



Small  
PLC Product Catalog

H7-200 SMART

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www.huceen.com

# About us

Shenzhen Huceen Automation Technology Co., Ltd. is specialized in industrial automation products R & D, production, sales and technical services, We rely on professional R & D team and years of industry technology accumulation, to supply high-quality, high-performance, highly competitive automation products and total solutions for customers.

Our company has HUCEEN brand H7 series PLC, Hpanel series HMI, HBox Internet of Things module and HCloud industrial cloud platform and other products.It provides system solutions for auto industry, electric power, chemical industry, metal-lurgy, environmental protection, water treatment, new energy, rail transportation and other industries, and it is widely used in electronic equipment, plastic machinery, packaging machinery, ceramic machinery, textile machinery, HVAC equipment, medical equipment, CNC equipment and many other industries.

We adhere to the business philosophy of integrity and truth-seeking. We build on the industrial automation with our own intellectual property rights, and promote the competitiveness and profitability of our customers. We work with our customers to create a win-win situation, realize enterprise value and customer value grow together.

## Mission

To help customers become industry leaders

## Vision

To become a respected and global supplier of industrial automation products and solutions

## Value

Integrity, specialty, innovation, sharing

## Operation philosophy

Improve customers competitiveness continuously , we not only provide excellent products and services, but also supply customers with more industry knowledge and more professional technical solutions.

400K

Quantity of shipment

30+

Cooperated Listed Company

80+

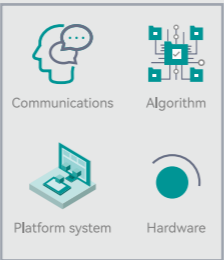
Sales and service network



National High-tech Enterprise



30+ Technology patents



4 core technologies

HUCEEN

# Huceen product system

PLC

H7 1200

H7 200SMART

H7 300

H7 200

E7 200Smart

E3 200Smart



Internet of Things

H-Box

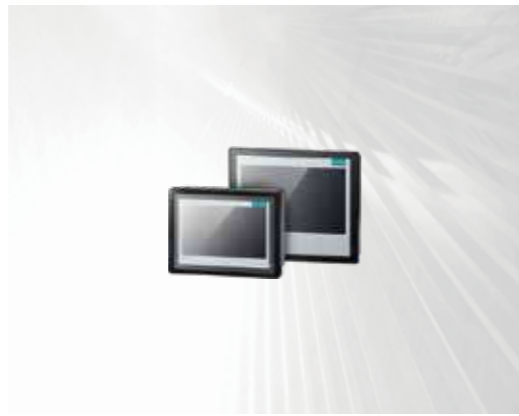
Smart Box

HCloud industrial cloud platform

HMI

Hpanel 7-inch

Hpanel 10-inch



# CATALOG



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# H7-200 SMART CPU

H7-200SMART Series PLC can communicate with PC through Ethernet port or RS485 port, and support 6 I/O expansion modules by itself. Meanwhile, the number of expansion modules can reach 12 through ET08 rack expansion module, it also supports the SMART BOX plug-and-play extension of the Industrial Internet of things.



### CPU SR20/ST20

Integrated 1 RS485 port, can do PPI, can also do free communication port, 1 Ethernet port, support S7 Ethernet communication and MODBUSTCP communication, support GET PUT communication; 12DI/8DO (SR20: relay output, ST20: transistor output) a total of 20 digital IO, 6 modules can be extended.



### CPU SR30/ST30

Integrated 1 RS485 port, can do PPI, can also do free communication port, 1 Ethernet port, support S7 Ethernet communication and MODBUSTCP communication, support GET PUT communication; 18DI/12DO (SR30: relay output, ST30:transistor output) a total of 30 digital IO, 6 modules can be extended.



### CPU SR40/ST40

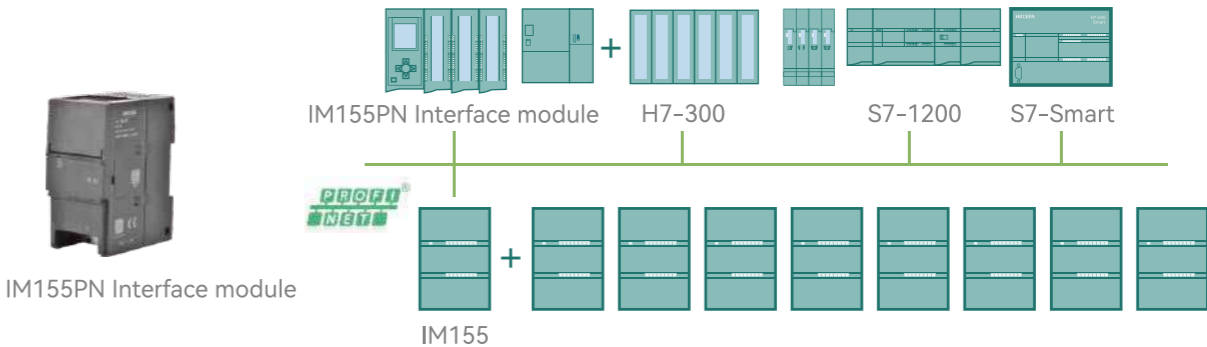
Integrated 1 RS485 port, can do PPI, can also do free communication port, 1 Ethernet port, support S7 Ethernet communication and MODBUSTCP communication, support GET PUT communication; 24DI/16DO (SR40: relay output, ST40: transistor output) a total of 40 digital IO, 6 modules can be extended.



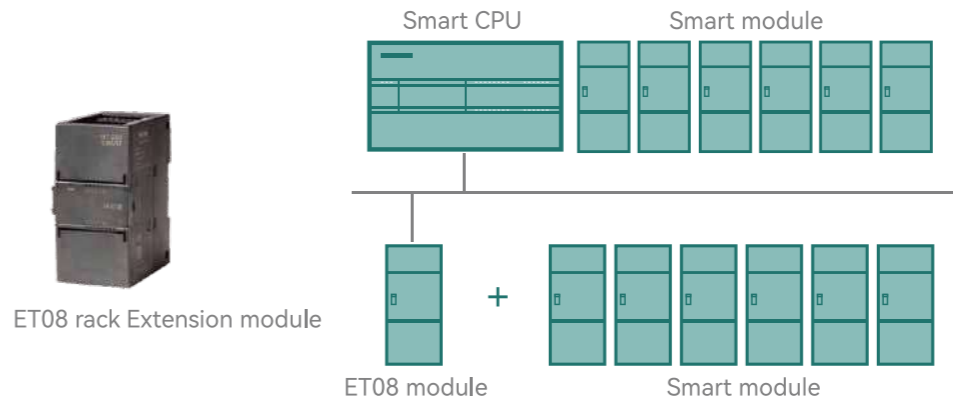
### CPU SR60/ST60

Integrated 1 RS485 port, can do PPI, can also do free communication port, 1 Ethernet port, support S7 Ethernet communication and MODBUSTCP communication, support GET PUT communication; 36DI/24DO (SR60: relay output, ST60: transistor output) a total of 60 digital IO, 6 modules can be extended.

### Ethernet-based PROFINET slave interface module



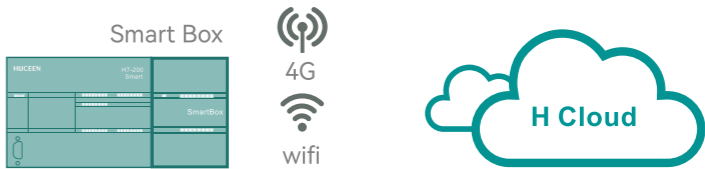
### Interface module that makes Smart CPU more powerful





### Smart PLC dedicated iot module



Perfect compatibility, no programming, Plug and play, extremely fast iot



200 SMART CPU

Model No.	CPU SR20 AC/DC/RLY	CPU ST20 DC/DC/DC
Order No.	H7 288-1SR20-0AA0	H7 288-1ST20-0AA0
Picture		
Product Description	Standard CPU SR20, Relay	Standard CPU ST20, Transistor
Standard		
Dimension (W×H×D)	90×100×81mm	
Power Consumption	14W	20W
Available Current (SM bus)	max. 1400mA	
Available Current (24V DC)	max. 300mA	
CPU Features		
Program Memory (KB)	12	
Data Memory (KB)	8	
Retentive Memory (KB)	10	
Data Preservation	Permanent	
Built-in I/O		
Digital Input/Output	12 input /8 output	
Analog Input/Output	-	
Process Image Size	256-bit input (I) /256-bit output (Q)	
Analog Image	56 words input (AI)/56 words output (AQ)	
Expansion Modules Allowed	up to 6 modules	
High-speed Counter (total)	6 in total	
Single Phase	4 200KHz + 2 30KHz	
Quadrature Phase	2 100KHz + 2 20KHz	
Pulse Output	-	2 100K Hz
Timer	Non-holding (or not retained) (TON, TOF):192	
	Holding (or retained) : 64	
Counters	256	
Bit Memory (M)	256 bits	
Cycle Interrupt	2 in total, T32 and T96 have a resolution of 1ms	
Interrupt Edge	4 up and 4 down	
Real Time Clock	Usually 7 days, at least 6 days at 25°C	
Memory Card	Support	
Signal Expansion Board	-	
Performance/Processing Time		
Boolean	0.35 μs /instruction	
Moving Word Operations	1.2 μs /instruction	
Floating Point	1.7 μs /instruction	
Communications Built-in		
Ports	Ethernet: 1    Serial port: 1 (RS485)    Ethernet attached serial port: 0	
HMI Connections	Ethernet: 5 connections    Serial port: 4 connections	

