V 25.01

For more info, please contact us. CHIKU

HUNTEC

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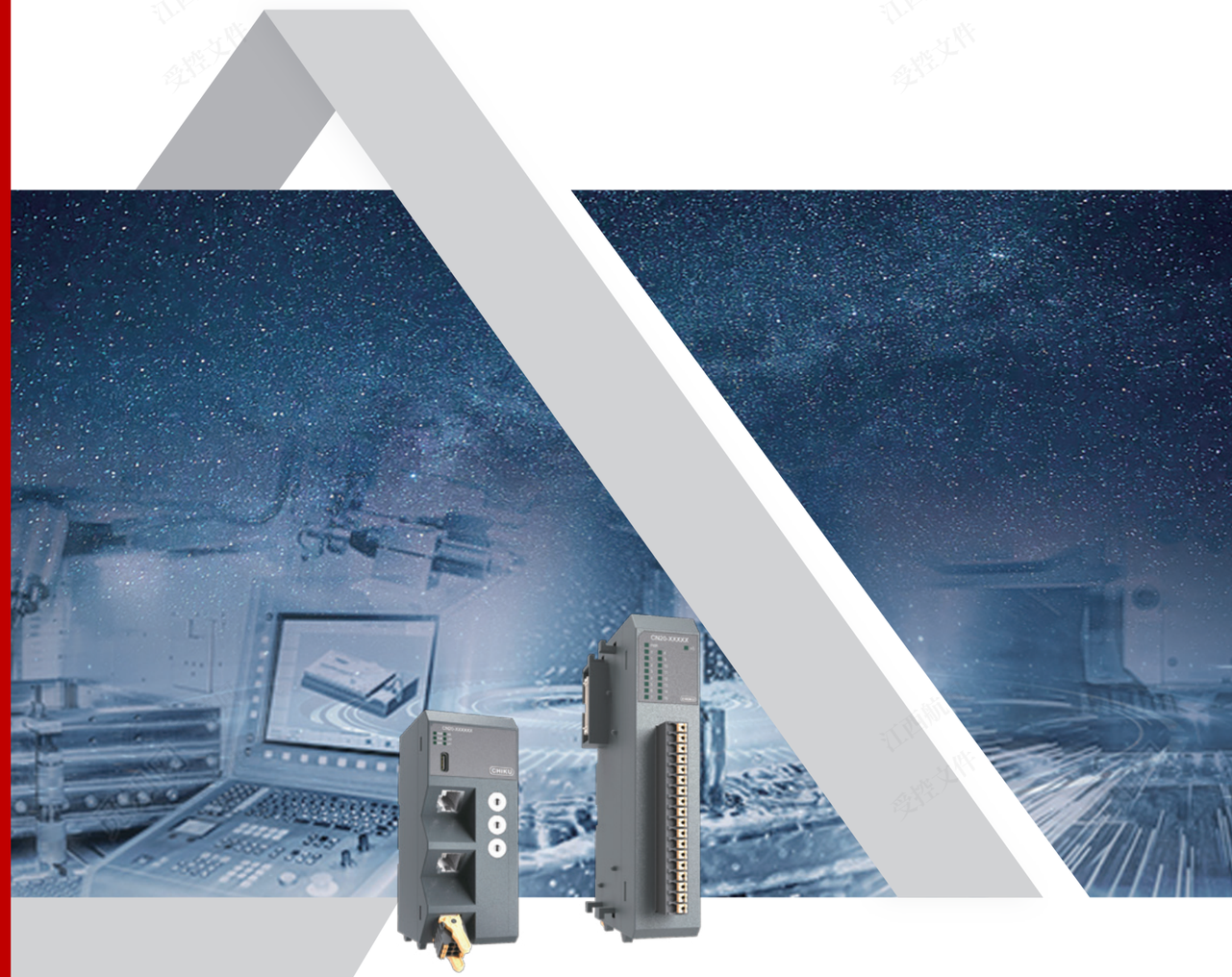
All images are reference only,any change without notification previously.All details and data subject to our final confirmation.

Sys - Function Contact Selection Guide

HUNTEC



REMOTE I/O MOUDULE

Electrical connection system
selection guide

HUNTEC

About Us



Personnel: More than 500 employees, of which R&D engineers account for 15%

Service network: 6 direct marketing and service centers in Shanghai, Shenzhen, Dongguan, Suzhou, Beijing and Nanjing

Design and manufacture: Full-chain production of product design, mold design and manufacturing, stamping, turning, injection molding, assembly and testing, with independent intellectual property

Certificates and systems: National high-tech enterprises, provincial scientific research centers, CNAS accredited laboratories, ISO9001, etc. Three systems in one, UL, CE, CQC and other certifications

Quality Policy:

Rigorous and realistic, Excellent quality
Excellent service, Sustainable development

COMPANY PROFILE

COMPANY VISION

we are committed to keeping China's electric connection technology in step with the world.
Creat better return on investment and experience for global customers.

