

# C SERIES REMOTE I/O SYSTEM

FOR MULTIPLE & FLEXIBLE APPLICATION



Odot Automation founded in 2003, has 20 years of experience in automation control and industrial communication technology. As a national high-tech enterprise specialized in industrial communication product R&D, industrial automation control system design, integration and technical services, the company has passed ISO9001 certification, intellectual property management system standards certification, which is a member of PROFIBUS & PROFINET Association (PIChina), EtherCAT Technology Association, CC-Link, OPC, CCIA, Industrial Internet Alliance and other associations.

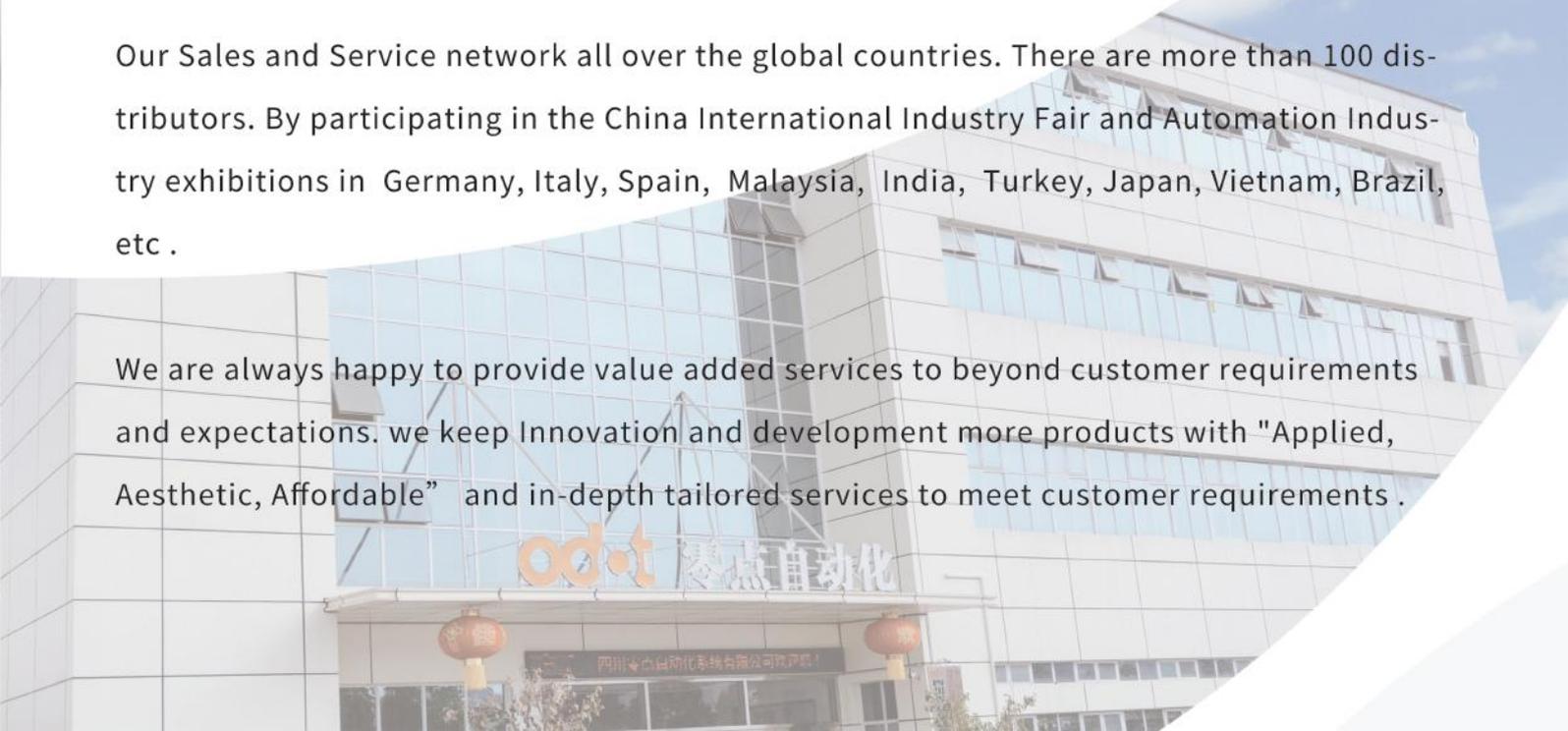
Our products range covers from IO module, PLC, Protocol Converter, Industrial Switch, IIOT Gateway, etc., the company could provide deep tailored customized services.