200 SMART CPU

Model No.	CPU SR20 AC/DC/RLY	CPU ST20 DC/DC/DC
Order No.	H7 288-1SR20-0AA0	H7 288-1ST20-0AA0
Communications Built-in		
Programming (PG)	1 connection	
Ethernet	Upload and download program: support touch screen    Host computer communication: support MODBUS TCP	
CPU (PUT/GET)	support 5 links	
Data Transmission Rate	Ethernet:10/100 Mb/s    RS485 System Protocol: 9600, 19200 and 187500b/s RS485 free port:1200 to 115200b/s	
Isolation	Ethernet: transformer isolation, 1500V DC    RS485: None	
Type of cable	Ethernet: CAT5e shielded cable    RS485: PROFIBUS network cable	
Power		
Input Voltage	85-264VAC	20.4-28.8VDC
Input Current (CPU only)	130mA (w/o 300mA power supply output of the sensor) when CPU only at 120V AC 250mA (w/ 300mA power supply output of the sensor) when CPU only at 120V AC 80mA (w/o 300mA power supply output of the sensor) when CPU only at 240V AC 150mA (w/ 300mA power supply output of the sensor) when CPU only at 240V AC	190mA (w/o 300mA power supply output of the sensor) when CPU only at 24V AC 470mA (w/ 300mA power supply output of the sensor) when CPU only at 24V AC
Input Current(Including CPU and all extensions accessories)	300mA at 120V AC 190mA at 240V AC	680mA at 24V AC
Inrush Current (Max)	9.3A at 264V AC	11.7A at 28.8V DC
Sensor Voltage	20.4-28.8V DC	
Isolation		
Input to logic	1500V AC, 1.0min	No quarantine
Sensor to logic	Not isolated	
Digital Input		
Number of Inputs	12	
Input Type	The sinking /sourcing type (IEC type 1 sinking)	The sinking /sourcing type (IEC type1 sinking, excepting I0.0 to I0.3)
Allowable Continuous Voltage	Max. 30V DC	
Surge Voltage(Max)	35V DC, lasting 0.5s	
Logic 1 Signal (Min)	15V DC when the current is 2.5mA	the voltage is 4V DC when it ranges from I0.0 to I0.3 I0.6 to I0.7: 8mA, other input: 15V DC at 2.5mA
Logic 0 Signal (Max)	5V DC when the current is 1mA	the voltage is 4V DC when it ranges from I0.0 to I0.3 I0.6 to I0.7: 1mA, other input: 5V DC at 1mA
Optical Isolation (field side and logic side)	500V AC, lasting 1.0min	
Isolation Group	1	
Filter Time	Each channel can be separately selected (point I0.0 to I1.3): 0.2, 0.4, 0.8, 1.6, 3.2, 6.4 and 12.8 μs; 0.2, 0.4, 0.8, 1.6,3.2, 6.4 and 12.8ms;	
Digital Output		
Number of Outputs	8	
Output Type	Relay, dry contact	Solid-MOSFET (source-type)
Voltage Range	5-30V DC or 5-250V AC	20.4-28.8V DC
Surge Current (Max)	7A when power on	8A, max. lasting 100ms
Rated Current per each point (Max)	2.0A	0.5A
Switching Frequency (Max)	Not recommended	—
Turn-on Delay (Qa.0-Qa.3)	Up to 10ms	from the disconnection to connection(Max): 1.0 μs; from the connection to disconnection(Max): 3.0 μs
Turn-off Delay (Qa.4-Qa.7)	Up to 10ms	from the disconnection to connection(Max): 50 μs; from the connection to disconnection(Max): 200 μs
Optical Isolation (field side and logic side)	500V AC Continue 1min	
Contact Lifetime		
Non-loaded	10,000,000 cycles	—
Rated load	100,000 cycles	—



200 SMART CPU

Model No.	CPU SR30 AC/DC/RLY	CPU ST30 DC/DC/DC
Order No.	H7 288-1SR30-0AA0	H7 288-1ST30-0AA0
Picture		
Product Description	Standard CPU SR30, Relay	Standard CPU ST30, Transistor
Standard		
Dimension (W×H×D)	110×100×81mm	
Power Consumption	23W	18W
Available Current (SM bus)	max. 1400mA	
Available Current (24V DC)	max. 300mA	
CPU Features		
Program Memory (KB)	18	
Data Memory (KB)	12	
Retentive Memory (KB)	10	
Data Preservation	Permanent	
Built-in I/O		
Digital Input/Output	18 input /12 output	
Analog Input/Output	-	
Process Image Size	256-bit input (I) /256-bit output (Q)	
Analog Image	56 words input (AI) /56 words output (AQ)	
Expansion Modules Allowed	up to 6 modules	
High-speed Counter (total)	6 in total	
Single Phase	4 200KHz + 2 30KHz	
Quadrature Phase	2 100KHz + 2 20KHz	
Pulse Output	-	3 100K Hz
Timer	Non-holding (or not retained) (TON, TOF):192	
	Holding (or retained): 64	
Counters	256	
Bit Memory (M)	256 bits	
Cycle Interrupt	2 in total, T32 and T96 have a resolution of 1ms	
Interrupt Edge	4 up and 4 down	
Real Time Clock	Usually 7 days, at least 6 days at 25°C	
Memory Card	Support	
Signal Expansion Board	-	
Performance/Processing Time		
Boolean	0.35 μs /instruction	
Moving Word Operations	1.2 μs /instruction	
Floating Point	1.7 μs /instruction	
Communications Built-in		
Ports	Ethernet: 1    Serial port: 1 (RS485)    Ethernet attached serial port: 0	
HMI Connections	Ethernet: 5 connections    Serial port: 4 connections	

200 SMART CPU

Model No.	CPU SR30 AC/DC/RLY		CPU ST30 DC/DC/DC	
Order No.	H7 288-1SR30-0AA0		H7 288-1ST30-0AA0	
Communications Built-in				
Programming (PG)	1 connection			
Ethernet	Upload and download program: support touch screen    Host computer communication: support MODBUS TCP			
CPU (PUT/GET)	support 5 links			
Data Transmission Rate	Ethernet:10/100 Mb/s    RS485 System Protocol: 9600, 19200 and 187500b/s RS485 free port:1200 to 115200b/s			
Isolation	Ethernet: transformer isolation, 1500V DC    RS485: None			
Type of cable	Ethernet: CAT5e shielded cable    RS485: PROFIBUS network cable			
Power				
Input Voltage	85-264VAC		20.4-28.8VDC	
Input Current (CPU only)	130mA (w/o 300mA power supply output of the sensor) when CPU only at 120V AC 250mA (w/ 300mA power supply output of the sensor) when CPU only at 120V AC 80mA (w/o 300mA power supply output of the sensor) when CPU only at 240V AC 150mA (w/ 300mA power supply output of the sensor) when CPU only at 240V AC		190mA (w/o 300mA power supply output of the sensor) when CPU only at 24V AC 470mA (w/ 300mA power supply output of the sensor) when CPU only at 24V AC	
Input Current(Including CPU and all extensions accessories)	300mA at 120V AC 190mA at 240V AC		680mA at 24V AC	
Inrush Current (Max)	8.9A at 264V AC		6A at 28.8V DC	
Sensor Voltage	20.4-28.8V DC			
Isolation				
Input to logic	1500V AC, 1.0min		No quarantine	
Sensor to logic	Not isolated			
Digital Input				
Number of Inputs	18			
Input Type	The sinking /sourcing type (IEC type 1 sinking)		The sinking /sourcing type (IEC type1 sinking, excepting I0.0 to I0.3)	
Allowable Continuous Voltage	Max. 30V DC			
Surge Voltage(Max)	35V DC, lasting 0.5s			
Logic 1 Signal (Min)	15V DC when the current is 2.5mA		the voltage is 4V DC when it ranges from I0.0 to I0.3 I0.6 to I0.7: 8mA, other input: 15V DC at 2.5mA	
Logic 0 Signal (Max)	5V DC when the current is 1mA		the voltage is 4V DC when it ranges from I0.0 to I0.3 I0.6 to I0.7: 1mA, other input: 5V DC at 1mA	
Optical Isolation (field side and logic side)	500V AC, lasting 1.0min			
Isolation Group	1			
Filter Time	Each channel can be separately selected (point I0.0 to I1.3): 0.2, 0.4, 0.8, 1.6, 3.2, 6.4 and 12.8μs; 0.2, 0.4, 0.8, 1.6,3.2, 6.4 and 12.8ms; Each channel can be separately selected (I1.6 and larger): 0, 6.4, 12.8ms.			
Digital Output				
Number of Outputs	12			
Output Type	Relay, dry contact		Solid-MOSFET (source-type)	
Voltage Range	5-30V DC or 5-250V AC		20.4-28.8V DC	
Surge Current (Max)	7A when power on		8A, max. lasting 100ms	
Rated Current per each point (Max)	2.0A		0.5A	
Switching Frequency (Max)	Not recommended		-	
Turn-on Delay (Qa.0-Qa.3)	Up to 10ms		from the disconnection to connection(Max): 1.0 μs; from the connection to disconnection(Max): 3.0 μs	
Turn-off Delay (Qa.4-Qb.3)	Up to 10ms		from the disconnection to connection(Max): 50 μs; from the connection to disconnection(Max): 200 μs	
Optical Isolation (field side and logic side)	500V AC Continue 1min			
Contact Lifetime				
Non-loaded	10,000,000 cycles		-	
Rated load	100,000 cycles		-	

