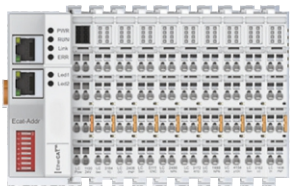
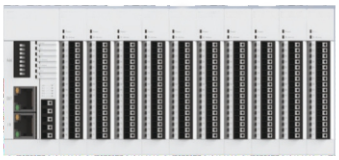
IO module





Module/valve island







Motion control card

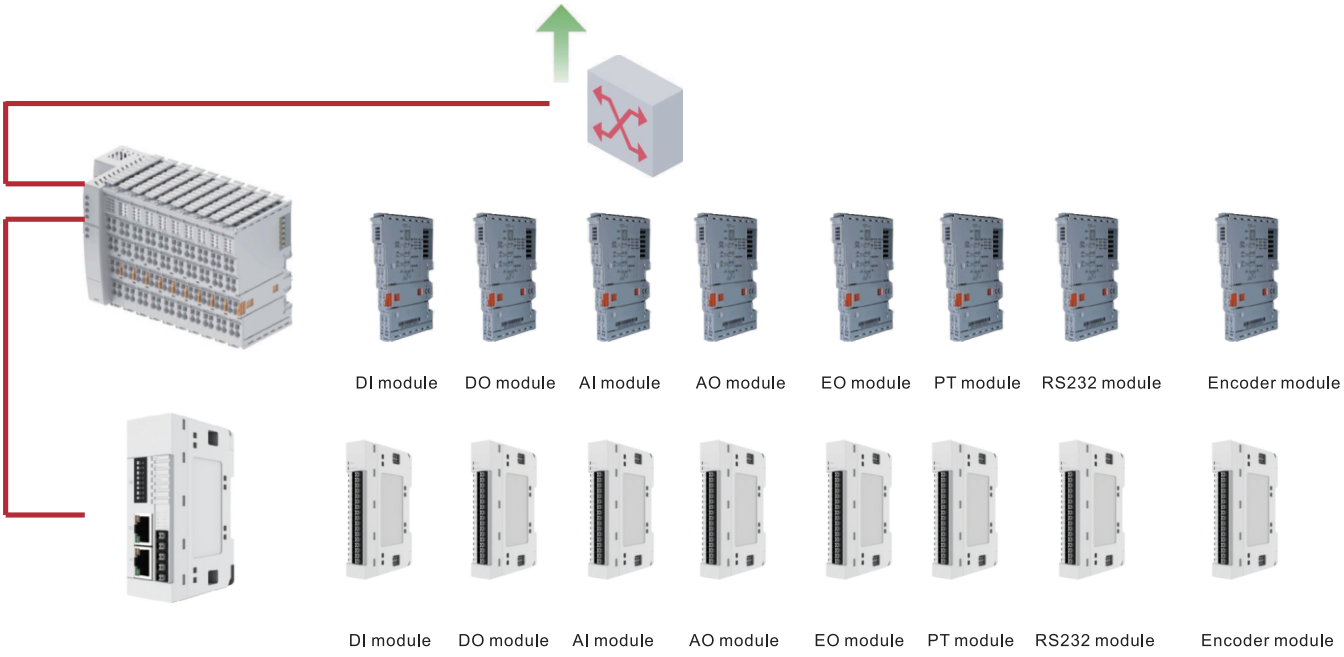


PLC



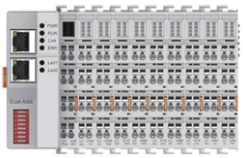
Third party control Products

Ether-CAT protocol, ProfiNET protocol, and Modbus - TCP protocol



Note: A maximum of 32 IO modules can be cascaded

IO module





Module/valve island





Network adapter module

	Protocol	Type	No. of Slot	IO Data Size	Interface Type
EtherCAT	EtherCAT	--	32	sum of input (max.) 1024Byte, sum of output (max.) 1024Byte	2xRJ45
Modbus	Modbus TCP	--	32	/	1xRJ45
PROFINET	Profinet	--	32	sum of input (max.) 1440Byte, sum of output (max.) 1440Byte	2xRJ45
EtherNet/IP	EtherNet/IP	--	32	sum of input (max.) 504Byte, sum of output (max.) 504Byte	2xRJ45