We could provide smart factory data collection services, assist to realize the communication between the control layer and the upper management software (MES, ERP, SCADA, etc.), so that enterprise managers can grasp the real data on the production site in the first time, and take a solid step for the implementation of smart manufacturing.

ODOT products has successfully using professional field data collection solutions for Automotive, New Energy( Lithium battery, Wind Power, Photovoltaic/Solar), Textile enterprises, Automobile Cell enterprises, Cereal & oil processing enterprises, Food and Beverage producing enterprise, Water Treatment, Power Management, Hydro Power Station, Liquor Producing Enterprises etc.

Our Sales and Service network all over the global countries. There are more than 100 distributors. By participating in the China International Industry Fair and Automation Industry exhibitions in Germany, Italy, Spain, Malaysia, India, Turkey, Japan, Vietnam, Brazil, etc .

We are always happy to provide value added services to beyond customer requirements and expectations. we keep Innovation and development more products with "Applied, Aesthetic, Affordable" and in-depth tailored services to meet customer requirements .





## PLC

- ◆Reliable, compact, easy to expansion IO, can support up to 32 I/O modules.
- ◆It could be applied to multiple industries and scenarios such as mechanical processing equipment, sewage treatment, textile, non-standard automation, etc.
- ◆Seamless communication with reliable connection. Modbus TCP Server and Modbus TCP client are supported simultaneously. It supports Modbus RTU master or slave.
- ◆It is a programmable system that follows the IEC61131-3 international standard. It supports five programming languages such as ladder diagram (LD), instruction list (IL), structured text (ST), function block diagram (CFC/FBD) and Sequential Function Chart (SFC).

### Programming Specification

Programming Software	CODESYS SP17
Programming language	IEC 61131-3 (LD, IL, ST, CFC/FBD, SFC)
Maximum State Tasks	5
Bit Instruction Cycle	0.21us
Word Transfer Cycle	0.39us
Floating Point Operation Cycle	0.42us
Program Memory	1MBytes
Data Storage	1MBytes
Power-down Protection Area	3KBytes
RTC	Not Supported
Maximum Expansion Module	32
Modbus Master Max Channel Numbers	10
Modbus Master Command Max Length	
Function Code 1(Read Coils)	2000
Function Code 2(Read Discrete Inputs)	2000
Function Code 3(Read Holding Registers)	125
Function Code 4(Read Input Registers)	125
Function Code 15(Write Multiple Coils)	440
Function Code 16(Write Multiple Registers)	27
Function Code 23(Read/Write Multiple Registers)	25+25

C series – the remote IO system consists of network adapter module and extended IO module. The network adapter module is responsible for fieldbus communication, and it could realize the communication with the master controller or host computer software.

## C SERIES REMOTE I/O SYSTEM



NETWORK ADAPTER



IO MODULE



- ◆ The product carries ultra-thin design for space saving
- ◆ Spring terminal design for convenient and fast wiring
- ◆ Industry's self designed guide light terminal design.
- ◆ High-speed 12M CANBUS backplane carrying 32 modules of a refreshing period at 2ms
- ◆ The IO system could carry max. of 32 pcs of IO modules



## I/O Network adapter

Fieldbus	P/N	Specifications	Industrial Ethernet	P/N	Specifications
	CN-8011	Modbus-RTU slave		CN-8031	Modbus-TCP server
	CN-8012	Profibus-DP slave		CN-8032	Profinet slave MRP&IRT
	CN-8013	CC-link slave		CN-8032-L	Profinet slave/NO MRP&IRT
	CN-8021	CANopen slave		CN-8033	EtherCAT slave
				CN-8034	Ethernet/IP slave

