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Preface

■ Brief

Thank you for purchasing the VH series of left extensions independently developed and produced by Veichi Electric. VH left extension should be used with VH600/VH500/VH300 series products, which supports RTC clock/RS485 communication/4×DI/4×DO/AI/AO and other functions.

This manual provides product information, mechanical installation, and programming examples. Please read it carefully before use for safety.

The product conforms to certain certifications, directives and standards, which are listed below. Please check the label for specific certification.

Certificate	Directive		Qualification	
CE	EMC	2014/30/EU	24V DC products: EN 61131-2 220V AC products: EN 61131-2 EN 61000-3-2 EN 61000-3-3	
CE	LVD	2014/35/EU	EN 61010-1 EN 61010-2-201	
	RoHS	2011/65/EU amended by (EU) 2015/ 863	EN IEC 63000	
UL/CUL	- -		UL 61010-1 UL 61010-2-201 CAN/CSA-C22.2 No. 61010-1 CSA C22.2 NO.	
KCC		-	-	
EAC	-		-	

Version Change Log

Date	Version	Content
07/28/2024	V1.0	First version

Manual Acquisition

This manual is not shipped with products, please check our the official website of VEICHI Electric (www.veichi.com), "Services and Support-Data Download", search for keywords and download the PDF file if you need it.

Warranty Description

If the product breaks down or is damaged under normal use, VEICHI will provide warranty service within the stated period (please refer to the order contact for the warranty period of the product). Please note that we will take maintenance fees if it is not within the period any more.

While maintenance fees will be charged for product damages caused by the following conditions even when it is during the warranty period:

- Failure to operate this product according this manual.
- Product damages caused by fire, flood and abnormal voltage.
- Product damages caused by abnormal applications.
- Product damages caused by exceeding the specified scope of use of products.

• Secondary product damages caused by force majeure (natural disasters, earthquakes and lightning strikes).

• The relevant service fee shall be calculated by the unified standard of the manufacturer. If there is a contract, terms in it will be of the highest priority. Please refer to "Product Warranty Card" for details.

Precautions

■ Safety Statement

This chapter explains the safety precautions that need to be paid attention for proper product operation. Please read the manual and understand the relevant information of safety precautions before using this product. Failure to comply with the safety precautions may cause serious injuries, deaths or equipment damages.

The "Danger", "Warning" and "Caution" items in the manual do not cover all of the safety precautions to be observed, but only supplement to all safety precautions.

Please use the product in an environment that meets the requirements of design specifications, otherwise it may cause failure, abnormal functions or component damages, which is not within the scope of product warranty.

VEICHI Electric will not bear any legal liability for personal safety accidents and property losses caused when users fail to observe the contents of this manual.

Safety Level

Danger Failure to observe the precautions will cause deaths and serious personal injuries.

Warning Failure to observe the precautions may cause serious personal injuries or deaths.

Caution to observe the precautions may cause sight personal injuries or product damages.

Safety Precautions

The product illustrations in this manual are only examples, which may be slightly different from the product you ordered. Please see the actual product order.

Operator must take mechanical protection measures to protect their personal safety by wearing the necessary protective appliances, such as anti-smashing shoes, safety clothing, safety goggles, gloves and oversleeves.

Unpacking & Acceptance

/ Warning

→ When unpacking, please do not install them if any damages, rust or clues of use on the products and accessories.

When unpacking, please do not install them if any clues of water ingress are found inside the product, or there are missing or damaged parts.

▶ Please check the packing list carefully, and if they don't match, do not carry on the installation.

Caution

- Before unpacking, please check whether the outer packaging of the equipment is in good condition, whether it is damaged, soaked, damp or deformed.
- > Please open the package from outside to inside. Do not smash on it!
- > When unpacking, please check the surface of equipment and accessories for damage, corrosion, bruise, etc.
- After unpacking, please carefully check quantity and names of the products against the list and check if any files or manuals are missing.