200 SMART CPU

Model No.	CPU SR40 AC/DC/RLY	CPU ST40 DC/DC/DC
Order No.	H7 288-1SR40-0AA0	H7 288-1ST40-0AA0
Picture		
Product Description	Standard CPU SR40, Relay	Standard CPU ST40, Transistor
Standard		
Dimension (W×H×D)	125×100×81mm	
Power Consumption	23W	18W
Available Current (SM bus)	max. 1400mA	
Available Current (24V DC)	max. 300mA	
CPU Features		
Program Memory (KB)	24	
Data Memory (KB)	16	
Retentive Memory (KB)	10	
Data Preservation	Permanent	
Built-in I/O		
Digital Input/Output	24 input /16 output	
Analog Input/Output	-	
Process Image Size	256-bit input (I) /256-bit output (Q)	
Analog Image	56 words input (AI) /56 words output (AQ)	
Expansion Modules Allowed	up to 6 modules	
High-speed Counter (total)	6 in total	
Single Phase	4 200KHz + 2 30KHz	
Quadrature Phase	2 100KHz + 2 20KHz	
Pulse Output	-	3 100K Hz
Timer	Non-holding (or not retained) (TON, TOF):192	
	Holding (or retained): 64	
Counters	256	
Bit Memory (M)	256 bits	
Cycle Interrupt	2 in total, T32 and T96 have a resolution of 1ms	
Interrupt Edge	4 up and 4 down	
Real Time Clock	Usually 7 days, at least 6 days at 25°C	
Memory Card	Support	
Signal Expansion Board	-	
Performance/Processing Time		
Boolean	0.35 μs /instruction	
Moving Word Operations	1.2 μs /instruction	
Floating Point	1.7 μs /instruction	
Communications Built-in		
Ports	Ethernet: 1    Serial port: 1 (RS485)    Ethernet attached serial port: 0	
HMI Connections	Ethernet: 5 connections    Serial port: 4 connections	

200 SMART CPU

Model No.	CPU SR40 AC/DC/RLY	CPU ST40 DC/DC/DC
Order No.	H7 288-1SR40-0AA0	H7 288-1ST40-0AA0
Communications Built-in		
Programming (PG)	1.2-115.2Kbps	
CPU (PUT/GET)	support 5 links	
Isolation	Ethernet: transformer isolation, 1500V DC RS485: None	
Type of cable	Ethernet: CAT5e shielded cable RS485: PROFIBUS network cable	
Power		
Input Voltage	85-264VAC	20.4-28.8VDC
Input Current (CPU only)	130mA (w/o 300mA power supply output of the sensor) when CPU only at 120V AC 250mA (w/ 300mA power supply output of the sensor) when CPU only at 120V AC 80mA (w/o 300mA power supply output of the sensor) when CPU only at 240V AC 150mA (w/ 300mA power supply output of the sensor) when CPU only at 240V AC	190mA (w/o 300mA power supply output of the sensor) when CPU only at 24V AC 470mA (w/ 300mA power supply output of the sensor) when CPU only at 24V AC
Input Current(Including CPU and all extensions accessories)	130mA at 120V AC 190mA at 240V AC	680mA at 24V AC
Inrush Current (Max)	16.3A at 264V AC	11.7A at 28.8V DC
Sensor Voltage	20.4-28.8V DC	
Isolation		
Input to logic	1500V AC, 1.0min	No quarantine
Sensor to logic	Not isolated	
Digital Input		
Number of Inputs	24	
Input Type	The sinking /sourcing type (IEC type 1 sinking)	The sinking /sourcing type (IEC type1 sinking, excepting I0.0 to I0.3)
Allowable Continuous Voltage	Max. 30V DC	
Surge Voltage(Max)	35V DC, lasting 0.5s	
Logic 1 Signal (Min)	15V DC when the current is 2.5mA	the voltage is 4V DC when it ranges from I0.0 to I0.3 I0.6 to I0.7: 8mA, other input: 15V DC at 2.5mA
Logic 0 Signal (Max)	5V DC when the current is 1mA	the voltage is 4V DC when it ranges from I0.0 to I0.3 I0.6 to I0.7: 1mA, other input: 5V DC at 1mA
Optical Isolation (field side and logic side)	500V AC, lasting 1.0min	
Isolation Group	1	
Filter Time	Each channel can be separately selected (point I0.0 to I1.3): 0.2, 0.4, 0.8, 1.6, 3.2, 6.4 and 12.8μs; 0.2, 0.4, 0.8, 1.6,3.2, 6.4 and 12.8ms; Each channel can be separately selected (I1.6 and larger): 0, 6.4, 12.8ms.	
Digital Output		
Number of Outputs	16	
Output Type	Relay, dry contact	Solid-MOSFET (source-type)
Voltage Range	5-30V DC or 5-250V AC	20.4-28.8V DC
Surge Current (Max)	7A when power on	8A, max. lasting 100ms
Rated Current per each point (Max)	2.0A	0.5A
Switching Frequency (Max)	Not recommended	—
Turn-on Delay (Qa.0-Qa.3)	Up to 10ms	from the disconnection to connection(Max): 1.0 μs; from the connection to disconnection(Max): 3.0 μs
Turn-off Delay (Qa.4-Qb.7)	Up to 10ms	from the disconnection to connection(Max): 50 μs; from the connection to disconnection(Max): 200 μs
Optical Isolation (field side and logic side)	500V AC Continue 1min	
Contact Lifetime		
Non-loaded	10,000,000 cycles	—
Rated load	100,000 cycles	—



200 SMART CPU

Model No.	CPU SR60 AC/DC/RLY	CPU ST60 DC/DC/DC
Order No.	H7 288-1SR60-0AA0	H7 288-1ST60-0AA0
Picture		
Product Description	Standard CPU SR60, Relay	Standard CPU ST60, Transistor
Standard		
Dimension (W×H×D)	125×100×81mm	
Power Consumption	25W	20W
Available Current (SM bus)	max. 1400mA	
Available Current (24V DC)	max. 300mA	
CPU Features		
Program Memory (KB)	30	
Data Memory (KB)	20	
Retentive Memory (KB)	10	
Data Preservation	Permanent	
Built-in I/O		
Digital Input/Output	36 input /24 output	
Analog Input/Output	—	
Process Image Size	256-bit input (I) /256-bit output (Q)	
Analog Image	56 words input (AI) /56 words output (AQ)	
Expansion Modules Allowed	up to 6 modules	
High-speed Counter (total)	6 in total	
Single Phase	4 200KHz + 2 30KHz	
Quadrature Phase	2 100KHz + 2 20KHz	
Pulse Output	—	3 100K Hz
Timer	Non-holding (or not retained) (TON, TOF):192	
	Holding (or retained): 64	
Counters	256	
Bit Memory (M)	256 bits	
Cycle Interrupt	2 in total, T32 and T96 have a resolution of 1ms	
Interrupt Edge	4 up and 4 down	
Real Time Clock	Usually 7 days, at least 6 days at 25°C	
Memory Card	Support	
Signal Expansion Board	—	
Performance/Processing Time		
Boolean	0.35 μs /instruction	
Moving Word Operations	1.2 μs /instruction	
Floating Point	1.7 μs /instruction	
Communications Built-in		
Ports	Ethernet: 1    Serial port: 1 (RS485)    Ethernet attached serial port: 0	
HMI Connections	Ethernet: 5 connections    Serial port: 4 connections	

200 SMART CPU

Model No.	CPU SR60 AC/DC/RLY	CPU ST60 DC/DC/DC
Order No.	H7 288-1SR60-0AA0	H7 288-1ST60-0AA0
Communications Built-in		
Programming (PG)	1.2-115.2Kbps	
CPU (PUT/GET)	support 5 links	
Isolation	Ethernet: transformer isolation, 1500V DC RS485: None	
Type of cable	Ethernet: CAT5e shielded cable RS485: PROFIBUS network cable	
Power		
Input Voltage	85-264VAC	20.4-28.8VDC
Input Current (CPU only)	130mA (w/o 300mA power supply output of the sensor) when CPU only at 120V AC 250mA (w/ 300mA power supply output of the sensor) when CPU only at 120V AC 80mA (w/o 300mA power supply output of the sensor) when CPU only at 240V AC 150mA (w/ 300mA power supply output of the sensor) when CPU only at 240V AC	190mA (w/o 300mA power supply output of the sensor) when CPU only at 24V AC 470mA (w/ 300mA power supply output of the sensor) when CPU only at 24V AC
Input Current(Including CPU and all extensions accessories)	130mA at 120V AC 190mA at 240V AC	680mA at 24V AC
Inrush Current (Max)	16.3A at 264V AC	11.5A at 28.8V DC
Sensor Voltage	20.4-28.8V DC	
Isolation		
Input to logic	1500V AC, 1.0min	No quarantine
Sensor to logic	Not isolated	
Digital Input		
Number of Inputs	36	
Input Type	The sinking /sourcing type (IEC type 1 sinking)	The sinking /sourcing type (IEC type1 sinking, excepting I0.0 to I0.3)
Allowable Continuous Voltage	Max. 30V DC	
Surge Voltage(Max)	35V DC, lasting 0.5s	
Logic 1 Signal (Min)	15V DC when the current is 2.5mA	the voltage is 4V DC when it ranges from I0.0 to I0.3 I0.6 to I0.7: 8mA, other input: 15V DC at 2.5mA
Logic 0 Signal (Max)	5V DC when the current is 1mA	the voltage is 4V DC when it ranges from I0.0 to I0.3 I0.6 to I0.7: 1mA, other input: 5V DC at 1mA
Optical Isolation (field side and logic side)	500V AC, lasting 1.0min	
Isolation Group	1	
Filter Time	Each channel can be separately selected (point I0.0 to I1.3): 0.2, 0.4, 0.8, 1.6, 3.2, 6.4 and 12.8μs; 0.2, 0.4, 0.8, 1.6,3.2, 6.4 and 12.8ms; Each channel can be separately selected (I1.6 and larger): 0, 6.4, 12.8ms.	
Digital Output		
Number of Outputs	24	
Output Type	Relay, dry contact	Solid-MOSFET (source-type)
Voltage Range	5-30V DC or 5-250V AC	20.4-28.8V DC
Surge Current (Max)	7A when power on	8A, max. lasting 100ms
Rated Current per each point (Max)	2.0A	0.5A
Switching Frequency (Max)	Not recommended	—
Turn-on Delay (Qa.0-Qa.3)	Up to 10ms	from the disconnection to connection(Max): 1.0 μs; from the connection to disconnection(Max): 3.0 μs
Turn-off Delay (Qa.4-Qc.7)	Up to 10ms	from the disconnection to connection(Max): 50 μs; from the connection to disconnection(Max): 200 μs
Optical Isolation (field side and logic side)	500V AC Continue 1min	
Contact Lifetime		
Non-loaded	10,000,000 cycles	—
Rated load	100,000 cycles	—





