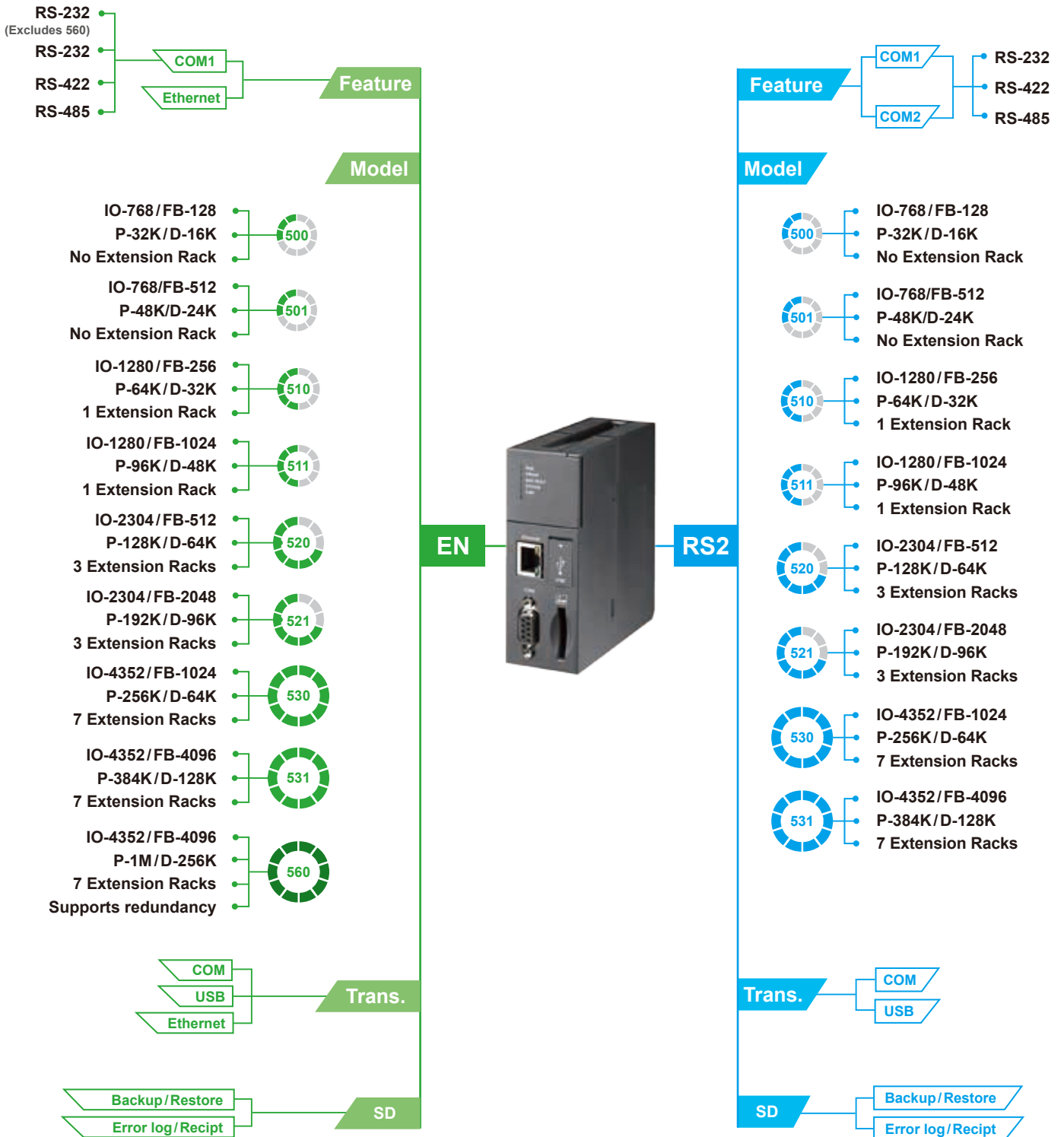


# Specification Tree



# CPU Selection Table

Item	Specifications	Check	CPU Model																	
			AH500		AH510		AH520		AH530		AH501		AH511		AH521			AH531		AH560
			RS2	EN	RS2	EN	RS2	EN	RS2	EN	RS2	EN	RS2	EN	RS2	EN	DNP	RS2	EN	EN2
Local I/O points	< 768	<input type="checkbox"/>	•							•										
	< 1280	<input type="checkbox"/>		•							•									
	< 2304	<input type="checkbox"/>			•								•							
	< 4352	<input type="checkbox"/>					•									•		•		
Program capacity	< 32k steps	<input type="checkbox"/>	•								•									
	< 48k steps	<input type="checkbox"/>								•										
	< 64k steps	<input type="checkbox"/>		•																
	< 96k steps	<input type="checkbox"/>									•									
	< 128k steps	<input type="checkbox"/>				•														
	< 192k steps	<input type="checkbox"/>												•						
	< 256k steps	<input type="checkbox"/>							•											
	< 384k steps	<input type="checkbox"/>															•			
< 1M steps	<input type="checkbox"/>																	•		
Expansion capacity	None	<input type="checkbox"/>	•							•										
	< 1 expansion rack	<input type="checkbox"/>		•								•								
	< 3 expansion racks	<input type="checkbox"/>				•								•						
	< 7 expansion racks	<input type="checkbox"/>							•								•		•	
Built-in communication	1 COM port	<input type="checkbox"/>		•		•		•		•		•		•		•		•	•	
	2 COM ports	<input type="checkbox"/>	•		•		•		•		•		•		•		•			
	Ethernet	<input type="checkbox"/>		•		•		•		•		•		•		•		•	•	
	Mini-USB	<input type="checkbox"/>	•		•		•		•		•		•		•		•		•	
Protocol supported	Modbus	<input type="checkbox"/>	•		•		•		•		•		•		•		•		•	