Storage & Transportation
Danger
Follow the required storage and transportation requirements for storage and transportation, otherwise it may cause prod uct damages.
Avoid storage and transportation under water splashing and rain, direct sunlight, strong electric field, strong magnetic field and strong vibration.
Avoid storing products for more than 3 months. And please carry out stricter protection and necessary inspections if it is longer than 3 months.
Pack the products carefully before transporting them by vehicles. Sealed boxes must be used for long-distance transportation.
> Do not transport this product together with equipment or articles that may affect or damage this product.
Installation
Danger
Only professionals with relevant training in electrical equipment and electrical knowledge can carry out operation on this product. Please keep non-professional personnels away from this product.
Warning
Read the product manual and safety precautions carefully before installation!
> Do not install this product in places with strong electric field or strong electromagnetic wave interference.
> Do not wear loose clothes or accessories when installing, otherwise you may get an electric shock.
When installing the product in a closed environment (such as cabinet or case), please use a cooling device (such as fan or air conditioner), otherwise it may cause product overheat or fire.
> Do not refit this product.
> When this product is installed in the cabinet or terminal equipment, the cabinet or terminal equipment needs to provide corresponding protective devices such as fire-proof casing, electricity-proof casing and mechanical protective devices, and the protection level should meet the relevant IEC standards and local laws and regulations.
When it is necessary to install strong electromagnetic interference equipment such as transformers, please install shielding devices to avoid misoperation of this product.
Caution
During installation, please cover the top of the product with cloth or paper to prevent metal chips, oil, water and other foreign bodies from entering the product during drilling, otherwise it may cause product failure. After the operation, please remove the covering to avoid blocking the ventilation hole and impair the heat dissipation, otherwise it may cause abnormal heating of the product.
Resonance may occur when regulate the speed of the motor which is running at a constant speed. Please install anti- vibration rubber under the motor base or use vibration suppression function to reduce vibration effectively.
Wiring
Danger
Non-professional personnels shall not carry out equipment installation, wiring, maintenance, inspection or component replacement.
Cut off the power supply of all equipment before wiring. There is residual voltage in the internal capacitor of the equipment after the power supply is cut off. Please wait at least for the time specified on the warning label on the product before wiring and other operations. Measure the DC voltage of the main circuit and make sure it is below the safe voltage, otherwise there is risk of electric shock.
> Cut off the power to carry out wiring, remove the product cover or touch the circuit board, otherwise it may cause electric

shock.
Confirm that the equipment and products are well grounded, otherwise it may cause electric shock.
Warning
Do not connect the input power supply to the output end of equipment or products, otherwise it may cause equipment damages or even fire.
Use the cables that meet the requirements in diameter and shielding, and the shielding layer of cables needs be grounded at one end.
Confirm that all cables are wired correctly and no screws, gaskets or bare cables are left inside the product after wiring, otherwise otherwise it may cause electric shock or product damages.
Caution
When wiring the control loop, please use twisted pair shielding cables and connect the shielding layer to the grounding terminal of the product, otherwise it will cause abnormality.
Power
Danger
Before power-on, please confirm that the product is installed in good condition, the wiring is firm, and the motor device is allowed to restart.
> Before power-on, please confirm that the power supply meets the requirements to avoid product damages or fire.
Do not open the product cabinet door or product protective cover plate and touch any terminal of the product, or disassemble any device or parts of the product when power is on, otherwise it may cause electric shock.
Warning
After wiring and parameter setting, please run the motor to see if it can run normally, otherwise it may cause personal injuries or equipment.
Before power-on, please confirm that the rated voltage of the product is consistent with the power supply voltage. If the power supply or voltage is incorrect, it may cause fire.
Before power-on, please confirm that there are no people around the products, motors and other machines, otherwise it may cause casualties.
Before power-on, please confirm that there are no people around the products, motors and other machines, otherwise it may cause casualties.
Operation
Danger
> Do not run the products by non-professional personnels, otherwise it may cause casualties.
Do not touch any terminal of equipment and disassemble any devices or parts of the product when it is in operation, otherwise it may cause electric shock.
Warning
> Do not touch the equipment housing, fan or resistor to test the temperature, otherwise it may cause burns.
During operation, please prevent other items or metal objects falling into the equipment, otherwise it may cause fire or product damages.
During operation, please prevent other items or metal objects falling into the equipment, otherwise it may cause fire or product damages.