COMPANY MISSION

We are committed to providing professional electrical connection solutions for our partners

COMPANY VALUE

Same goal,same ideal,
fighting together !











Absorption Innovation • Sincere Trust • Independent Manufacturing

Application fields

Industrial Automation

Industrial automation is the future trend which produce products by using auto control, auto adjustment device instead of manual operation.

Power

The safety, stability, and sufficient supply of electricity are important guarantees for the comprehensive, coordinated, and sustainable development of the national economy.

Mechanical Manufacture

Mechanical manufacture mainly includes power machinery, lifting and transportation machinery, chemical machinery, machine tools, and other mechanical equipment, which providing advanced equipment for the entire national economy.

Logistics Equipment

Logistics machinery is one of the main operational tools for modern enterprises, playing an important role in logistics operations and greatly promoting the rapid development of logistics.

Shipbuilding

From the changes in China's shipbuilding industry's share of the world shipbuilding market in the past decade, it can be seen that the proportion of China's shipbuilding industry in the global market is significantly increasing. China has become one of the important shipbuilding centers in the world.

Information and Communication

The arrival of the 5G era, with its characteristics of high speed, low latency, and the Internet of Things, is driving a new wave of technology.

Rail Transit

Rail transit mainly includes three categories: national railway system, intercity rail transit, and urban rail transit.

To be the Leader of Electrical connector

+ Application field







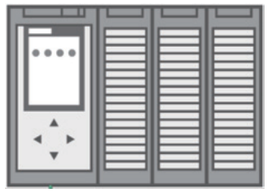




CN20 Series
Card type remote I/O module

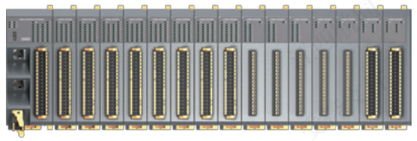
CONSTRUCT MULTIPLE SYSTEM EASILY

Support main brand PLC in the market, such as Siemens/Beckhoff/AB/OMRON/Keyence/INOVANCE ETC CODESYS platform



EtherCAT
EtherNet/IP
PROFINET

CN20 series products

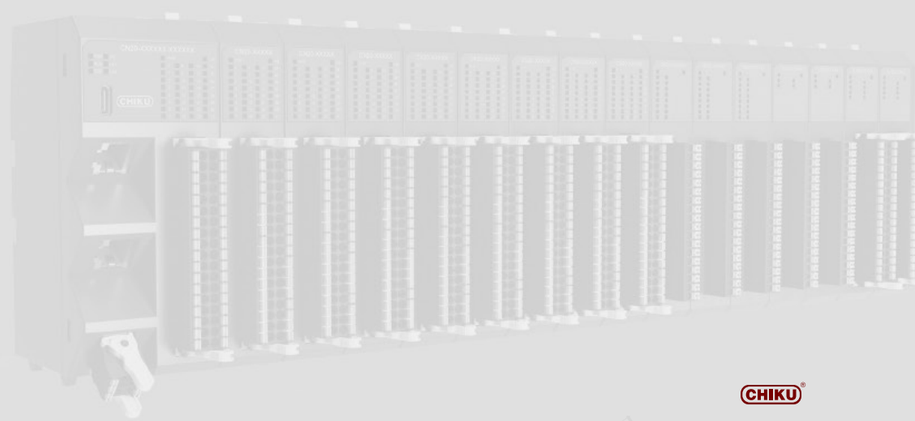




Connect with sensors,Actuators, safety components, etc

CN20

Coupler series



江西航同 爱性文件

CN20 Series
EtherCAT coupler



CN20-EC001
Coupler

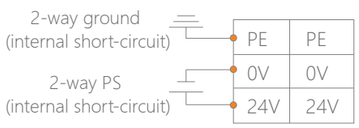


CN20-EC001-XXXXX
Coupler with
16 channel



CN20-EC001-XXXXX
Coupler with
32 channel

Project	Specification
Type	CN20–E0001
Level of Protection	IP20
Certification	CE
Reted Input Voltage	24V DC(20.4VDC–28.8VDC)
Reted Input current	1A（Typical value at 24V）
Rated voltage of bus output power supply	5V DC(4.75VDC–5.25VDC)
Rated current of bus output power supply	3.5A(tipical value when V=5V)
Power Protection	Overcurrent Protection,Anti–reverse connection protection,Surge Absorption
Ambient working temperature	–10° C–55° C
Ambient working humidity	The relative humidity is less than 95%RH No condensation
Atmosphere	Ensure no corrosive gases
Ambient Storage temperature	–25℃–85℃ The relative humidity is less than 90%RH No condensation
Elevation	≤2000(80kPa)
Pollution Degree	Level II
Immunity	power cord 2Kv(IEC 61000–4–4)
Overvoltage category	II
EMC Anti–interferance Level	Zone B,IEC61131–2
Vibration resistance	EC 60068–2–6
Impact resistance	EC 60068–2–27
Minimum scanning period	125us
Expansion capability	Supports 32 modules, Note: Combined with ""Coupler"" comes with ""Rated current of bus output power supply"" with the ""Expansion module"" situation, add ""auxiliary Power Module "Model: CN20–PWR01"



