Automation for a Changing World

Delta Programmable Logic Controller *AH500* Series

www.delta.com.tw/ia

DELTA

Smarter. Greener. Together.

AH - Automation System for High-level Applications

The new generation AH Series PLC provides automation solutions for high-level applications. The combination of modularized hardware structure, advanced functions, and the highly integrated software provides a system solution for process control applications. In addition to various function blocks, excellent price/performance, and an abundant selection of extension modules, the AH Series PLC also provides exceptional system expandability, greatly reducing the system cost for a broad range of applications.

AH500 Series

< Highly integrated software ISPSoft: graphical interface with 5 programming languages

< Enhanced flexibility: max. 100m between 2 local extension racks

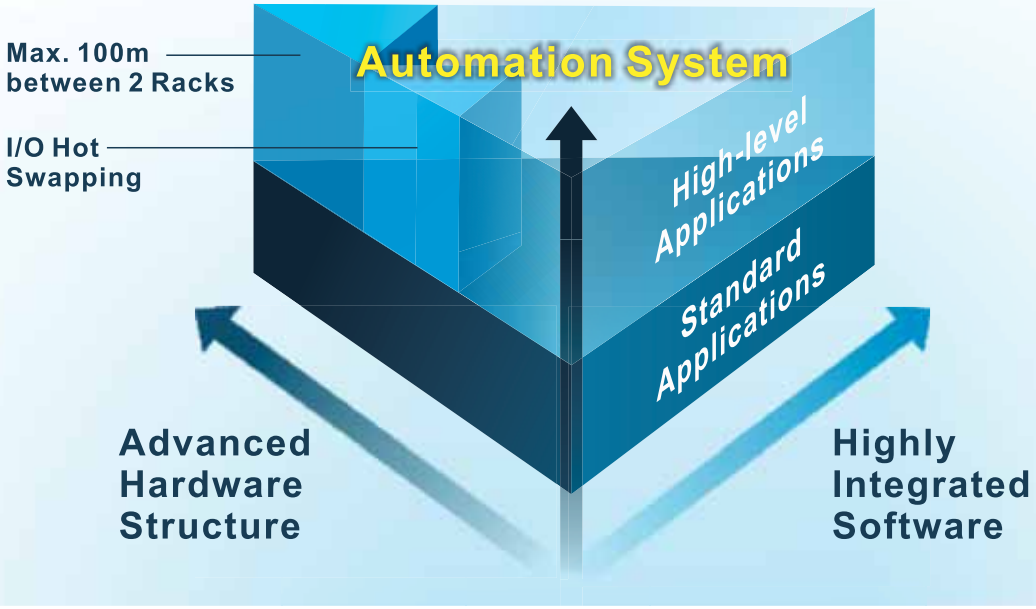
< Hot-swapping function keeps the system running for improved maintainability

< Reliable operations of the supported modules in severe conditions

< Operating condition: -20~60℃ / 5~95% (No condensation)
< Storage condition: -40~70℃ / 5~95% (No condensation)

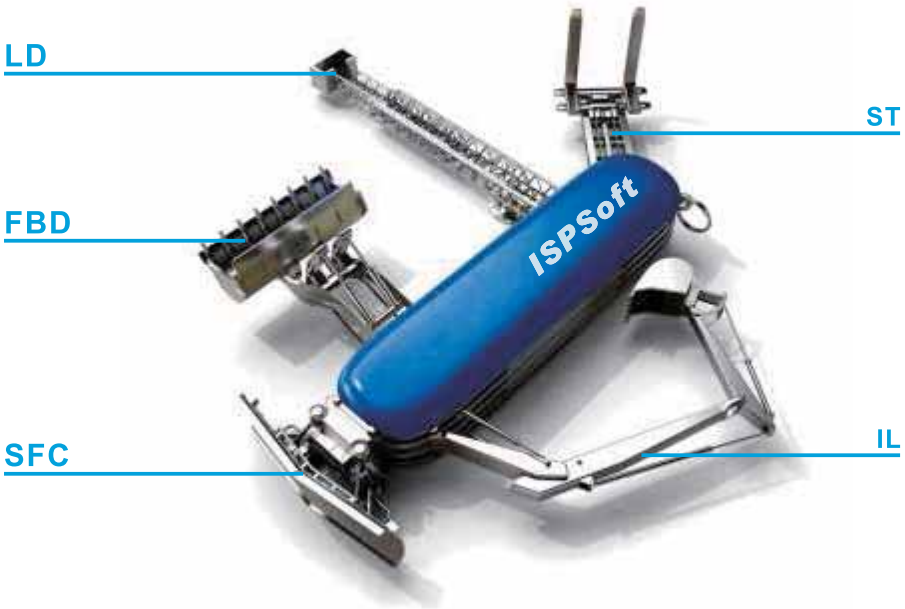
- Utilizes a dual-core multi-tasking processor
  Max. I/O points:
  DIO: Max. 4,352 points
  AIO: Max. 544 channels
  RIO: Max. 125,440 digital points / 3,920 analog channels
- Program capacity: Max 256K steps
  Data register: 64K words
- Excellent program execution speed: 0.3ms / 1K steps
- CPU built-in with fully isolated RS-232/422/485, Mini-USB, Ethernet, SD Card 1.0
- Abundant selection of DIO modules, AIO modules, temperature measurement modules, network modules, pulse-train modules and DMCNET motion control modules.

AH500 Series PLC – Automation System with Fully Integrated Hardware and Software Interfaces



Highly Integrated Software – Excellent Accessibility

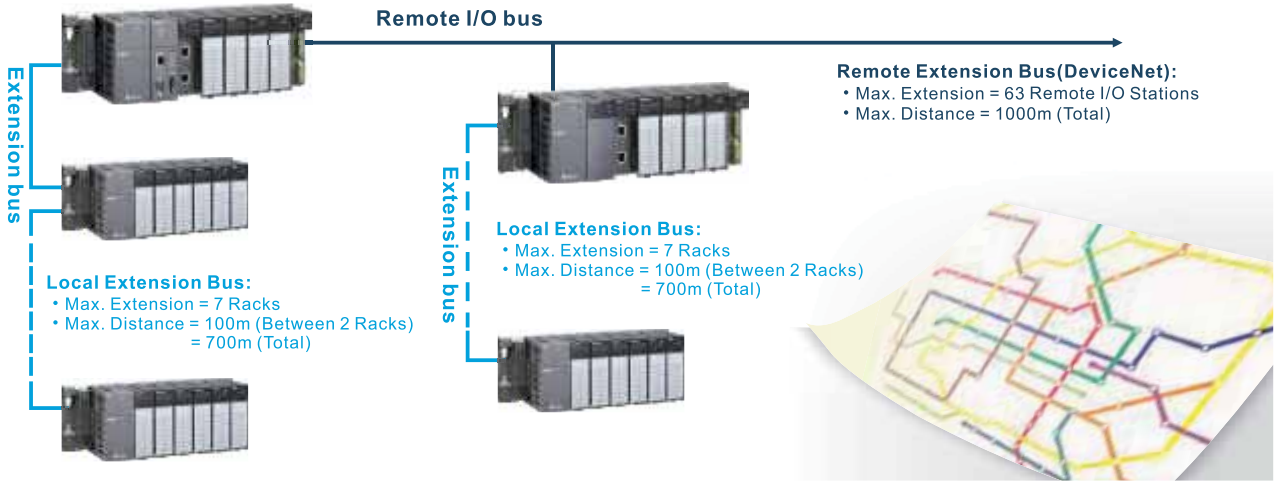
AH500 series PLCs adopt the highly accessible programming software ISPSoft, integrating the main functions including control process programming, hardware configuration, network configuration, and providing a graphical interface for these functions. In addition, users of ISPSoft can choose their most efficient programming tools from the 5 supported languages: Ladder Diagram (LD), Function Block Diagram (FBD), Sequential Function Chart (SFC), Instruction List (IL) and Structured Text (ST).



Enhanced Flexibility – Extends the System Freely

The length of extension cables between each AH500 local extension rack can reach a maximum of 100m, greatly enhancing wiring flexibility. In addition, the AH500 provides modularized backplanes and modules applicable for not only CPU racks but also for remote I/O racks. This feature improves the flexibility of system planning and reduces the additional cost that might be generated by preparing two different types of spare backplanes and modules.

System Extension Structure



Improved Maintainability – Keeps the System Running

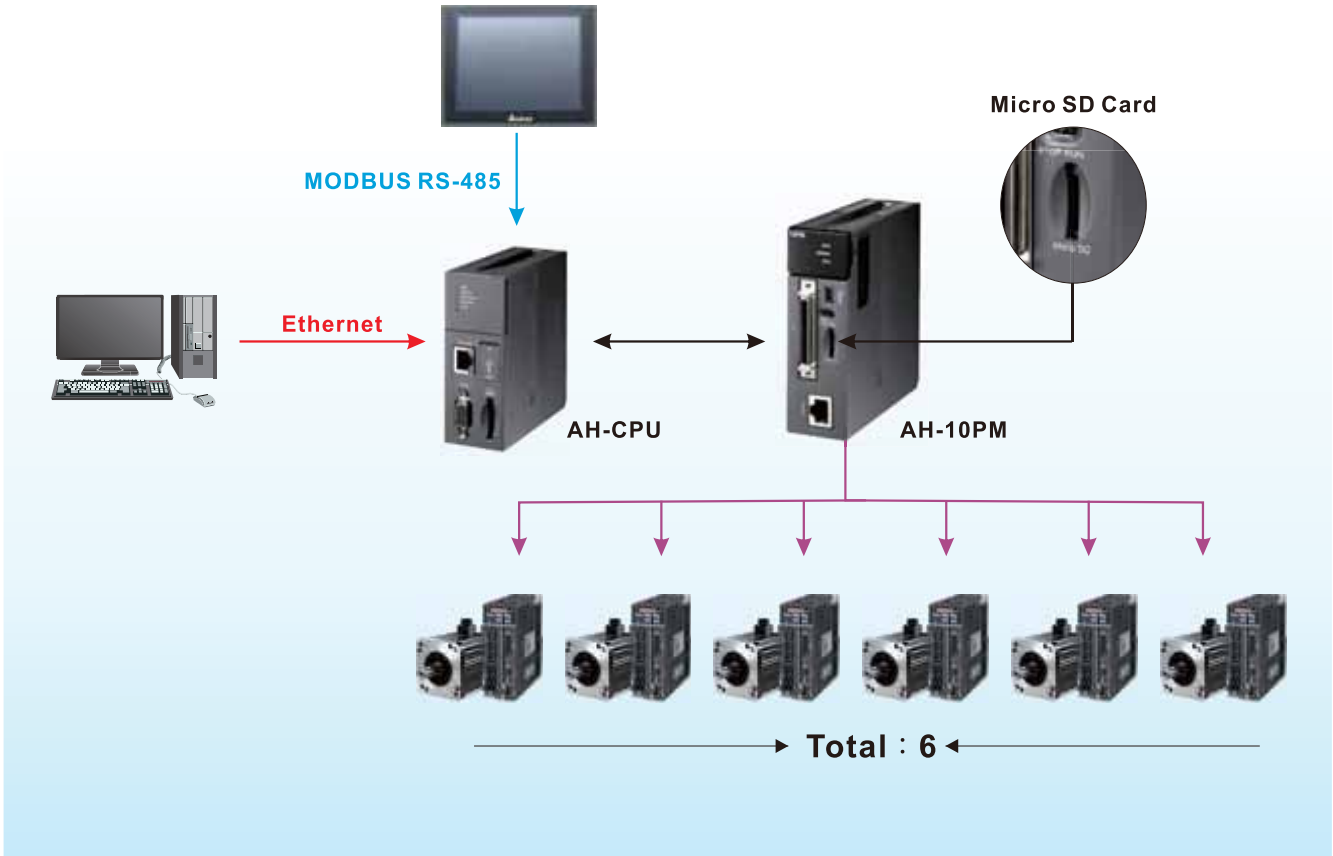
The hot-swap function provided for AIO and DIO modules increases maintainability when I/O modules fail. The user can replace modules without stopping the operation of the CPU module, preventing a possible loss due to a pause in the system's operation.

