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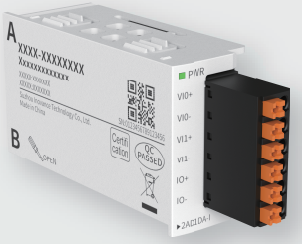

PS00006442A07

GE20-2AD1DA-I
Analog Input and Output Current-Type Expansion Card
User Guide

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Preface

■ Introduction

Thank you for purchasing the GE20-2AD1DA-I current-type expansion card with analog input and output independently developed and produced by Inovance Technology. The GE20-2AD1DA-I can be used with Easy300/Easy500/AM300/AM500/EVO500 series PLC and supports two analog inputs and one analog output (current type).

This guide describes the product information, mechanical installation, electrical installation, and programming examples of the product. Before use, please read this guide thoroughly.

■ Standards Compliance

The following table lists the certifications, directives, and standards that the product may comply with. For details about the acquired certificates, see the certification marks on the product nameplate.

Certification	Directive		Standard
CE Certification	EMC Directive	2014/30/EU	**24 VDC products:** EN 61131-2 **220 VAC products:** EN 61131-2 EN 61000-3-2 EN 61000-3-3
	LVD Directive	2014/35/EU	EN 61010-1 EN 61010-2-201
	RoHS Directive	2011/65/EU amended by (EU) 2015/863	EN IEC 63000
UL/cUL Certification	-		UL 61010-1 UL 61010-2-201 CAN/CSA-C22.2 No. 61010-1 CSA C22.2 NO. 61010-2-201

Certification	Directive		Standard
KCC Certification	-		-
EAC Certification	-		-
UKCA Certification	Safety Regulations	Electrical Equipment (Safety) Regulations 2016	EN 61010-1 EN 61010-2-201
	EMC Regulations	Electromagnectic Compatibility Regulations 2016	**24 VDC products:** EN 61131-2 **220 VAC products:** EN 61131-2 EN 61000-3-2 EN 61000-3-3
	RoHS Regulations	Directive (RoHS) Regulations 2012	EN IEC 63000

■ More Data

Name	Data Code	Description
Easy Series Programmable Logic Controller User Guide	PS00006444	Introduces the product information, installation and wiring, operation and maintenance of the Easy series products.
AM300 Series Programmable Logic Controller User Guide	PS00008836	Introduces installation and wiring of the AM300 series PLC, including product information, mechanical installation, and electrical installation.
AM500 Series Programmable Logic Controller User Guide	PS00008837	Introduces installation and wiring of the AM500 series PLC, including product information, mechanical installation, and electrical installation.

Name	Data Code	Description
EVO500 Series Programmable Logic Controller User Guide	PS00016754	Introduces installation and wiring of the EVO500 series PLC, including product information, mechanical installation, and electrical installation.
H5U & Easy Series Programmable Logic Controller Programming Guide	19011157	Introduces the basic knowledge of PLC programming, quick start guidance, communication, motion control, and the use of high-speed counters.
H5U & Easy Series Programmable Logic Controller Instruction Guide	19011156	Introduces the basic and complex instructions, as well as examples of instructions used in product programming and application.
GE20-2AD1DA-I Analog Input and Output Current-Type Expansion Card User Guide (This guide)	PS00006442	Introduces the product information, mechanical installation, electrical installation, and programming examples of the product.

■ Revision History

Date	Version	Revision
January 2025	A07	Modified the capacitance of filter capacitors in *"3.3 Terminal Wiring" on page 17*.
January 2024	A06	**Added** Added *" Appendix: Setting Communication Mode with PLC" on page 26*. **Modified** Modified *"1.3.5 Other Specifications" on page 12*.
October 2023	A05	Minor error corrections.
September 2023	A04	Modified the external input/output wiring diagrams in *"3.3 Terminal Wiring" on page 17*.

Date	Version	Revision
July 2023	A03	Minor error corrections.
March 2023	A02	Updated nameplate description and added some product specification data.
October 2022	A01	Minor error corrections.
August 2022	A00	First release

■ Access to the Guide

This guide is not delivered with the product. You can obtain the PDF version by the following methods:

- Do keyword search under Service and Support at *www.inovance.com*.
- Scan the QR code on the product with your smart phone.
- Scan the QR code below to install My Inovance app, where you can search for and download user guides.

■ Warranty Disclaimer

Inovance provides warranty service within the warranty period (as specified in your order) for any fault or damage that is not caused by improper operation of the user. Maintenance will be charged after the warranty expires.