Notice: wiring diagram of I/O module on coupler, pls take ref. to the wiring diagram of extened module

CN20 Series
PROFINET coupler



CN20-PN001
Coupler

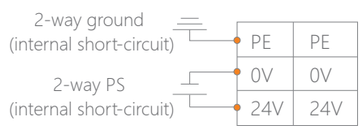


CN20-PN001-XXXXX
Coupler with
16 channel



CN20-PN001-XXXXX
Coupler with
32 channel

Project	Specification
Type	CN20–E0001
IP grade	IP20
Certification	CE
Reted input voltage	24V DC(20.4VDC–28.8VDC)
Reted Input current	1A（Typical value at 24V）
Rated voltage of bus output power supply	5V DC(4.75VDC–5.25VDC)
Rated current of bus output power supply	3.5A(tipical value when V=5V)
Power protection	Overcurrent Protection,Anti–reverse connection protection,Surge Absorption
Ambient working temperature	–10° C–55° C
Ambient working humidity	The relative humidity is less than 95%RH No condensation
Air	Ensure no corrosive gases
Storage temperature	The relative humidity is less than 90%RH No condensation
Elevation	≤2000 (80 kPa)
Pollution Degree	level II
Immunity	power cord(IEC 61000–4–4)
Overvoltage category	II
EMC Anti–interferance Level	Zone B,IEC61131–2
Vibration resistance	EC 60068–2–6
Impact resistance	EC 60068–2–27
Minimum scanning period	125μs
Communication mode	RT
Minimum communication cycle	1ms
I&M data	I&M0 ~I&M3
PROFINET version	V2.3
PROFINET Interface QTY	2
PROFINET Switch function	Support networking function
Open IE support	Support TCP/IP，SNMP，LLDP
Alarm/diagnose/status information	Support, Support lock error codes to be uploaded to the PLC
Physical layer	100BASE–TX
Communication rate	10 Mbit/s（standard EtherNet）100 Mbit/s (PROFINET）
Statup Priority	support
Port disable	support
Expansion capability	Supports 32 modules, Note: Combined with ""Coupler"" comes with ""Rated current of bus output power supply"" with the ""Expansion module"" situation, add ""auxiliary Power Module "Model: CN20–PWR01"



Notice: wiring diagram of I/O module on coupler, pls take ref. to the wiring diagram of extened module

CN20 Series
EtherCAT coupler

EtherNet/IP™



CN20-EIP001
Coupler

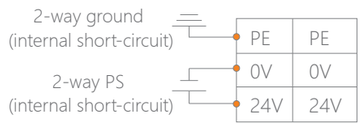


CN20-EIP001-XXXXX
Coupler with
16 channel



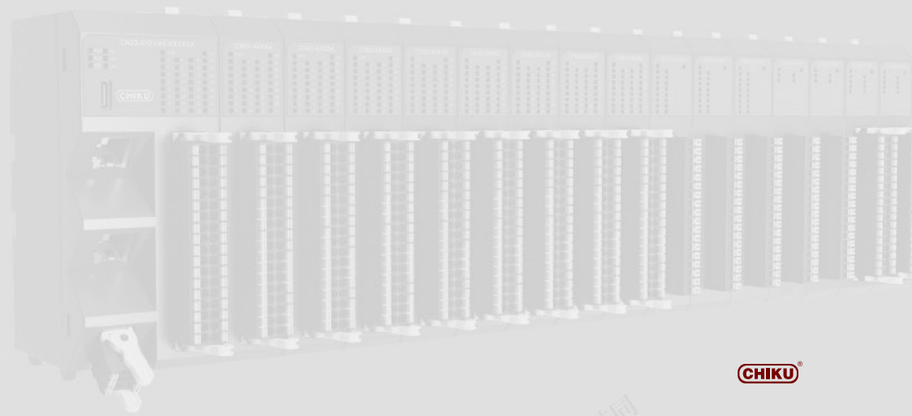
CN20-EIP001-XXXXX
Coupler with
32 channel

