CAR-6AD Module Installation Instructions

1. Product Features:

6-channel analog modules

◆ Small size, easy to install;

◆ 6-channel AD input;

◆ 24-bit AD capture chip;

◆using DC-DC isolated power supply solutions,signal acquisition is more stable,more accurate;

◆ own PGA zoom, up to 8 times;

◆ Support RS485 remote data upgrade, user updates;

2. Application Note:

Maybe there are Potentially hazardous,If you do not to observe these precautions may cause serious damage to your property!

<2.1> Do not use in the following environments:

- humid environment, condensation
- corrosive gases, dust exists environment
- water, chemicals and other conductive liquid splashing into place

<2.2> Note Wiring:

- Avoid close to high-voltage, high-current power supply or cables
- Do not over-pressure power: the correct polarity
- Communication cable connection is correct

3.Power Specifications:

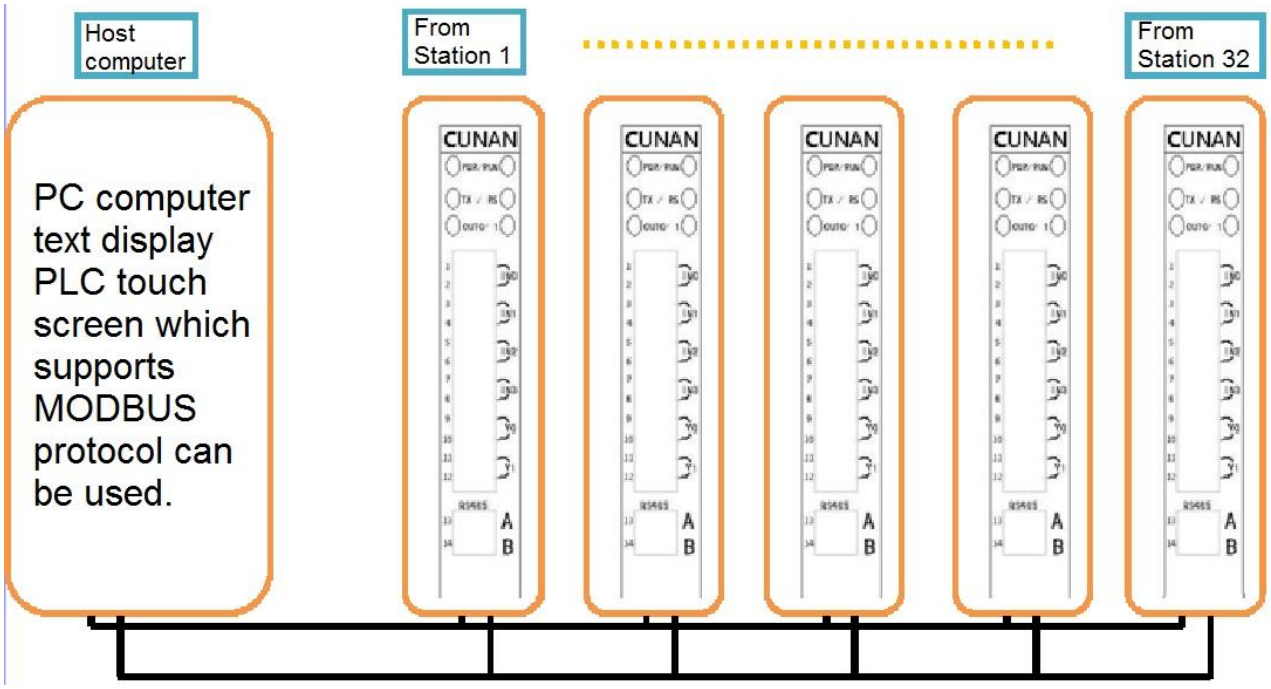
3.1 Basic Specifications

Item	Specification
Insulation Voltage	above DC 1000V 2MΩ
Anti-noise	500V 1uS pulse 1 minute
Ambient temperature	-20 ℃ ~ 80 ℃
Ambient humidity	5% to 95%
Communication port	RS-485,Networked or connected to smart meters, HMI
Grounding	Not with strong power system common ground