Motion Control Platform for Convenient Multi-axes Applications

Pulse train motion control module AH05PM/AH10PM

- **AH05PM/AH10PM is designed to perform independent operations. It features a built-in CPU for programming and execution that greatly improves control efficiency.**
- **Execution speed: LD instruction @0.13us**
- **Capacity: 64K steps**
- **Data register: D=10K words / W=64K words**
- **Motion Control Functions**
  - > Controllable Axis: 2 axes (AH05PM) / 6 axes (AH10PM)
  - > Supports UD/PD/AB/4AB modes and 1M Hz output
  - > Supports MPG inputs/E-CAM/G-code/2~6 axes linear interpolation/ 2 axes arc interpolation/3 axes helical interpolation (AH10PM)

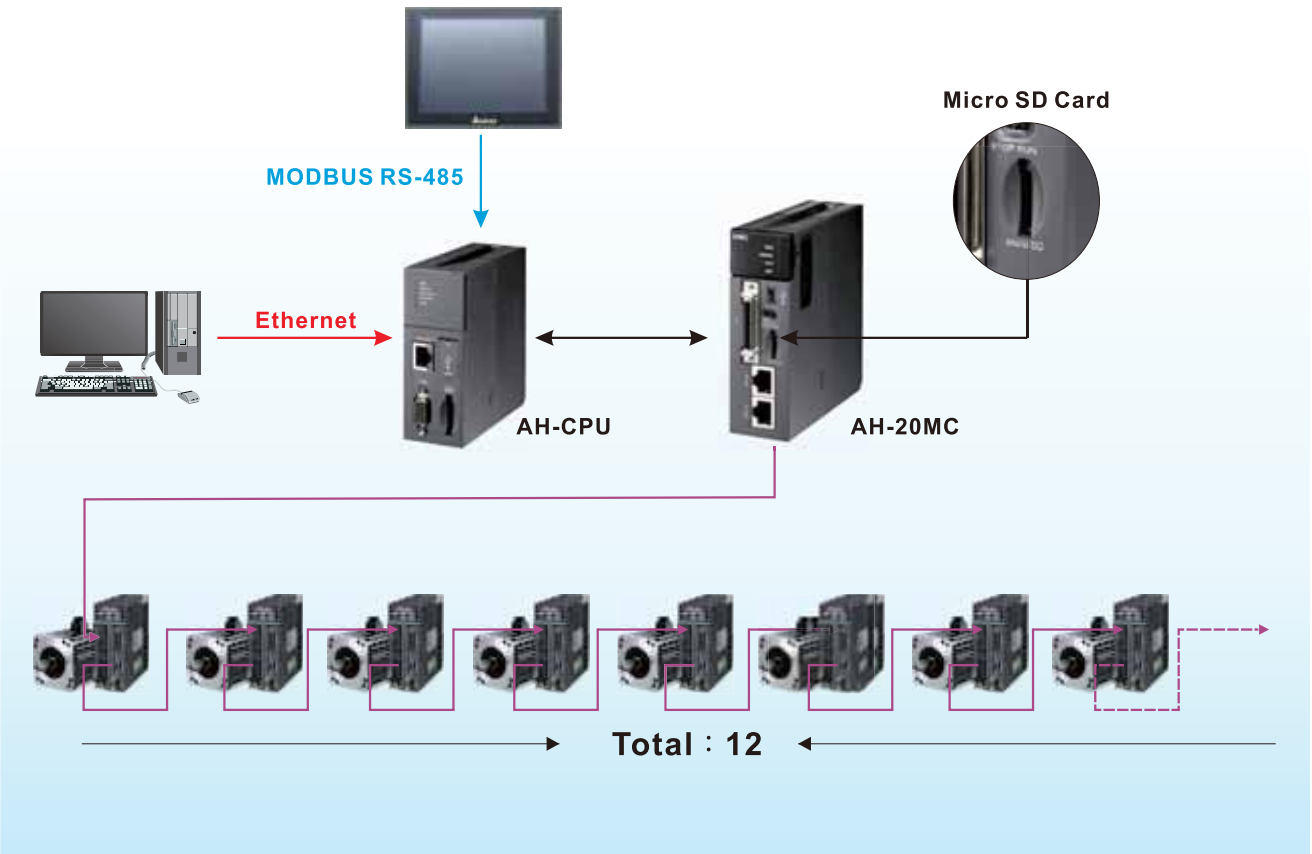
System Control Structure



DMCNET communication motion control module AH20MC

- **AH20MC is designed to perform independent operations. It features a built-in CPU for programming and execution that greatly improves control efficiency.**
- **Execution speed: LD instruction @0.13us**
- **Capacity: 64K steps**
- **Data register: D=10K words / W=64K words**
- **Motion Control Functions**
  - > Controllable Axis: 12 axes
  - > Synchronous time: 12 axes @1ms
  - > Supports MPG inputs/E-CAM/G-code/2~6 axes linear interpolation/ 2 axes arc interpolation/3 axes helical interpolation

System Control Structure

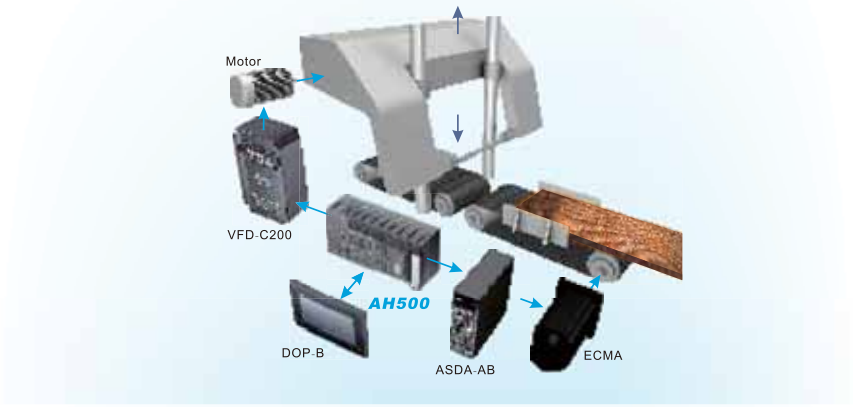


Application Examples

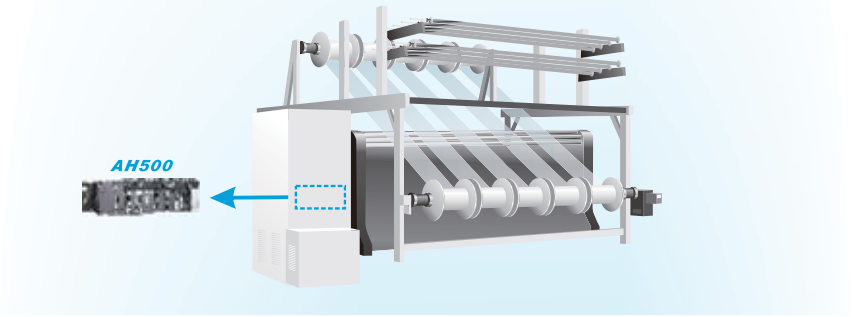
Large Scale Industrial Machines

The features of the AH500 can easily fulfill the system requirements of large scale industrial machines. By utilizing its unique local extension capability with versatile combinations of I/O modules, the AH500 can simplify the complex remote I/O system structure in large scale industrial machines with a local I/O system consisting of a single CPU rack and local extension racks, maintaining a high execution speed and lowering the wiring cost.

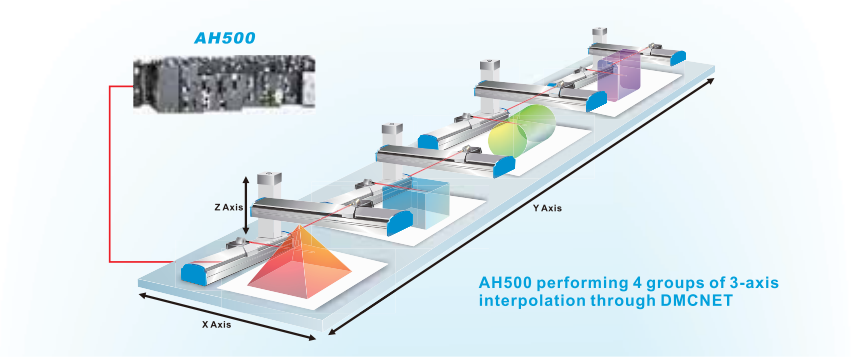
Building Material Processor



Warp Knitting Machine



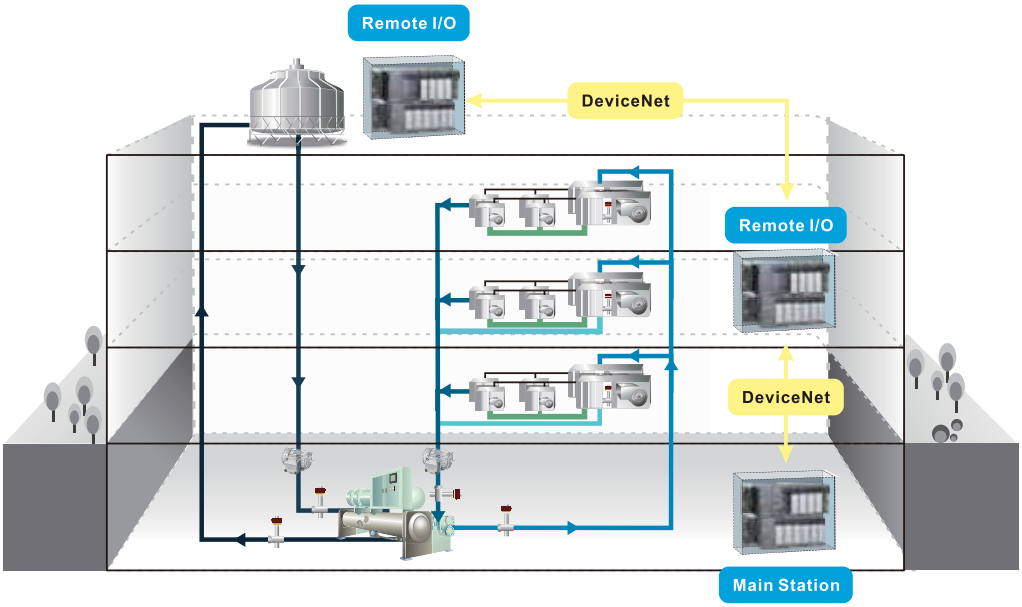
AH500 also supports excellent motion control functions including 3-axis linear interpolation, 2-axis arc interpolation, and 3-axis helical interpolation. In addition, the AH500 is capable of controlling up to 12 axes or 4 groups of 3-axis interpolation synchronously through Delta's high speed motion control network DMCNET.