Digital input modules

Model No.	EM DE08	EM DE16
Order No.	H7 288-2DE08-0AA0	H7 288-2DE16-0AA0
Picture		
Product Description	8-digital input, 24VDC	16-digital input, 24VDC
Standard		
Dimension (W×H×D)	47×100×81mm	
Power Consumption	1.5W	2.3W
Current Consumption (SM bus)	120mA	130mA
Current Consumption (24V DC)	4mA for each input point used	
Digital Input		
Number of Inputs	8	16
Input Type	PNP/NPN (IEC type 1 sinking)	
Rated Voltage	24V DC when the current is 4mA, Rated Value	
Allowable Continuous Voltage	Max 30V DC	
Surge Voltage(Max)	35V DC, lasting 0.5s	
Logic 1 Signal (Min)	it is 15V DC when the current is 2.5mA	
Logic 0 Signal (Max)	it is 5V DC when the current is 1mA	
Optical Isolation (field side and logic side)	500V AC, lasting 1.0min	
Isolation Group	2	4
Filter Time	0.2, 0.4, 0.8, 1.6, 3.2, 6.4, 12.8ms (optional, 4 inputs form one group )	
Number of inputs that connect at the same time	8	16
55° (horizontal)	All	
45° (vertical)	All	
Cable Length(Max)		
Shield	500M	
Unshielded	300M	

Digital output modules

Model No.	EM DR08	EM DT08	EM QR16	EM QT16
Order No.	H7 288-2DR08-0AA0	H7 288-2DT08-0AA0	H7 288-2QR16-0AA0	H7 288-2QT16-0AA0
Picture				
Product Description	8-digital output, relay	8-digital output, transistor	16-digital output, relay	16-digital output, transistor
Standard				
Dimension (W×H×D)	47×100×81mm			
Power Consumption	4.5W	1.5W	4.5W	1.7W
Current Consumption (SM bus)	120mA	120mA	110mA	120mA
Current Consumption (24V DC)	9mA for each relay coil used	–	9mA for each relay coil used	–
Digital Output				
Number of Outputs	8		16	
Output Type	Relay	Solid-MOSFET (source type)	Relay	Solid-MOSFET (source type)
Voltage Range	5-30V DC or 5-250V AC	20.4-28.8V DC	5-30V DC or 5-250V AC	20.4-28.8V DC
Surge Current (Max)	7A when power on	8A, lasting 100ms	7A when power on	8A, lasting 100ms
Rated Current per point (Max)	2.0A	0.75A	2.0A	0.75A
Switching Delay	Up to 10ms	from the disconnection to connection(Max): 50μs; from the connection to disconnection(Max): 200μs	Up to 10ms	from the disconnection to connection(Max): 50μs; from the connection to disconnection(Max): 200μs
Optical Isolation(field side and logic side)	1500V AC, lasting 1.0min (coil and contact), None(coil and logic side)	500V AC, lasting 1.0min	1500V AC, lasting 1.0min (coil and contact), None(coil and logic side)	500V AC, lasting 1.0min
Isolation Group	2		4	
Output Status in STOP Mode	previous value or replacement value (default is 0)			
Contact Lifetime				
Non-loaded	10,000,000 break / close cycles	–	10,000,000 break / close cycles	–
Rated load	100,000 disconnect/ close cycles	–	100,000 break / close cycles	–
Number of Inputs that connect at the same time	8		16	
55° (horizontal)	All			
45° (vertical)	All			
Cable Length(Max)				
Shield	500M			
Unshielded	150M			

Digital input/output modules

Model No.	EM DR16	EM DT16	EM DR32	EM DT32
Order No.	H7 288-2DR16-0AA0	H7 288-2DT16-0AA0	H7 288-2DR32-0AA0	H7 288-2DT32-0AA0
Picture				
Product Description	8-digital input/ 8-digital output, relay	8-digital input/ 8-digital output, transistor	16-digital input/ 16-digital output, relay	16-digital input/16-digital output, transistor
Standard				
Dimension (W×H×D)	47×100×81mm		72×100×81mm	
Power Consumption	5.5W	2.5W	10W	4.5W
Current Consumption (SM bus)	145mA	145mA	180mA	185mA
Current Consumption (24V DC)	4mA for each input point used, each relay coil used is 11mA	4mA for each input point used	4mA for each input point used, each relay coil used is 11mA	4mA for each input point used
Digital Input				
Number of Inputs	8		16	
Input Type	PNP/NPN (IEC type 1 sinking)			
Surge Voltage(Max)	35V DC, lasting 0.5s			
Logic 1 Signal (Min)	15VDC			
Logic 0 Signal (Max)	5VDC			
Optical Isolation (field side and logic side)	500V AC, lasting 1min			
Isolation Group	2			
Filter Time	0.2, 0.4, 0.8, 1.6, 3.2, 6.4, 12.8ms(optional, 4 inputs form one group )			
Number of Inputs that connect at the same time	8		16	
Cable Length(M)	500M(shield), 150M(unshielded)			
Digital Input				
Number of Inputs	8		16	
Input Type	Relay	Solid-MOSFET(source type)	Relay	Solid-MOSFET(source type)
Voltage Range	5~30V DC or 5~250V AC	20.4~28.8V DC	5~30V DC or 5~250V AC	20.4~28.8V DC
Surge Current	7A when power on	8A, max. lasting 100ms	7A when power on	8A, max. lasting 100ms
Rated Current per point (Max)	2.0A	0.75A	2.0A	0.75A
Switching Delay	from the disconnection to connection(Max): 50μs; from the connection to disconnection(Max): 200μs	Up to 10ms	from the disconnection to connection(Max): 50μs; from the connection to disconnection(Max): 200μs	Up to 10ms
Optical Isolation(field side and logic side)	1500V AC, lasting 1.0min (coil and contact), None(coil and logic side)	500V AC, lasting 1.0min	1500V AC, lasting 1.0min (coil and contact), None(coil and logic side)	500V AC, lasting 1.0min
Isolation Group	2		4	3
Output Status in STOP Mode	previous value or replacement value (default is 0)			
Number of Inputs that connect at the same time	8		16	
55° (horizontal)	All			
45° (vertical)	All			
Cable Length (M)				
Shield	500M			
Unshielded	150M			





Analog input modules

Model No.	EM AE04	EM AE04s
Order No.	H7 288-3AE04-0AA0	H7 288-3AE04-0AA1
Picture		
Product Description	4-channel analog input, resolution 12 bits, full channel support current/voltage input	Economical Type, 4-channel analog input, resolution 12 bits, full channel support current/voltage input
Standard		
Dimension (W×H×D)	47×100×81mm	
Power Consumption	1W	
Current Consumption (SM bus)	90mA	
Current Consumption (24V DC)	20mA	
Analog Input		
Number of Inputs	4	
Input Type	voltage or current (differential): 2 can be selected as a group range	
Input Range		
Electric Current	0~20mA	
Supply Voltage	±2.5V, ±5V, ±10V	0~10V
Data Word Format		
Unipolarity	0~+27648	
Bipolar	±27648	—
Max. Voltage Resistance	±35V	
Max. Current Resistance	±40mA	
Smoothness	None, weak, medium or strong	
Noise Supression	400, 60, 50 or 10Hz	50 or 10Hz
Resolution		
Voltage Mode	12 bits + symbol bits	12 bits
Current Mode	12 bits	
Isolation (field side and logic side)	500VAC	
Precision (25°C/0~55°C)		
Voltage Mode	full range ±0.1%/±0.2%	full range ±0.3%/±0.5%
Current Mode	full range ±0.2%/±0.3%	full range ±0.4%/±0.6%
Analog to digital Conversion Time	625 μs (400Hz inhibited)	500ms(50HZ)
Common mode Rejection	40dB, DC to 60HZ	—
Working Signal Range	signal plus common mode voltage ≤12V	—
Diagnosis	Overflow / underflow, 24V DC low voltage	
Cable Length (M)	100m, shielded twisted pair	