Project	Specification
Type	CN20–E0001
IP grade	IP20
Certification	CE
Reted Input Voltage	24V DC(20.4VDC–28.8VDC)
Reted Input current	1A（Typical value at 24V）
Rated voltage of bus output power supply	5V DC(4.75VDC–5.25VDC)
Rated current of bus output power supply	3.5A(tipical value when V=5V)
Power Protection	Overcurrent Protection,Anti–reverse connection protection,Surge Absorption
Ambient working temperature	–10° C–55° C
Ambient working humidity	The relative humidity is less than 95%RH No condensation
Air	Ensure no corrosive gases
Ambient Storage temperature	–25℃–85℃(The relative humidity is less than) 90%RH No condensation
Elevation	≤2000m (80 kPa)
Pollution Degree	level II
Immunity	Power cord(IEC 61000–4–4)
Overvoltage category	II
EMC Anti–interferance Level	Zone B,IEC61131–1
Vibration resistance	IEC 60068–2–6
Impact resistance	IEC 60068–2–27
Minimum scanning period	125μs
Minimum communication cycle	1ms
EtherNet/IP Interface QTY	2
EtherNet/IP Switch function	Support networking function
Open IE support	Support TCP/IP,SNMP,LLDP
Communication rate	100 Mbit/s (PROFINET)
Expansion capability	Supports 32 modules, Note: Combined with ""Coupler"" comes with ""Rated current of bus output power supply"" with the ""Expansion module"" situation, add ""auxiliary Power Module "Model: CN20–PWR01"



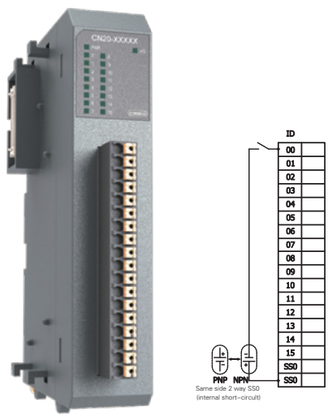
Notice: wiring diagram of I/O module on coupler, pls take ref. to the wiring diagram of extened module

CN20
Extended module



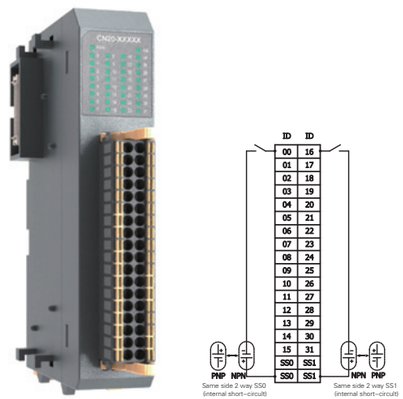
CN20 Extended module
DI module

CN20-ID16



Project	Specification
Type	CN20–ID16
Product name	16–channel transistor input module
IP grade	IP20
Certification	CE
Ambient working temperature	–10℃–55℃
Input/output channels	16 channels/––
Output/Input type	NPN/PNP shared
Reted input voltage	DC24V
Rated current of bus input	40mA

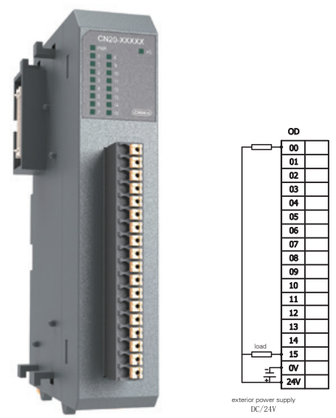
CN20-ID32



Project	Specification
Type	CN20–ID32
Product name	32–channel transistor input module
IP grade	IP20
Certification	CE
Ambient working temperature	–10℃–55℃
Input/output channels	32 channels/––
Input/output type	NPN/PNP shared
Reted input voltage	DC24V
Rated current of bus input	40mA

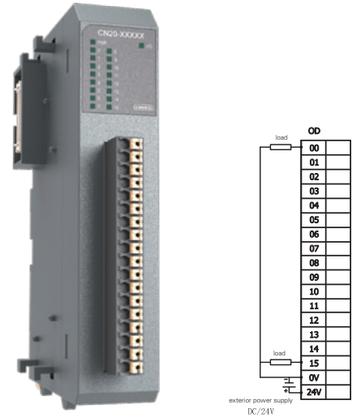
CN20 Extended module
DO module

CN20-OD16N



Project	Specification
Type	CN20–OD16N
Product name	16 channel transistor output module
IP grade	IP20
Certification	CE
Ambient working temperature	–10℃–55℃
Input/output channels	––/16 channels
Output/Input type	––/NPN
Reted input voltage	DC24V
Maximum load current	0.5A/channel、2A/8unit
Rated current of bus input	130mA

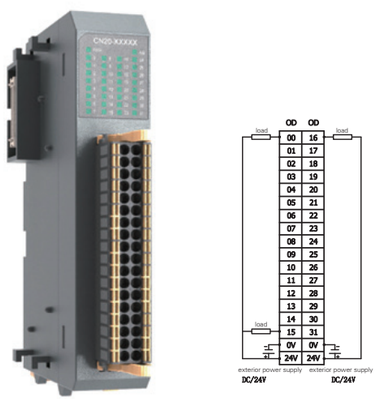
CN20-OD16P



Project	Specification
Type	CN20–OD16P
Product name	16– channel transistor output module
IP grade	IP20
Certification	CE
Ambient working temperature	–10℃–55℃
Input/output channels	––/16 channels
Output/Input type	––/PNP
Reted input voltage	DC24V
Maximum load current	0.5A/channel、2A/8unit
Rated current of bus input	130mA