3.2 Supply Voltage

Rated voltage	24VDC
Allowable range	20VDC ~ 30VDC
Rated frequency	50/60Hz
Allow instant power-off time	Interruption time ≤ 0.5 AC cycle, interval ≥ 1 s
Impact current	max 40A below 5mS / AC100V, Max 60A below 5mS/ DC1000V
Maximum consumption	24VDC/30W

4.networking configuration:



Note:

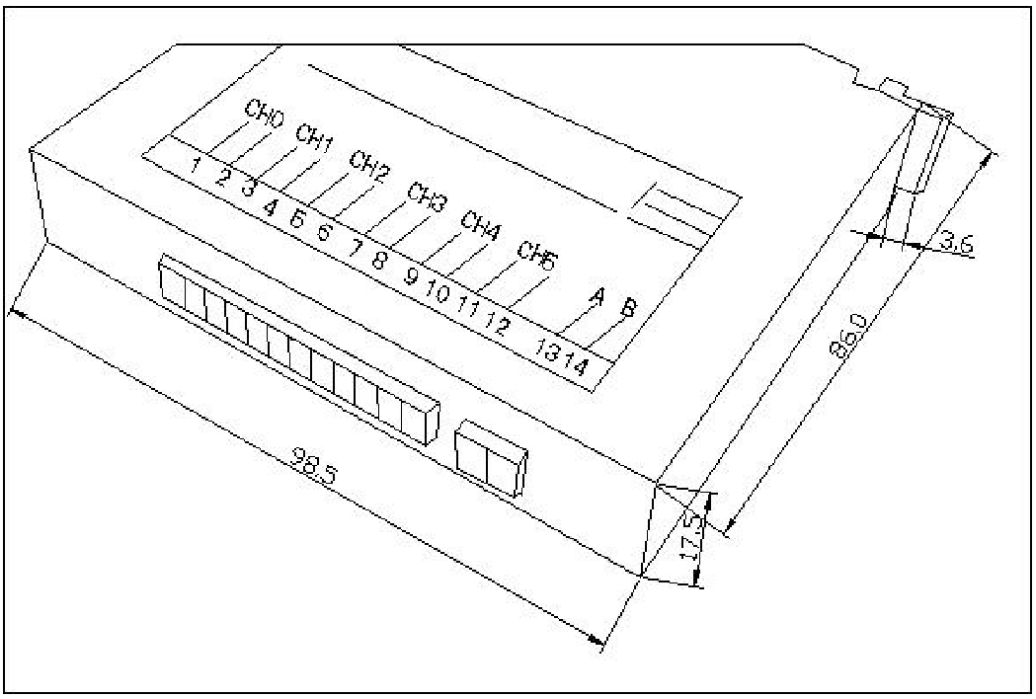
◆ communication baud rate setting modified via CAR internal registers (see detailed data list page);

◆ module station number setting modified via CAR internal registers (see detailed data list page);

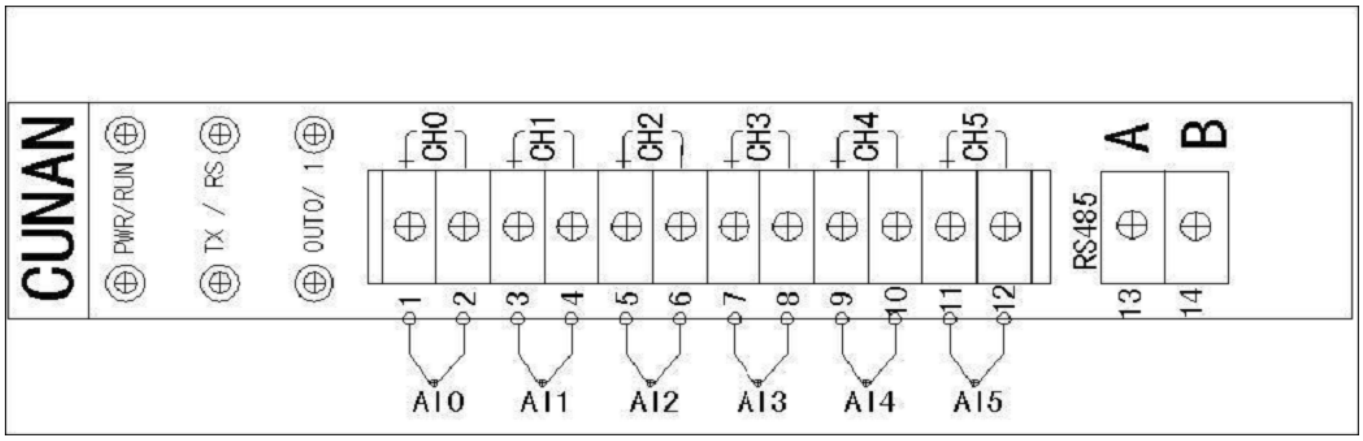
◆ using Modbus RS485 communication interface, A is the interface RS485 +, B is RS485-