## Remote I/O module

P/N	Specifications	P/N	Specifications
CT-1218	8 DI 24VDC/sink type, PNP	CT-3844	4 AI Thermocouple(TC-J/K/E/T/S/R/B/N)types,filter parameters can adjustable
CT-1228	8 DI 24VDC/ source type, NPN	CT-3848	8 AI Thermocouple(TC-J/K/E/T/S/R/B/N)types,filter parameters can adjustable
CT-121F	16 DI 24VDC/sink type, PNP	CT-4154	4 AO Voltage Output,0~5VDC,-5~5VDC,0~10VDC,-10~10VDC,16 bits
CT-122F	16 DI 24VDC/source, NPN	CT-4158	8 AO Voltage Output,0~5VDC,-5~5VDC,0~10VDC,-10~10VDC,16 bits
CT-124H◆	32 DI 24VDC/sink or source, 34Pin male connector	CT-4234	4 AO 0& 4-20mA/16 bits
CT-221F	16 DO 24VDC/0.5A/sink type, NPN	CT-5102	2 CH encoder/5V input/Quadrature decoding
CT-222F	16 DO 24VDC/0.5A/source, PNP	CT-5112	2 CH encoder/24V input/Quadrature decoding
CT-2224	4 DO Source type, single channel Max output. 3.3A /4 channel with Max output, 2A per channel	CT-5122	2 CH encoder/SSI input
CT-2228	8 DO 24VDC/0.5A/source,PNP	CT-5142	2 CH encoder/differential input/quadrature decoding
CT-222H◆	32 DO 24VDC@0.5A/ PNP,34Pin male Connector	CT-5321	Serial port communication sub-module , supports modbus-RTU /ASCII, master or slave , transparent transmission mode
CT-2718	8 AO Relay Output ,Resistive load (1.5A@30VDC)	CT-5331	CANopen master,Max supports 128 PDO
CT-2738	8 AO relay output, with RC & flyback diode, & channel isolation, 1.5A@30VDC(Inductive load & Resistive load)	CT-5711	Fieldbus Extended Master Module
CT-2754	4 AO relay output, with RC & flyback diode, & channel isolation, 3A@30VDC(Inductive load & Resistive load)	CT-5721	Fieldbus Extended Slave Module
CT-3168	8 AI 0~5VDC,-5~5VDC,0~10VDC,-10~10VDC, 16 bits,Single-end	CT-5801	Terminal module, take no module channel
CT-3238	8 AI 0&4-20mA/15 bits	CT-623F	8 DI 24VDC / source or sink & 8 DO 24VDC/ source
CT-3234	4 AI 0&4-20mA/15 bits	CT-7100	Field Expansion power Supply,24VDC/8A
CT-3268	8 AI 0~20mA /-20~0mA /±20mA /16 bits,single ended	CT-7220	Expansion power Supply(System power input 24VDC,Output 5VDC/2A/Field power input 24VDC,Output 24VDC/8A)
CT-3713	3 AI RTD(PT100) , Accuracy ≤0.5℃ ,no channel Isolation	CT-730F	18 CH filed power distribution module 0VDC
CT-3716	6 AI RTD(PT100),Accuracy ≤0.5℃ ,no channel Isolation	CT-731F	18 CH filed power distribution module 24VDC
CT-3723	3 AI RTD(PT1000),Accuracy ≤0.5℃ ,no channel Isolation	CT-732F	18 CH filed power distribution module PE
CT-3734	4 AI (RTD-PT100) with channel isolation, Input accuracy :±0.1%(full scale @25℃)	CT-7339	18 CH filed power distribution module 24VDC/0VDC
CT-3804	4 AI Thermocouple(TC-J/K/E/T/S/R/B/N)types, filter parameters are fixed	CT-7346	18 CH filed power distribution module 24VDC/0VDC PE
CT-3808	8 AI Thermocouple(TC-J/K/E/T/S/R/B/N)types, filter parameters are fixed		

“◆” Product, support 2.54mm pitch 20P/34P in-line male connector, you need to choose the connector and wiring, please consult our sales



- ◆ BOXIO-32 carries 1 communication board and 2 IO slots;
- BOXIO-64 carries 1 communication board and 4 IO slots;
- ◆ The communication protocols with Modbus-TCP, PROFINET, EtherCAT, CANopen, EtherNet/IP are optional;
- ◆ Slots 1/2/3/4 can be independently selected according to customer IO requirements, and a single module supports up to 16 channels;
- ◆ With LCD display, Easy view information communication parameters, IO channel status, module version;
- ◆ ABS resin shell, small size, easy to install;
- ◆ Support DIY;