Within the warranty period, maintenance fee will be charged for the following damage:

- Damage caused by operations not following the instructions in the user guide
- Damage caused by fire, flood, or unusual voltage
- Damage caused by unintended use of the product
- Damage caused by use beyond the specified scope of application of the product
- Damage or secondary damage caused by force majeure (natural disaster, earthquake, and lightning strike)

The maintenance is charged according to the latest Price List of Inovance. If otherwise agreed upon, the terms and conditions in the agreement shall prevail.

For details, see Product Warranty Card.

Fundamental Safety Instructions

■ Safety Disclaimer

1. Read and comply with the safety instructions during installation, operation, and maintenance of the equipment.
2. To ensure your safety and prevent damage to the equipment, follow the marks on the equipment and all the safety instructions in this guide.
3. “CAUTION”, “WARNING”, and “DANGER” in this guide do not indicate all safety precautions that need to be followed; instead, they just supplement the safety precautions.
4. Use this equipment according to the designated environment requirements. Damage caused by improper use is not covered by warranty.
5. Inovance shall take no responsibility for any personal injury or property damage caused by improper use.

■ Safety Levels and Definitions

"DANGER" indicates that failure to comply with the notice can result in severe personal injury or even death.

"WARNING" indicates that failure to comply with the notice may result in severe personal injury or even death.

"CAUTION" indicates that failure to comply with the notice may result in minor or moderate personal injury or equipment damage. Keep this guide properly for future use and deliver it to the end user.

Control System Design

DANGER

- Provide a safety circuit outside the PLC so that the control system can still work safely once external power failure or PLC fault occurs.
- Add a fuse or circuit breaker because the module may smoke or catch fire due to long-time overcurrent caused by operation above rated current or load short-circuit.

WARNING

- An emergency stop circuit, a protection circuit, a forward/reverse operation interlocked circuit, and an upper position limit and lower position limit interlocked circuit must be set in the external circuits of PLC to prevent damage to the machine.
- To ensure safe operation, for the output signals that may cause critical accidents, use external protection circuits and safety mechanism.
- Once the CPU of the PLC detects an exception in the system, all outputs may be closed; however, when a fault occurs in the controller circuit, the output may not be under control. Therefore, it is necessary to design an appropriate external control circuit to ensure normal operation.
- If the output units such as relays or transistors are damaged, the output may fail to switch between ON and OFF states according to the commands.
- The PLC is designed to be used in an indoor electrical environment (overvoltage category II). The power supply must have a system-level surge protector, assuring that overvoltage due to lightning shock cannot be applied to the PLC's power supply input terminals, signal input terminals and output terminals, preventing damage to the equipment.

Installation

WARNING

- Installation must be carried out by qualified professionals.
- Disconnect all external power supplies of the system before removing/installing the module. Failure to do so may result in electric shock, module fault or malfunction.
- Do not use the PLC where there are dust, oil smoke, conductive dust, corrosive or combustible gases, or exposed to high temperature, condensation, wind & rain, or subject to vibration and impact. Electric shock, fire and malfunction may also result in damage or deterioration to the equipment.
- The PLC is open-type equipment that must be installed in a control cabinet with lock (IP rating of the control cabinet enclosure > IP20). Only qualified professionals can open the cabinet.

Installation

- Prevent metal filings and wire ends from dropping into ventilation holes of the PLC during installation. Failure to comply may result in fire, fault and malfunction.
- Ensure there are no unwanted matters on ventilation surface. Failure to comply may result in poor ventilation, which may cause fire, fault and malfunction.
- Ensure the module is connected to the respective connector securely and hook the module firmly. Improper installation may result in malfunction, fault or fall-off.

Wiring

- Wiring must be carried out by qualified professionals.
- Disconnect all external power supplies of the system before wiring. Failure to comply may result in electric shock, module fault or malfunction.
- Install the terminal cover attached to the equipment before power-on or operation after wiring is done. Failure to comply may result in electric shock.
- Insulate the cable terminals properly to ensure the insulation distance between cables will not be shortened after cables are connected to the terminal block. Failure to comply may result in electric shock or damage to the equipment.

- To avoid electric shock, cut off the power supply before connecting the equipment to the power supply.
- The input power supply of the HMI must be 24 VDC. Power supplies outside ±20% of 24 VDC can cause severe damage to the equipment. Therefore, check whether the DC power supply provided by the switching-mode power supply is stable at a regular interval.

Operation and Maintenance

- Operation and maintenance must be carried out by qualified professionals.
- Do not touch the terminals with power on. Failure to comply may result in electric shock or malfunction.
- Disconnect all external power supplies of the system before cleaning the module or re-tightening screws on the terminal block or screws of the connector. Failure to comply may result in electric shock.
- Disconnect all external power supplies of the system before disassembling the module or connecting/disconnecting the communication cables. Failure to comply may result in electric shock or malfunction.