◆ Communications lamp blinks under norma l communications situation,communications light Always if the reverse occurs

5. Module Dimensions:



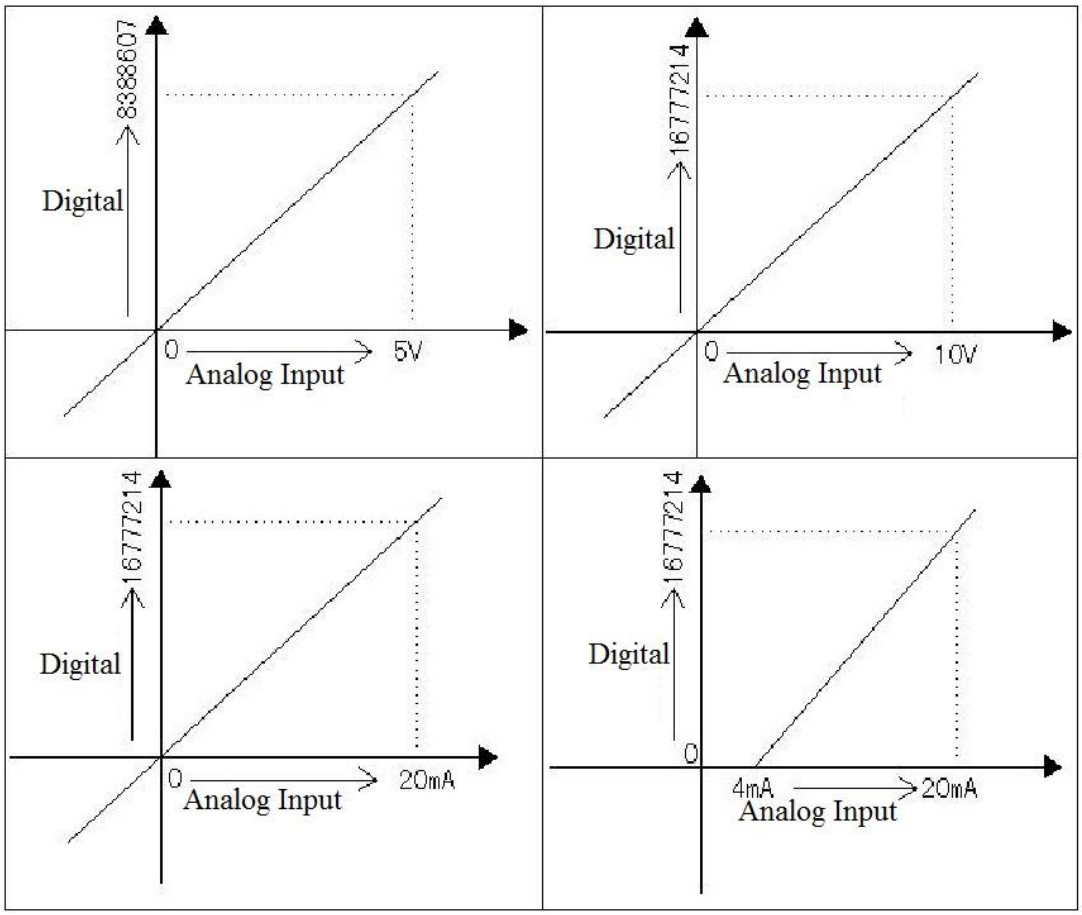
6. Module Part description:



