

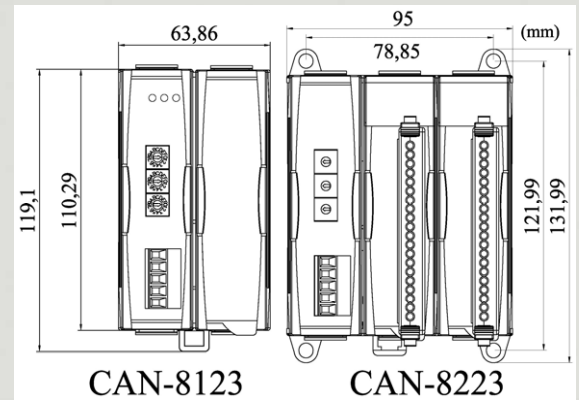


# CANopen Series Products

## CANopen Remote I/O Unit with 1/2 I/O Expansions



CAN-8123 / CAN-8223



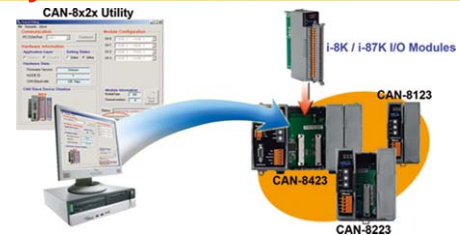
Dimensions

The CAN-8123/CAN-8223 main control unit are specially designed for the slave devices of CANopen protocol. It follows the CANopen Spec DS-301 V4.02 and DSP-401 V2.1, and supplies many features for users, such as dynamic PDO, EMCY object, error output value, SYNC cyclic and acyclic ... etc. The CAN-8123 and CAN-8223 supports 1 and 2 slots for I/O expansion and suits with a lot of ICP DAS DI / AI / DO / AO modules. User can choose DI/DO/AI/AO modules of I-87K series or I-8000 series to fit the customized practice applications. In addition, we also provide CAN-8x23 Utility to allow users to create the EDS file dynamically.

### Features

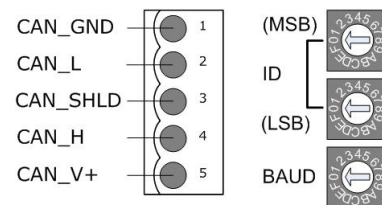
- NMT: Slave
- Error Control: Node Guarding/Heartbeat Producer
- No. of SDOs: 1 Server, 0 Client
- No. of PDOs: 16Rx, 16Tx
- PDO Modes: Event Triggered, Remotely requested, Cyclic and Acyclic SYNC
- Emergency Message available
- CANopen Version: DS-301 v4.02
- Device Profile: DSP-401 v2.1
- Produce EDS file Dynamically
- CAN, ERR, and Tx/Rx LED indicator
- Support Hot Swap and Auto-Configuration for high profile I-87K I/O modules

### Utility Features



CAN-8x23 main unit can be plugged in the I-8K/I-87K IO modules to create a customized CANopen slave device and application. The CAN-8x23 Utility tool can configure the IO connection path, assembly and application objects information and create the EDS file of the device.

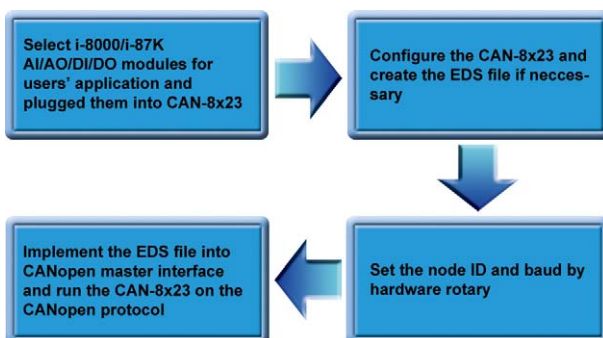
### Pin Assignments



ID: Node ID    Baud: Device Baud Rate

Rotary Switch Value	Baud rate (K BPS)
0	10
1	20
2	50
3	125
4	250
5	500
6	800
7	1000

### Design Flowchart



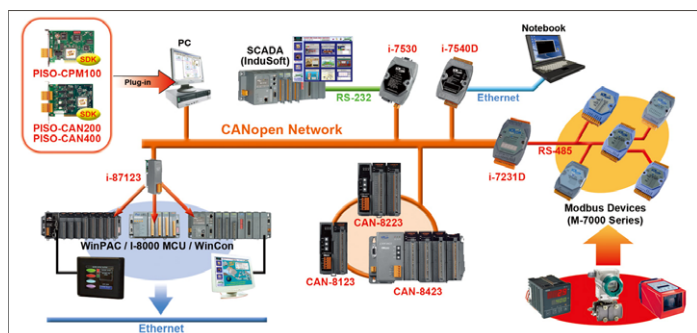
## Hardware Specifications

Model Name	CAN-8123	CAN-8223
<b>Hardware</b>		
CPU	80186, 80 MHz or compatible	
SRAM/Flash/EEPROM	512 KB / 512 KB / 2 KB	
NVRAM	31 bytes (battery backup, data valid for up to 10 years)	
RTC (Real Time Clock)	Yes	
Watchdog	Watchdog IC	
Expansion Slot	1 slot	2 slots
<b>CAN Interface</b>		
Controller	NXP SJA1000T with 16 MHz clock	
Transceiver	NXP 82C250	
Connector	5-pin screwed terminal block (GND, CAN_L, CAN_SHLD, CAN_H, V+)	
Baud Rate (bps)	10 k, 20 k, 50 k, 125 k, 250 k, 500 k, 800 k, 1 M (By rotary switch)	
Transmission Distance (m)	Depend on baud rate (for example, max. 1000 m at 50 kbps )	
Isolation	3000 V <sub>DC</sub> for DC-to-DC, 2500 V <sub>rms</sub> for photo-couple	
Terminal Resistor	Jumper for 120 Ω terminal resistor	
Specification	ISO-11898-2, CAN 2.0A	
Protocol	CANopen DS-301 ver4.02, DS-401 ver2.1	
<b>LED</b>		
Round LED	PWR LED, RUN LED, ERR LED	
<b>Power</b>		
Power supply	Unregulated +10 ~ +30 V <sub>DC</sub>	
<b>Mechanism</b>		
Installation	DIN-Rail	DIN-Rail, Wall Mounting
Dimensions	64mm x 119mm x 91mm (W x L x H)	95mm x 132mm x 91mm (W x L x H)
<b>Environment</b>		
Operating Temp.	-25 ~ 75 °C	
Storage Temp.	-30 ~ 80 °C	
Humidity	10 ~ 90% RH, non-condensing	

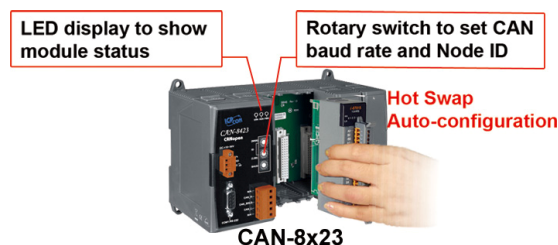
## LED Indicators

LED	Description
PWR	Indicate the status of power supply
RUN	Indicates the status of the physical layer
ERR	Indicates the condition of the CANopen network state mechanism

## Application



## Hot Swap & Auto-configuration



## Ordering Information

CAN-8123	CANopen Remote I/O Unit with 1 I/O Expansion
CAN-8223	CANopen Remote I/O Unit with 2 I/O Expansions