Safety Recommendations

- In the position where the operator directly touches the machinery part, for example, where a machinery tool is loaded/unloaded, or where a machine runs automatically, the on-site manual operating devices and any other alternative means must be carefully arranged and designed so that they are independent of the programmable controller and can start or terminate the automatic running of the system.
- If you need to modify the program while the system is running, use the lock function or other protective measures. Ensure that only authorized personnel can make the necessary modifications.

Disposal

- Treat the scrapped equipment as industrial waste. Dispose of the battery according to local laws and regulations.
- Recycle retired equipment by observing industry waste disposal standards to avoid environmental pollution.

1 Product Information

1.1 Model and Nameplate

■ Model description

GE20 – 2AD1DA – I

① ② ③

① **Product Series** GE20 series general-purpose expansion card	③ **Product Code** Current-type
② **Product Code** Expansion card with two analog inputs and one analog output	-

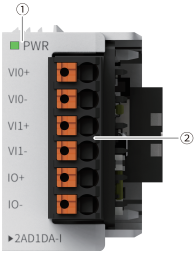
■ Nameplate description

Note

The letters "A" and "B" on the nameplate indicate that the card slots A and B of the PLC are supported.

Model	Description	Code
GE20-2AD1DA-I	GE20 series expansion card with two analog inputs and one analog output (current type)	01480027

1.2 Components



No.	Component	Mark	Definition	Indicator Color	Description
①	Power supply indicator	PWR	Power supply is normal.	Yellow green	ON when the expansion card is powered on.
②	User terminals	-	-	-	See details in *"3.2 Terminal Definition" on page 16*

1.3 Product Specifications

1.3.1 General Specifications

Item	Specification
IP rating	IP20
Dimensions (W x H x D)	69.5 mm x 29.5 mm x 23 mm
Weight	About 18 g

1.3.2 Power Supply Specifications

Item	Specification
Rated input voltage	5 VDC (4.75 VDC to 5.25 VDC)
Rated input current	65 mA (max@5 V)

Item	Specification
Input short-circuit protection	Supported
Hot swap	Not supported

1.3.3 Input Specifications

Item	Specification
Number of input channels	2
Voltage input range	0 V to 10 V
Voltage input impedance	> 200 kΩ
Conversion speed	6 ms/channel
Current input range	0 mA to 20 mA
Current sampling impedance	250 Ω
Input accuracy (normal temperature: 25° C)	Voltage: ±1%, current: ±1% (full range)
Input accuracy (full temperature range)	Voltage: ±3%, current: ±3% (full range)
Input signal frequency	< 10 Hz
Resolution	12 bits
Digital output (DO)	0 to 20000

1.3.4 Output Specifications

Item	Specification
Number of output channels	1
Output current range	0 mA to 20 mA
Current output impedance	0 Ω to 500 Ω
Conversion speed	1 ms
Output accuracy (normal temperature: 25°C)	±1% (full range)
Output accuracy (full temperature range)	±5% (full range)

Item	Specification
Resolution	12 bits
DO	0 to 20000

1.3.5 Other Specifications

Item	Specification
Sampling cycle	1 ms
Communication cycle with PLC (AutoShop)	Expansion cards with firmware versions earlier than V2.3 support only normal mode, while those with firmware version V2.3 or later support both high-speed mode and normal mode. The communication mode with PLC can be set by the AutoShop programming software. For details, see *" Appendix: Setting Communication Mode with PLC" on page 26* • High-speed mode: ⩽ 6 ms (modification of channel mapping elements is not supported) • Normal mode: ⩽ 20 ms (modification of channel mapping elements is supported)
Isolation method	Not isolated
Output short-circuit detection	Not supported
Output open-circuit detection	Not supported

1.3.6 Environmental Specifications

Item	Specification
Working environment	Free from conductive dust, conductive fibers, explosive dust, flammable gases, water mist/ greasy dirt, corrosive dusts/gases, strong vibration, and repetitive shock
Altitude	⩽ 2000 m
Pollution degree	2
Immunity	2 kV on power supply cable (compliant with IEC 61000-4-4)