	Maintenance		
	Danger		
	Non-professional personnels shall not carry out equipment installation, wiring, maintenance, inspection or component replacement.		
	Do not maintain the equipment when power is on, otherwise it may cause electric shock.		
	After cutting off the power of all equipment, please wait for at least the time specified on the warning label on the product before performing equipment maintenance and other operations.		
	When using a PM motor, even if the power supply of the product is turned off, the induced voltage will be generated on the motor terminal during the rotation of the motor. Do not touch the motor terminal, otherwise it may cause electric shock.		
	Warning		
	Carry out daily and regular inspection and maintenance of equipment and products according to requirements, and keep the records carefully.		
	Repair		
	Danger		
	Non-professional personnels shall not carry out equipment installation, wiring, maintenance, inspection or component replacement.		
	Do not carry out equipment maintenance under the condition of power on, otherwise it may cause electric shock.		
	After cutting off the power of all equipment, please wait for at least the time specified on the warning label on the product before carrying out equipment inspection, maintenance and other operations.		
	Warning		
	Report the equipment for repair according to the product warranty agreement.		
A	When the fuse is blown, the circuit breaker trips or the leakage circuit breaker (ELCB) trips, please wait at least the Time specified on the warning label on the product before switching on the power supply or other operations, otherwise it may cause casualties and equipment damages.		
	In face of equipment failure or damage, troubleshoot and repair must be carried out by professional personnels according to the maintenance manual, and maintenance records should be kept.		
	Follow the manual for replacing worn parts.		
	Do not continue to use the damaged machine, otherwise it may cause casualties or greater damage to the product.		
	After replacing the equipment, please re-check the wiring and parameter setting.		
	Disposal		
	Warning		
	Dispose the equipment and products according to relevant national regulations and standards, otherwise it may cause casualties or property loss.		
	Scrapped equipment and products should be treated and recycled according to industrial waste treatment standards to avoid environmental pollution.		

Safety Standards

Be sure to observe the safety signs affixed to the equipment in order to ensure safe operation, and do not damage or peel off the safety signs. The safety markings are described below:

Safety Standards	Content
	Please read the safety-related manuals and instructions carefully before using the product, otherwise there is a risk of injury or product damage!
4 (.) 10min	Do not touch the terminal section or remove the cover while it is powered up and wait for 10 minutes after the power is disconnected, otherwise there is a risk of electric shock!

1 Mechanical Installation

1.1 Environment Requirement

When installing the extension to the product, please take account of the conditions of operation, maintenance and the surrounding environment.

Item	Specification
Environment	Non-corrosive and combustible gas, and slight conductive dust
Altitude	Up to 2000m (80kPa)
Pollution class	Grade 2
Anti-interference	Power cord 2kV (IEC 61000-4-4)
Overvoltage level	Ι
EMC	Zone B, IEC 61131-2
Vibration	5Hz~8.4Hz, 3.5mm, 8.4Hz~150Hz, 1g, X/Y/Z three direction, 10 cycles/direction
Impact resistance	IEC 60068-2-27, 150m/s2, 11ms, $\pm X/Y/Z$ six directions, 3 cycles/direction, 18
Impact resistance	cycles in total
Storage temperature and humidity	Storage temperature: -20°C~+60°C
Storage temperature and numberly	Relative humidity: < 90%RH, no condensation
Transportation temperature and	Transportation temperature: -40 °C \sim +70 °C, relative humidity: < 90% RH, no
humidity	condensation
On anotion to management and humidity	Working temperature: -20°C~+55°C
Operation temperature and numidity	Relative humidity: < 90%RH, no condensation

1.2 Installation Precautions

Note:

- Make sure the master and modules are powered down before installing or removing them.
- Do not hot-plug modules, which may cause the master to restart, user data loss or damage, etc.
- Do not drop or impact the master and module to avoid damage to the master and modules.
- Installation dimension information is shown in the following figure, and the unit is millimeter (mm).