Analog intput modules

Model No.	EM AE08		EM AE08s	
Order No.	H7 288-3AE08-0AA0		H7 288-3AE08-0AA1	
Picture				
Product Description	8-channel analog input, resolution 12 bits, full-channel support current/voltage input		Economical Type, 8-channel analog input, resolution 12 bits, full-channel support current/voltage input	
Standard				
Dimension (W×H×D)	47×100×81mm			
Power Consumption	1W			
Current Consumption (SM bus)	90mA			
Current Consumption (24V DC)	20mA			
Analog Input				
Number of Inputs	8			
Input Type	voltage or current (differential): 2 can be selected as a group range			
Input Range				
Electric Current	0~20mA			
Supply Voltage	±2.5V, ±5V, ±10V		0-10V	
Data Word Format				
Unipolarity	0~+27648			
Bipolar	±27648		-	
Max. Voltage Resistance	±35V			
Max. Current Resistance	±40mA			
Smoothness	None, weak, medium or strong			
Noise Supression	400, 60, 50 or 10Hz		50Hz	
Resolution				
Voltage Mode	12 bits + symbol bit		12 bits	
Current Mode	12 bits			
Isolation (field side and logic side)	500V AC			
Precision (25°C/0~55°C)				
Voltage Mode	full range ±0.1%/±0.2%		full range ±0.3%/±0.5%	
Current Mode	full range ±0.2%/±0.3%		full range ±0.4%/±0.6%	
Analog to digital Conversion Time	625μs(400Hz Inhibition)		500ms(50HZ)	
Common mode Rejection	40dB, DC to 60HZ		-	
Working Signal Range	signal plus common mode voltage ≤12V		-	
Diagnosis	Overflow/ underflow, 24V DC low voltage			
Cable Length (M)	100m, shielded twisted pair			


Analog output modules

Model No.	EM AQ02	EM AQ02s	EM AQ04	EM AQ04s
Order No.	H7 288-3AQ02-0AA0	H7 288-3AQ02-0AA1	H7 288-3AQ04-0AA0	H7 288-3AQ04-0AA1
Picture				
Product Description	2-channel analog output, full-channel support current/voltage output	Economical Type, 2-channel analog output, full-channel support current/voltage output	4-channel analog output, full-channel support current/voltage output	Economical Type, 4-channel analog output, full-channel support current/voltage output
Standard				
Dimension (W×H×D)	47×100×81mm			
Power Consumption	1.5W		2.1W	
Current Consumption (SM bus)	90mA			
Current Consumption (24V DC)	50mA		70mA	
Analog Output				
Number of Outputs	2		4	
Output Type	Voltage or current			
Output Range				
Current Output	0-20mA			
Voltage Output	0-10V			
Data Word Format				
Current Output	0-27648			
Voltage Output	0-27648			
Resolution				
Voltage Mode	11 bits + symbol bits	11 bits	11 bits + symbol bits	11 bits
Current Mode	11 bits			
Isolation (field side and logic side)	500V AC			
Precision				
Typical, 25°	full range ±0.5%			
Worst, 0° to 55°	full range ±1.0%			
Output Status in STOP Mode	previous value or replacement value (default is 0)			
Diagnosis				
Voltage Mode	Overflow/ underflow, short circuit to ground, 24V DC low voltage	Overflow/ underflow, 24V DC low voltage	Overflow/ underflow, short circuit to ground, 24V DC low voltage	Overflow/ underflow, 24V DC low voltage
Current Mode	Upflow/underflow; Open circuit; 24VDC low voltage	Upflow/underflow; 24VDC low voltage	Upflow/underflow; Open circuit; 24VDC low voltage	Overflow/ underflow, 24V DC low voltage
Cable Length (M)	100m, shielded twisted pair			

Analog input/output modules


Model No.	EM AM03	EM AM03s	EM AM06	EM AM06s
Order No.	H7 288-3AM03-0AA0	H7 288-3AM03-0AA1	H7 288-3AM06-0AA0	H7 288-3AM06-0AA1
Picture				
Product Description	2-channel analog input/ 1-channel analog output, full-channel support current/voltage type	Economical Type, 2-channel analog input/ 1-channel analog output, full-channel support current/voltage type	4-channel analog input/ 2-channel analog output, full-channel support current/voltage type	Economical Type, 4-channel analog input/ 2-channel analog output, full-channel support current/voltage type
Standard				
Dimension (W×H×D)	47×100×81mm			
Power Consumption	1.1W		2.0W	
Current Consumption (SM bus)	90mA			
Current Consumption (24V DC)	30mA		60mA	
Analog Input				
Number of Inputs	2		4	
Input Type	voltage or current (differential): 2 can be selected as a group range			
Input Range				
Electric Current	0-20mA			
Supply Voltage	±2.5V, ±5V, ±10V	0-10V	±2.5V, ±5V, ±10V	0-10V
Resolution				
Voltage Mode	12 bits + symbol bits	12 bits	12 bits + symbol bits	12 bits
Current Mode	12 bits			
Precision				
Voltage Mode	±0.2%/±0.3% full range	±0.3%/±0.5% full range	±0.2%/±0.3% full range	±0.3%/±0.5% full range
Current Mode	±0.2%/±0.3% full range	±0.4%/±0.6% full range	±0.2%/±0.3% full range	±0.4%/±0.6% full range
Analog to digital Conversion Time	625μs(400Hz inhibited)	50 or 10Hz	625μs(400Hz inhibited)	50 or 10Hz
Analog Output				
Number of Outputs	1		2	
Output Type	Voltage/current			
Output Range	-			
Current Output	0-20mA			
Voltage Output	0-10V			
Resolution	-			
Voltage Mode	11 bits + symbol bits	11 bits	11 bits + symbol bits	11 bits
Current Mode	11 bits			
Isolation (field side and logic side)	500V AC			
Precision				
Typical, 25°	full range ±0.5%			
Worst, 0°to 55°	full range ±1.0%			
Diagnosis				
Voltage Mode	Overflow/ underflow, short circuit to ground, 24V DC low voltage	Overflow/ underflow, 24V DC low voltage	Overflow/ underflow, short circuit to ground, 24V DC low voltage	Overflow/ underflow, 24V DC low voltage
Current Mode	Overflow/ underflow, short circuit, 24V DC low voltage	Overflow/ underflow, 24V DC low voltage	Overflow/ underflow, short circuit, 24V DC low voltage	Overflow/ underflow, 24V DC low voltage
Cable Length (M)	100m, shielded twisted pair			

Thermocouple module


Model No.	EM AT04			
Order No.	H7 288-3AT04-0AA0			
Picture				
Product Description	4-channel thermocouple module			
Standard				
Dimension (W×H×D)	47×100×81mm			
Power Consumption	1.5W			
Current Consumption (SM bus)	120mA			
Current Consumption (24V DC)	40mA			
Analog Input				
Number of Inputs	4			
Range Rated Range (Data word) Overshoot/ Undershoot Range (Data word) Overflow/underflow (Data word)	Please refer to the thermocouple selection table			
Measuring Principle	Sigma-Delta			
Resolution				
Temperature	0.1°C / 0.1°F			
Voltage	15 bits+ symbol bits			
Max. Voltage Resistance	±35V			
Isolation				
Field side and logic side	500V AC			
Field side and 24V DC side	500V AC			
24V DC side and Logic side	500V AC			
Channel to channel Isolation	Support			
Common mode Rejection	>120dB at 120V AC			
Repeatability	±0.05%FS			
The cold end temperature error	±1.5°C			
Cable Loop Resistance (Max)	100Ω			
Diagnosis	Overflow/ underflow, circuit break, 24V DC low voltage			
Cable Length	100m, shielded twisted pair			
Rejection Frequency Selection	400Hz(2.5ms) 60Hz(16.6ms) 50Hz(20ms) 10Hz(100ms)			

Remark: when 400Hz inhibition is selected, the integration time should be 10ms to ensure the resolution and precision of module. Meanwhile this selection will also suppress noise at frequency of 100Hz and 200Hz. It is recommended to use an integration time of 100ms while measuring thermocouple. Using smaller integration time will increase repeatability error of temperature reading.

Thermocouple module


Model No.	EM AT08
Order No.	H7 288-3AT08-0AA0
Picture	
Product Description	8-channel thermocouple module, resolution 16 bits
Standard	
Dimension (W×H×D)	47×100×81mm
Power Consumption	1.5W
Current Consumption (SM bus)	50mA
Current Consumption (24V DC)	40mA
Analog Input	
Number of Inputs	8
Input Type	TC
Input Range	
Type	EJKNRST
Voltage Range	±80mV
Data Word Format	Voltage: -27648 to +27648
Measuring Principle	Sigma-Delta
Resolution	
Temperature	0.1°C / 0.1°F
Voltage	15 bits+ symbol bits
Resistance	—
Max. Voltage Resistance	±35V
Isolation	
Field side and logic side	500V AC
Field side and 24V DC side	500V AC
24V DC side and Logic side	500V AC
Channel to channel Isolation	Support
Common mode Rejection	120V AC, >120dB
Repeatability	±0.05%FS
The cold end temperature error	±1.5°C
Cable Loop Resistance (Max)	100Ω
Cable Length	100m
Diagnosis	Overflow/ underflow, circuit break, 24V DC low voltage
Cable Length	100m, Shielded twisted pair

RTD modules

Model No.	EM AR02	EM AR04
Order No.	H7 288-3AR02-0AA0	H7 288-3AR04-0AA0
Picture		
Product Description	2-channel RTD module, resolution 16 bits	4-channel RTD module, resolution 16 bits
Standard		
Dimension (W×H×D)	47×100×81mm	
Power Consumption	1.5W	
Current Consumption (SM bus)	120mA	
Current Consumption (24V DC)	40mA	
Analog Input		
Number of Inputs	2	4
Range	Please refer to RTD sensor selection table	
Rated Range (Data word)		
Overshoot/ Undershoot Range (Data word)		
Overflow/underflow (Data word)		
Measuring Principle	Sigma-Delta	
Resolution		
Temperature	0.1°C / 0.1°F	
Voltage	15 bits+ symbol bits	
Max. Voltage Resistance	±35V	
Isolation		
Field side and logic side	500V AC	
Field side and 24V DC side	500V AC	
24V DC side and Logic side	500V AC	
Channel to channel Isolation	—	
Common mode Rejection	>120dB	
Repeatability	±0.05%FS	
Max Power Consumption of the Sensor	0.5mW	
Cable Loop Resistance (Max)	20Ω, for Cu10, the maximum is 2.7Ω	
Diagnosis	Overflow/ underflow, circuit break, 24V DC low voltage	
Cable Length	100m, shielded twisted pair	
Rejection Frequency Selection	400Hz(2.5ms) 60Hz(16.6ms) 50Hz(20ms) 10Hz(100ms)	

Remark: When selecting 400Hz filter, and maintaining the resolution and accuracy of the module, the integration time should be 10ms. Meanwhile this selection will also suppress noise at frequency of 100Hz and 200Hz.