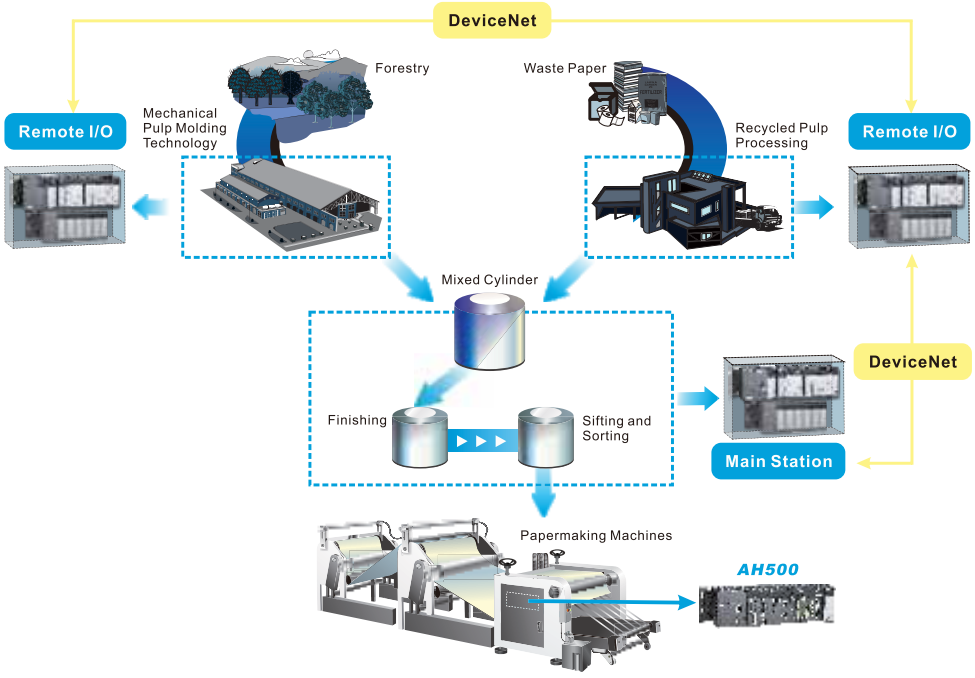
System Applications

AH500 is a modular system controller designed for almost all kinds of high-level automation tasks. The abundant selection of I/O modules and the flexible system structure provide best solutions for all types of system integration requirements. Through the remote I/O expandability, you can build up the AH500 main station as a central control system and allocate the remote I/O systems on different floors for HVAC applications, or in different processing stations for the paper-making industry. AH500 can not only fulfill the application requirements of industrial machines or devices, but it can also provide total solutions for automation systems.

HVAC

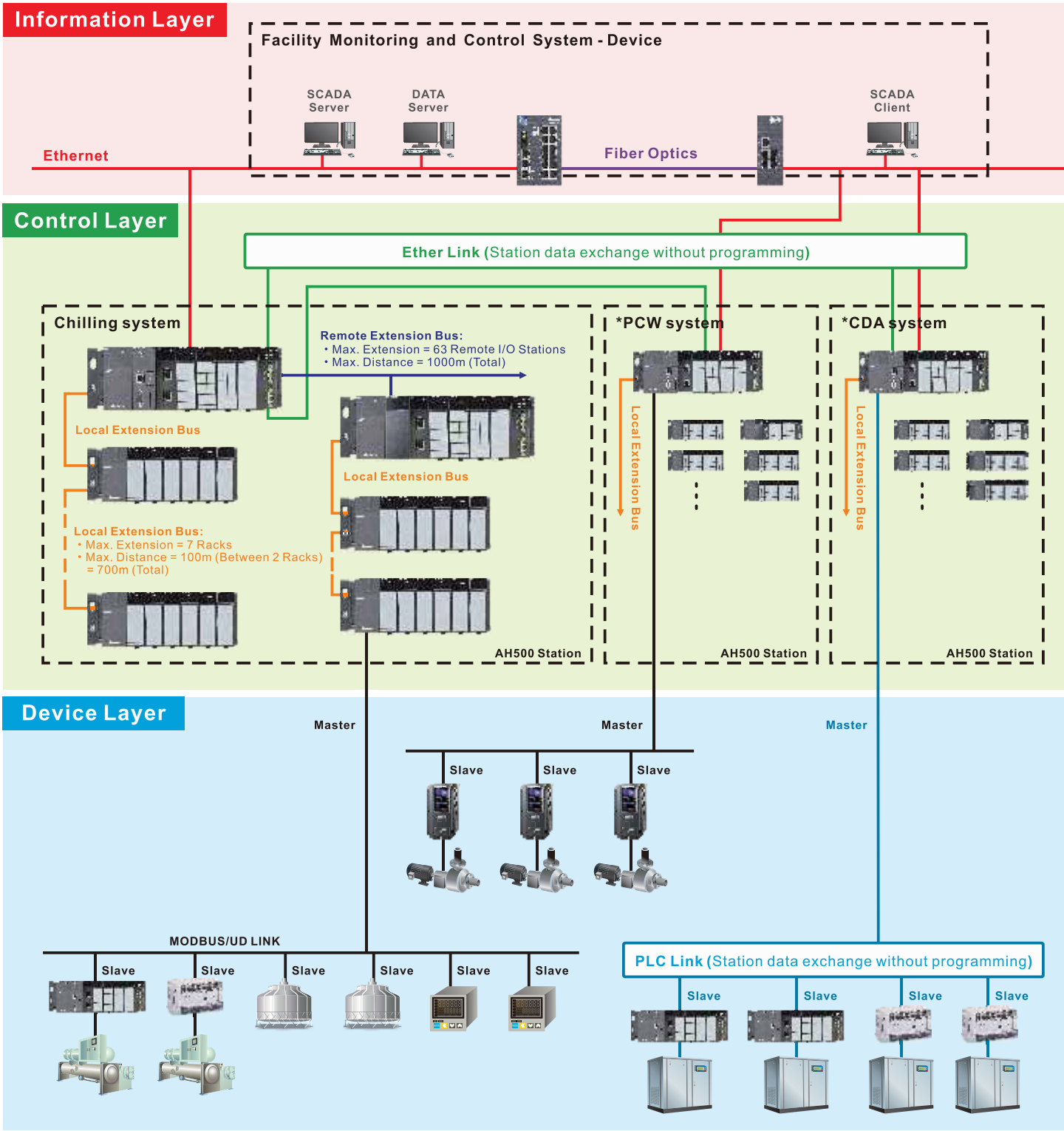


Papermaking Industries



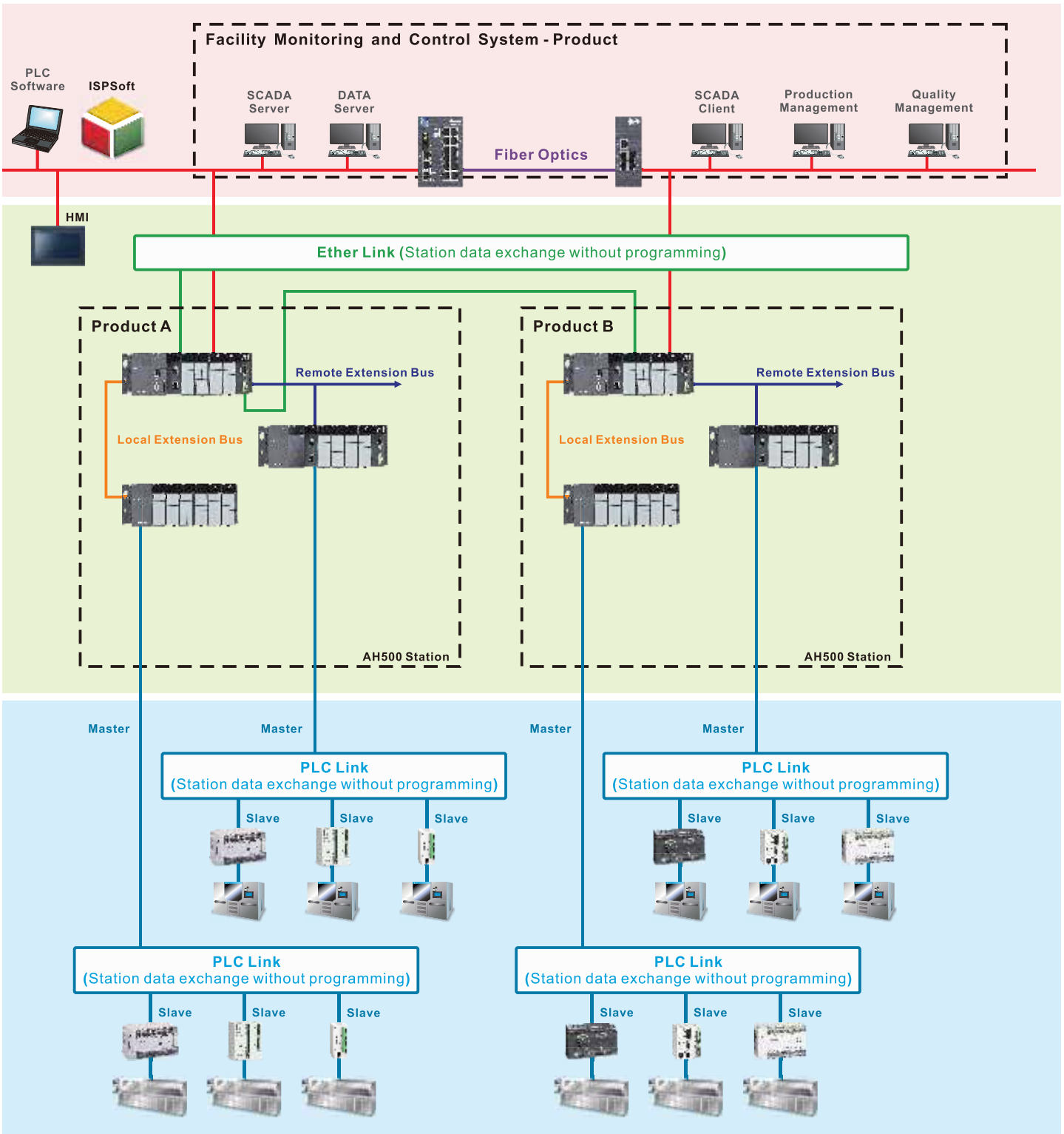
AH500 System Structure – Facility Monitoring and Control System

The system configuration of the AH500 can be well demonstrated by the Facility Monitoring and Control System (FMCS). AH500 in the control layer connects multiple facility systems and product processing systems and performs data exchange without programming through Delta's convenient PLC Link and Ether Link. PLC Link can be applied for data exchange between masters and slaves, and Ether Link can be applied for data exchange between AH500 master stations. The smart communication feature can save you the time spent in programming.



*【Note】 PCW system: Process Cooling Water System ; CDA system: Clean Dry Air System

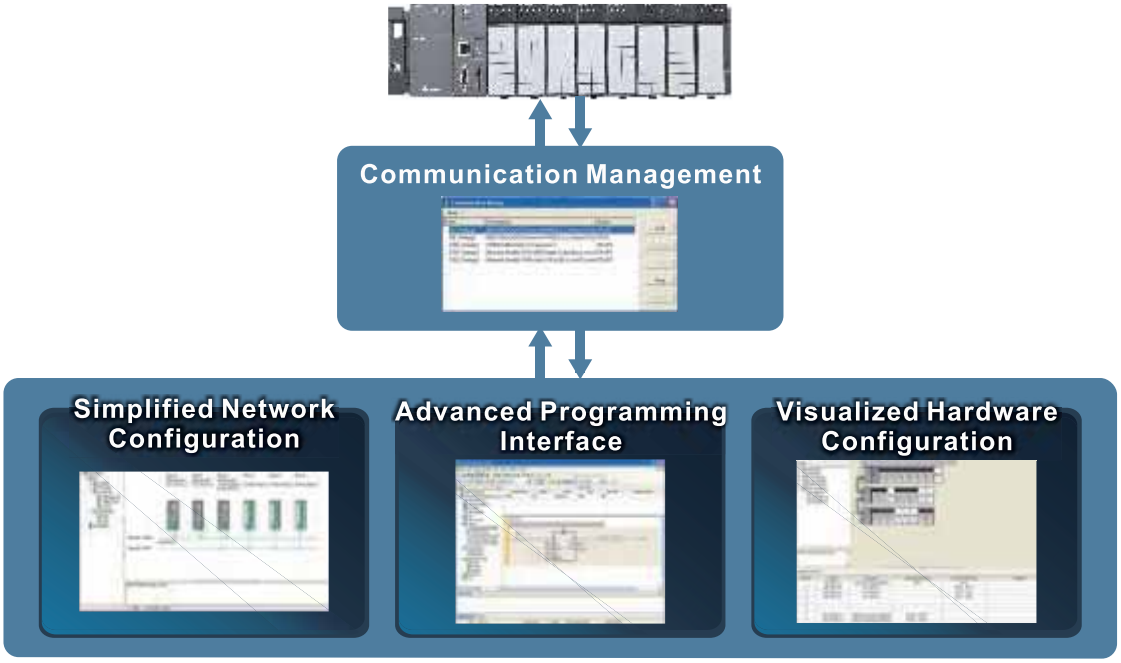
In addition to AH500 PLCs, Delta's industrial automation solution includes human machine interfaces (HMI),
DVS series industrial Ethernet switches, DVP series PLCs, AC motor drives, AC servo drives and temperature controllers.
You can always find the best solution for your industry from our product lines across device layer, control layer and information layer.