Industry application

3C products

New energy

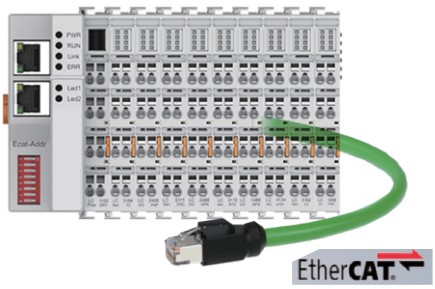
Solar power

CARS

IOT



Remote IO Bus protocol adapter





MDIO product Features:

Independent coupler design architecture Supports EtherCAT and Profinet protocols Support ADLINK master station Support for Siemens main station Supports the main OMRON station Supports KEYENCE main station Support for main BECKHOFF station Support for various CODESYS master

IO module



IO module DO module AI module AO module EO module PT module RS232 module RS485 module

Note: A maximum of 32 I0 modules can be cascaded

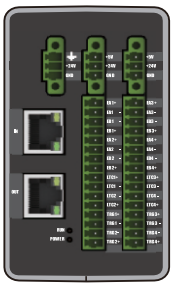
MDIO 1486(NPN)/MDLC1406(PNP): Digital 16 input module
MDIO 2486(NPN)/MDLC2408(PNP): Digital 16 output module
MDIO 1488(NPN)/MDLC1408(PNP): Digital 8 Input module
MDIO 2488(NPN)/MDLC2408(PNP): Digital 8 output module
MDIO 3034:4-20mA analog 4 current input module
MDIO 3114:0-20mA analog 4 current input modules
MDIO 4114:0-20mA analog output 4 current output modules
MDIO 3134:±10V analog 4 voltage input modules
MDIO 4134: 10V analog 4 voltage output module
MDIO 3172: Thermal Resistance 2-channel input Module (3/4 wire PT100)
MDIO 3184: Thermocouple 4-channel input module (K/E/J/T thermocouple)
MDIO 3162: Pressure sensor 2-channel input module
MDIO 5001: Encoder 1 channel input module (A/B phase differential)
MDIO 9002: Power module

MDIM-MINI-IO



BASIC SPECIFICATION	
Product series	MDIOM-MINI-IO series
Product name	MDIOM-MINI-1O16(16 input,16 output)
	MDIOM -MINI-IO16P(PNP output)
	MDIOM -MINI-IO16K(16 output, with broken line to hold output)
	MDIOM -MINI-IN32(32 inputs)
	MDIOM -MINI-OUT32(32 outputs)
	MDIOM -MINI-OUT32-K(32 output, with broken line to hold output)
Dimension	58x125x68mm
Bus rate	100Mbps
Distributed clock	support
Power supply	24V DC
Digital input	Polar compatibility (NPN/PNP)
Digital output	MOS tube (NPN), short circuit protection
Operating temperature	0 ~ 60 °
Relative humidity	95%, no condensation
Communication cycle	Minimum 50us

MDIOM-MINI-E404/E202



ITEM	ARGUMENT
Product series	MINI series
Product name	LCTE-MINI-E4O4
dimension	58x125x68mm
Network interface	100Mbps EtherCat
Network protocol	EtherCat
Power supply	24V DC
Encoder interface	Four channels, differential input,AB trust
Output interface	4 channels, differential output, RS422 level
Operating temperature	60 °
Relative humidity	95%, no condensation