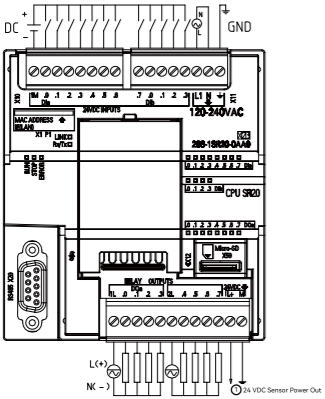
Communication Interface Module

Model No.	IM ET08
Article No.	H7 288-9ET08-0AA0
Picture	
Product Description	Expansion rack module 6 smart series I/O modules can be extended
Standard	
Dimension (W×H×D)	47×100×81mm
Power Input Voltage	20.4~28.8V DC
Power Input Current	Only interface module:2mA; Maximum load: 1500mA
Power Consumption	2W
5V DC Backplane Current Supply	1300mA, backplane current is continuously supplied
Communication Port	
Quantity	
Electrical Type	RJ45(Not support polarity adaptation)
Transmission Rate	10 Mbit/s and 100Mbit/s
Isolation or not	Yes(field and logic)
Digital Input	
Input Type	Sinking/sourcing type (IEC type 1 sinking)
Number of Inputs	4
Rated Voltage	24V DC
Surge Voltage(Max)	35V DC, lasting 0.5s
Logic 1 Signal (Min)	15V DC
Logic 0 Signal (Max)	5V DC
Input Delay (Max)	4.5ms
Optical Isolation(field side and logic side)	500V AC, 1min
Digital Output	
Output Type	Transistor output, Solid-MOSFET (Source type)
Number of Outputs	4
Rated Voltage	24V DC
Voltage Range	20.4~28.8V DC
Rated Voltage	8A, 100ms
Rated current per point (Max)	0.75A
Switching Frequency (Max)	-
Switching Delay (Max)	150μs
Optical Isolation (field side and logic side)	500VAC,1min
Contact Lifetime	-
Non-loaded	-
Rated Load	-
Function Introduction	
Overview	Ethernet interface module of H7-200Smart series transmits I/O data of I/O module expanded after interface module to master station through S7 slave protocol. Having following features: Up to 6 smart expansion modules can be expanded; Support S7, visiting I zone, Q zone, AI zone, AQ zone and V zone; It is convenient and efficient that S7 communication can be carried out with S7-200smart or H7-200smart series CPU through the S7 protocol (as the slave).
Supported Module Type	Support all digital and analog expansion modules (including I/O modules that use V zone), DP01 is not supported.

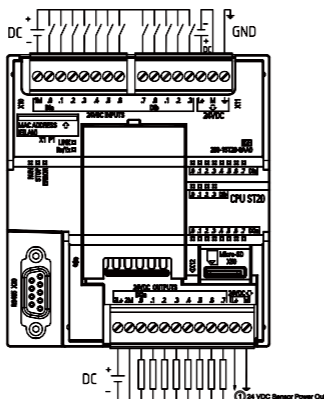
Communication Interface Module-Ethernet

Model No.	IM 155
Order No.	H7 155-1PN01-0AA0
Picture	
Product Description	Based on PROFINET slave station interface module of Ethernet, can be expandable to 8 smart family modules
Standard	
Dimension (W×H×D)	47×100×81mm
Power Input Voltage	20.4-28.8V DC
Power Input Current	2A
Power Consumption	2W
PROFINET Communication Parameters	
Communication Ports	2 RJ45 ports
Electrical Type	RJ45 (Not support polarity adaptation)
Transmission Rate	100 Mbps, full duplex
Supported Ethernet Service	ping arp Network Diagnosis (SNMP) /MIB-2 LLDP
Minimum Cycle Time	5ms
Third-party PROFINET Master Station	Support
The communication distance between slave station is the longest	100m (100BASE-TX)
Topological Structure	Support star, tree, line and ring topology structure
Hardware Configuration Function	
Import file type	PROFINET GSD file, XML format
Extended capability	Support 8 H7-200 Smart Modules Expansion Expansion module can add digital module, analog module and temperature module
Isolation and Protection	
Interface Isolation	transformer isolation of RJ45 communication port
Power Supply Protection	The power supply terminal provides reverse connection protection and surge absorption function.
Function Introduction	
Overview	IM155 communication interface module is distributed I/O module developed by Huceen Automation for system integrated customers; It has high-speed Ethernet communication, support Profinet slave station communication protocol, and can be mounted under Profinet master station equipment; Meanwhile, a single module can be expanded to 8 modules such as Huceen H7 series smart modules, Simatic S7series smart modules and Huceen H5 series smart modules.
Product Features	1. High-speed Ethernet communication; 2. Support Profinet master &slave station communication protocol; 3. Flexible application and can expand smart family module.

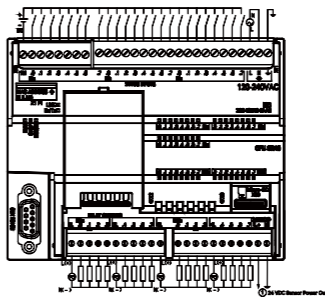
# Appendix1: H 7-200 smart series wiring diagram



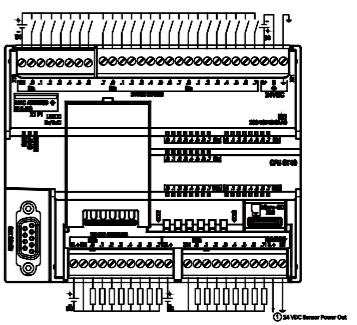
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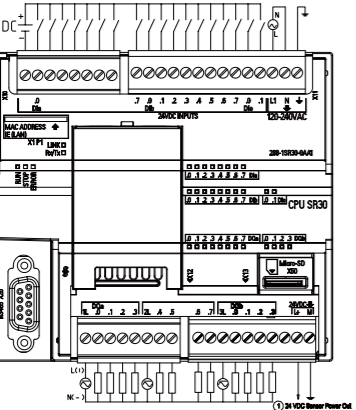
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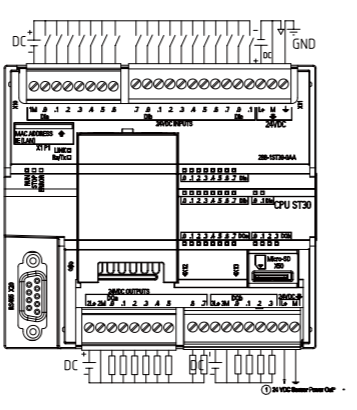
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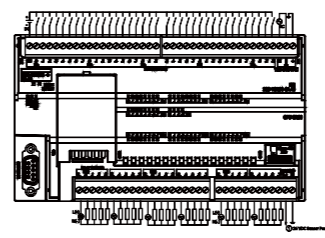
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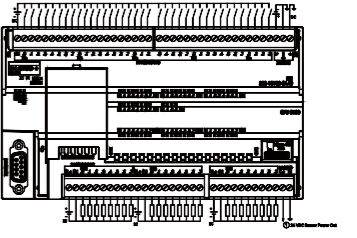
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H7-288-1ST30-0AA0

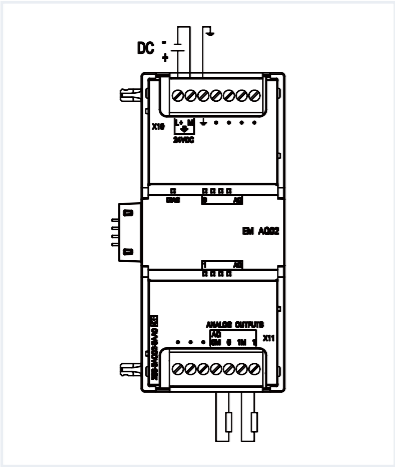


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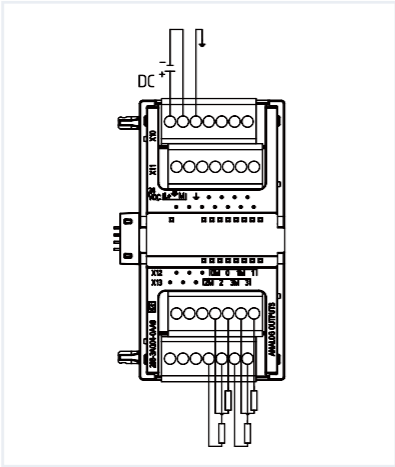