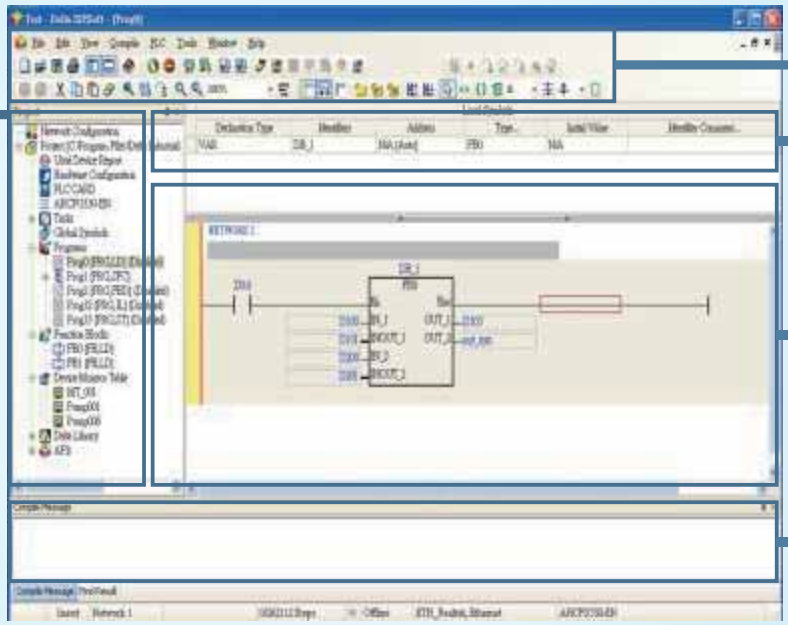
ISPSoft V2.0
Highly Accessible Programming Software

Fully Integrated Interface:

Advanced Programming Interface + Visualized Hardware Configuration + Simplified Network Configuration



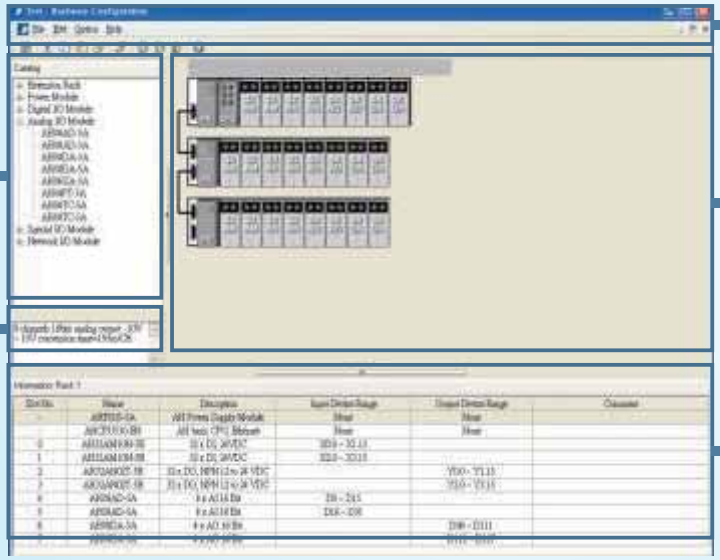
Advanced Programming Interface



Project Management Window

- New functions: Network Configuration, Hardware Configuration and PLC Card.
- Supports 5 programming languages (LD/FBD/SFC/IL/ST) in both main program and FB.
- Function Blocks: Symbols can be introduced in call-by-value or call-by-reference types. Function blocks can be called in function block for up to 32 levels.
- Monitor Table: Monitor tables can be stored and managed separately. Multiple monitor tables can be stored in a single project.
- Delta Library: Users can design frequently used instructions for specific applications in different industries.
- Task: Supports external interrupts and timer interrupts.

Visualized Hardware Configuration



Module Selection

Module Description

Toolbar

- System hardware configuration can be monitored in On-Line mode
- Hardware configuration can be displayed by Scan function

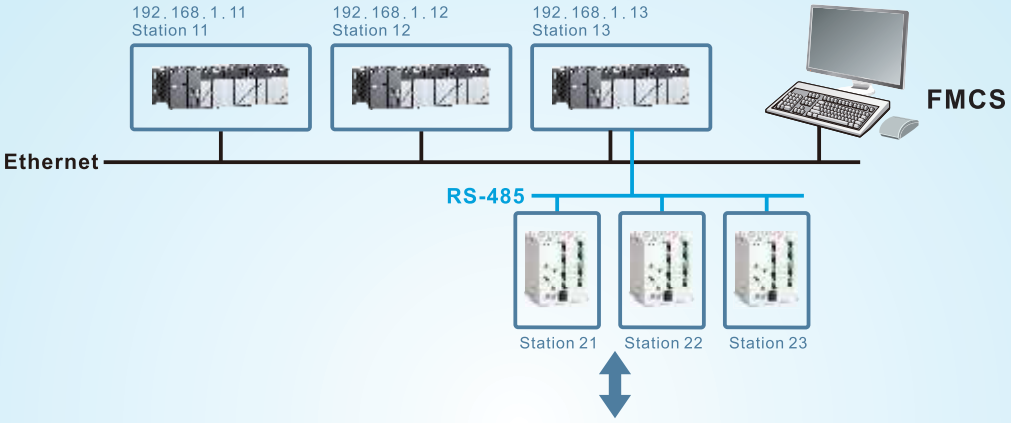
Hardware Configuration Area

- Operations of Cut/Copy/Paste/Delete are available for modules and racks
- Parameters of each module can be directly configured

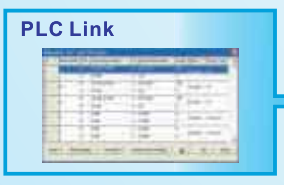
Rack Information

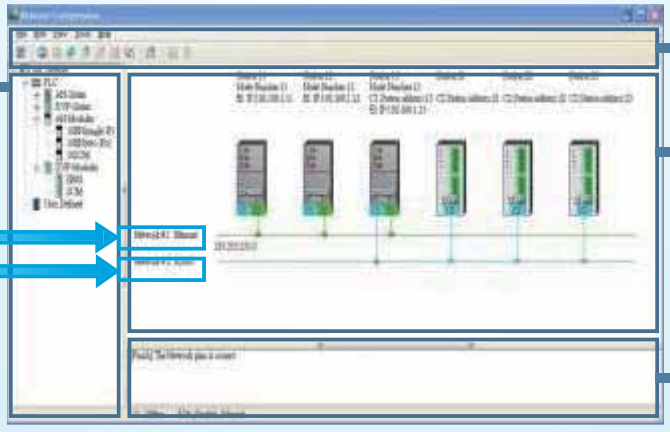
- I/O device range can be specified by the user

Simplified Network Configuration



Network Device Selection





Toolbar

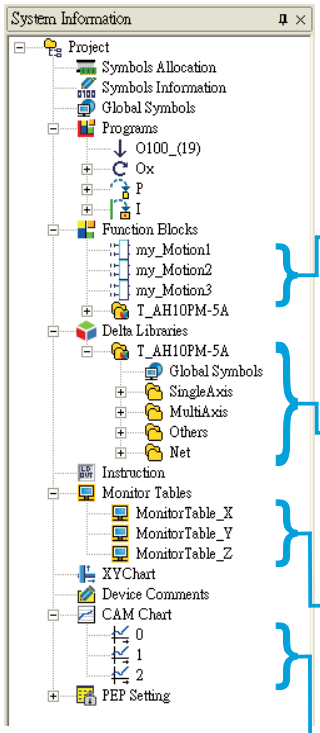
Network Configuration Area

- Master device settings
- Ether Link editing function
- PLC Link editing function

Network Information

PMSoft V2.0

This programming software is for G-code editing, motion trajectory simulation, positioning route instruction and electronic cam establishment.



Variable Declaration

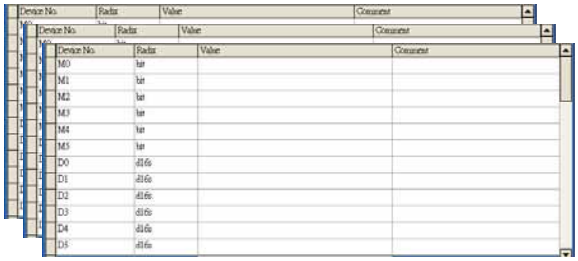
Separate from the program. The corresponding physical I/O point of the variable is defined only after the program is compiled. The user does not need to modify the program.

Function Block

A complicated project can be divided into many function blocks. A function block can be used repeatedly. The import/export function makes the programming more convenient.

Function Block for Motion Control

Provides function block features specifically for motion control, making programming more convenient



Convenient Monitoring Table Management

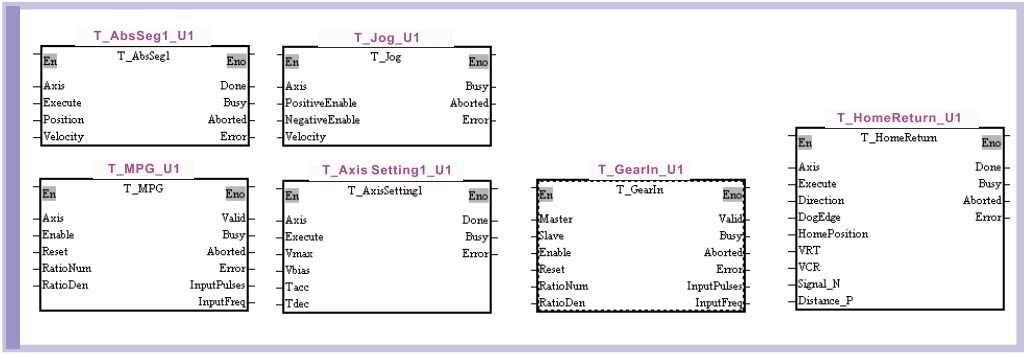
Users can save and manage monitoring table independently according to their needs.