MDIOM-MINI-AD



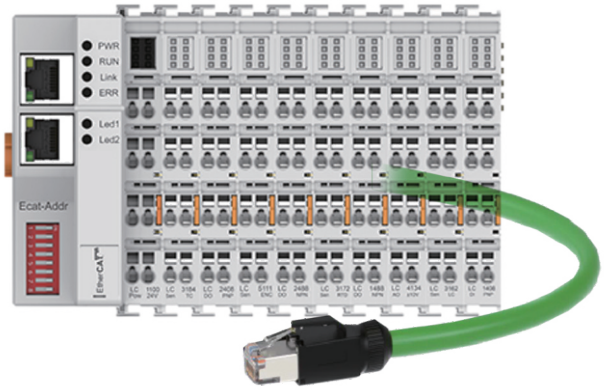
ITEM	ARGUMENT	
Product series	MINI-AD series	MINI-ADI series
Product name	MDIOM-MINI-AD8 MDIOM-MINI-AD16	MDIOM-MINI-ADI8 MDIOM-MINI-ADI16
dimension	58x125x68mm	
Bus rate	100Mbps	
Distributed clock	support	
Power supply	24V DC	
Analog input channel number	Route 8 or 16	
Analog input range	-10V~+10V	-20MA~+20MA
Resolution	16-bit	
Operating temperature	0-60°	
Relative humidity	95% condensation free	
Communication cycle	Minimum 500us	

MDIOM-MINI-USB-IO16



ITEM	ARGUMENT
Product name	MDIOM-USB-1016
dimension	58x125x68mm
Bus rate	100Mbps
Distributed clock	support
Power supply	24V DC
Digital input	Polar compatibility (NPN/PNP)
Digital output	MOS tube (NPN), short circuit protection
Resolution	0 to 60° C
Operating temperature	- 20 ~ 70 °
Relative humidity	95%, no condensation
Communication cycle	Minimum 50us

IO module



EtherCAT
PROFINET
Modbus
EtherNet/IP

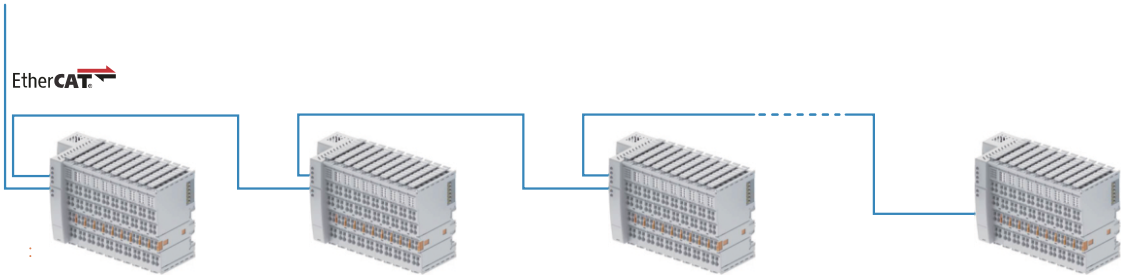
- MADECOTECH bus distributed IO, adopt a chip structure, composed of adapters, IO modules, multiple modules can be combined with the program to use Flexible expansion of IO points and analog, temperature modules, etc., through the relevant certification and testing, safe and reliable.