	Modbus TCP	<input type="checkbox"/>		•		•		•		•		•		•		•		•	•	
	EtherNet/IP	<input type="checkbox"/>								•		•		•		•		•	•	
	DNP3	<input type="checkbox"/>													•					
SD card	V 1.0	<input type="checkbox"/>	•		•		•		•											
	V 2.0 (SDHC)	<input type="checkbox"/>								•		•		•		•				
	V 2.0 (Micro SDHC)	<input type="checkbox"/>																	•	
Redundancy	CPU	<input type="checkbox"/>																	•	

## Model Name

### AH CPU

#### AHCPU500-RS2

AH	CPU	5	0	0	-	RS2
Series	Classification	Model	Function	Version		Type
	CPU		0: No expansion rack 1: 1 expansion rack 2: 3 expansion racks 3: 7 expansion racks 6: Redundant CPU			RS2: 2 COM ports EN: 1 COM & 1 Ethernet ports EN2: 1 COM & 2 Ethernet ports DNP: 1 COM & 1 Ethernet ports, supports DNP3

### AH Power Supply Module

#### AHPS05-5A

AH	PS	05	-	5A
Series	Classification	Function		Type
	Power supply	05: AC input (100~240V) 15: DC input (24V)		

### AH RTU Module

#### AHRTU-DNET-5A

AH	RTU	-	DNET	-	5A
Series	Classification		Function		Type
	Remote terminal unit		DNET: DeviceNet PFBS: PROFIBUS ETHN: EtherNet/IP		

### AH Digital I/O Module

#### AH16AM10N-5A

AH	16	AM	1	0	N	-	5A
Series	I/O points	Classification	Function	Function	Function		Type
	16: 16 points	AM: Digital input	0: No input	0: No output	N: No output		5A: Removable terminal
	32: 32 points	AN: Digital output	1: DC input (24V)	1: 0.5A transistor/TRIAC output or 2A relay output	R: Relay output		5B: DB37 connector
	64: 64 points	AP: Digital input/output	3: AC input (120~240V)	2: 0.1A transistor output	T: NPN output		5C: MIL
		AR: Digital input with interrupt			P: PNP output		
					S: TRIAC output		