Electronic Cam

Electronic cam edition

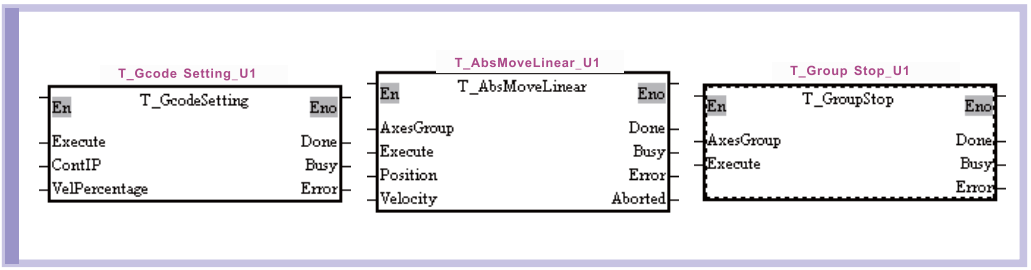
Single axis motion control

1. T_AbsSeg1_U1
2. T_Jog_U1
3. T_MPG_U1
4. T_Axis Setting1_U1
5. T_GearIn_U1
6. T_HomeReturn_U1



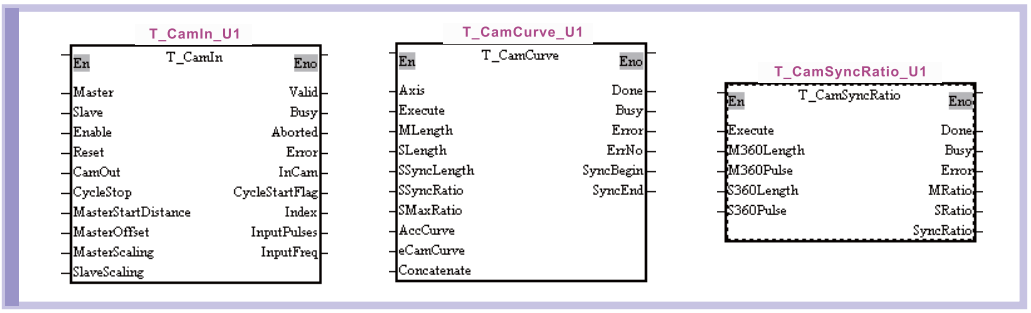
Multi-axis motion control

1. T_Gcode Setting_U1
2. T_AbsMoveLinear_U1
3. T_Group Stop_U1



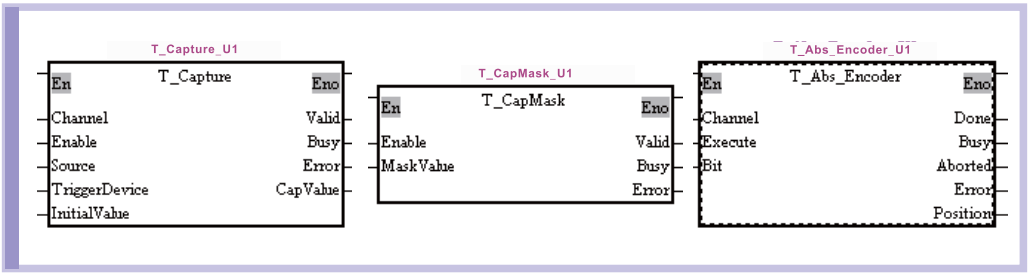
E-CAM motion control

1. T_CamIn_U1
2. T_CamCurve_U1
3. T_CamSyncRatio_U1



Other motion control

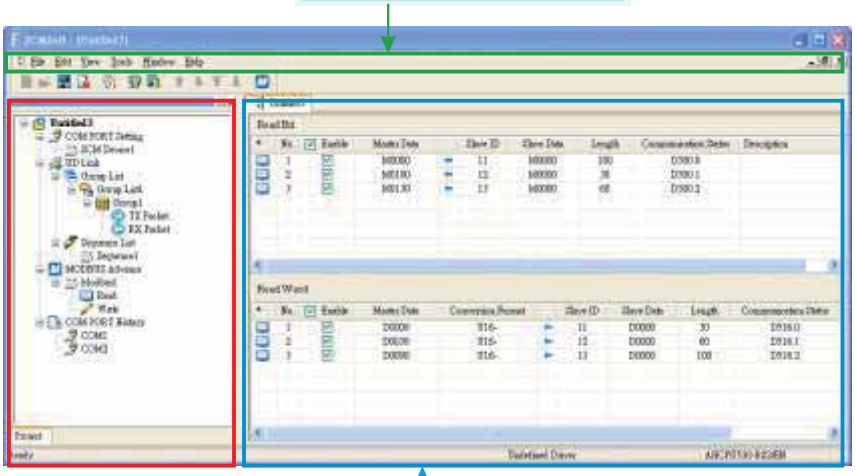
1. T_Capture_U1
2. T_CapMask_U1
3. T_Abs_Encoder_U1



SCMSoft V1.0 Communication Editing Software

Provides SCM module with automatic data exchange setup function

Toolbar
- Upload/Download setup files
- Supports wizards



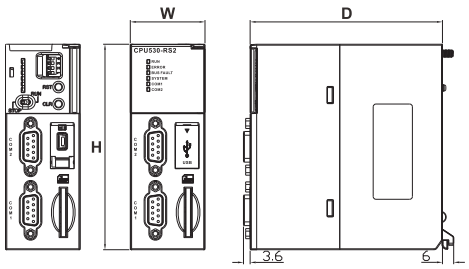
Project Management Interface
- Supports user defined protocol (UD Link)
- Supports MODBUS protocol
- Supports data monitoring for communication ports

Editing Area
- Data exchange setup
- Status display

Dimensions Unit : mm

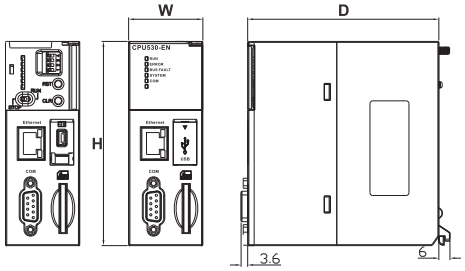
CPU Modules

Model name	H	W	D
AHCPU500-RS2	110	40	103
AHCPU510-RS2	110	40	103
AHCPU520-RS2	110	40	103
AHCPU530-RS2	110	40	103



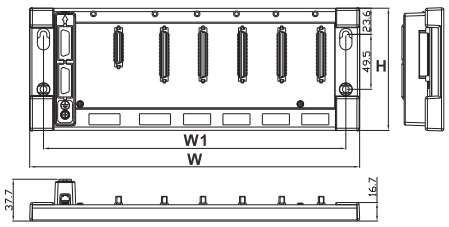
CPU Modules

Model name	H	W	D
AHCPU500-EN	110	40	103
AHCPU510-EN	110	40	103
AHCPU520-EN	110	40	103
AHCPU530-EN	110	40	103



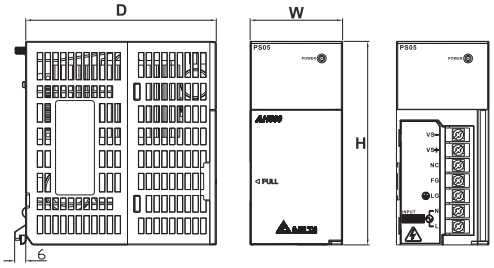
Backplanes

Model name	H	W	W1
AHBP04M1-5A	110	298	272.5
AHBP06M1-5A	110	369	343.5
AHBP08M1-5A	110	440	414.5
AHBP12M1-5A	110	582	556.5
AHBP06E1-5A	110	328	303
AHBP08E1-5A	110	399	374



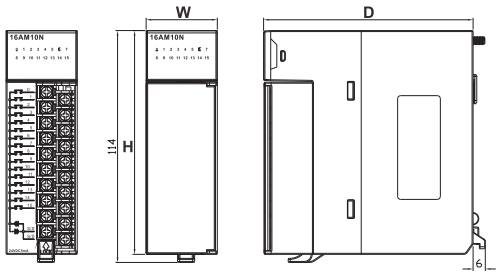
Power Supply Modules

Model name	H	W	D
AHPS05-5A	110	50	103
AHPS15-5A	110	50	103



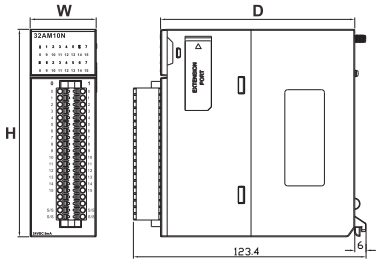
16-point Digital I/O Modules

Model name	H	W	D
AH16AM10N-5A	110	35	103
AH16AM30N-5A	110	35	103
AH16AN01R-5A	110	35	103
AH16AN01T-5A	110	35	103
AH16AN01P-5A	110	35	103
AH16AN01S-5A	110	35	103
AH16AP11R-5A	110	35	103
AH16AP11T-5A	110	35	103
AH16AP11P-5A	110	35	103



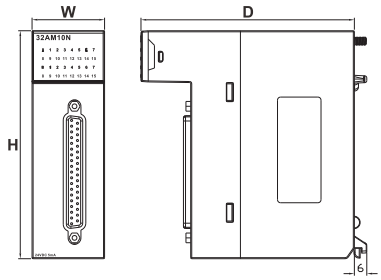
32-point Digital I/O Modules

Model name	H	W	D
AH32AM10N-5A	110	35	103
AH32AN02T-5A	110	35	103
AH32AN02P-5A	110	35	103



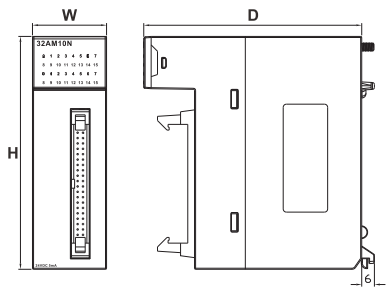
32-point Digital I/O Modules

Model name	H	W	D
AH32AM10N-5B	110	35	103
AH32AN02T-5B	110	35	103
AH32AN02P-5B	110	35	103



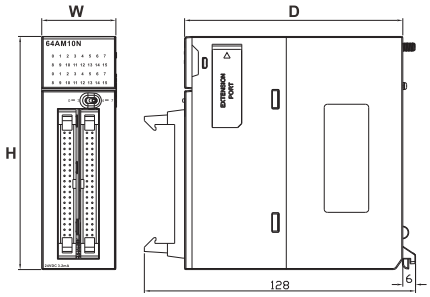
32-point Digital I/O Modules

Model name	H	W	D
AH32AM10N-5C	110	35	103
AH32AN02T-5C	110	35	103
AH32AN02P-5C	110	35	103



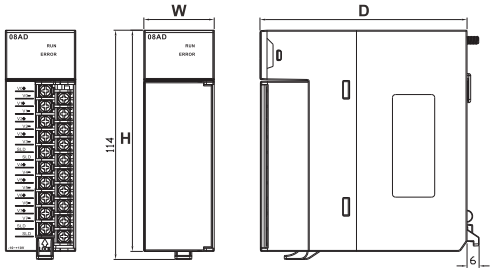
64-point Digital I/O Modules

Model name	H	W	D
AH64AM10N-5C	110	35	103
AH64AN02T-5C	110	35	103
AH64AN02P-5C	110	35	103



Analog I/O Modules

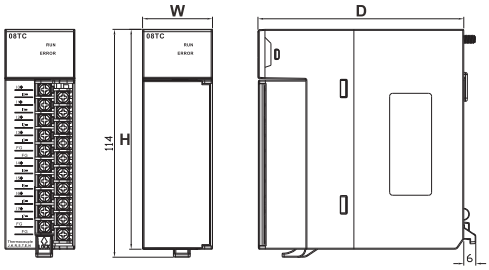
Model name	H	W	D
AH04AD-5A	110	35	103
AH08AD-5B	110	35	103
AH08AD-5C	110	35	103
AH04DA-5A	110	35	103
AH08DA-5B	110	35	103
AH08DA-5C	110	35	103
AH06XA-5A	110	35	103