H7-288-1ST60-0AA0

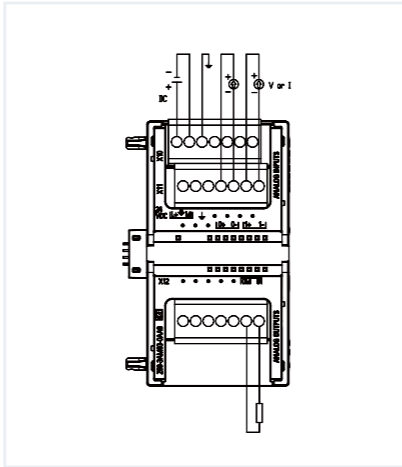
Appendix1: H 7-200 smart series wiring diagram



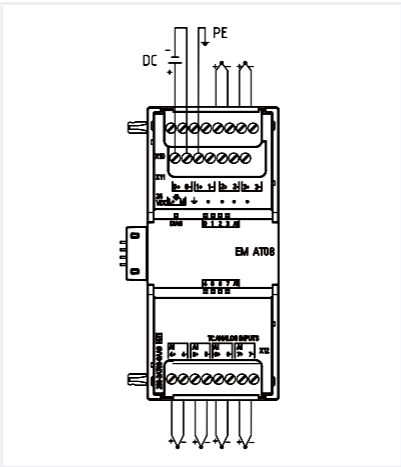
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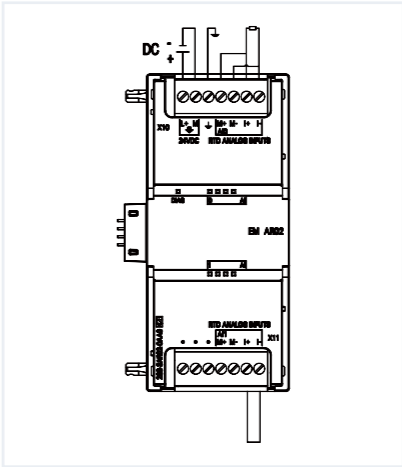
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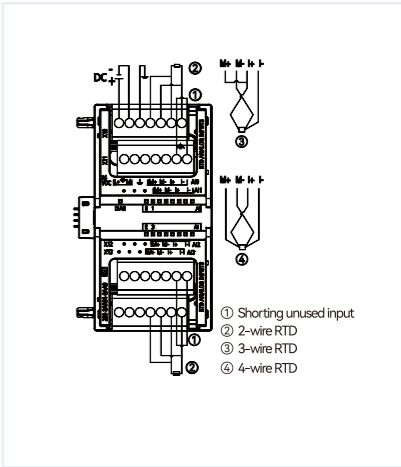
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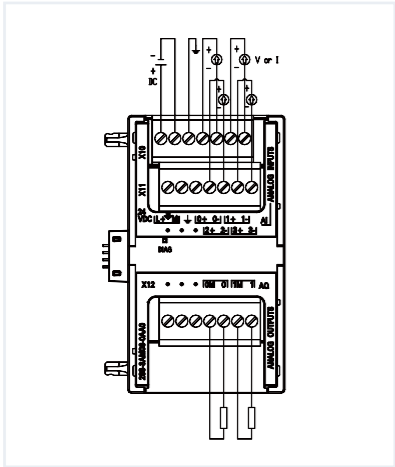
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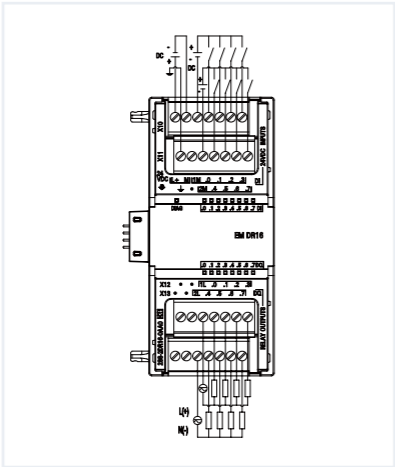
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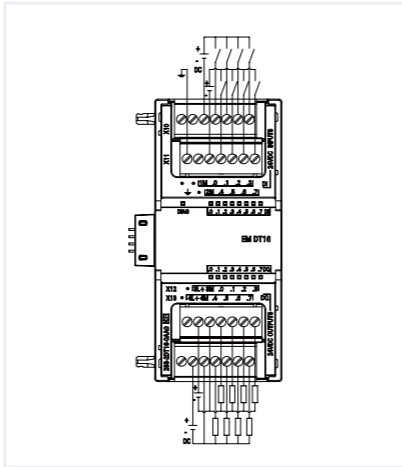
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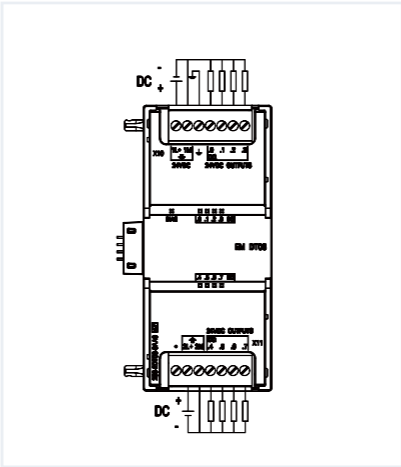
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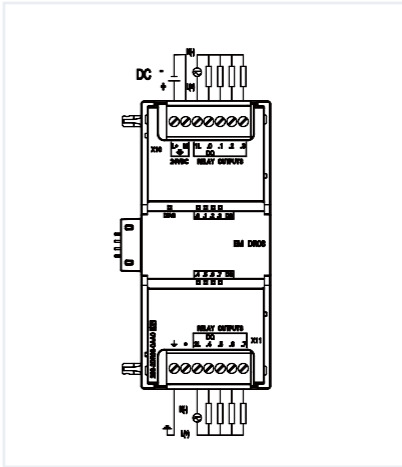
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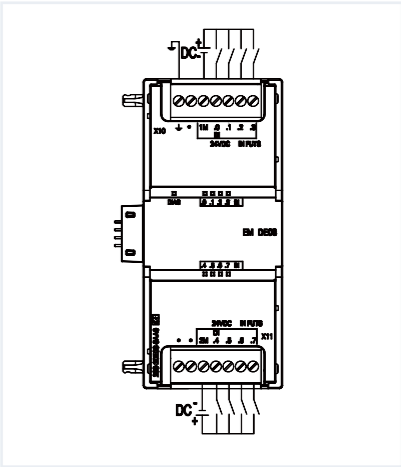
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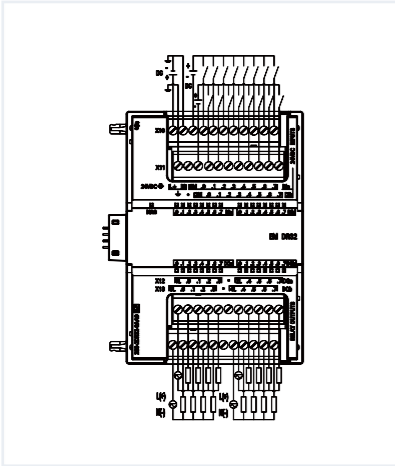
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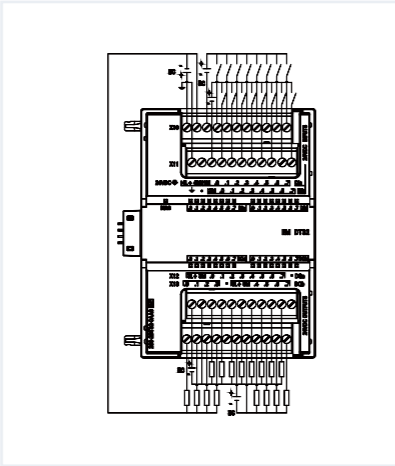
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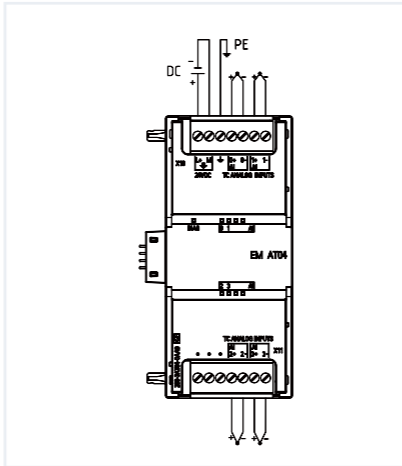
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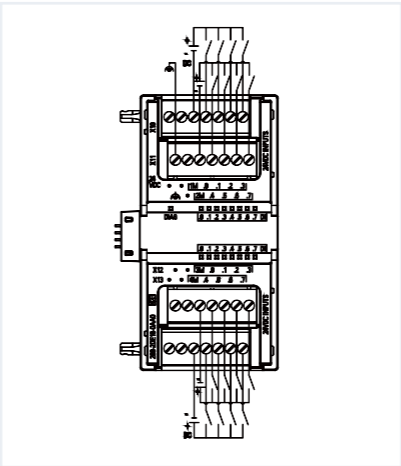
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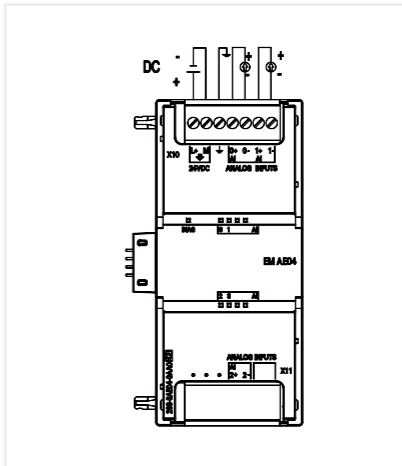
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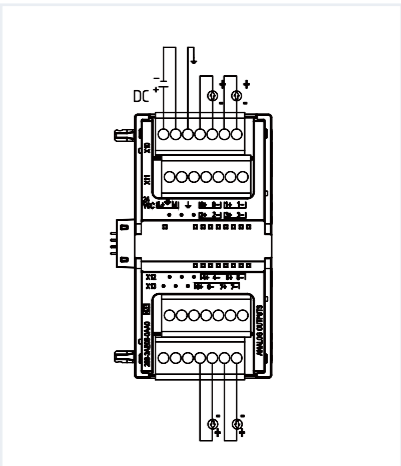
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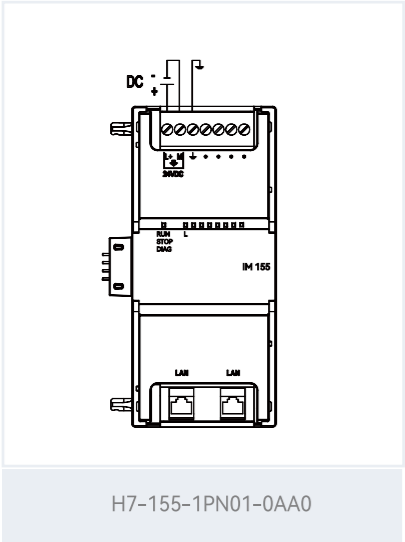
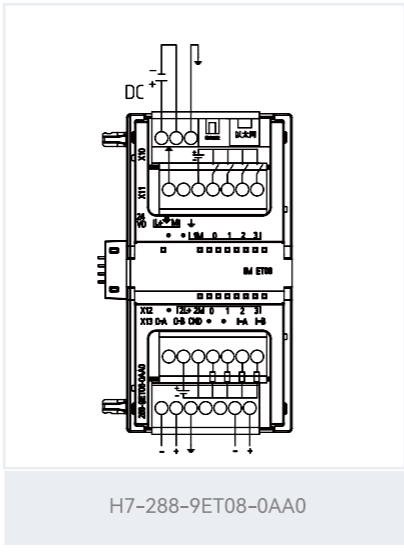
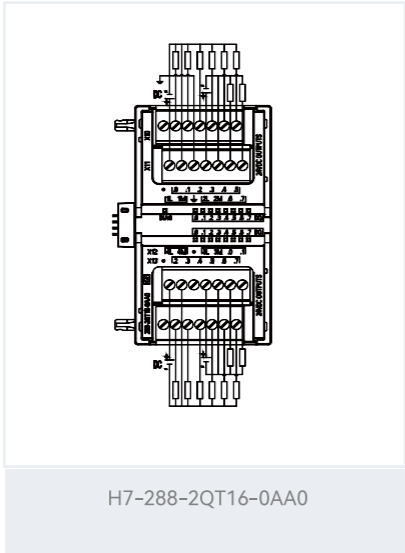
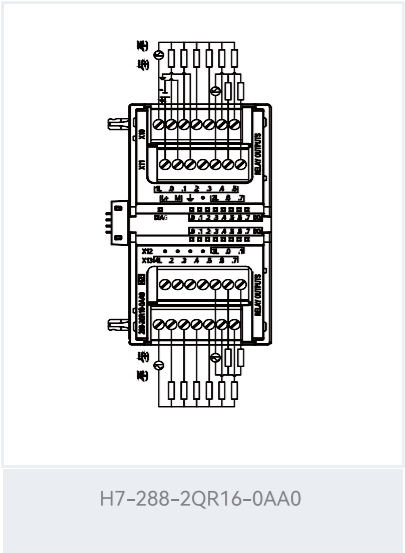