Item	Specification
Overvoltage category	I
EMC immunity level	Zone B, IEC61131-2
Anti-static rating	Contact discharge +/-6 kV and air discharge +/-8 kV
Vibration resistance	• Application scenario: Tested according to IEC60068-2-6, 3.5 mm amplitude at 5 Hz to 8.4 Hz; 1 g acceleration at 8.4 Hz to 200 Hz; in ten cycles/axes • Transportation scenario: Tested according to IEC60068-2-64, 0.01 g^2/Hz power spectral density at 5 Hz to 100 Hz; 0.001 g^2/Hz power spectral density at 200Hz; 1.14 g Grms
Shock resistance	Application/Transportation scenario: Tested according to IEC60068-2-27; 15 g peak acceleration, 11 ms pulse width, 18 times in X/Y/Z-axis directions
Storage temperature/humidity	• Temperature: -20°C to +60°C • Humidity: < 90% RH (30°C), without condensation
Transportation temperature/humidity	• Temperature: -40°C to +70°C • Humidity: < 95% RH (30°C), without condensation
Operating temperature/humidity	• Temperature: -20°C to +55°C • Humidity: < 95% RH (40°C), without condensation

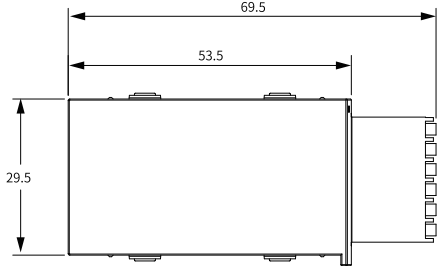
2 Mechanical Installation

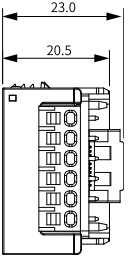
2.1 Installation Precautions

- Make sure the PLC is powered off before installing or removing the expansion card.
- Do not hot swap the expansion cards. Otherwise, the PLC may be subject to restart, user data loss or corruption.
- Do not drop or shock the housing or terminals of the expansion card to avoid damage.

2.2 Installation Dimensions

The installation dimensions (in mm) are shown in the figure below.

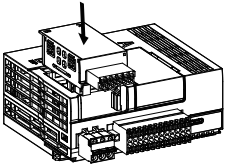


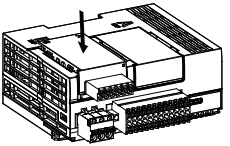


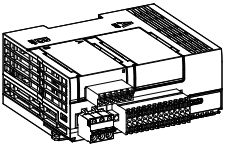
2.3 Installation Method

■ Installing the expansion card

The expansion card is snap-fitted with the PLC. Place the PLC horizontally, place the expansion card into the card slot A or B vertically along the guide ribs, and press the expansion card. When you hear a click and the surface of the expansion card is flush with the surface of the PLC, the expansion card is installed in place, as shown in the figure below.

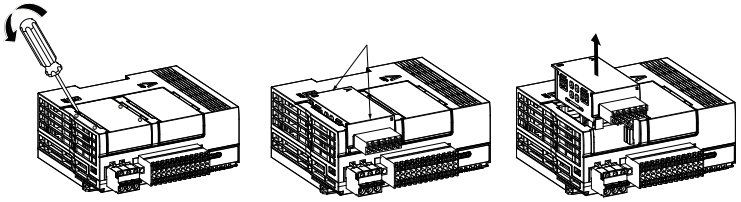






■ Removing the expansion card

Place the PLC horizontally, insert the slotted screwdriver into the snap-fit joints in the order shown in the figure on the left, and pry the expansion card in the direction indicated by the arrow. When you hear a click, the expansion card is initially disengaged from the PLC. Then you can hold the expansion card with two fingers at the positions indicated by the arrow as shown in the middle figure and take out the expansion vertically.



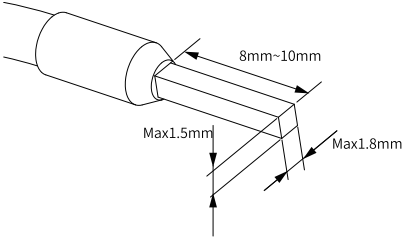
3 Electrical Installation

3.1 Cable Selection

The cable lug and cable diameter included in the following table are only for reference.

Material Name	Applicable Cable Diameter		KST		Suzhou Yuanli	
	mm^2	AWG	Model	Crimping Tool	Model	Crimping Tool
Tubular lug	0.3	22	E0308	KST2000L	0308	YAC-5
	0.5	20	E0508		0508	
	0.75	18	E7508		7508	
	1.0	18	E1008		1008	

If you use other types of tubular lug, crimp the lug to the cables according to the shape and dimension requirements shown in the figure below.