Dimensions Unit : mm

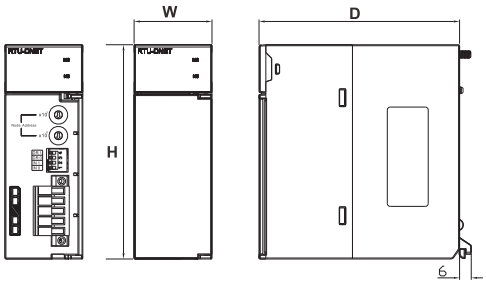
Temperature Measurement

Model name	H	W	D
AH04PT-5A	110	35	103
AH04TC-5A	110	35	103
AH08TC-5A	110	35	103



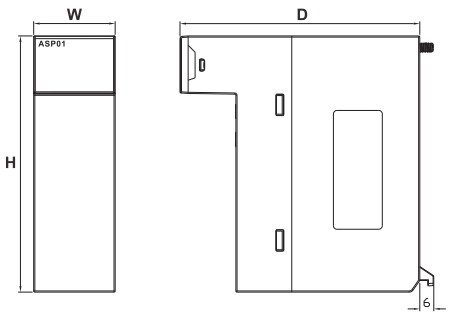
RTU Modules

Model name	H	W	D
AHRTU-DNET-5A	110	40	103



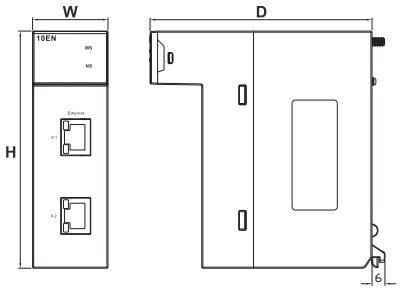
Space Modules

Model name	H	W	D
AHASP01-5A	110	35	103



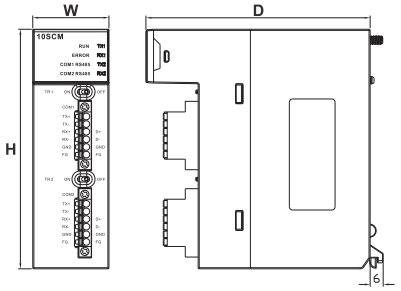
Network Modules

Model name	H	W	D
AH10EN-5A	110	35	103



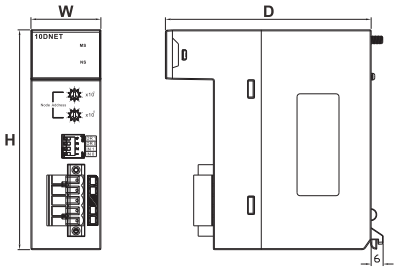
Network Modules

Model name	H	W	D
AH10SCM-5A	110	35	103



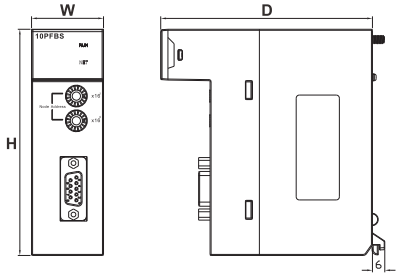
Network Modules

Model name	H	W	D
AH10DNET-5A	110	35	103



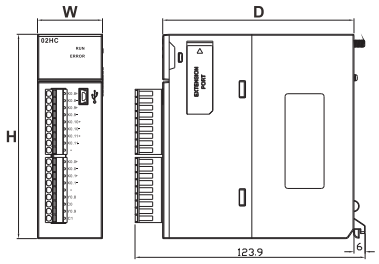
Network Modules

Model name	H	W	D
AH10PFBS-5A	110	35	103



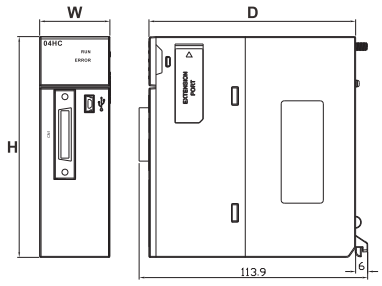
Motion Control Modules

Model name	H	W	D
AH02HC-5A	110	35	103



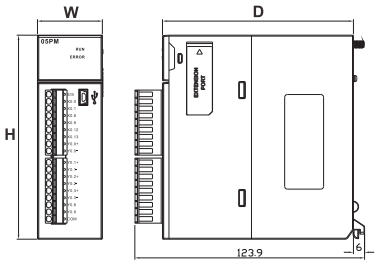
Motion Control Modules

Model name	H	W	D
AH04HC-5A	110	35	103



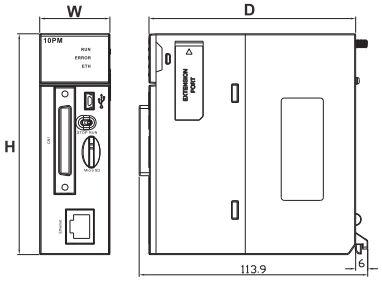
Motion Control Modules

Model name	H	W	D
AH05PM-5A	110	35	103



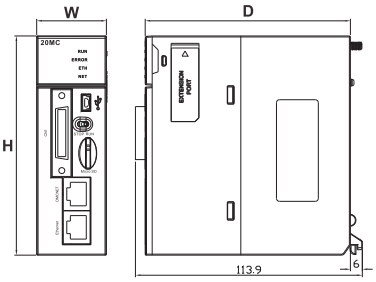
Motion Control Modules

Model name	H	W	D
AH10PM-5A	110	35	103



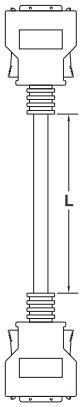
Motion Control Modules

Model name	H	W	D
AH20MC-5A	110	35	103



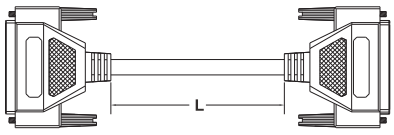
Cables

Model name	L
AHACAB06-5A	0.6m
AHACAB10-5A	1.0m
AHACAB15-5A	1.5m
AHACAB30-5A	3.0m
DVPACAB7D10	1.0m
DVPACAB7E10	1.0m



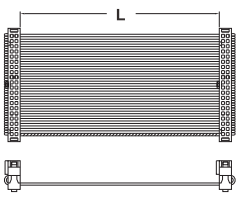
Cables (DB37)

Model name	L
DVPACAB7C10	1.0m

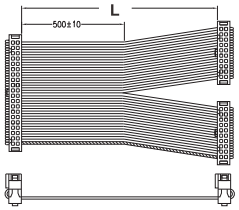


Cables (Latched connecotor)

Model name	L
DVPACAB7A10	1.0m



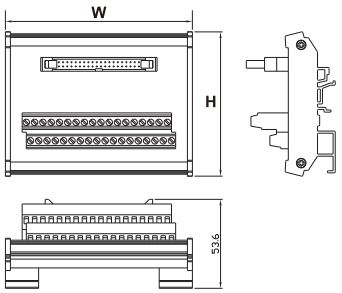
Model name	L
DVPACAB7B10	1.0m



Dimensions Unit : mm

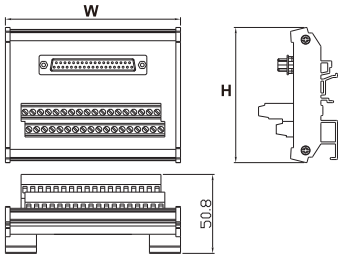
External Terminal Modules

Model name	H	W
DVPAETB-ID32A	87	113



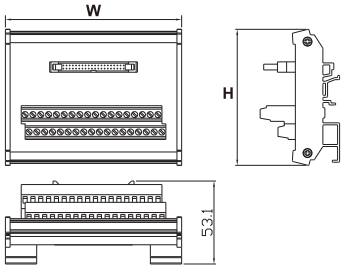
External Terminal Modules

Model name	H	W
DVPAETB-ID32B	87	113
DVPAETB-OT32B	87	113



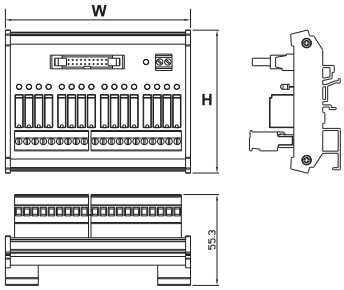
External Terminal Modules

Model name	H	W
DVPAETB-OT32A	87	113



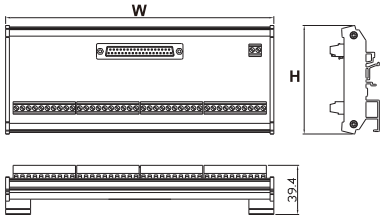
External Terminal Modules

Model name	H	W
DVPAETB-OR16A	87	113
DVPAETB-OR16B	87	113



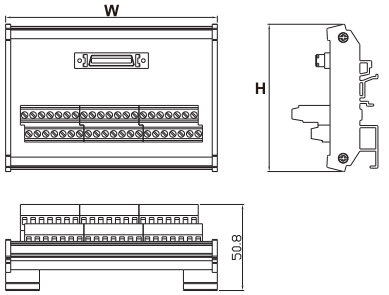
External Terminal Modules

Model name	H	W
DVPAETB-OR32A	87	215
DVPAETB-OR32B	87	215



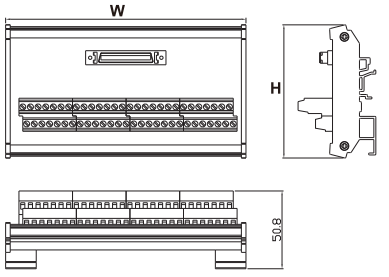
External Terminal Modules

Model name	H	W
DVPAETB-IO16C	87	125



External Terminal Modules

Model name	H	W
DVPAETB-IO24C	87	157



Ordering Information

CPU Modules

Model	Local I/O points	Program capacity	Data register D/L/B (note)	Function blocks	Extension backplane	Power consumption (Internal)	Specifications	Certificates
AHCPU500-RS2	768	16k steps (64KB)	16K / 16K / 256K words	64	0	2w	■ Built-in RS-232/422/485 multi-modes communication port x 2 (RS-232:115.2kbps / RS-422/485: 921.6kbps) ■ Built-in SD card slot ■ Built-in Mini-USB programming port ■ Program execution speed: LD instruction @ 0.1us / 1K steps @ 0.3ms ■ System diagnose / status light /online editing and debug functions ■ PLC Link automatic data exchange function ■ MODUBUS RTU/ASCII ■ LD/SFC/FBD/IL/ST languages ■ 256 interrupts (Timed/IO/External/Low voltage/ communication disconnection) ■ 2048 timers and counters ■ No battery design ■ RTC function(max. 30 days after power off)	
AHCPU510-RS2	1280	64k steps (256KB)	32K / 32K / 1024K words	256	1	2w		
AHCPU520-RS2	2304	128k steps (512KB)	64K / 64K / 2048K words	512	3	2w		
AHCPU530-RS2	4352	256k steps (1MB)	64K / 64K / 4096K words	1024	7	2w		
AHCPU500-EN	768	16k steps (64KB)	16K / 16K / 256K words	64	0	2w	■ Built-in RS-232/422/485 multi-modes communication port x 1 (RS-232:115.2kbps / RS-422/485: 921.6kbps) ■ Built-in Ethernet communication port (100M bps) Built-in SD card slot ■ Built-in Mini-USB programming port ■ Program execution speed: LD instruction @ 0.1us / 1K steps @ 0.3ms ■ System diagnose / status light / online editing and debug functions ■ PLC Link automatic data exchange function ■ MODUBUS RTU/ASCII ■ LD/SFC/FBD/IL/ST languages ■ 256 interrupts (Timed/IO/External/Low voltage/ communication disconnection) ■ 2048 timers and counters ■ No battery design ■ RTC function(max. 30 days after power off) ■ NTP network time correction function ■ WEB/E-mail/IP Filter function	
AHCPU510-EN	1280	64k steps (256KB)	32K / 32K / 1024K words	256	1	2w		
AHCPU520-EN	2304	128k steps (512KB)	64K / 64K / 2048K words	512	3	2w		
AHCPU530-EN	4352	256k steps (1MB)	64K / 64K / 4096K words	1024	7	2w		

Note: B device is for use of the function block

Main Backplanes

Model	Slot	Power consumption(Internal)	Specifications	Certificates
AHBP04M1-5A	4	0.01w	■ Supports CPU modules ■ Supports remote IO communication modules (RTU) ■ Built-in communication port for extension backplanes ■ Slot spaces are not occupied by Power/CPU/RTU modules	
AHBP06M1-5A	6	0.01w		
AHBP08M1-5A	8	0.01w		
AHBP12M1-5A	12	0.01w		

Extension Backplanes

Model	Slot	Power consumption(Internal)	Specifications	Certificates
AHBP06E1-5A	6	1.41w	■ For main backplane extension ■ Built-in extension communication port for backplanes ■ Slot spaces are not occupied by power modules	
AHBP08E1-5A	8	1.41w		