## B series integrated BOXIO

Communication board	
BN-8011	Modbus-RTU slave, 1RS485, the max sum of input & output 8192 bytes
BN-8021	CANopen slave, DS 401, 64 TPDO, 64 RPDO, max input 512 bytes, max output 512 bytes
BN-8031	Modbus-TCP server, 2xRJ45, 10/100Mbps, the max sum of input & output 8192 bytes
BN-8032-L	Profinet slave, 2xRJ45, 10/100Mbps, max input 1440 bytes, max output 1440 bytes
BN-8033	EtherCAT slave, 2xRJ45, 10/100Mbps, max input 1024 bytes, max output 1024 bytes
BN-8034	EtherNET/IP slave, 2xRJ45, 10/100Mbps, max input 504 bytes, max output 504 bytes
I/O Card	
BT-124F	16 DI 24VDC source & sink /NPN&PNP/, counter frequency < 200Hz
BT-221F	16 DO 24VDC/sink/NPN
BT-222F	16 DO 24VDC/source / PNP
BT-3158	8 AI 0~5VDC/0~10VDC/±5VDC/±10VDC, 12 bits
BT-3168	8 AI 0~5VDC/0~10VDC/±5VDC/±10VDC, 16 bits
BT-3238	8 AI 0&4-20mA, 16 bits
BT-3244	4 AI 0&4-20mA, ±20mH, 16 bits
BT-3714	4 AI RTD-PT100 15 bits
BT-3724	4 AI RTD-PT1000 15 bits
BT-3804	4 AI TC-J/K/E/T/S/R/ B/N type, fixed filtering parameters
BT-4154	4 AO 0~5VDC/0~10VDC/±5VDC/±10VDC, 16 bits
BT-4234	4 AO 0&4-20mA, 16 bits, single-ended
BT-5102	2 CH orthogonal/pulse encoder input, 5V single-ended, <1.5MHz
BT-5112	2 CH orthogonal/pulse encoder input, 24V single-ended, <1.5MHz
BT-5121	1 CH SSI encoder input, 5V differential, <2MHz
BT-5141	1 CH orthogonal/pulse encoder input, 5V differential, <10MHz
BT-623F	8 DI 24VDC source & sink /NPN&PNP, 8 channels DO / source & PNP 24VDC/0.5A



- ◆ Supports protocol conversion between Modbus & PROFINET
- ◆ Supports 2\* RS485/RS232 or 1\*RS422
- ◆ Supports Modbus master or slave, and supports RTU or ASCII
- ◆ Supports working temperature of -40°C~85°C
- ◆ Supports data area: 2 serial Modbus-RTU/ASCII to PROFIBUS gateway with Max. input 1440 bytes and Max. output 1440 bytes
- ◆ Supports one key reset

- ODOT-PNM02 V2.0 / V2.1: Modbus-RTU/ASCII To ProfiNet
- ODOT-S4E2: 4 Serial Modbus-RTU/ASCII To Modbus-TCP
- ODOT-S2E2: 2 Serial Modbus-RTU/ASCII To Modbus-TCP
- ODOT-DPM01: Modbus-RTU To PROFIBUS-DP
- MG-CANEX : CANopen To Modbus-TCP
- ODOT-S1E1 V2.0: Serial Gateway
- ODOT-S7MPIV2.0: PPI/MPI/PROFIBUS Interface to EtherNet

## PROTOCOL CONVERTER

- ◆ All supports IEEE802.3/802.3u/802.3x/802.3z
- ◆ Supports broadcast storm protection
- ◆ Working temperature range: -20°C~70°C;
- ◆ 5/8/16 ports unmanaged Ethernet Switches
- ◆ 10/100/1000 Mbps self-adaption, (Auto-MDI/MDI-X)
- ◆ 35mm DIN-rail

- ODOT-MS105T: 5-port 10/100Mbps
- ODOT-MS108T: 8-port 10/100Mbps
- ODOT-MS116T: 16-port 10/100Mbps
- ODOT-MS105G: 5-port 10/100/1000Mbps
- ODOT-MS108G: 8-port 10/100/1000Mbps



## INDUSTRIAL SWITCH

# Leading Automation IO Solution Provider

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