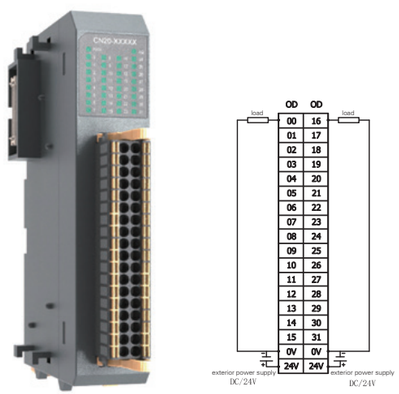
CN20 Extended module
DO module

CN20-OD32N



Project	Specification
Type	CN20–OD32N
Product name	32– channel transistor output module
IP grade	IP20
Certification	CE
Ambient working temperature	–10℃ –55℃
Input/output channels	––/ 32 channels
Output/Input type	––/ NPN
Reted input voltage	DC24V
Maximum load current	0.5A/ channel，2A/8 unit
Rated current of bus input	200mA

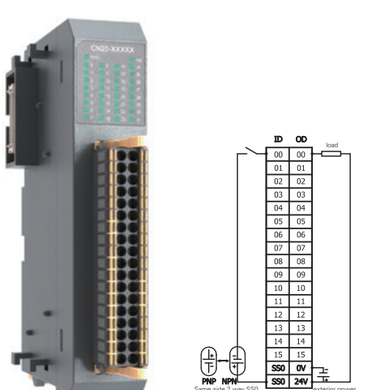
CN20-OD32P



Project	Specification
Type	CN20–OD32P
Product name	32– channel transistor output module
IP grade	IP20
Certification	CE
Ambient working temperature	–10℃ –55℃
Input/output channels	––/ 32 channels
Output/Input type	––/ PNP
Reted input voltage	DC24V
Maximum load current	0.5A/ channel，2A/8 unit
Rated current of bus input	200mA

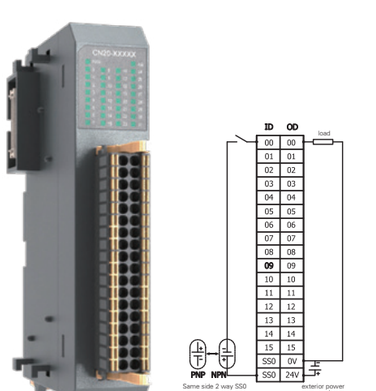
CN20 Extended module
DI/DO module

CN20-1616N



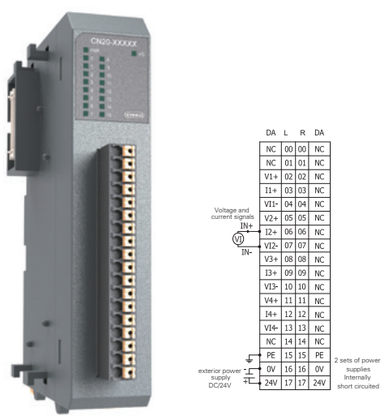
Project	Specification
Type	CN20–1616N
Product name	16–channel input/16 channel transistor output module
IP grade	IP20
Certification	CE
Ambient working temperature	–10℃ –55℃
Input/output channels	16 channels/16 channels
Input/output type	NPN&PNP / NPN
Reted input voltage	DC24V
Maximum load current	0.5A/channel，2A/8 unit
Rated current of bus input	150mA

CN20-1616P



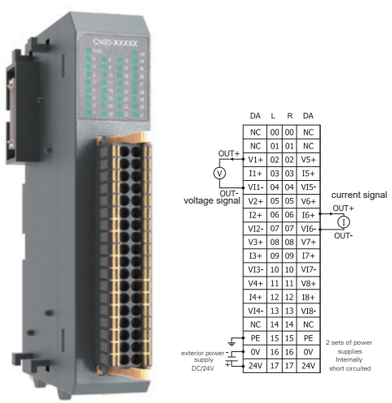
Project	Specification
Type	CN20–1616P
Product name	16–channel input/16 channel transistor output module
IP grade	IP20
Certification	CE
Ambient working temperature	–10℃ –55℃
Input/output channels	16 channels/16 channels
Input/output type	NPN&PNP / PNP
Reted input voltage	DC24V
Maximum load current	0.5A/channel，2A/8 unit
Rated current of bus input	150mA

CN20-DA0416



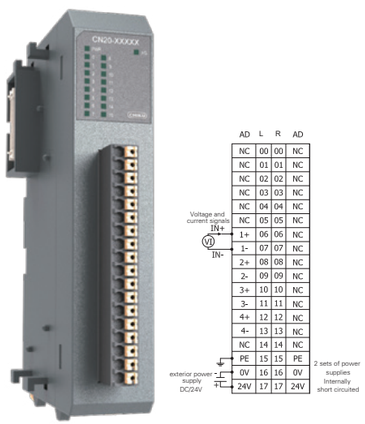
Project	Specification
Type	CN20–DA0416
Product name	4–channel AO module
IP grade	IP20
Certification	CE
Ambient working temperature	–10℃–55℃
Input/output channels	––/4 channels
Output/input type	Support Both voltage and current
Input range	Current:0–20mA,4–20mA
	Voltage: ± 10V,0–10V, ± 5V, 0–5V,1–5V
Conversion time	60us/channel
Resolution ratio	16bit
Accuracy (25℃)	± 0.2%（Full Scale）
Rated current of bus input	40mA