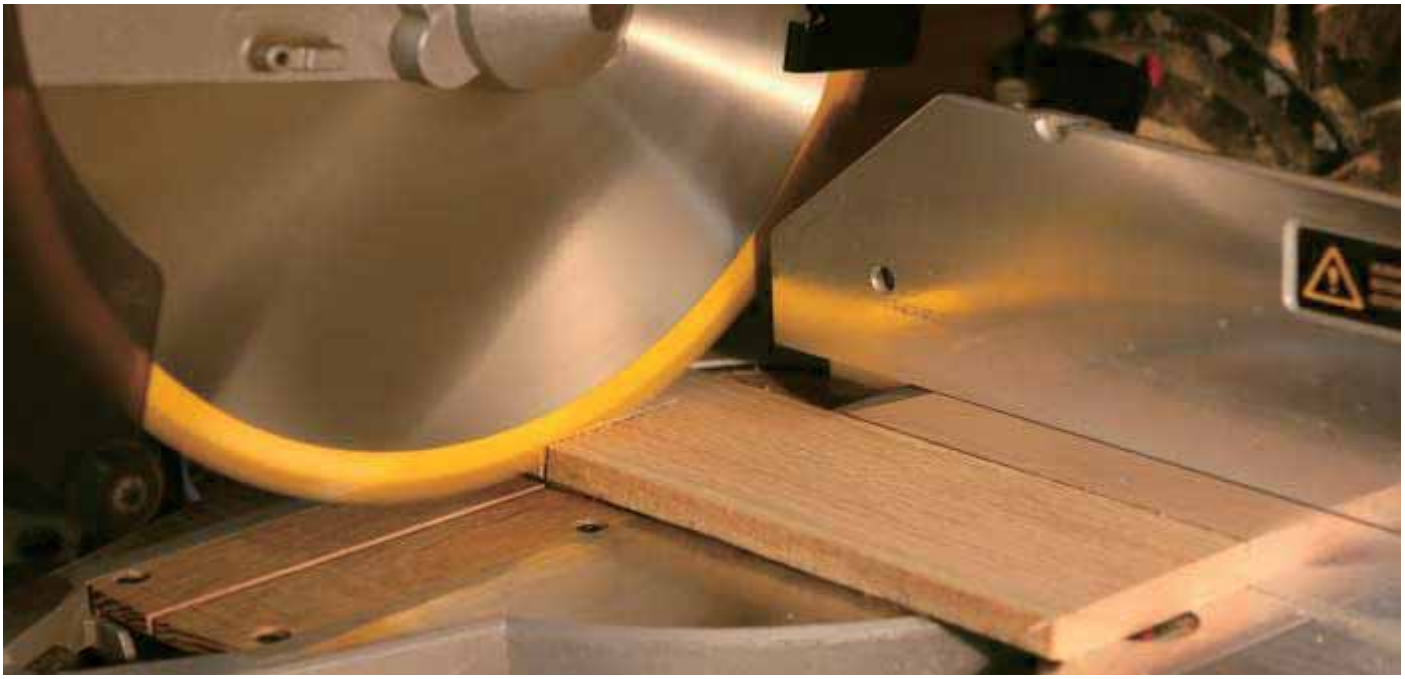
Ordering Information

Power Supply Modules

Model	Power input	Output	Specifications	Certificates
AHPS05-5A	100~240VAC 50/60Hz	60W	■ Power supply for the modules on the racks ■ Features LED power display ■ Provides external DC power abnormal signals detection input and triggered interrupt function	
AHPS15-5A	24VDC	36W		

Digital I/O Modules (Input)

Model	Points	Signals	Terminal block type	Power consumption (Internal / External)	Accessories (Extra purchase needed)	Specifications	Certificates
AH16AM10N-5A	16	24VDC 5mA	JIS removable terminal block	0.1w / 1.9w	-	■ PNP/NPN mixed mode design ■ Supports hot-swapping function ■ Individual LED status display	
AH16AM30N-5A	16	120~240VAC 4.5~9mA	JIS removable terminal block	0.1w / -	-		
AH32AM10N-5A	32	24VDC 5mA	EU removable terminal block	0.2w / 3.8w	-		
AH32AM10N-5B	32	24VDC 5mA	DB37	0.2w / 3.8w	DVPACAB7C10 x 1 DVPAETB-ID32B x 1		
AH32AM10N-5C	32	24VDC 5mA	latched connector	0.2w / 3.8w	DVPACAB7A10 x 1 DVPAETB-ID32A x 1		
AH64AM10N-5C	64	24VDC 3.2mA	latched connector	0.2w / 4.9w	DVPACAB7A10 x 2 DVPAETB-ID32A x 2	■ PNP/NPN mixed mode design ■ Supports hot-swapping function ■ Individual LED status display (32 points)	



Digital I/O Modules (Output)

Model	Points	Signals	Terminal block type	Power consumption (Internal / External)	Accessories (Extra purchase needed)	Specifications	Certificates
AH16AN01R-5A	16	Relay 240VAC/24VDC 2A	JIS removable terminal block	2.1w / -	-	■ Supports hot-swapping function ■ Individual LED status display ■ Supports keep-last-value function when CPU shuts down	
AH16AN01T-5A	16	NPN (Sink) 12~24VDC 0.5A	JIS removable terminal block	0.2w / 0.4w	-		
AH16AN01P-5A	16	PNP (Source) 12~24VDC 0.5A	JIS removable terminal block	0.2w / 0.4w	-		
AH16AN01S-5A	16	TRIAC 120/240VAC 0.5A	JIS removable terminal block	0.6w / -	-		
AH32AN02T-5A	32	NPN (Sink) 12~24VDC 0.1A	EU removable terminal block	0.4w / 0.8w	-		
AH32AN02P-5A	32	PNP (Source) 12~24VDC 0.1A	EU removable terminal block	0.4w / 0.8w	-		
AH32AN02T-5B	32	NPN (Sink) 12~24VDC 0.1A	DB37	0.4w / 0.8w	(DVPACAB7C10 x 1 DVPAETB-OR32A x 1) or (DVPACAB7C10 x 1 DVPAETB-OT32B x 1)		
AH32AN02P-5B	32	PNP (Source) 12~24VDC 0.1A	DB37	0.4w / 0.8w	(DVPACAB7C10 x 1 DVPAETB-OR32B x 1) or (DVPACAB7C10 x 1 DVPAETB-OT32B x 1)		
AH32AN02T-5C	32	NPN (Sink) 12~24VDC 0.1A	latched connector	0.4w / 0.8w	(DVPACAB7B10 x 1 DVPAETB-OR16A x 2) or (DVPACAB7A10 x 1 DVPAETB-OT32A x 1)		
AH32AN02P-5C	32	PNP (Source) 12~24VDC 0.1A	latched connector	0.4w / 0.8w	(DVPACAB7B10 x 1 DVPAETB-OR16B x 2) or (DVPACAB7A10 x 1 DVPAETB-OT32A x 1)		
AH64AN02T-5C	64	NPN (Sink) 12~24VDC 0.1A	latched connector	0.6w / 1.5w	(DVPACAB7B10 x 2 DVPAETB-OR16A x 4) or (DVPACAB7A10 x 2 DVPAETB-OT32A x 2)	■ Supports hot-swapping function ■ Individual LED status display (32 points) ■ Supports keep-last-value function when CPU shuts down	
AH64AN02P-5C	64	PNP (Source) 12~24VDC 0.1A	latched connector	0.6w / 1.5w	(DVPACAB7B10 x 2 DVPAETB-OR16B x 4) or (DVPACAB7A10 x 2 DVPAETB-OT32A x 2)		

Digital I/O Modules (Mixed)

Model	Inputs	Outputs	Input signals	Output signals	Terminal block type	Power consumption (Internal / External)	Accessories (Extra purchase needed)	Specifications	Certificates
AH16AP11R-5A	8	8	24VDC 5mA	Relay 240VAC/24VDC 2A	JIS removable terminal block	1.1w / -	-	■ PNP/ NPN mixed mode design ■ Supports hot-swapping function ■ Individual LED status display ■ Supports keep-last-value function when CPU shuts down	
AH16AP11T-5A	8	8	24VDC 5mA	NPN (Sink) 12~24VDC 0.5A	JIS removable terminal block	0.2w / 0.2w	-		
AH16AP11P-5A	8	8	24VDC 5mA	PNP (Source) 12~24VDC 0.5A	JIS removable terminal block	0.2w / 0.2w	-		

Ordering Information

Analog I/O Modules (Input)

Model	Channels	Signals	Terminal block type	Power consumption (Internal / External)	Specifications	Certificates
AH04AD-5A	4	0/1V~5V , ±5V , 0V~10V , ±10V , 0/4mA~20mA , ±20mA	JIS removable terminal block	0.35w / 1w	■ Hardware resolution: 16-bit ■ Conversion time: 150 us/channel ■ Accuracy (at 25 ˚C): Voltage mode: ±0.02% (Full Scale) Currency mode: ±0.05% (Full Scale) ■ Supports hot-swapping function ■ Isolated signal design ■ Diagnose function ■ Module status LED display ■ Supports interrupt function	CE UL
AH08AD-5B	8	0/1V~5V , ±5V , 0V~10V , ±10V	JIS removable terminal block	1.9w / -		
AH08AD-5C	8	0/4mA~20mA , ±20mA	JIS removable terminal block	1.6w / -		

Analog I/O Modules (Output)

Model	Channels	Signals	Terminal block type	Power consumption (Internal / External)	Specifications	Certificates
AH04DA-5A	4	0/1V~5V , ±5V , 0V~10V , ±10V 0/4mA~20mA	JIS removable terminal block	0.34w / 2.6w	■ Hardware resolution: 16-bit ■ Conversion time: 150 us/channel ■ Accuracy (at 25˚C): Voltage mode: ±0.05% (Full Scale) Currency mode: ±0.1% (Full Scale) ■ Supports hot-swapping function ■ Isolated signal design ■ Diagnose function ■ Module status LED display ■ Supports interrupt function ■ Supports keep-last-value function when CPU shuts down	CE UL
AH08DA-5B	8	0/1V~5V , ±5V , 0V~10V , ±10V	JIS removable terminal block	0.25w / 2.2w		
AH08DA-5C	8	0/4mA~20mA	JIS removable terminal block	0.25w / 3.7w		

Analog I/O Modules (Mixed)

Model	Channels	Signals	Terminal block type	Power consumption (Internal / External)	Specifications	Certificates
AH06XA-5A	Inputs: 4 Outputs: 2	Input: 0/1V~5V , ±5V , 0V~10V , ±10V 0/4mA~20mA , ±20mA Output: 0/1V~5V , ±5V , 0V~10V , ±10V 0/4mA~20mA	JIS removable terminal block	0.34w / 1.4w	■ Hardware resolution: 16-bit ■ Conversion time: 150 us/channel ■ Input Accuracy (at 25 ˚C): Voltage mode: ±0.02% (Full Scale) Currency mode: ±0.05% (Full Scale) ■ Output Accuracy (at 25 ˚C): Voltage mode: ±0.05% (Full Scale) Currency mode: ±0.1% (Full Scale) ■ Supports hot-swapping function ■ Signal isolated design ■ Diagnose function ■ Module status LED display ■ Supports interrupt function ■ Supports keep-last-value function when CPU shuts down	CE UL

Temperature Measurement Modules

Model	Channels	Signals	Resolution	Conversion time	Terminal block type	Power consumption (Internal)	Specifications	Certificates
AH04PT-5A	4	(3/4-wire RTD input) PT100,PT1000, Ni100,Ni1000, 0Ω~300Ω	0.1℃ / 0.1℉	4-wire: 150ms/channel 3-wire: 300ms/channel	JIS removable terminal block	2w	■ Hardware resolution: 20-bit ■ Accuracy: ±0.6% (Full Scale) ■ Supports hot-swapping function ■ Signal isolated design ■ Diagnose function ■ PID function ■ Module status LED display ■ Supports interrupt function ■ Supports disconnection detection function	
AH04TC-5A	4	Thermocouple input J,K,R,S,T,E,N, ±150mV	0.1℃ / 0.1℉	200ms/channel	JIS removable terminal block	1.5w		
AH08TC-5A	8	Thermocouple input J,K,R,S,T,E,N, ±150mV	0.1℃ / 0.1℉	200ms/channel	JIS removable terminal block	1.5w		

