Functional Overview

The expansion card is according to the actual needs of users; is mainly used to increase host's extra functions, so as to achieve the user's personal needs.

CR-AD3 analog card is used for CR-PGM Ⅲ programmable control host's function expansion; it allows CR-PGM Ⅲ host to increase double power output function, and can read actual voltage value from the port.

Application Characteristics

◆ Input: 3 high impedance input;

◆ Output: 3 DC output;

◆ D . A, a . D conversion: A/D and D/A converter functions can be used for sampling and control; 10 AD sampling precision, 12 output precision;

◆ Input voltage range: 0 V to +12 V;

◆ Output voltage range: -12 V to +12 V;

◆ Output voltage can be regulated by software;

◆ Maximum acceptable voltage of Input is +36 volts dc;

◆ The maximum current of each output is 5mA.

External Reference Input

◆ The Max input sampling voltage value is +12 volts DC;

◆ The over voltage is +36 volts DC;

Operation Methods

◆ Output voltage control method (D/A converter); CR-PGM Ⅲ host send certain roads and certain volts voltage to analog card, analog card receive the instruction to make voltage output.

◆ Reads the input voltage (A/D converter) CR-PGM Ⅲhost send instruction of reading certain road to analog card, after receiving the instruction, analog card will feedback the actual voltage to the CR-PGM Ⅲhost.

◆Following are the programming function description of CR-PGM Ⅲ when use analog card
SEND_QACAR
Void SEND_QACAR (String dev,int channel)
Function: send the request of analog card voltage value, after sending the request, will trigger the analog card DataEVENT events, where they can get the voltage value, specific examples to see the BYTES_TO_INT Parameters of other functions.
dev - :Analog device
channel - :Equipment channel number
Example:
Acar_m = M:8:ACAR; // Define host board No. 8 analog card
SEND_QACAR (Acar_m,1); // read the first voltage value of Acar_m
BYTES_TO_INT
Int BYTES_TO_INT (byte[] b)
Function: process the first 4 bytes of byte array as an int number, if B is less than 4 bytes, convert according to its real bytes, big endian mode.

Returns:
Return to the converted int number.
Example: analog card voltage returns, the actual voltage of analog card = return voltage (mV)
DATA_EVENT(mcar,2)
{ONDATA()

{double voltage = BYTES_TO_INT(DATA.Data) //

When using SEND_QACAR transmit request, here

the
trigger.
SEND_COM(COM,1,DOUBLE_TO_STRING(voltage));
 }

SEND_ACAR
void SEND_ACAR(String dev,int channel,int val)
Function: control the voltage output of analog card
Parameters:
dev - : Analog device
channel - :Equipment channel number
val - :value of Analog (Note: according to specific external equipment.) (general values range from double -12 V to 12 V)
Example:
acar_L = L:7:ACAR:192.168.1.20; // Define ACAR equipment whose CRLINK (CAN) number is 7
SEND_ACAR(acar_L,1,-12);// to send analog value -12 to the first way of lilt_L, namely setting analog card output -12 V.