### AH Analog I/O Module

#### AH04AD-5A

AH	04	AD	-	5A
Series	I/O Channels	Classification		Type
	04: 4-channel 06: 6-channel 08: 8-channel	AD: Analog input DA: Analog output XA: Analog input/output		5A: Voltage/Current 5B: Voltage 5C: Current

## AH Backplane

### AHBP04M1-5A

AH	BP	04		M1	-	5A
Series	Classification	Function		Function		Type
	Backplane	00: No slot 03: 3-slot 04: 4-slot 05: 5-slot	06: 6-slot 07: 7-slot 08: 8-slot 12: 12-slot	M1: Main backplane M2: Main backplane for motion E1: Expansion backplane MR1: Redundant main backplane ER1: Redundant expansion backplane		

## AH Network Module

### AH10EN-5A

AH	10	EN		-	5A
Series	Function	Classification			Type
	10: Basic 15: Advanced	EN: Ethernet SCM: Serial communication DNET: DeviceNet	PFBM: PROFIBUS master PFBS: PROFIBUS slave COPM: CANopen		

## AH Motion Module

### AH02HC-5A

AH	02		HC	-	5A
Series	Function		Classification		Type
	02: 2-channel 04: 4-channel 05: Simple type (PM) 10: Standard type (PM) 15: Advanced type (PM)	20: DMCNET 08E: EtherCAT (8-axis) 10E: EtherCAT (16-axis) 20E: EtherCAT (32-axis)	HC: High speed counter PM: Motion controller (Pulse train) MC: Motion controller (Network)		


## AH Temperature Module

### AH04PT-5A


AH	04	PT	-	5A
Series	I/O channels	Classification		Type
	04: 4-channel 08: 8-channel	PT: Platinum resistance thermometer TC: Thermocouple PTG: Platinum resistance thermometer (channel isolation)		

# Ordering Information


## Power Supply Modules

Model	Power input	Output	Specifications	Certificates
AHPS05-5A	100~240V <sub>AC</sub> 50/60Hz	60W	<ul style="list-style-type: none"> <li>Power supply for the modules on the racks</li> <li>LED power indicator</li> <li>Provides external DC power abnormal signal detection input and triggered interrupt function</li> </ul>	
AHPS15-5A	24V <sub>DC</sub>	36W		


## Main Backplanes

Model	Slot	Power consumption (Internal)	Specifications	Certificates
AHBP04M1-5A	4	0.01w	<ul style="list-style-type: none"> <li>Supports CPU modules</li> <li>Supports remote I/O communication modules (RTU)</li> <li>Built-in communication port for extension backplanes</li> <li>Slot spaces are not occupied by Power/CPU/RTU modules</li> <li>Supports redundant power (AHBPxxMR1-5A only)</li> </ul>	
AHBP06M1-5A	6	0.01w		
AHBP08M1-5A	8	0.01w		
AHBP12M1-5A	12	0.01w		
AHBP04MR1-5A	4	0.2w		
AHBP06MR1-5A	6	0.2w		
AHBP08MR1-5A	8	0.2w		
<b>New</b> AHBP00M2-5A	0	1.41w		
AHBP03M2-5A	3	1.41w		
AHBP05M2-5A	5	1.41w		
AHBP07M2-5A	7	1.41w		


## Extension Backplanes

Model	Slot	Power consumption (Internal)	Specifications	Certificates
AHBP06E1-5A	6	1.41w	<ul style="list-style-type: none"> <li>For main backplane extension</li> <li>Built-in communication port for extension backplanes</li> <li>Slot spaces are not occupied by power modules</li> <li>Supports redundant ext. ports (AHBPxxER1-5A only)</li> <li>Supports redundant power (AHBPxxER1-5A only)</li> </ul>	
AHBP08E1-5A	8	1.41w		
AHBP06ER1-5A	6	1w		
AHBP08ER1-5A	8	1w		