6.1 Item and function

Power instructions	The indicator light on power
RS485 interface	Modbus communication RS485 interface, A is RS485 +, B is RS485-
Communication instructions	For sending and receiving data
Operating instructions	When module is operating the indicator light
24V/0VDC/GND	Used for power supply
Nameplate Description	Model, date of manufacture and other information

6.analog to digital conversion chart:



7. Modbus Address: (10 decimal K)

0X0000	BIT	R	Not enabled
0X0001	BIT	R	Not enabled
0X0002	BIT	R	Not enabled
0X0003	BIT	R	Not enabled
0X0004	BIT	R	Not enabled
0X0005	BIT	R	Not enabled
0X0006	BIT	R	Not enabled
0X0007	BIT	R	Not enabled
0X0008	BIT	R	Spare
0X0009	BIT	R	Spare
0X0010	BIT	R	Spare
0X0011	BIT	R	Spare
0X0012	BIT	R	Spare
0X0013	BIT	R	Spare
0X0014	BIT	R	Spare
0X0015	BIT	R/W	This signal is 1, save the data, the system automatically resets
4x0000	16BIT	R	0 channel current acquisition values high(H)
4x0001	16BIT	R	0 channel current acquisition values low(L)
4x0002	16BIT	R	1 channel current acquisition values high(H)
4x0003	16BIT	R	1 channel current acquisition values low(L)
4x0004	16BIT	R	2 channel current acquisition values high(H)
4x0005	16BIT	R	2 channel current acquisition values low(L)
4x0006	16BIT	R	3 channel current acquisition values high(H)
4x0007	16BIT	R	3 channel current acquisition values low(L)
4x0008	16BIT	R	4 channel current acquisition values high(H)
4x0009	16BIT	R	4 channel current acquisition values low(L)
4x0010	16BIT	R	5 channel current acquisition values high(H)
4x0011	16BIT	R	5 channel current acquisition values low(L)
4x0012	16BIT	R	internal channel current acquisition values (H)
4x0013	16BIT	R	internal channel current acquisition values low(L)

4x0014	16BIT	R/W	Spare
4x0015	16BIT	R/W	Spare
4x0016	16BIT	R/W	Spare
4x0017	16BIT	R/W	Spare
4x0018	16BIT	R/W	Spare
4x0019	16BIT	R/W	Spare
4x0020	16BIT	R/W	Spare
4x0021	16BIT	R/W	Spare
4x0022	16BIT	R/W	Spare
4x0023	16BIT	R/W	Spare
4x0024	16BIT	R/W	TC thermocouple sensor basic temperature values (optional)
4x0025	16BIT	R/W	DA0 channel output register (0 ~ 255)
4x0026	16BIT	R/W	DA1 channel output register (0 ~ 255)
4x0027	16BIT	R/W	AD conversion frequency (0 ~ 800Hz), the default 100Hz
4x0028	16BIT	R/W	Initialization module address (0 ~ 63), the default station number 1
4x0029	16BIT	R/W	Initialize the baud rate (2400~19200), default 19200
4x0030	16BIT	R/W	Initialization module check digit (no parity), no default
4x0031	16BIT	R/W	Restore Factory (this signal is 0XFFF, system initialization)

AD data acquisition calculation: ADIN = 4X000 (H) × 256 +4 X001 (L);

AD installed for voltage calculation: V = ADIN / (0X00FFFFFF / max range of voltage);

Note: The module uses standard Modbus-RTU communication protocol. Modbus protocol is the introduction from of the Modicon company,Modbus is a serial asynchronous communication protocol. Data transmission using half-duplex mode,A master station control one or more slave station. CAN-GT module using a RS-485 as Modbus physical interface.