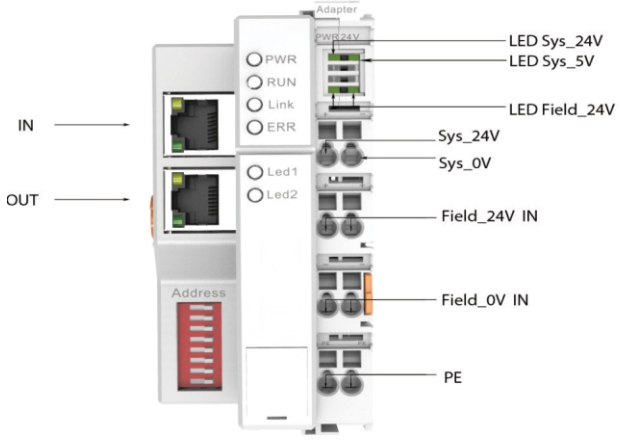






Other brands support EtherCAT communication controllers







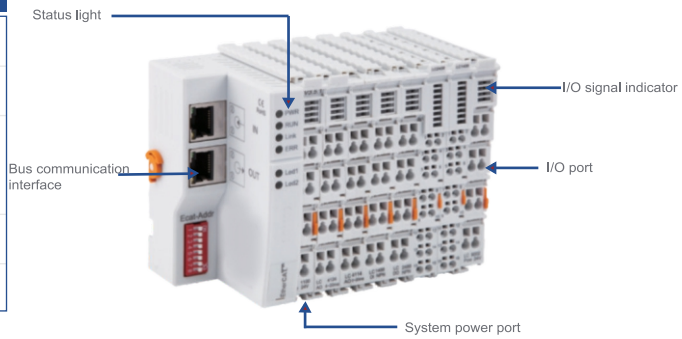
MDIO40



Field bus ▶

Bus protocol	EtherCAT (DC、Ring network、Freerun)
Address setting	By dip
Universal cable	Super Class 6 shielded network cable
Transmission distance	100m(station distance)
Transmission rate	100Mbps
Output maximum byte	1024 bytes /1024 bytes
Other characteristics	Support address mapping

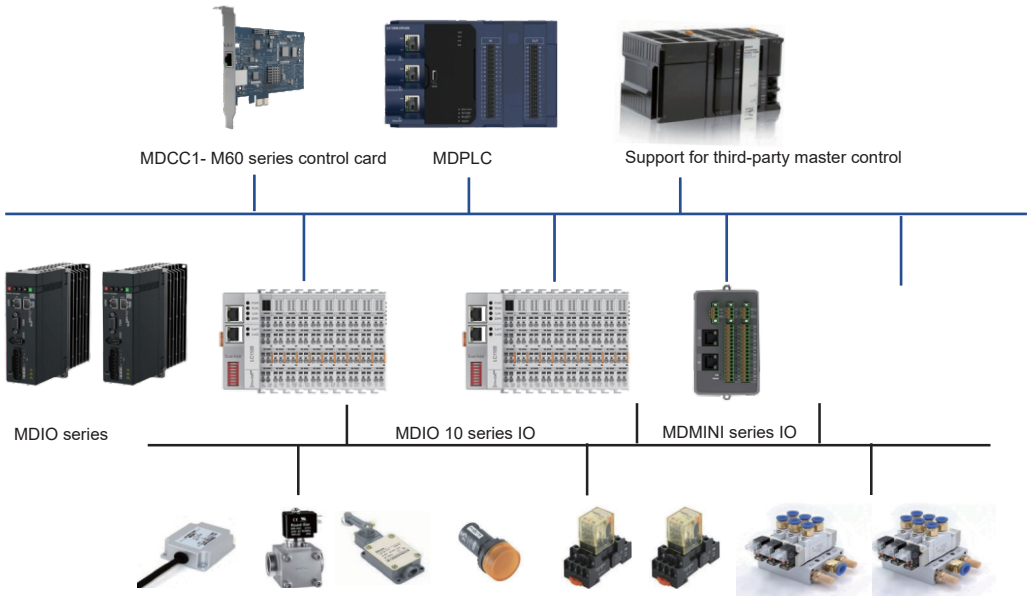
Product composition



The adapter supports EtherCAT communication .
I/O modules can be divided into digital input and output modules, analog input and output modules, and functional modules.
It can be matched according to the actual needs of the site.
Expandable up to 32 chip modules excluding power module