3.2 Terminal Definition

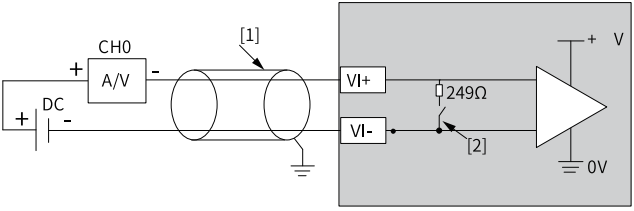
Name	Description
VI0+	Voltage/Current channel 0 input+
VI0-	Voltage/Current channel 0 input-
VI1+	Voltage/Current channel 1 input+
VI1-	Voltage/Current channel 1 input-
IO+	Current channel output+
IO-	Current channel output-

3.3 Terminal Wiring

■ Precautions

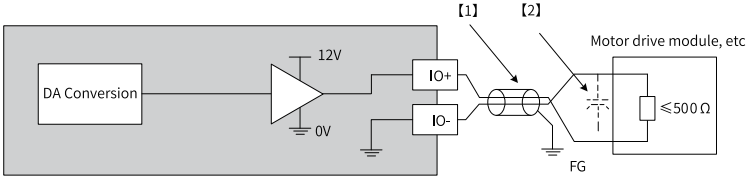
- Do not bundle the expansion cable together with power cables (high voltage, large current) that produce strong interference signals; otherwise, it may be influenced by noise, surge and induction. Separate it from other cables and avoid cabling in parallel.
- Select recommended cables for connection. It is recommended that shielded cables be used as expansion cables to enhance capacity of resisting interference.
- Apply single-point grounding for the shielding of shielded cable and solder sealed cable.

■ External input wiring



- [1]: Use 2-core shielded twisted pair cable for analog signal.
- [2]: Current input is provided when the switch is closed, which is controlled by the software.

■ External output wiring



- [1]: Use 2-core shielded twisted pair cable as power cable.
- [2]: If noises or ripples are generated in external wiring, connect a capacitor of 0.1 to 0.47 μF 25V between terminals IO+ and IO-.

3.4 Cable Connection

Select tubular cables referring to *"3.1 Cable Selection" on page 16* and insert the cables into the input and output ports.

4 Programming Examples

4.1 Autoshop Programming (When used with Easy523)

Note:

The type ID of the GE20-2AD1DA-I expansion card is 11. The configured expansion card type must be consistent with the actually installed expansion card type.

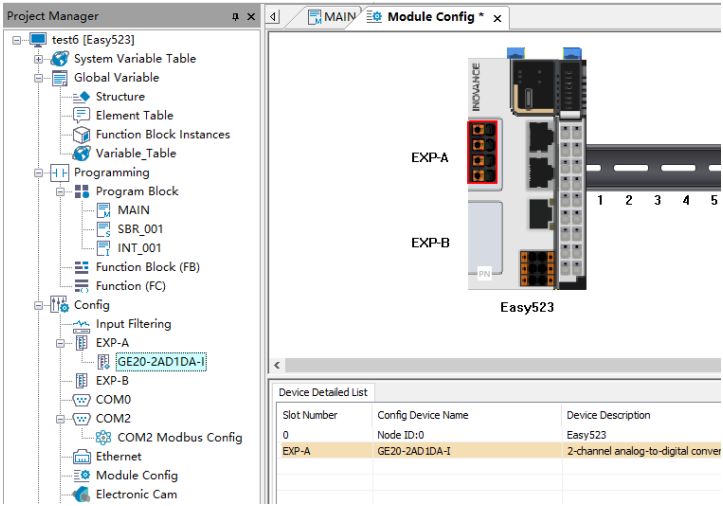
You can view the configured expansion card type ID through the value of the variable name "_EXtCard [x].ConfigModule" in the system variable table "_SYS-INFO", and the actual installed expansion card type ID through the value of the variable name "_EXtCard [x].MountedModule" in the system variable table "_SYS-INFO".

Introduction:

In this section, Easy523 is used as the main control module. The following is an example where the input current of channel-0 (AD) of the GE20-2AD1DA-I expansion card is assigned to the corresponding variable, and the corresponding variable value of channel-2 (DA) is converted to output current.

