SZCOMARK®

Ci-AA/DD/OO200

CAN BUS Serial Signal Converter

ShenZhen Comark Technology Co.,Ltd.
Tel: 86-755-26055466
Fax: 86-755-22630031
Post : 518126
Addr: Floor 4,Building G,No.2 Tangxi Industrial Zone,No.21,Xijing Road,Gu Shu,Xi Xiang,Bao'An District,Shenzhen, 518126, P.R.China.
Website:http://www.comark.cn

Summary

This series of products is a can series bus isolator, in line with the CAN2.0A/B, DeviceNet, CANOpen protocol Fieldbus standards, rate adaptive, 2-channel bus interface data forwarding, electrical signal isolation and cable system to provide a star link. It also equips with 18~36V DC wide power input (9~18VDC customizable), alarm relay output, power supply redundancy and other advantages.This series of products featured with industrial design, IP40 protection level, wave pattern aluminum reinforced casing,35mm DIN rail installation, it has the Fieldbus ports error Relay alarm output, redundancy power supply and isolation protection etc. It equipped with -40~75 ℃ wide temperature range, can meet the requirements of a variety of industrial sites.

Characteristic

- Provide 2 CAN bus interface, in line with CAN2.0A/B, DeviceNet, CANOpen protocol, communication rate up to 500Kbps
- 2 Ports isolation function, support star link
- Support CAN electrical isolation,constant voltage 1000V
- Support Fieldbus ports error Relay alarm output,the unit has 120 ohms, use corresponding switch to make it to be enable, provide 4000V lightning protection function
- Provide 3 LED status indicators
- DC (18~36V) dual redundant power input (can be customized with 9~18VDC), With DC1500V voltage isolation and reverse connect protection
- IP40 protection, Metal case (wave grain aluminum reinforce case option), 35mmDIN-Rail Installation
- Operating Temperature: -40℃ to 75℃ suitable to various Industrial work situation

Specification

Bus data interface

- 2 5-Pin terminal interface, in line with the recommendations of the organization of CiA and ODVA
- Support CAN/DeviceNet/CANOpen bus standard
- Baud Rates: DeviceNet/CANOpen full rate adaptation, up to 500Kbps
- Provide 4000V lightning protection function
- Resistor: the unit has 120 ohms, use corresponding switch to make it to be enable

Power

- DC (18~36V) dual redundant power input (can be customized with 9~18VDC), industrial standard voltage DC24V, consumption is less than 4W, With DC1500V voltage isolation and reverse connect protection, adopt 5 cores 5.08mm industrial terminal port (please use industrial standard power, otherwise it will occur unit error or damage).

Protection

- Relay: Fieldbus ports error Relay alarm output
- Contact rating: 1A @24V DC, Industrial Terminal port

Mechanical

- Dimensions (H×D×W): 136mm×104.8mm×52.8mm
- Weight:800g
- Casing: IP40 protection, wave grain aluminum reinforce case option
- Installation: Wall mounting or DIN rail mounting

Environmental

- Operating Temperature:-40℃~75℃
- Storage Temperature: -40℃~85℃
- Ambient Relative Humidity: 5%~95%(non-condensing)

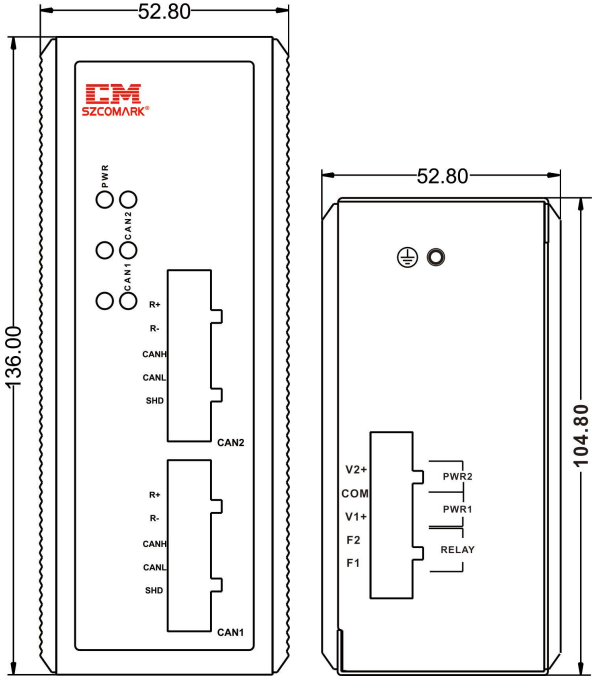
Warranty

- Warranty Period: 5 years

Certifications

- IEC61000-4-2(ESD): Power ±8KV Contact, ±15KV Air; Relay ±8KV Contact, ±15KV Air; Data Cable ±15KV Air
- IEC61000-4-4(EFT):Power ±500V, Data Cable ±500V
- IEC61000-4-5(Surge):Power ± 2KV CM/ ± 1KV DM, Relay±2KV CM/ ±1KV DM
- IEC60068-2-27(Shock)
- IEC60068-2-32(Free Fall)
- IEC61000-6-2(General Industrial Standard)
- EN50121-4 (rail transit)

Overall Dimension



Front view **Top view**

LED Indicators

LED	state	Description
PWR	off	Non-connect or error
	light	Power is ok
CAN1-2	off	Fieldbus is closed
	shine	Copper port is normal, can received data
	light	Copper Port is not working properly.

Terminal Resistor

Resistor is to eliminate the effect of the signal reflected in communication cable, can be connected in the two terminal nodes of the cable as needed. Signal converter is to make cable bus segment, each segment on both ends of the cable can be an external resistor as needed. Please refer to the bus standard resistor connection mode, such as using splitter.

