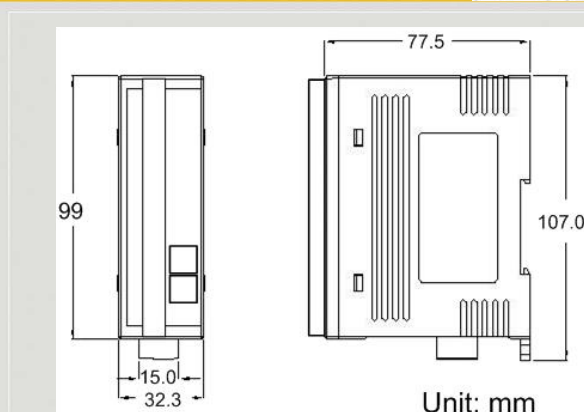


Digital Input and Output module of CANopen Slave



CAN-2054C



Unit: mm

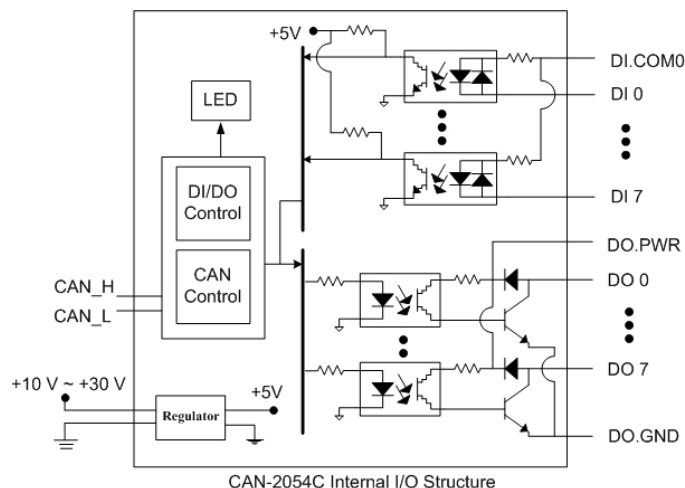
Dimensions

CAN-2054C module follows the CiA DS-301 version 4.02 and DSP-401 version 2.1. You can access the digital I/O status and set the configuration by using standard CANopen protocol. CAN-2054C has passed the validation of the CiA CANopen Conformance Test tool. Therefore, you can use it with standard CANopen master easily by applying the EDS file. CAN-2054C has 8-channel isolated sink/source input and 8-channel isolated sink output, It can be used to various applications, such as PNP, NPN, TTL, relay contact and so forth. By owing to the CANopen masters of ICP DAS, you can quickly build a CANopen network to approach your requirements

Features

- NMT Slave
- Providing Pair-Connect function
- Provide default EDS file.
- ESD Protection 4 KV Contact for each channel.
- Support Power Supply +10 ~ +30 V_{DC}
- Support CiA DS-301 v4.02, DSP-401 v2.0.
- Support PDO Mapping.

Block Diagram



I/O Pin & Wire Connection

| Terminal No. | Pin Assignment | Input Type | ON State LED ON Readback as 0 | OFF State LED OFF Readback as 1 |
|--------------|----------------|-----------------|----------------------------------|------------------------------------|
| 01 | DI.COM | Relay Contact | Relay On | Relay Off |
| 02 | DI0 | | DI.COM DI X | DI.COM DI X |
| 03 | DI1 | | DI.COM DI X | DI.COM DI X |
| 04 | DI2 | | DI.COM DI X | DI.COM DI X |
| 05 | DI3 | TTL/CMOS Logic | Voltage > 3.5 V | Voltage < 1 V |
| 06 | DI4 | | Logic Power DI.COM DI X | Logic Power DI.COM DI X |
| 07 | DI5 | NPN Output | Open Collector On | Open Collector Off |
| 08 | DI6 | | DI.COM DI X | DI.COM DI X |
| 09 | DI7 | PNP Output | Open Collector On | Open Collector Off |
| 10 | DO0 | | DI.COM DI X | DI.COM DI X |
| 11 | DO1 | Output Type | ON State LED ON Readback as 1 | OFF State LED OFF Readback as 0 |
| 12 | DO2 | | Relay On | Relay Off |
| 13 | DO3 | | DI.COM DI X | DI.COM DI X |
| 14 | DO4 | | DI.COM DI X | DI.COM DI X |
| 15 | DO5 | Drive Relay | DO.PWR DO X DO.GND | DO.PWR DO X DO.GND |
| 16 | DO6 | | DO.PWR DO X DO.GND | DO.PWR DO X DO.GND |
| 17 | DO7 | Resistance Load | DO.PWR DO X DO.GND | DO.PWR DO X DO.GND |
| 18 | DO.GND | | DO.PWR DO X DO.GND | DO.PWR DO X DO.GND |
| 19 | DO.GND | | DO.PWR DO X DO.GND | DO.PWR DO X DO.GND |
| 20 | DO.PWR | | DO.PWR DO X DO.GND | DO.PWR DO X DO.GND |