## Digital I/O Modules (Input)

Model	Points	Signals	Terminal block type	Power consumption (Internal/ External)	Accessories (optional)	Specifications	Certificates
AH16AM10N-5A	16	24 V <sub>DC</sub> 5 mA	JIS removable terminal block	0.1 w/ 1.9 w	-	<ul style="list-style-type: none"> <li>PNP/NPN mixed mode design</li> <li>Hot-swapping function</li> <li>Individual LED status indicator</li> </ul>	
AH16AM30N-5A	16	120 ~ 240 V <sub>AC</sub> 4.5 ~ 9 mA	JIS removable terminal block	0.1 w/ -	-		
AH32AM10N-5A	32	24 V <sub>DC</sub> 5 mA	EU removable terminal block	0.2 w/ 3.8 w	-		
AH32AM10N-5B	32	24 V <sub>DC</sub> 5 mA	DB37	0.2 w/ 3.8 w	UC-ET010-33B UB-10-ID32B		
AH32AM10N-5C	32	24 V <sub>DC</sub> 5 mA	MIL	0.2 w/ 3.8 w	UC-ET010-24A UC-ET010-24B UC-ET020-24B UC-ET030-24B UB-10-ID32A		
AH64AM10N-5C	64	24 V <sub>DC</sub> 3.2 mA	MIL	0.2 w/ 4.9 w			
AH16AR10N-5A	16	24 V <sub>DC</sub> 5 mA	JIS removable terminal block	0.5 w/ 1.9 w	-	<ul style="list-style-type: none"> <li>PNP/NPN mixed mode design</li> <li>Hot-swapping function</li> <li>Individual LED status indicator</li> <li>I/O interruption function</li> <li>Rising / falling-edge trigger modes</li> <li>Signal time-delay setting for 0.1/0.5/3/15/20 ms</li> <li>Provides user-defined option for signal time-delay setting (Unit: 0.1ms)</li> </ul>	

## Digital I/O Modules (Mixed)

Model	Inputs	Outputs	Input signals	Output signals	Terminal block type	Power consumption (Internal/ External)	Specifications	Certificates
AH16AP11R-5A	8	8	24 V <sub>DC</sub> 5 mA	Relay 240 V <sub>AC</sub> / 24 V <sub>DC</sub> 2 A	JIS removable terminal block	1.1 w/ -	<ul style="list-style-type: none"> <li>PNP/ NPN mixed mode design</li> <li>Hot-swapping function</li> <li>Individual LED status indicator</li> <li>Supports keep-last-value function when CPU shuts down</li> </ul>	
AH16AP11T-5A	8	8	24 V <sub>DC</sub> 5 mA	NPN (Sink) 12 ~ 24 V <sub>DC</sub> 0.5 A	JIS removable terminal block	0.2 w/ 0.2 w		
AH16AP11P-5A	8	8	24 V <sub>DC</sub> 5 mA	PNP (Source) 12 ~ 24 V <sub>DC</sub> 0.5 A	JIS removable terminal block	0.2 w/ 0.2 w		