Network Modules

Model	Power consumption (Internal / External)	Specifications		Certificates
AH10EN-5A	1.6w / -	■ Ethernet communication module (Master/Salve) ■ 100Mbps communication port x 2 (switch function available) ■ Ether Link function ■ MODBUS TCP function ■ Automatic data exchange function ■ NTP network time correction function ■ SNMP/E-mail/IP Filter function	■ Supports hot-swapping function ■ Diagnose function ■ Module status LED display	
AH10SCM-5A	1.2w / -	■ Serial communication module (Master/Slave) ■ Full isolation design in power & signal circuits ■ Built-in RS-422/485 with communication port X 2 (multiple modes, 460.8K kbps) ■ Supports PLC Link function ■ Supports user defined communication format(UD Link) ■ MODBUS RTU/ASCII function available ■ Supports automatic data exchange function		
AH10DNET-5A	0.9w / 0.72 w	■ DeviceNet communication module (Master/Slave) ■ Supports max. speed of 1 Mbps ■ Switchable between master and slave modes ■ Connecting up to 63 slave stations in master mode ■ RIO capacity in master mode: 490 words IN/OUT		
AH10PFBS-5A	1w / -	■ PROFIBUS communication module (Slave)		

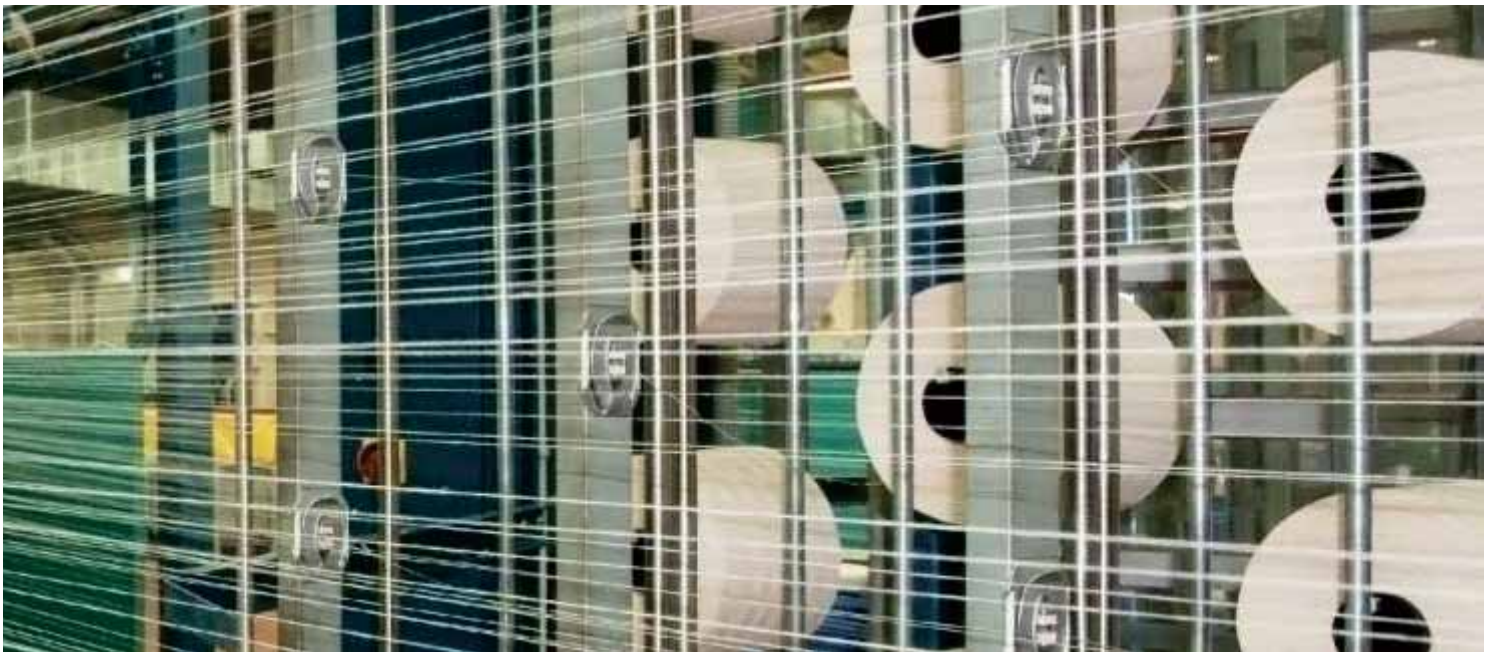
Remote I/O Modules

Model	Power consumption (Internal / External)	Specifications	Certificates
AHRTU-DNET-5A	0.75w / 0.72w	■ DeviceNet remote I/O module ■ Supports max. speed of 1 Mbps ■ Supports AH500 DIO modules, AIO modules, temperature measurement modules/AH10SCM ■ Installing on the main backplane required ■ Supports up to 7 extension racks ■ Diagnose function ■ Module status LED display	

Ordering Information

Motion Control Modules

Model	Terminal block type	Power consumption (Internal / External)	Accessories (Extra purchase needed)	Specifications		Certificates
AH02HC-5A	EU removable terminal block	2.4w	-	■ 2 high speed counter channels	■ 200K Hz input ■ UD/PD/AB/4AB modes ■ Supports interrupt function ■ Supports hot-swapping function ■ Diagnose function ■ Module status LED display	
AH04HC-5A	HDC	2.4w	DVPACAB7D10 DVPAETB-IO16C	■ 4 high speed counter channels		
AH05PM-5A	EU removable terminal block	2.7w	-	■ 2-axis pulse train motion control module ■ Supports 1MHz output ■ Supports 2-axis linear interpolation, 2-axis arc interpolation	■ CPU execution speed: LD command @0.13us ■ Program capacity:64K steps ■ Data register: D=10K words / W=64K words ■ Supports UD/PD/AB/4AB modes ■ Built-in Mini USB programming communication port ■ Independent programing, program download and execution available ■ Supports G Code ■ Supports hot-swapping function ■ Diagnose function ■ Module status LED display	
AH10PM-5A	HDC	2.7w	DVPACAB7E10 DVPAETB-IO24C	■ 6-axis pulse train motion control module ■ Supports 1MHz output (4 axes) 200K Hz output (2 axes) ■ Supports 2~6 axis linear interpolation, 2-axis arc interpolation and 3-axis helical interpolation ■ Built in Ethernet communication port ■ Supports Micro SD card		
AH20MC-5A	HDC	3w	DVPACAB7D10 DVPAETB-IO16C	■ 12-axis DMCNET communication motion control module (10M bps) ■ 12 axes synchronization in 1ms ■ Supports 2~6 axes linear interpolation, 2-axis arc interpolation and 3-axis helical interpolation ■ Built in Ethernet communication port ■ Supports Micro SD card		



Accessories

Products	Descriptions	Model	Specifications	Applicable Modules	Certificates
Cables	I/O extension cable for connecting extension backplane	AHACAB06-5A	0.6m	AHBP04M1-5A / AHBP06M1-5A / AHBP08M1-5A AHBP12M1-5A / AHBP06E1-5A / AHBP08E1-5A	
		AHACAB10-5A	1.0m		
		AHACAB15-5A	1.5m		
		AHACAB30-5A	3.0m		
		(Customization available for required distance more than 3m)			
	I/O extension cable for connecting external terminal modules	DVPACAB7A10	1.0M / latched connector	AH32AM10N-5C / AH32AN02T-5C / AH32AN02P-5C / AH64AM10N-5C / AH64AN02T-5C / AH64AN02P-5C	
		DVPACAB7B10	1.0M / latched connector	AH32AN02T-5C / AH32AN02P-5C / AH64AN02T-5C / AH64AN02P-5C	
		DVPACAB7C10	1.0M / DB37	AH32AM10N-5B / AH32AN02T-5B / AH32AN02P-5B	
		DVPACAB7D10	1.0M / HDC	AH04HC-5A / AH20MC-5A	
		DVPACAB7E10	1.0M / HDC	AH10PM-5A	
External terminal modules	For digital input modules	DVPAETB-ID32A	latched connector	AH32AM10N-5C / AH64AM10N-5C	
		DVPAETB-ID32B	DB37	AH32AM10N-5B	
	For digital output modules	DVPAETB-OR16A	16 points Relay output (240VAC/24VDC,2A) latched connector	AH32AN02T-5C / AH64AN02T-5C	
		DVPAETB-OR16B	16 points Relay output (240VAC/24VDC,2A) latched connector	AH32AN02P-5C / AH64AN02P-5C	
		DVPAETB-OR32A	32 points Relay output (240VAC/24VDC,2A) DB37	AH32AN02T-5B	
		DVPAETB-OR32B	32 points Relay output (240VAC/24VDC,2A) DB37	AH32AN02P-5B	
		DVPAETB-OT32A	Transistor output latched connector	AH32AN02T-5C / AH32AN02P-5C / AH64AN02T-5C / AH64AN02P-5C	
		DVPAETB-OT32B	Transistor output DB37	AH32AN02T-5B / AH32AN02P-5B	
	For motion control modules	DVPAETB-IO16C	HDC	AH04HC-5A / AH20MC-5A	
		DVPAETB-IO24C	HDC	AH10PM-5A	
Space modules	To protect empty slots	AHASP01-5A			
DIN Rail	Used on DIN rail for rack installation	AHADINADP1-5A			
Memory Card	SD Card: 1 GB	FMC-SD1G	> Capacity: 1GB > Speed(R/W): Max. 18/15 MB/s	> Overwrite: 10,000 times > Operation Temperature: -40~85℃	

Smarter. Greener. Together.

Industrial Automation Headquarters

Delta Electronics, Inc.
Taoyuan Technology Center
No.18, Xinglong Rd., Taoyuan City,
Taoyuan County 33068, Taiwan
TEL: 886-3-362-6301 / FAX: 886-3-371-6301

Asia

Delta Electronics (Jiangsu) Ltd.
Wujiang Plant 3
1688 Jiangxing East Road,
Wujiang Economic Development Zone
Wujiang City, Jiang Su Province,
People's Republic of China (Post code: 215200)
TEL: 86-512-6340-3008 / FAX: 86-769-6340-7290

Delta Greentech (China) Co., Ltd.
238 Min-Xia Road, Pudong District,
ShangHai, P.R.C.
Post code : 201209
TEL: 86-21-58635678 / FAX: 86-21-58630003

Delta Electronics (Japan), Inc.
Tokyo Office
2-1-14 Minato-ku Shibadaimon,
Tokyo 105-0012, Japan
TEL: 81-3-5733-1111 / FAX: 81-3-5733-1211

Delta Electronics (Korea), Inc.
1511, Byucksan Digital Valley 6-cha, Gasan-dong,
Geumcheon-gu, Seoul, Korea, 153-704
TEL: 82-2-515-5303 / FAX: 82-2-515-5302

Delta Electronics Int'l (S) Pte Ltd
4 Kaki Bukit Ave 1, #05-05, Singapore 417939
TEL: 65-6747-5155 / FAX: 65-6744-9228

Delta Electronics (India) Pvt. Ltd.
Plot No 43 Sector 35, HSIIDC
Gurgaon, PIN 122001, Haryana, India
TEL : 91-124-4874900 / FAX : 91-124-4874945

Americas

Delta Products Corporation (USA)
Raleigh Office
P.O. Box 12173,5101 Davis Drive,
Research Triangle Park, NC 27709, U.S.A.
TEL: 1-919-767-3800 / FAX: 1-919-767-8080

Delta Greentech (Brasil) S.A
Sao Paulo Office
Rua Itapeva, 26 - 3° andar Edificio Itapeva One-Bela Vista
01332-000-São Paulo-SP-Brazil
TEL: +55 11 3568-3855 / FAX: +55 11 3568-3865

Europe

Deltronics (The Netherlands) B.V.
Eindhoven Office
De Witbogt 15, 5652 AG Eindhoven, The Netherlands
TEL: 31-40-2592850 / FAX: 31-40-2592851

*We reserve the right to change the information in this catalogue without prior notice.