Power supply parameter	
EX System power input	24V(18 ～ 36V)
EX system side provides current	2A
Power input to the I/0 port	24V(±20%)
Current output of the I/0 port	10A(Max.)
Technical parameter	
Expand the number of I/0 modules	32 pieces
Monitoring type	Alarm warning Submodule disconnection alarm

EtherCat Network topology diagran Example



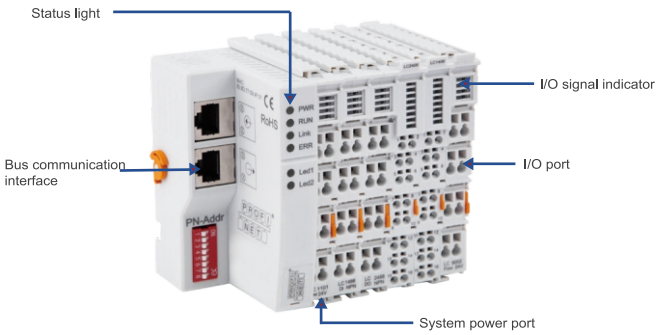
MDIO11



Field bus ▶

Bus protocol	Profinet (RT、IRT、MRP)
Address setting	Per master
Universal cable	Five types of twisted pair
Transmission distance	(Station distance)
Transmission rate	100Mbps
Output maximum byte	340 bytes /340 bytes
Other characteristics	Support PROFINET RT,IRT

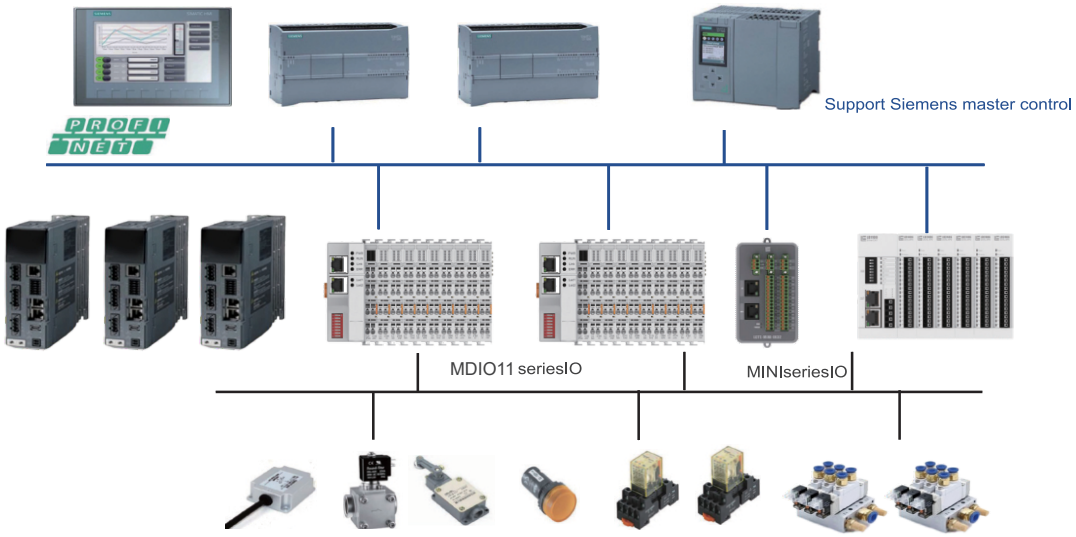
Product composition



- Adapter can support Profinet communication .
  I/O modules can be divided into digital input and output modules, analog input and output modules, and functional modules.
  It can be matched according to the actual needs of the site.
  Expandable up to 32 chip modules, excluding power module.