Procedure:

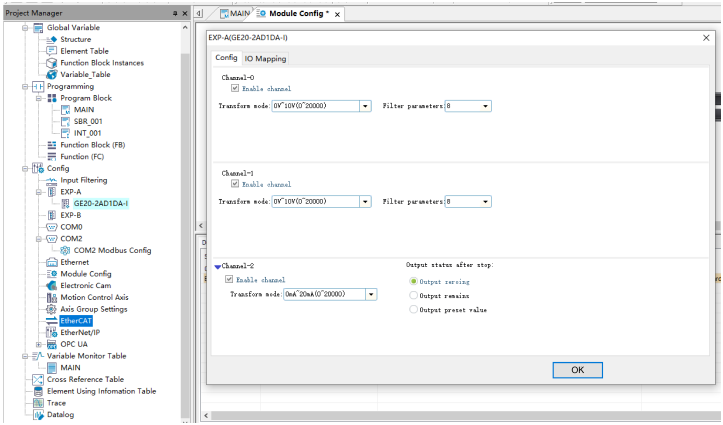
1. Create a project.
2. In the **Project Manager**, go to **Config**, right-click **EXP-A** or **EXP-B** and select **GE20-2AD1DA-I**. Alternatively, you can right-click **Module Config** and select **Auto Scan** to add the GE20-2AD1DA-I expansion card, as shown in the figure below.



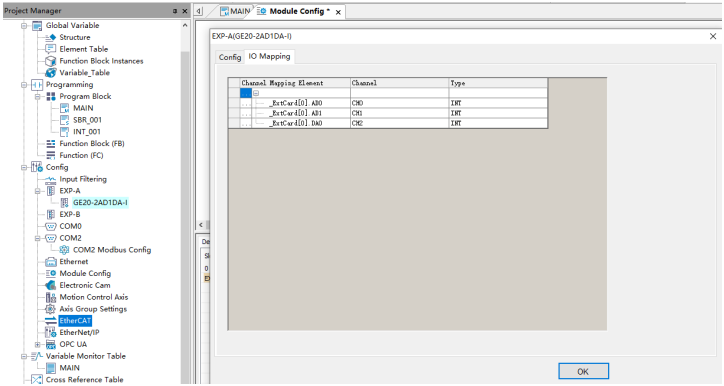
Note

The PLC and the GE20-2AD1DA-I expansion card communicate through the serial port. After the addition of the expansion card, the corresponding serial port configuration will be automatically generated. The serial port configuration of the GE20-2AD1DA-V expansion card is “COM2” when the card is installed in expansion slot A (EXP-A) and “COM3” when the card is installed in expansion slot B (EXP-B).

3. Double-click **GE20-2AD1DA-I**. In the pop-up **Config** tab, check **Enable channel** for Channel-0 and Channel-2. You can also configure **Transform mode**, **Filter parameters**, and **Output status after stop**, as shown in the figure below.



4. (Optional) In the **IO Mapping** tab, you can view the channel mapping elements. The channels are mapped to the system variable "_ExtCard", as shown in the figure below.



Note

AutoShop V4.8.1.0 and above does not support the modification of channel mapping elements. To modify the element, do as follows in AutoShop earlier than V4.8.1.0:

Double-click to map the channel I/O to an element that is currently unoccupied.

5. After successful compiling, download the project and run it.

4.2 InoProShop Programming (When used with AM522)

Note:

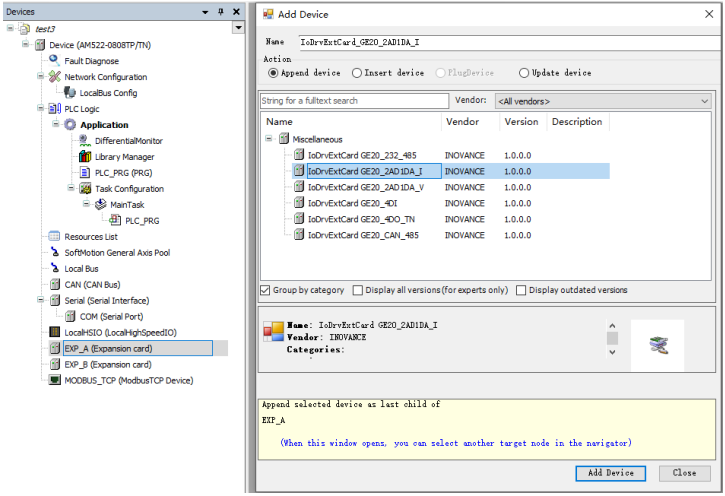
The configured expansion card type must be consistent with the actually installed expansion card type.

Introduction:

In this section, AM522 is used as the main control module. The following is an example where the input voltage of channel-0 (AD) of the GE20_2AD1DA_I expansion card is assigned to the corresponding variable, and the corresponding variable value of channel-2 (DA) is converted to output voltage.

