA	H36DOT	4.7 VA	H36DOT2	5.0 VA	
H40XDR-e	4.1VA	H40XDR2-e	4.6VA	H40XDR	3.5 VA	H40XDR2	4.0 VA	
H40XDT-e	3.7VA	H40XDT2-e	4.1VA	H40XDT	3.1 VA	H40XDT2	3.5 VA	
H64XDR-e	7.6VA	H64XDR2-e	8.1 VA	H64XDR	7 VA	H64XDR2	7.5 VA	177×95×82mm
H64XDT-e	5.3VA	H64XDT2-e	5.6VA	H64XDT	4.7 VA	H64XDT2	5.0 VA	



2. Indicator Description

①POW:power indicator .green,constant light -Power normal;Not light - Power error.

②LINK:many state indicator .three colors(Red. Yellow. Green),as follow:

Consult manage	Module bus state	LINK the state of the indicator
Normal	Module no communication	Not light
	MPU identification the module but have not communication	Green constant light
	Serial or parallel communicating	Green flicker:indicator light 30ms not light 30ms
parallel power supply not enough,must connect to external power supply	Without serial or parallel communicate	Yellow flicker:indicator light 0.5s not light0.5s
	With serial or parallel communicate	Yellow dark and shake alternately:indicator not light 0.5s shark 0.5s
Upgrade the fireware fail,reupgrade the fireware of the module	Without serial or parallel communicate	Red flicker:indicator light 0.5s not light 0.5s
	With serial or parallel communicate	Red dark and shake alternately:indicator not dark 0.5s shark 0.5s
Maintain	Without serial or parallel communicate	Red constant light
	With serial or parallel communicate	Red shark quickly:indicator light 30ms not light 30ms

3.Power Supply Specification

Item	DC Power Supply	AC Power Supply
Power Supply Voltage	DC24V -15%~+20%	100~240VAC
Power Supply Frequency	——	50~60Hz
Instantaneous Surge	MAX 20A 1.5ms @24VDC	20A 1.5ms MAX @220VAC
Power Loss Time	10ms or less	20ms or less @220VAC
Fuse	0.3A，250VAC	2A, 250VAC
24V Output Voltage (for output and extension)	None	24V, -15%~+15%, 300mA MAX
Insulation Type	No Electrical isolation	Transformer isolation or optoelectronic isolation,1500VAC/1 minute
Power Protection	DC input power polarity reverse, over voltage	DC24V output over current

4. Environmental specifications for Product

Item	Environment Specification
Temperature/Humidity	Operating temperature:0~+55℃ Storage temperature:-25~+70℃ Humidity: 5~95%RH, No condensation
Vibration Resistance	10~57 HZ, amplitude=0.075mm, 57HZ~150HZ acceleration=1G, 10 times each for X-axis, Y-axis and Z-axis
Impact Resistance	15G, duration=11ms, 6 times each for X-axis, Y-axis and Z-axis
Interference Immunity	DC EFT:±2500V Surge:±1000V
Over Voltage Resistance	1500VAC/1min between AC terminal and PE terminal, 500VAC/1min between DC terminal and PE terminal
Insulation Impedance	≧5MΩbetween AC terminal and all input/output points to PE terminal @500VDC
Operating environment	Avoid dust, moisture, corrosion, electric shock and external shocks

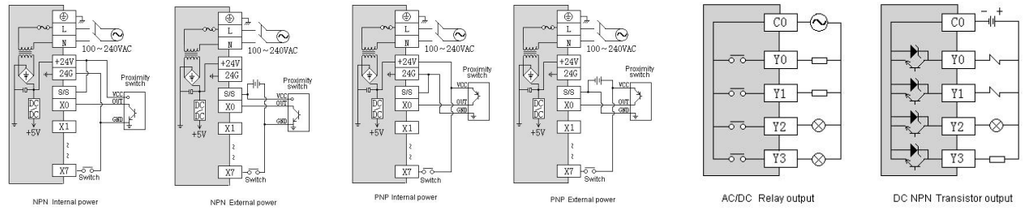
5.Digital Input (DI)Specification

Item	Digital Input (DI)
Input Signal	No voltage contact or NPN/PNP
Action driving	ON>3.5mA OFF<1.5mA
Input Impedance	Input Impedance≈4.3KΩ
Maximum Input Current	10mA
Reaction Time	6.4ms DEFAULT, can be configured to 0.8~51.2ms
Insulation Type	Optoelectronic isolation for each channel
Input Indication	LED's lighting indicates ON, no light indicates OFF
Power supply	MPU internal power supply:DC power supply (SINK or SOURCE) 5.3mA@24VDC