CN20-DA0816



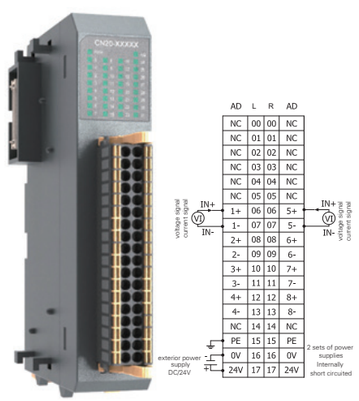
Project	Specification
Type	CN20–DA0816
Product name	8–channel AO module
IP grade	IP20
Certification	CE
Ambient working temperature	–10℃–55℃
Input/output channels	––/8 channels
Output/input type	Support both voltage and current
Input range	Current:0–20mA,4–20mA
	Voltage: ± 10V,0–10V, ± 5V, 0–5V,1–5V
Conversion time	60us/channel
Resolution ratio	16bit
Accuracy (25℃)	± 0.2%（Full Scale）
Rated current of bus input	40mA

CN20-AD0416



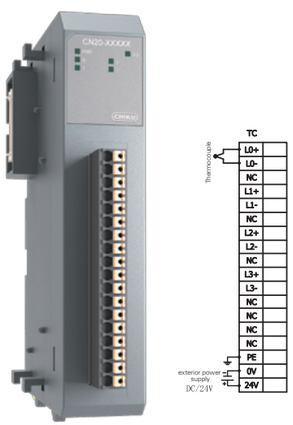
Project	Specification
Type	CN20–AD0416
Product name	4–channel AI module
IP grade	IP20
Certification	CE
Ambient working temperature	–10℃–55℃
Input/output channels	4 channels/––
Output/input type	Support both voltage and current
Input range	"Current:0–20mA,4–20mA
	Voltage: ± 10V,0–10V, ± 5V, 0–5V,1–5V"
Conversion time	60us/channel
Resolution ratio	16bit
Accuracy (25℃)	± 0.2%（Full Scale）
Rated current of bus input	40mA

CN20-AD0816



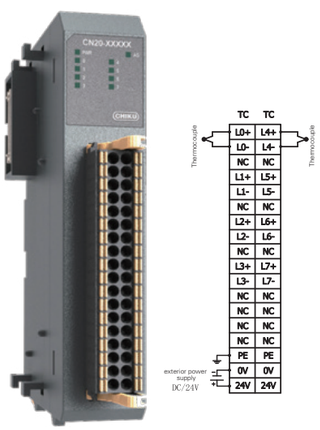
Project	Specification
Type	CN20–AD0816
Product name	8–channel AI module
IP grade	IP20
Certification	CE
Ambient working temperature	–10℃–55℃
Input/output channels	8 channels/––
Output/input type	Support both voltage and current
Input range	"Current:0–20mA,4–20mA
	Voltage: ± 10V,0–10V, ± 5V, 0–5V,1–5V"
Conversion time	60us/channel
Resolution ratio	16bit
Accuracy (25℃)	± 0.2%（Full Scale）
Rated current of bus input	40mA

CN20-TC04



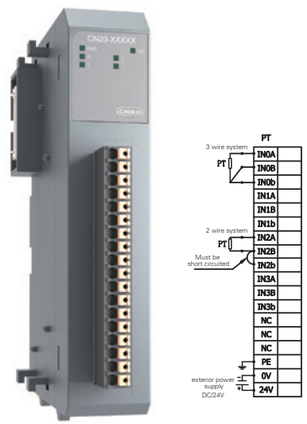
Project	Specification
Type	CN20–TC04
Product name	4–channel thermocouple temperature module
IP grade	IP20
Certification	CE
Ambient working temperature	–10℃ –55℃
Input/output channels	4
Sensor type	Thermocouple input, thermocouple type: B,E,N,J,K,R,S,T
Display sensitivity	0.1℃
Accuracy (25℃)	（±0.1%）±1℃（±100mV F.S）
Resolution ratio	24BIT
Rated current of bus input	120mA