# Ordering Information

## Digital I/O Modules (Output)


Model	Points	Signals	Terminal block type	Power consumption (Internal/ External)	Accessories (optional)	Specifications	Certificates
AH16AN01R-5A	16	Relay 240 V <sub>AC</sub> /24 V <sub>DC</sub> 2A	JIS removable terminal block	2.1 w/-	-	<ul style="list-style-type: none"> <li>Hot-swapping function</li> <li>Individual LED status indicator</li> <li>Supports keep-last-value function when CPU shuts down</li> </ul>	
AH16AN01T-5A	16	NPN (Sink) 12~24 V <sub>DC</sub> 0.5A	JIS removable terminal block	0.2 w/0.4 w	-		
AH16AN01P-5A	16	PNP (Source) 12~24 V <sub>DC</sub> 0.5A	JIS removable terminal block	0.2 w/0.4 w	-		
AH16AN01S-5A	16	TRIAC 120/240 V <sub>AC</sub> 0.5A	JIS removable terminal block	0.6 w/-	-		
AH32AN02T-5A	32	NPN (Sink) 12~24 V <sub>DC</sub> 0.1A	EU removable terminal block	0.4 w/0.8 w	-		
AH32AN02P-5A	32	PNP (Source) 12~24 V <sub>DC</sub> 0.1A	EU removable terminal block	0.4 w/0.8 w	-		
AH32AN02T-5B	32	NPN (Sink) 12~24 V <sub>DC</sub> 0.1A	DB37	0.4 w/0.8 w	UC-ET010-33B UB-10-OR32A UB-10-OT32B		
AH32AN02P-5B	32	PNP (Source) 12~24 V <sub>DC</sub> 0.1A	DB37	0.4 w/0.8 w	UC-ET010-33B UB-10-OR32B UB-10-OT32B		
AH32AN02T-5C	32	NPN (Sink) 12~24 V <sub>DC</sub> 0.1A	MIL	0.4 w/0.8 w	UC-ET010-24A UC-ET010-24B UC-ET020-24B UC-ET030-24B UC-ET010-24C UC-ET010-24D UC-ET020-24D UC-ET030-24D UB-10-OR16A UB-10-OT32A		
AH32AN02P-5C	32	PNP (Source) 12~24 V <sub>DC</sub> 0.1A	MIL	0.4 w/0.8 w	UC-ET010-24A UC-ET010-24B UC-ET020-24B UC-ET030-24B UC-ET010-24C UC-ET010-24D UC-ET020-24D UC-ET030-24D UB-10-OR16B UB-10-OT32A		
AH64AN02T-5C	64	NPN (Sink) 12~24 V <sub>DC</sub> 0.1A	MIL	0.6 w/1.5 w	UC-ET010-24A UC-ET010-24B UC-ET020-24B UC-ET030-24B UC-ET010-24C UC-ET010-24D UC-ET020-24D UC-ET030-24D UB-10-OR16A UB-10-OT32A	<ul style="list-style-type: none"> <li>Hot-swapping function</li> <li>Individual LED status indicator (32 points)</li> <li>Supports keep-last-value function when CPU shuts down</li> </ul>	
AH64AN02P-5C	64	PNP (Source) 12~24 V <sub>DC</sub> 0.1A	MIL	0.6 w/1.5 w	UC-ET010-24A UC-ET010-24B UC-ET020-24B UC-ET030-24B UC-ET010-24C UC-ET010-24D UC-ET020-24D UC-ET030-24D UB-10-OR16B UB-10-OT32A		




## 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	<ul style="list-style-type: none"> <li>Hardware resolution: 16-bit</li> <li>Conversion time: 150 μs/channel</li> <li>Base error (ambient temp.): Voltage mode ±0.1% Current mode ±0.1%</li> <li>Base error (full temp. range): Voltage mode ±0.45% Current mode ±0.2%</li> <li>Linearity error (ambient temp.): Voltage mode ±0.07% Current mode ±0.05%</li> <li>Linearity error (full temp. range): Voltage mode ±0.12% Current mode ±0.23%</li> <li>Hot-swapping function</li> <li>Isolated signal design</li> <li>Diagnosis function</li> <li>Module status LED indicator</li> <li>Supports interrupt function</li> </ul>	
AH08AD-5A	8	0/1V~5V, ±5V, 0V~10V, ±10V 0/4mA~20mA, ±20mA	EU removable terminal block	1.5w/-		
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	<ul style="list-style-type: none"> <li>Hardware resolution: 16-bit</li> <li>Conversion time: 150 μs/channel</li> <li>Base error (ambient temp.): Voltage mode ±0.02% Current mode ±0.06%</li> <li>Base error (full temp. range): Voltage mode ±0.04% Current mode ±0.07%</li> <li>Linearity error (ambient temp.): Voltage mode ±0.004% Current mode ±0.01%</li> <li>Linearity error (full temp. range): Voltage mode ±0.004% Current mode ±0.01%</li> <li>Hot-swapping function</li> <li>Isolated signal design</li> <li>Diagnosis function</li> <li>Module status LED indicator</li> <li>Supports interrupt function</li> <li>Supports keep-last-value function when CPU shuts down</li> </ul>	
AH08DA-5A	8	0/1V~5V, ±5V, 0V~10V, ±10V 0/4mA~20mA	EU removable terminal block	1w/5w		
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	<ul style="list-style-type: none"> <li>Hardware resolution: 16-bit</li> <li>Conversion time: 150 μs/channel</li> <li>Input accuracy: same as AH04AD-5A</li> <li>Output accuracy: same as AH04DA-5A</li> <li>Hot-swapping function</li> <li>Isolated signal design</li> <li>Diagnosis function</li> <li>Module status LED indicator</li> <li>Supports interrupt function</li> <li>Supports keep-last-value function when CPU shuts down</li> </ul>	