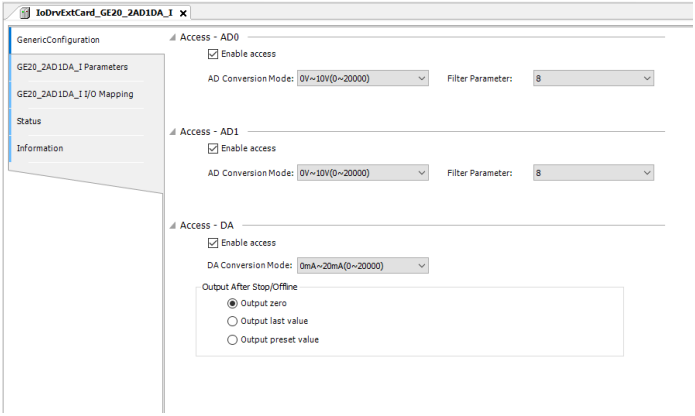
Procedure:

1. Create a project.
2. In the **Devices**, right-click **EXP_A (Expansion card)** or **EXP_B (Expansion card)** and select **Add Device**.
3. Select **IoDrvExtCard GE20_2AD1DA_I** and click **Add Device**, as shown in the figure below.



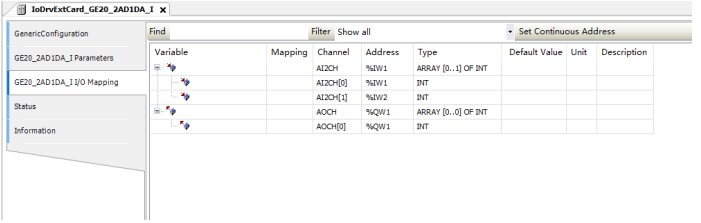
4. Double-click **IoDrvExtCard_GE20_2AD1DA_I** to open the configuration interface.

   - Click **Generic Configuration** to view the access state of default channels. You can also configure **Conversion Mode**, **Filter Parameter**, and **Output After Stop/Offline**, as shown in the figure below.



Parameter	Description	Value	Default Value
Enable access	Check to enable the channel	• Checked • Unchecked	Checked
AD Conversion Mode	Select the mode based on actual conditions	• 0 V to 10 V • 0 V to 5 V • 1 V to 5 V • 0 mA to 20 mA • 4 mA to 20 mA	0 V to 10 V
Filter Parameter	Filter level	1 to 255	8
DA Conversion Mode	Select the mode based on actual conditions	• 0 mA to 20 mA • 4 mA to 20 mA	0 mA to 20 mA
Output After Stop/ Offline	Output value after the system stops	• Output zero • Output last value • Output preset value	Output zero

- In the **GE20_2AD1DA_I I/O Mapping** tab, configure the channel I/O mapping of the GE20_2AD1DA_I expansion card, as shown in the figure below.



5. After successful compiling, download the project and run it.

5 Appendix: Setting Communication Mode with PLC

Caution

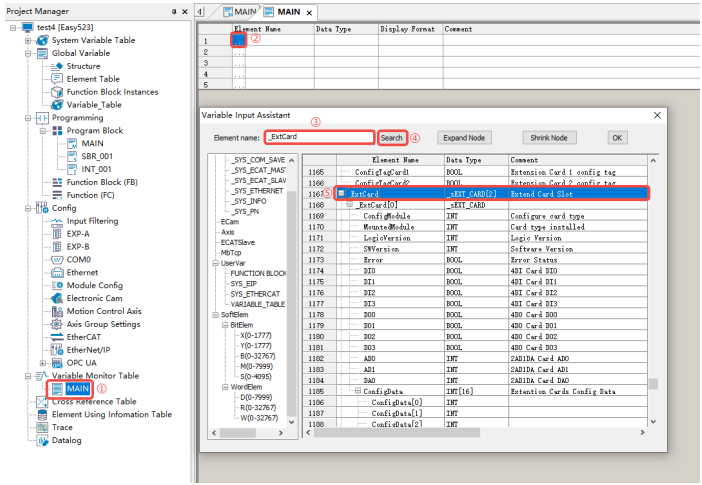
This feature is only supported in AutoShop V4.8.2.4 and later.

By default, the expansion card in this guide communicates with the PLC in high-speed mode. The high-speed mode is supported only by expansion card firmware version V2.3 and above. If the firmware version is below V2.3, switch to normal mode.

Procedure

1. Check the expansion card firmware version.

   a. In the **Project Manager**, go to **Variable Monitor Table**, and double-click **MAIN** to open the table.



b. Click "..." in the "Element Name" column.

c. Enter "_ExtCard" in the **Element name** text box.

d. Click **Search**.