Power supply parameter	
MDIO10 System power input	24V(18～36V)
MDIO11 system side provides current	2A
Power input to the I/O port	24V(±20%)
Current output of the I/O port	10A(Max.)
Technical parameter	
Expand the number of I/0 modules	32pieces
Monitoring type	Alarm warning Submodule disconnection alarm

Profinet topology diagram example

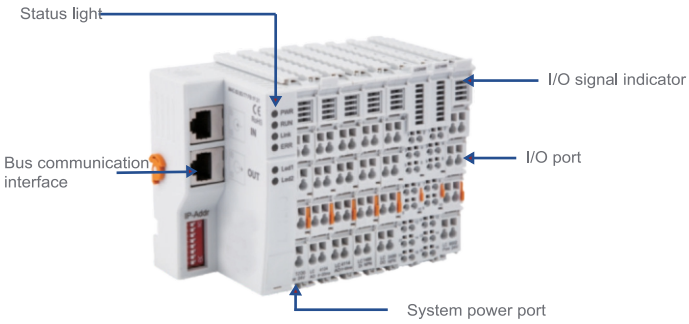


MDIO12



Bus protocol	MODBUS-TCP
Address setting	By dip
Universal cable	Super Class 6 shielded network cable
Field bus ▶	

Product composition

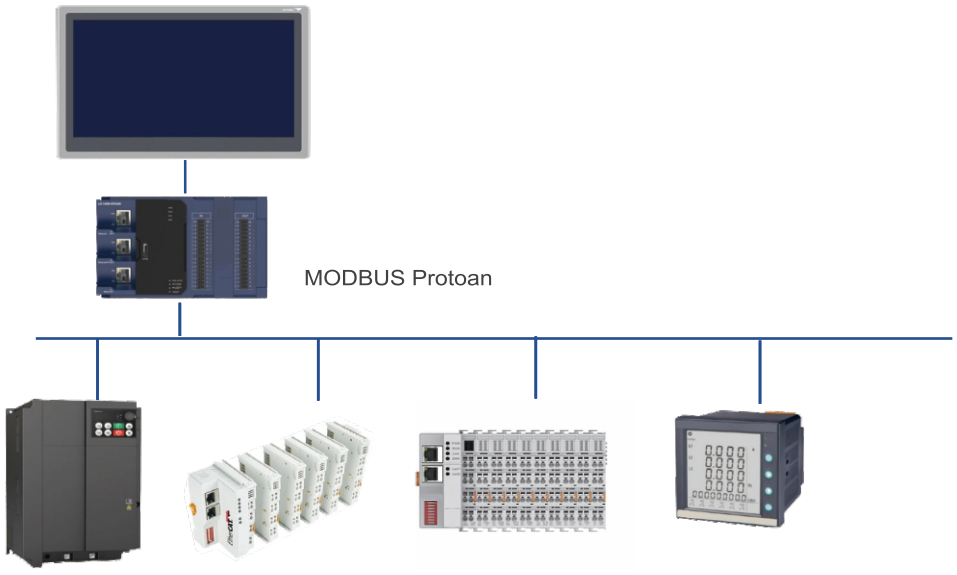


- Adapter can support Profinet communication .
  I/O modules can be divided into digital input and output modules, analog input and output modules, and functional modules.
  It can be matched according to the actual needs of the site.
  Expandable up to 32 chip modules, excluding power module.

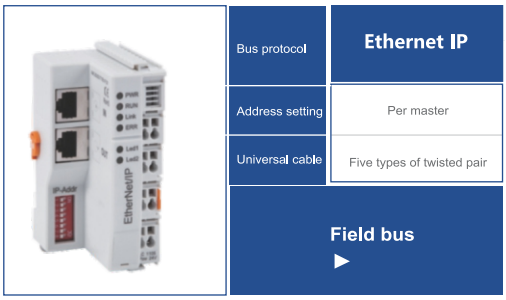
Power supply parameter	
EX System power input	24V(18～36V)
EX system side provides current	2A
Power input to the I/O port	24V(±20%)
Current output of the I/O port	10A(Max.)