# Ordering Information


## Temperature Measurement Modules

Model	Channels	Signals	Resolution	Conversion time	Terminal block type	Power consumption (Internal/ External)	Specifications	Certificates
AH04PT-5A	4	(2/3/4-wire RTD input) Pt100, Pt1000, Ni100, Ni1000, 0Ω~300Ω	0.1°C/0.1 °F 0.1% (0Ω~300Ω)	2/4-wire: 150 ms / channel 3-wire: 300 ms / channel	JIS removable terminal block	2w/-	<ul style="list-style-type: none"> <li>Effective resolution: 16-bit</li> <li>Accuracy: ±0.6% (Full Scale)</li> <li>Supports hot-swapping function</li> <li>Signal isolated design</li> <li>Diagnosis function</li> <li>PID function</li> <li>Module status LED indicator</li> <li>Supports interrupt function</li> <li>Supports disconnection detection function</li> <li>Fully isolated channel design (AH08PTG-5A)</li> </ul>	
AH04TC-5A	4	Thermocouple input J,K,R,S,T,E,N, ±150mV	0.1°C/0.1 °F	200 ms / channel	JIS removable terminal block	1.5w/-		
AH08TC-5A	8	Thermocouple input J,K,R,S,T,E,N, ±150mV	0.1°C/0.1 °F	200 ms / channel	JIS removable terminal block	1.5w/-		
AH08PTG-5A	8	(2/3/4-wire TD input) Pt100, Pt1000, Ni100, Ni1000, 0Ω~300Ω	0.1°C/0.1 °F 0.1% (0Ω~300Ω)	2/4-wire: 20ms (fast) ~ 100ms (normal)/channel 3-wire: 200ms/channel	EU removable terminal block	0.7w/4w		

## Remote I/O Modules

Model	Power consumption (Internal/ External)	Specifications	Certificates
AHRTU-DNET-5A	0.75w/0.72w	<ul style="list-style-type: none"> <li>DeviceNet remote I/O module</li> <li>Supports max. speed of 1Mbps</li> <li>Supports AH DIO modules, AIO modules, temperature measurement modules, and the serial communication module AH10SCM</li> </ul>	
AHRTU-PFBS-5A	1.9w/-	<ul style="list-style-type: none"> <li>PROFIBUS-DP remote I/O module</li> <li>Max. speed: 12Mbps</li> <li>Supports AH digital I/O modules, analog I/O modules, temperature measurement modules</li> <li>Installs on main backplane</li> </ul>	
AHRTU-ETHN-5A	2.2w/-	<ul style="list-style-type: none"> <li>EtherNet/IP remote I/O module</li> <li>Supports I/O connection &amp; explicit message</li> <li>Connections: TCP=48 ; CIP=96</li> <li>RPI: 1~1,000ms</li> <li>PPS: 10,000</li> <li>250 words / connection</li> <li>Supports AH digital I/O modules, analog I/O modules, temperature measurement modules</li> </ul>	