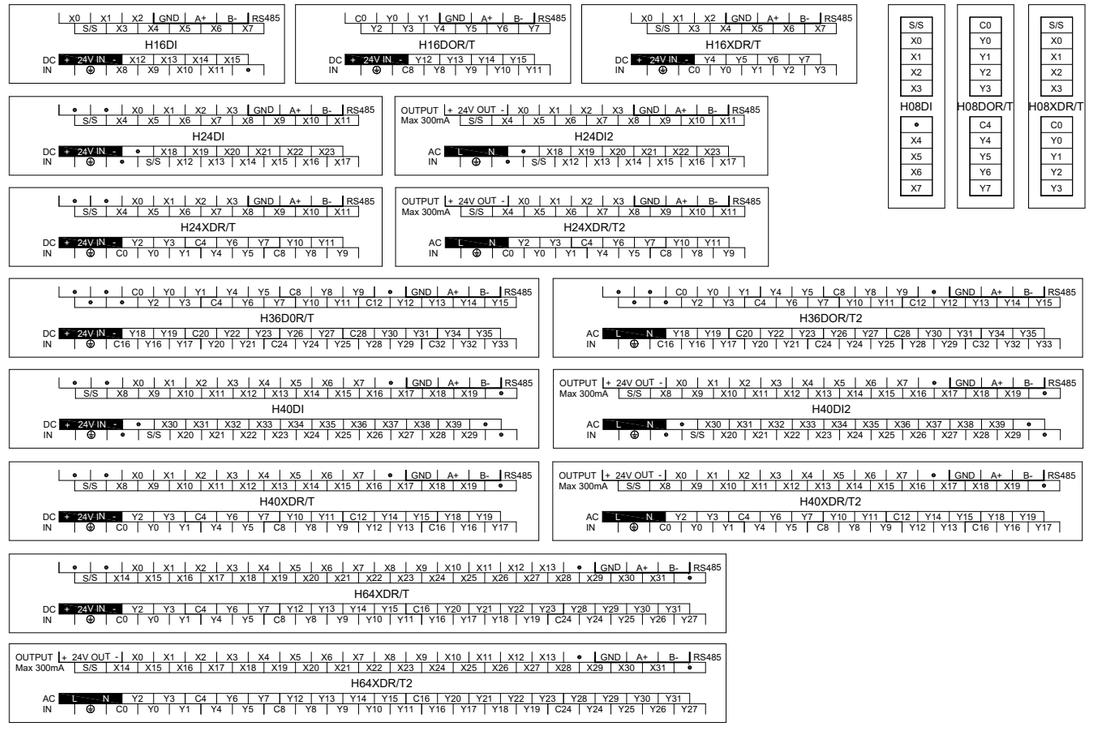
6.Digital Input/Output (DI/DO) Wiring

Item		Output point type : Relay - R	Output point type :Transistor - T
Maximum load	Resistive Load	2A/1 point, 8A/4 points COM	0.5A/1 point, 2A/4 points COM
	Inductive Load	50VA	5W/DC24V
	Lamp load	100W	12W/DC24V
Minimum Load		10mA	2mA
Voltage Specification		Below 250VAC, 30VDC	30VDC
Drive Capability		Maximum contact capacity: 5A/250VAC	1A MAX, 10 seconds
Reaction Time		Off→On 10ms, On→off 5ms	Off→On 10us, On→Off 120us
Insulation Type		Mechanical isolation	Optoelectronic isolation for each channel
Output Indication		LED's lighting indicates ON, no light indicates OFF	
Power Supply		MPU internal 24VDC power supply	

7.Digital Input/Output (DI/DO) Wiring



8. Terminal Wiring Diagra



10.Mounting and installation

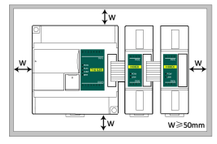
The PLC should be secured to an enclosed cabinet while mounting. For heat dissipation, make sure to provide a minimum clearance of 50mm between the unit and all sides of the cabinet. (See the figure.)

Rail Mounting: Use standard 35 mm rail.

Screw Mounting: Each MPU or extension module has two positioning screw holes, the diameter of the hole is 4.5mm. Please refer to the dimension figure for the location of the positioning holes and their spacing.

To avoid over temperature and for a better heat dissipation, do not mount PLC to a position near to the bottom/top of the cabinet. Do not mount PLC in vertical direction.

Extension Module Wiring: Connections between extension modules and connections between module and MPU are achieved through bus.A extension cable will be configured to every extension module, for the connection between two different modules.Connection methods: turn the right side of extended interface(the last MPU or extension module) over, plug the extension cable in the extended interface, then press down the cover of the extended interface to reset the interface, the extended interface at the right side of the module will be reserved for extension of the next module. Connect all extension modules in turn in the same way.



11.Adress Setting

Modules with ethernet port, default IP address 192.168.0.111. Hardware DIP switch address range 1-15, default address 1. If you need to set bigger range of address, you can set it in the "remote module--tool--menu" of the PLC software after online, and then download the program to the plc,software address range 16-254(hardware address is prior to software address).

Thanks for choosing Haiwell PLC, If you have any questions about our products or services, please let us know!

Haiwell website：http://www.haiwell.com http://www.haiwell.cn