CN20-TC08



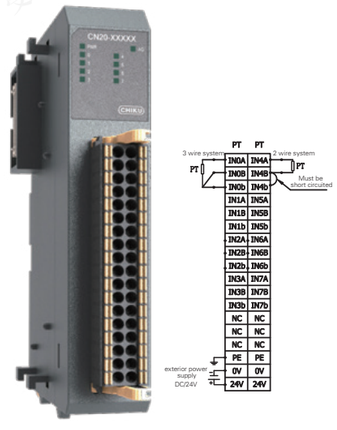
Project	Specification
Type	CN20–TC08
Product name	8–channel thermocouple temperature module
IP grade	IP20
Certification	CE
Ambient working temperature	–10℃ –55℃
Input/output channels	8
Sensor type	Thermocouple input, thermocouple type: B,E,N,J,K,R,S,T
Display sensitivity	0.1℃
Accuracy (25℃)	（±0.1%）±1℃（±100mV F.S）
Resolution ratio	24BIT
Rated current of bus input	120mA

CN20-PT04



Project	Specification
Type	CN20–PT04
Product name	4–channel thermistor temperature module
IP grade	IP20
Certification	CE
Ambient working temperature	–20℃ –55℃
Input/output channels	4
Sensor type	Pt100、Pt500、Pt1000、Cu100、NTC10K、KTY84
Display sensitivity	0.1℃
Accuracy (25℃)	（±0.1%）±1℃（±100mV F.S）
Resolution ratio	24BIT
Rated current of bus input	120mA

CN20-PT08



Project	Specification
Type	CN20–PT08
Product name	8–channel thermistor temperature module
IP grade	IP20
Certification	CE
Ambient working temperature	–20℃ –55℃
Input/output channels	8
Sensor type	Pt100、Pt500、Pt1000、Cu100、NTC10K、KTY84
Display sensitivity	0.1℃
Accuracy (25℃)	（±0.1%）±1℃（±100mV F.S）
Resolution ratio	24BIT
Rated current of bus input	120mA

Auxiliary functions module/ product diamension/ Appendix

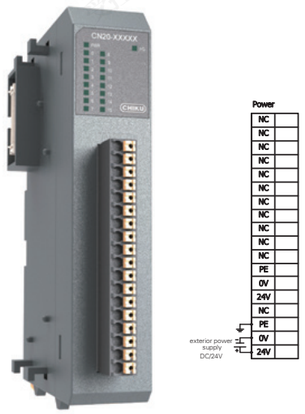
Terminal cover
Auxiliary power module

CN20-END01



Project	Specification
Type	CN20–END01
Product name	Terminal cover
IP grade	IP20
Certification	CE
Ambient working temperature	–10℃ –55℃
Input/output channels	4
Output/Input Type	Voltage and current are supported
Input range	current： 0–20mA，4–20mA Voltage： ±10V，0–10V， ±5V，0–5V，1–5V
Conversion time	60μs/ channels
Resolution ratio	16BIT
Accuracy（25℃）	±0.1%（Full Scale）
Rated current of bus input	120mA

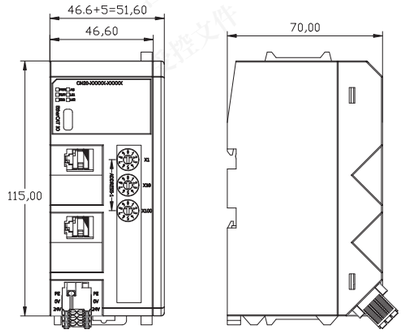
CN20-PWR01



Project	Specification
Type	CN20–PWR01
Product name	Auxiliary power module
Product Remarks	（The coupler has more than 16 expansion modules,Just need to add CN20–PWR01Auxiliary power module）
IP grade	IP20
Certification	CE
Ambient working temperature	–10℃ –55℃
Rated input voltage	24V DC（20.4V DC ～ 28.8V DC）
Rated current of input power	0.5A（Typical value at 24V）
Terminal current capacity	＜4A（Including through wiring current）
Bus output power supply derating	85% derating at 60 ℃ (output current ⩽ 1.7A）, or reducing the rating by 10 ℃ when outputting 2A）

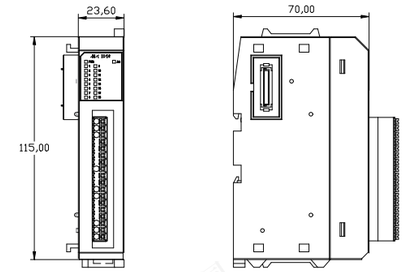
Product dimension diagram





Coupler

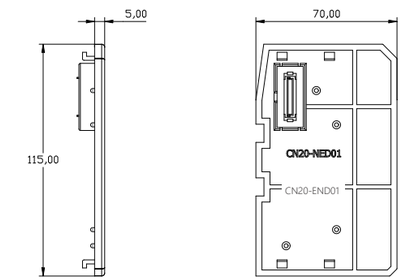




Extended moudule

DI module,　DO module
DI/DOmodule, AI module AOmodule,
Temperature acquisition module, Auxiliary funtion module





Terminal cover

Appendix
Product ordering(model No.)