Node ID & Baud rate DIP Switch



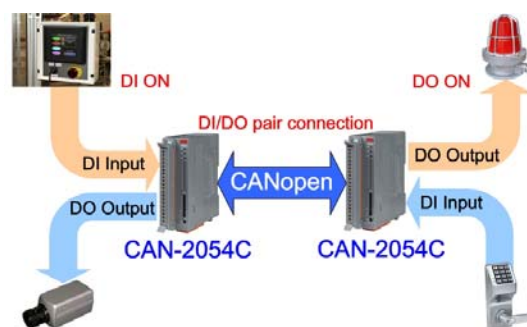
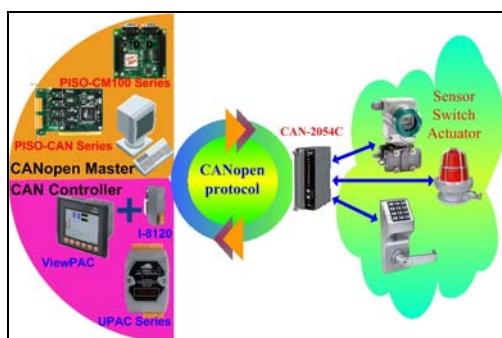
Baud Rotary switch

| Rotary Switch Value | pair-connection | Baud rate (k BPS) |
|---------------------|-----------------|-------------------|
| 0 | 8 | 10 |
| 1 | 9 | 20 |
| 2 | A | 50 |
| 3 | B | 100 |
| 4 | C | 250 |
| 5 | D | 500 |
| 6 | E | 800 |
| 7 | F | 1000 |

Hardware Specifications

| CAN Interface | |
|---------------------|--|
| Connector | 5-pin screwed terminal block (CAN_GND, CAN_L, CAN_SHLD, CAN_H, CAN_V+) |
| Baud Rate (bps) | 10 k, 20 k, 50 k, 125 k, 250 k, 500 k, 800 k, 1 M |
| Terminator Resistor | Switch for 120 Ω terminator resistor |
| Node ID | 1~99 selected by rotary switch |
| Protocol | CANopen DS-301 ver4.02, DS-401 ver2.1 |
| No. of PDOs | 10 Rx, 10 Tx (support dynamic PDO) |
| PDO Mode | Event Triggered, Remotely requested, Cyclic and acyclic SYNC |
| Error Control | Node Guarding protocol and Heartbeat Producer protocol |
| Emergency Message | Yes |
| Digital Input | |
| Channels | 8 (Sink / Source) |
| On Voltage Level | +3.5 ~ +30 V _{DC} . |
| Off Voltage Level | +1 V _{DC} Max |
| ESD Protection | 4 kV Contact for each channel |
| DI Interface | |
| Channels | 8 (Sink) |
| Load Voltage | +5 ~ +30 V _{DC} |
| Output Type | Open-Collector |
| LED | |
| Round LED | PWR LED, RUN LED, ERR LED |
| I/O LED | 8 LEDs as DI or DO differently, and 1 LED as terminal resistor indicator |
| Power | |
| Input range | Unregulated +10 ~ +30 V _{DC} |
| Power Consumption | 1.5 W |
| Mechanism | |
| Installation | DIN-Rail |
| Dimensions | 32.3 mm x 99 mm x 77.5 mm (W x L x H) |
| Environment | |
| Operating Temp. | -25 ~ 75 °C |
| Humidity | 5 ~ 95% RH, non-condensing |

Applications



Ordering Information

| | |
|------------------|---|
| CAN-2054C | CANopen module of 8-channel Digital Input and 8-channel Digital Output. |
|------------------|---|