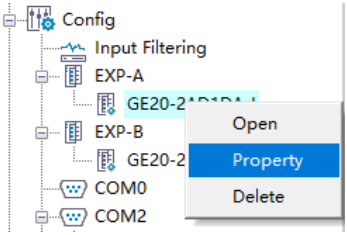
e. Double-click "_ExtCard" in the results to add the monitor variable "_ExtCard".

f. Click  in the toolbar to enter the monitoring state. View the current value of "SWVersion", which indicates the firmware version of the expansion card. "_ExtCard[0]" indicates the card slot A of the PLC and "_ExtCard[1]" indicates the card slot B.

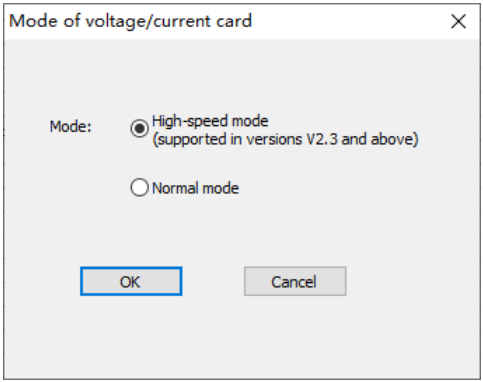
Take the figure below as an example, the current value of "SWVersion" for "_ExtCard[0]" is "0x203", indicating that the expansion card firmware version of the card slot A is V2.3. In this case, set the communication mode with PLC to high-speed mode.

	Element Name	Data Type	Display Format	Current Value	Address	Comment
1	_ExtCard	_sEXT_CARD[2]			0X620A200	Extend Card Slot
2	_ExtCard[0]	_sEXT_CARD			0X620A200	
3	ConfigM...	INT	Dec	11	0X620A200	Configure card type
4	Mounted...	INT	Dec	11	0X620A210	Card type installed
5	LogicVe...	INT	Dec	0	0X620A220	Logic Version
6	SWVersion	INT	Dec	0x203	0X620A230	Software Version
7	Error	BOOL	Bin	OFF	0X620A260	Error Status
8	DI0	BOOL	Bin	OFF	0X620A280	4DI Card DI0
9	DI1	BOOL	Bin	OFF	0X620A281	4DI Card DI1
10	DI2	BOOL	Bin	OFF	0X620A282	4DI Card DI2
11	DI3	BOOL	Bin	OFF	0X620A283	4DI Card DI3
12	DO0	BOOL	Bin	OFF	0X620A290	4DO Card DO0
13	DO1	BOOL	Bin	OFF	0X620A291	4DO Card DO1
14	DO2	BOOL	Bin	OFF	0X620A292	4DO Card DO2
15	DO3	BOOL	Bin	OFF	0X620A293	4DO Card DO3
16	AD0	INT	Dec	77	0X620A2A0	2AD1DA Card AD0
17	AD1	INT	Dec	90	0X620A2B0	2AD1DA Card AD1
18	DA0	INT	Dec	0	0X620A2E0	2AD1DA Card DA0
19	ConfigData	INT[16]			0X620A320	Extention Cards Config Data
36	_ExtCard[1]	_sEXT_CARD			0X620A600	
37	ConfigM...	INT	Dec	0	0X620A600	Configure card type
38	Mounted...	INT	Dec	14	0X620A610	Card type installed
39	LogicVe...	INT	Dec	0	0X620A620	Logic Version
40	SWVersion	INT	Dec	0	0X620A630	Software Version
41	Error	BOOL	Bin	OFF	0X620A660	Error Status
42	DI0	BOOL	Bin	OFF	0X620A680	4DI Card DI0
43	DI1	BOOL	Bin	OFF	0X620A681	4DI Card DI1
44	DI2	BOOL	Bin	OFF	0X620A682	4DI Card DI2
45	DI3	BOOL	Bin	OFF	0X620A683	4DI Card DI3
46	DO0	BOOL	Bin	OFF	0X620A690	4DO Card DO0
47	DO1	BOOL	Bin	OFF	0X620A691	4DO Card DO1
48	DO2	BOOL	Bin	OFF	0X620A692	4DO Card DO2
49	DO3	BOOL	Bin	OFF	0X620A693	4DO Card DO3
50	AD0	INT	Dec	0	0X620A6A0	2AD1DA Card AD0
51	AD1	INT	Dec	0	0X620A6B0	2AD1DA Card AD1
52	DA0	INT	Dec	0	0X620A6E0	2AD1DA Card DA0
53	ConfigData	INT[16]			0X620A720	Extention Cards Config Data
70	...					

2. In the **Project Manager**, go to **Config**, right-click the added expansion card, and select **Property**.



3. In the pop-up dialog box, select **High-speed mode** (supported in versions V2.3 and above) or **Normal mode**, and click **OK**.



Note

Channel mapping elements can be modified in normal mode, but not in high-speed mode.