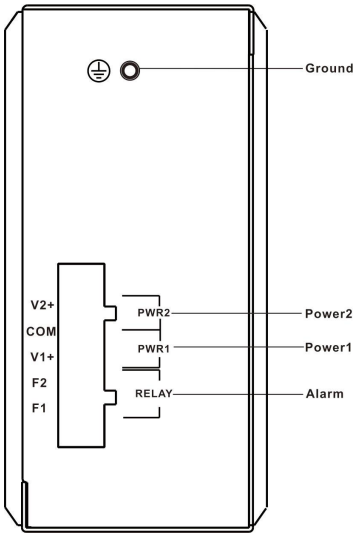
The equipment has 120 Ω termination resistor whose default setting is invalid. If the field needs, please put the short circuit wire between the R+ and R- to enable it. If you need other resistance, please extend it between CANH and CANL.

Connection

1. Bus connection methods: Bus cable CANL is connected to 5-Pin terminals CANL, CANH connected to 5-Pin terminals CANH, the shielded cable connected to the SHD, finally fix terminal with a fixed screw tight. (The use of terminal resistance, refer to the above description)
2. Power and Relay alarm output connection:

a) this device supports dual redundant input, V1 +, V2 + respectively connect the anode of power supply (DC18 ~36V), COM with cathode (double power sharing). (can be customized with 9~18VDC)

b) Relay alarm output connection: F1, F2 in normal open. When the alarm is closed, make F1, F2 both contacted in series with external alarm circuit (e.g., buzzer, etc.).(When there is no electricity on device, the relay is closed.) As shown in the figure below.



DIN-Rail Installation

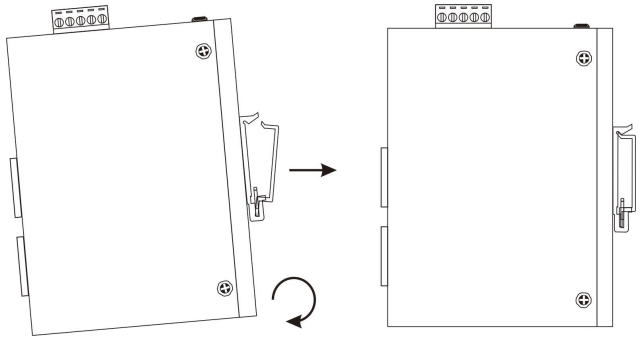
In order to use in industrial environments expediently, Ci-AA/DD/OO200 adopt 35mm DIN-Rail installation, the installation steps as follows:

Step 1: Examine the DIN-Rail attachment

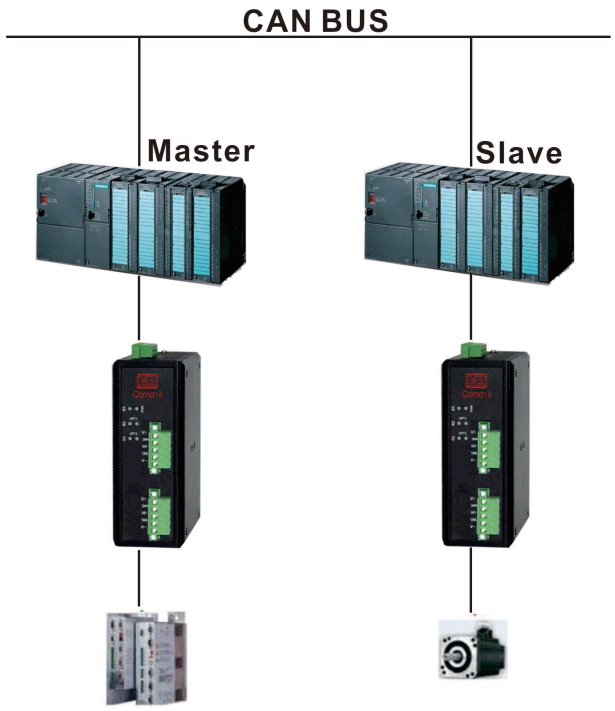
Step 2: Examine DIN Rail whether be firm and the position is suitability or not.

Step 3: insert the bottom of the DIN-RAIL into the slot, then insert the top of the DIN-RAIL into the slot.

Step 4: after insert the DIN-RAIL into the slot, check the device is installed into the slot firmly.



Typical Application



Troubleshooting

Fault Symptoms	What to Do
PWR off	Check and ensure the power supply meets the requirement, and terminal wiring is correct or not.
CAN1~2 off	CAN/DeviceNet/CANOpen data communication is abnormal, check the connector.

Package Checklist

Please check accessories completely when open the box.

Packing list is as follows:

- CAN/DeviceNet/CANOpen signal converter (with industrial terminal block for power equipment)
- Product specification
- Product warranty card

Cautions

- Please use DC24V Industrial standard power(if customized with 9~18VDC, please use DC 12V Industrial standard power). Please use 0.75mm^2 above quality copper line.
- When relay alarm output, the voltage and current can exceed the rated one(1A@24VDC), otherwise, it will damage the unit.
- This device is precision communication instruction, please insure its ground connection well, the device ground connection is via the landing screw on the sideboard, please use the professional landing line, which is less than 2.5 mm^2 , and landing resistor is less than 5Ohms.

Order Information

Part No.	Product series	Description
Ci-AA200	2*copper	2 CAN bus port, rate adaptive
Ci-DD200	2*copper	2 DeviceNET bus port, rate adaptive
Ci-OO200	2*copper	2 CANOpen bus port, rate adaptive