## Network Modules

Model	Power consumption (Internal/ External)	Specifications		Certificates
AH10EN-5A	1.6w/-	<ul style="list-style-type: none"> <li>Ethernet communication module (Master/Slave)</li> <li>100 Mbps communication port × 2 (switch function available)</li> <li>Ether Link function</li> <li>Modbus TCP function</li> <li>Automatic data exchange function</li> <li>NTP network time correction function</li> </ul>	<ul style="list-style-type: none"> <li>SNMP/E-mail/IP Filter function</li> <li>EtherNet/IP                             <ul style="list-style-type: none"> <li>Scanner &amp; Adapter mode</li> <li>Supports I/O connection &amp; explicit message</li> <li>Connections: TCP=64 ; CIP=64</li> <li>RPI: 1~1,000ms</li> <li>PPS: 6,400</li> <li>250 words/connection</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Supports hot-swapping function</li> <li>Diagnosis function</li> <li>Module status LED indicator</li> </ul> 
AH15EN-5A	1.6w/-	<ul style="list-style-type: none"> <li>Ethernet communication module (Master/Slave)</li> <li>100 Mbps communication port × 2 (switch function available)</li> <li>Ether Link function</li> <li>Modbus TCP function</li> <li>Automatic data exchange function</li> <li>NTP network time correction function</li> </ul>	<ul style="list-style-type: none"> <li>SNMP/E-mail/IP Filter function</li> <li>Supports IEC60870</li> </ul>	
AH10SCM-5A	1.2w/-	<ul style="list-style-type: none"> <li>Serial communication module (Master/Slave)</li> <li>Full isolation design in power &amp; signal circuits</li> <li>Built-in RS-422/RS-485 with communication port × 2 (multiple modes, 460.8 Kbps)</li> <li>Supports PLC Link function</li> </ul>	<ul style="list-style-type: none"> <li>Supports user defined communication format (UD Link)</li> <li>Modbus RTU/ASCII function available</li> </ul>	
AH15SCM-5A	1w/-	<ul style="list-style-type: none"> <li>Serial communication module (Master/Slave)</li> <li>Full isolation design in power &amp; signal circuits</li> <li>Built-in RS-232 with communication port × 2 (multiple modes, 460.8 Kbps)</li> <li>Supports PLC Link function</li> </ul>	<ul style="list-style-type: none"> <li>Supports automatic data exchange function</li> <li>Supports BACnet Slave function</li> </ul>	
AH10DNET-5A	0.9w/0.72w	<ul style="list-style-type: none"> <li>DeviceNet communication module (Master/Slave)</li> <li>Supports max. speed of 1 Mbps</li> <li>Switchable between master and slave modes</li> </ul>	<ul style="list-style-type: none"> <li>Connects up to 63 slave stations in master mode</li> <li>RIO capacity in master mode: 490 words IN/OUT</li> </ul>	
AH10PFBM-5A	2w/-	<ul style="list-style-type: none"> <li>PROFIBUS-DP master module</li> <li>Supports DPV0/DPV1</li> <li>Max. speed: 12 Mbps</li> </ul>	<ul style="list-style-type: none"> <li>Connects up to 124 slaves</li> <li>Configurable I/O capacity: 2880 words for input/2880 words for output</li> </ul>	
AH10PFBS-5A	1w/-	<ul style="list-style-type: none"> <li>PROFIBUS-DP slave module</li> <li>Supports DPV0</li> <li>Max. speed: 12 Mbps</li> </ul>	<ul style="list-style-type: none"> <li>Configurable I/O capacity: 100 words for input/100 words for output</li> </ul>	
AH10COPM-5A	1w/-	<ul style="list-style-type: none"> <li>CANopen module (Master/Slave)</li> <li>Max. speed: 1 Mbps</li> <li>Connects up to 100 slaves in master mode</li> </ul>		