H7-288-3AE04-0AA0  
H7-288-3AE04-0AA1



H7-288-3AE08-0AA0  
H7-288-3AE08-0AA1

Appendix1: H 7-200 smart series wiring diagram



Appendix2:The corresponding table of H7 SMART AT08 module DIP switch Settings

Model number H7 288-3AT08-0AA0/E7 288-3AT08-0AA1		
Location	Select an item	Set
SW1 ~ SW3	Thermocouple type: J、K、T、E、R、S、N、±80mV	H 7/E 7smart AT08 thermocouple module type selection and DIP switch SW1-SW3 corresponding table
SW4	Keep it unused	
SW5	Detection direction of broken wire	0: positive calibration (3276.7) 1: negative calibration (-3276.8)
SW6	Break-line detection enabled	0: Enable 1: prohibit
SW7	Choice of unit of measurement	0: Celsius, 1: Fahrenheit
SW8	Cold end compensation	0: Yes 1: No

TC type	SW1	SW2	SW3
J(Default)	0	0	0
K	0	0	1
T	0	1	0
E	0	1	1
R	1	0	0
S	1	0	1
N	1	1	0
+/-80mv	1	1	1

Appendix3: H7-200 SMART Ordering data

H7-200 Smart Series PLC

H7-200 Smart CPU		Article No.
CPU SR20	Standard CPU, Relay output 220VAC power supply, 1*RS485 1*RJ45 12DI/8DO	H7 288-1SR20-0AA0
CPU ST20	Standard CPU, Transistor output 24VDC power supply, 1*RS485 1*RJ45 12DI/8DO	H7 288-1ST20-0AA0
CPU SR30	Standard CPU, Relay output 220V AC power supply, 1*RS485 1*RJ45 18DI/12DO	H7 288-1SR30-0AA0
CPU ST30	Standard CPU, Transistor output 24V DC power supply, 1*RS485 1*RJ45 18DI/12DO	H7 288-1ST30-0AA0
CPU SR40	Standard CPU, Relay output 220VAC power supply, 1*RS485 1*RJ45 24DI/16DO	H7 288-1SR40-0AA0
CPU ST40	Standard CPU, Transistor output 24V DC power supply, 1*RS485 1*RJ45 24DI/16DO	H7 288-1ST40-0AA0
CPU SR60	Standard CPU, Relay output 220VAC power supply, 1*RS485 1*RJ45 36DI/24DO	H7 288-1SR60-0AA0
CPU ST60	Standard CPU, Transistor output 24V DC power supply, 1*RS485 1*RJ45 36DI/24DO	H7 288-1ST60-0AA0
H7-200 Smart Digital module		Article No.
EM DE08	Digital input module, 8DI 24V DC	H7 288-2DE08-0AA0
EM DE16	Digital input module, 16DI 24V DC	H7 288-2DE16-0AA0
EM DR08	Digital output module, 8DO Relay output	H7 288-2DR08-0AA0
EM DT08	Digital output module, 8DO Transistor output	H7 288-2DT08-0AA0
EM QR16	Digital output module, 16DO Relay output	H7 288-2QR16-0AA0
EM QT16	Digital output module, 16DO Transistor output	H7 288-2QT16-0AA0
EM DR16	Digital input/output module, 8DI/8DO Relay output	H7 288-2DR16-0AA0
EM DT16	Digital input/output module, 8DI/8DO Transistor output	H7 288-2DT16-0AA0
EM DR32	Digital input/output module, 16DI/16DO Relay output	H7 288-2DR32-0AA0
EM DT32	Digital input/output module, 16DI/16DO Transistor output	H7 288-2DT32-0AA0
H7-200 Smart Analog module		Article No.
EM AE04	Analog input module, 4AI	H7 288-3AE04-0AA0
EM AE08	Analog input module, 8AI	H7 288-3AE08-0AA0
EM AQ02	Analog output module, 2AO	H7 288-3AQ02-0AA0
EM AQ04	Analog output module, 4AO	H7 288-3AQ04-0AA0
EM AM03	Analog input/output module, 2AI/1AO	H7 288-3AM03-0AA0
EM AM06	Analog input/output module, 4AI/2AO	H7 288-3AM06-0AA0
EM AR02	Thermistor input module, 2RTD	H7 288-3AR02-0AA0
EM AR04	Thermistor input module, 4RTD	H7 288-3AR04-0AA0
EM AT04	Thermocouple input module, 4TC	H7 288-3AT04-0AA0
EM AT08	Thermocouple input module, 8TC	H7 288-3AT08-0AA0
H7-200Smart Analog value Economy		Article No.
EM AE04s	Analog input module, 4AI	H7 288-3AE04-0AA1
EM AE08s	Analog input module, 8AI	H7 288-3AE08-0AA1
EM AQ02s	Analog output module, 2AO	H7 288-3AQ02-0AA1
EM AQ04s	Analog output module, 4AO	H7 288-3AQ04-0AA1
EM AM03s	Analog input/output module, 2AI/1AO	H7 288-3AM03-0AA1
EM AM06s	Analog input/output module, 4AI/2AO	H7 288-3AM06-0AA1
H7-200Smart rack extension interface module		Article No.
IM ET08	1*RJ45, 1*RS485, With 4DI/4DO, 6 IO modules can be extended	H7 288-9ET08-0AA0
H7-200 smart remote I/O interface module		Article No.
IM 155	H7 Smart series, PN interface module	H7 155-1PN01-0AA0

Service and Warranty

The stage behind is the key to success, and after-sales service is the guarantee of life



3 years warranty

Within 3 years from the date of delivery, we can offer the unconditional free maintenance once occurring product quality problem.



Lifetime maintenance

We offer lifelong maintenance and repair services for the users of HUCEEN products