EtherCAT Coupler with channel

S/N	Models	Product description	Remarks
1	CN20–EC001–ID32	EtherCAT Coupler+32–channel input(NPN and PNP compatible)	
2	CN20–EC001–OD32N	EtherCAT Coupler+32–channel output NPN	
3	CN20–EC001–OD32P	EtherCAT Coupler+32–channel output PNP	
4	CN20–EC001–AD0416	EtherCAT Coupler+4–channel AI input	
5	CN20–EC001–AD0816	EtherCAT Coupler+8–channel AI input	
6	CN20–EC001–DA0416	EtherCAT Coupler+4–channel AO output	
7	CN20–EC001–DA0816	EtherCAT Coupler+8–channel AO output	
8	CN20–EC001–1616N	EtherCAT Coupler+16–channel input(NPN and PNP compatible)/16–channel output NPN	
9	CN20–EC001–1616P	EtherCAT Coupler+16–channel input(NPN and PNP compatible)/16–channel output PNP	

PROFIENT Coupler with channel

S/N	Models	Product description	Remarks
1	CN20–PN001–ID32	PROFIENT Coupler+32–channel input(NPN and PNP compatible)	
2	CN20–PN001–OD32N	PROFIENT Coupler+32–channel output NPN	
3	CN20–PN001–OD32P	PROFIENT Coupler+32–channel output PNP	
4	CN20–PN001–AD0416	PROFIENT Coupler+4–channel AI input	
5	CN20–PN001–AD0816	PROFIENT Coupler+8–channel AI input	
6	CN20–PN001–DA0416	PROFIENT Coupler+4–channel AO output	
7	CN20–PN001–DA0816	PROFIENT Coupler+8–channel AO output	
8	CN20–PN001–1616N	PROFIENT Coupler+16–channel input(NPN and PNP compatible)/16–channel output NPN	
9	CN20–PN001–1616P	PROFIENT Coupler+16–channel input(NPN and PNP compatible)/16–channel output PNP	

EtherNet/IP Coupler with channel

S/N	Models	Product description	Remarks
1	CN20–EIP001–ID32	EtherNet/IP Coupler+32–channel input(NPN and PNP compatible)	
2	CN20–EIP001–OD32N	EtherNet/IP Coupler +32–channel output NPN	
3	CN20–EIP001–OD32P	EtherNet/IP Coupler+32–channel output PNP	
4	CN20–EIP001–D00416	EtherNet/IP Coupler+4–channel AO input	
5	CN20–EIP001–D00816	EtherNet/IP Coupler+8–channel AO input	
6	CN20–EIP001–DA0416	EtherNet/IP Coupler+4–channel AO output	
7	CN20–EIP001–DA0816	EtherNet/IP Coupler+8–channel AO output	
8	CN20–EIP001–1616N	EtherNet/IP Coupler+16–channel input(NPN and PNP compatible)/16–channel output	
9	CN20–EIP001–1616P	EtherNet/IP Coupler+16–channel input (NPN and PNP compatible)/16–channel output	

Appendix
Product ordering(model No.)

Extended module （DI module)

S/N	Models	Product description	Remarks
1	CN20–ID16	16–channel input(NPN and PNP compatible)	
2	CN20–ID32	32–channel input(NPN and PNP compatible)	

Extended module （DO module)

S/N	Models	Product description	Remarks
1	CN20–OD16N	16–channel output NPN	
2	CN20–OD16P	16–channel output PNP	
3	CN20–OD32N	32–channel output NPN	
4	CN20–OD32P	32–channel output PNP	

Extended module （DI/DO module)

S/N	Models	Product description	Remarks
1	CN20–1616N	16–channel input(NPN and PNP compatible)/16–channel output	
2	CN20–1616P	16–channel input(NPN and PNP compatible)/16–channel output	

Extended module （AI/AO module)

S/N	Models		Remarks
1	CN20–AD0416	4–channel analog input, 16 bit resolution, Range：±10V,0–10V,±5V,0–5V,1–5V/0–20mA,4–20mA	
2	CN20–AD0816	8–channel analog input, 16 bit resolution, Range：±10V,0–10V,±5V,0–5V,1–5V/0–20mA,4–20mA	
3	CN20–DA0416	4–channel analog output, resolving 16 bits, Range：±10V,0–10V,±5V,0–5V,1–5V/0–20mA,4–20mA	
4	CN20–DA0816	8–channel analog output, resolving 16 bits, Range：±10V,0–10V,±5V,0–5V,1–5V/0–20mA,4–20mA	

Extended module （Temperature acquisition module)

S/N	Models	Product description	Remarks
1	CN20–TC04	4–channel thermocouple temperature module	
2	CN20–TC08	8–channel thermocouple temperature module	
3	CN20–PT04	4–channel thermistor temperature module	
4	CN20–PT08	8–channel thermistor temperature module	

Extended module （Auxiliary funtion moudule)

S/N	Models	Product description	Remarks
1	CN20–PWR01	Auxiliary power module	
2	CN20–END01	Terminal module	

Take Notes