Technical parameter	
Expand the number of I/O modules	32pieces
Monitoring type	Alarm warning Submodule disconnection alarm

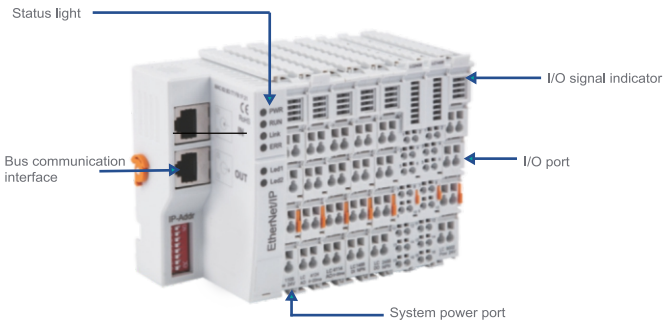
Example of the Modbus network topology



MDIO15



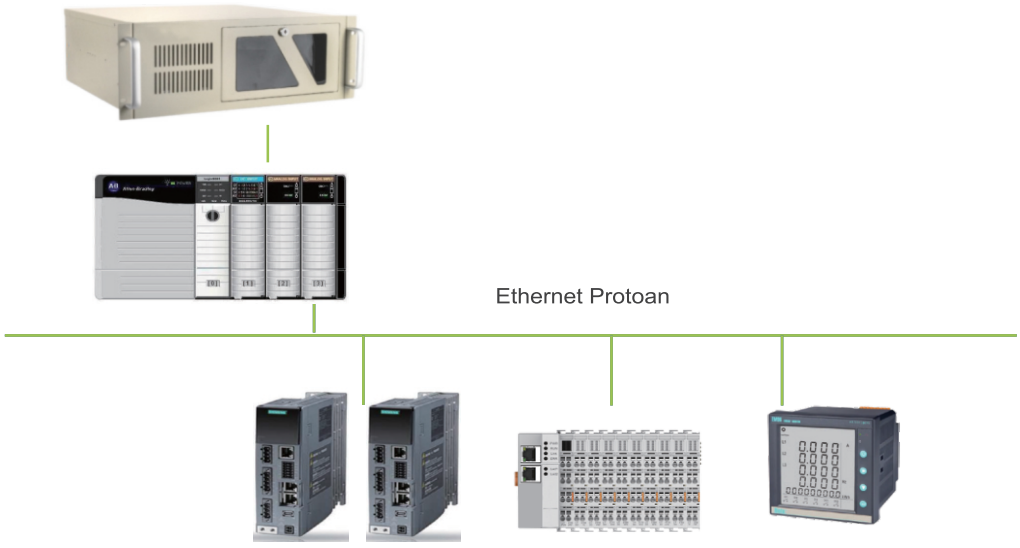
Product composition



- Adapter can support Profinet communication bus.
  I/O modules can be divided into digital input and output modules, analog input and output modules, and functional modules.
  It can be matched according to the actual needs of the site.
  Expandable up to 32 chip modules, excluding power module.

Power supply parameter	
MDIO15 System power input	24V(18～36V)
MDIO15 system side provides current	2A
Power input to the I/O port	24V(±20%)
Current output of the I/O port	5A(Max.)
Technical parameter	
Expand the number of I/O modules	32pieces
Monitoring type	Alarm warning Submodule disconnection alarm

Example of the Modbus network topology



MDLC11105

Protocol Coupler	
Model	Specification
MDIO10	Ether-CAT Protocol Coupler
MDIO11	Profinet Protocol Coupler
MDIO15	Ehternet/IP Protocol Coupler
MDIO12	Modbus-TCP Protocol Coupler

Digital Module

Model	Specification
MDIO 1488	8-channel digital input, NPN
MDIO 1408	8-channel digital input, PNP
MDIO 1486	16-channel digital input, NPN
MDIO 1406	16-channel digital input, PNP
MDIO 2488	8-channel digital output, NPN
MDIO 2408	8-channel digital output, PNP
MDIO 2486	16-channel digital input, NPN
MDIO 2406	16-channel digital input, PNP
MDIO 1188	8-channel input 8-channel output, NPN
MDIO 1088	8-channel input 8-channel output, PNP

Features

Analog Input Module	
Model	Specification
MDIO 3134	4-channel analog input voltage mode ±10V, 16bit
MDIO 3114	4-channel analog input current mode 0-20mA,16bit
MDIO 3004	4-channel analog input current mode ±10V, 16bit
MDIO 3014	4-channel analog input current mode 0-10V,16bit
MDIO 3024	4-channel analog input current mode 0-20mA,16bit
MDIO 3034	4-channel analog input current mode 4-20mA,16bit
MDIO 3044	4-channel analog input current mode ±10V/0-10V,16bit
MDIO 3054	4-channel analog input current mode 0-20mA/4-20mA,16bit
MDIO 3048	8-channel analog input current mode±10V/0-10V,16bit
MDIO 3058	8-channel analog input current mode0-20mA/4-20mA,16bit
MDIO 3162	2-channel pressure sensor, 16bit

Temperature Acquisition Analog Input Module	
Model	Specification
MDIO 3184	4-channel thermocouple 16bit
MDIO 3188	8-channel thermocouple 16bit
MDIO 3172	2-channel Thermal resistance 16bit
MDIO 3174	4-channel Thermal resistance 16bit

Analog output module	
Model	Specification
MDIO 4114	4-channel analog output current mode 0-20mA, 16bit
MDIO 4124	4-channel analog output current mode 4-20mA, 16bit
MDIO 4134	4-channel analog output voltage mode ±10V,16bit
MDIO 4144	4-channel analog output voltage mode±10V/0-10V,16bit
MDIO 4044	4-channel analog output voltage mode ±10V/0-10V,16bit
MDIO 4054	4-channel analog output current mode0-20mA/4-20mA,16bit
MDIO 4048	8-channel analog output voltage mode ±10V/0-10V,16bit
MDIO 4058	8-channel analog output current mode0-20mA/4-20mA,16bit

Encoder, Pulse Module	
Model	Specification
MDIO 5001	1 channel count input, incremental encoder, 5V
MDIO 5011	1 channel count input, incremental encoder, 24V
MDIO 5002	2 channel count input, incremental encoder or pulse direction, 5V
MDIO 5012	2 channel count input, incremental encoder or pulse direction, 24V
MDIO 5111	1 channel position comparison trigger, incremental encoder input,422 level trigger output, 5V
MDIO 5602	2 channel pulse output, support driver point, positioning function, support PWM output

Communication module	
Model	Specification
MDIO 6001	The 1-channel 485/232/422 communication module supports FreeRun and Modbus RTU modes
MDIO 6104	4-channel IO-LINK communication module, supporting MASTER mode

Protocol Coupler	
Model	Specification
MDAI 1100	Ether-CATProtocol Coupler
MDAI 1101	Profinet Protocol Coupler

Analog Input Module	
Model	Specification
MDAI 1486	16-channel digital input, NPN
MDAI 1406	16-channel digital input, NPN
MDAI 2486	16-channel digital input, NPN
MDAI 2406	16-channel digital input, NPN

Analog Input Module	
Model	Specification
MDAI 3138	8-channel voltage input module, -10V~+10V(16BIT)
MDAI 3134	4-channel voltage input module, -10V~+10V(16BIT)
MDAI 3034	4-channel voltage input module, 4mA~+20mA(16BIT)
MDAI 3038	8-channel voltage input module, 4mA~+20mA(16BIT)
MDAI 4134	4-channel voltage output module -10V~+10V(16BIT)
MDAI 4034	4-channel current output module, 4mA~+20mA(16BIT)



Address: 7191 Yonge street, Toronto, Canada

Tel: +16472221281(5 line)

Web: www.madecotech.com

Email: Info@madecotech.com