Figure 1-1 Dimensions

1.3 Installation Method

Install the extension

The extension card is installed in conjunction with the product by snaps. Place the product horizontally, place the extension card vertically along the slot and press the extension card by hand. When the snap clicks and the extension module is level to the product, it is installed as in the figure below:



Figure 1-2 Installation Example

Remove the extension

Place the product horizontally, and use a one-piece screwdriver to insert it at the inner snap according to the sequence of the diagram on the left below, and pry the extension card in the direction of the arrow. When the snap clicks and the extension module is separate from the product, take out the extension card module vertically at the marked point by two fingers.



Figure 1-3 Disassembly Example

1.4 Cable Selection

In the following table, the lug diameter is for reference only, which can be calculated reasonably according to actual use and adjusted separately.

Matching	Dia	meter	ŀ	KST	Suzhou	ı Yuanli
material	GB/mm ²	ANSI/AWG	Model	Crimping tool	Model	Crimping tool
	0.3	22	E0308		0308	
Tubular lug	0.5	20	E0508		0508	
Tubulai lug	0.75	18	E7508	KS12000L	7508	
	1.0	18 E1008		1008		

If other tubular lugs are used, press them to the twisted cables. The shape and size requirements are as shown in the following figure.



Figure 1-4 Lug Size

2 VH-RTC Extension

2.1 Product Information

2.1.1 Naming Rules

$\underline{VH} - \underline{RTC}$		
	1 2	
1	Product SeriesCompact PLC series	
2	Product Code RTC	



Figure 2-1 RTC Module

2.2 Product Specification

2.2.1 Basic Specifications

Item	Specification
IP	IP20
Dimension(W*D*H)	58.7mm × 62.9mm × 22.7mm
Weight	Approximately 28g

2.2.2 Power

Item	Specification
Rated Voltage	5V DC (4.75V~5.25V DC)
Rated Current	10mA (typical at 5V)
Hot swap	NO

2.2.3 Clock

Item	Specification	
Comm port	I2C	
Accuracy	120 second/month	
Format	Year-Month-Day Hour-Minute-Second	
Battery	CR2354-Coin cell battery with wire, 5 years	
	life, replaceable	

2.2.4 Installation Method

Refer to "Installation Method" on page 7 for the left extension card.

2.3 Codesys Programming Example (with VH600)

Note: Be sure to configure the extension type to match the actual extension in use.

Steps:

1. Click on $[File] \rightarrow [New Project] \rightarrow [Standard Project]$, enter the project name, and then select the save path, the specific steps are shown in the figure below:

Categories			Templates			
Lib	oraries ojects		Empty project	HMI project	Standard project	Standard project w
A project c	ontaining on	e device, on	e application, and ar	empty implemen	tation for PLC	PRG
A project co	ontaining on	e device, on	e application, and an	empty implemen	tation for PLC	PRG
A project co Mame	ontaining on Untitled1 C:\Users\	e device, on	e application, and ar	empty implemen	tation for PLC	PRG

Figure 2-2 Software Screenshot

2. In the [Device] window, right-click on the [Device] \rightarrow [Add Device] in the list.

Device (VH600-0808TN) DUC Logic DUC Logic DUC Logic DUC Logic GVL DUC Logic DUC	Հ ₪ ×	Cut Copy Paste Delete	apping bjects
FB_2WT0JiaoZhun (FE FB_2WT0JiaoZhun_EC FB_2WT1JiaoZhun (FE FB_2WT1JiaoZhun (FE fb jiaozhun (PRG) ff PLC_PRG (PRG)		Refactoring Properties Add Object Add Folder	
POU (PRG) Configuration Configura	đ	Add Device Update Device Edit Object Edit Object With Edit IO mapping Import mappings from CSV Evont mappings to CSV	NBA0381 VSE

Figure 2-3 Software Screenshot

3. In the [Add Device] page, select [VH_LeftExtensionModule] and click [Add Device].



Figure 2-4 Software Screenshot

4. Scan to add the left extension device, right-click $VH_LeftExtensionModule \rightarrow Scan for Devices \, check <math>Show difference to project \rightarrow Copy \rightarrow OK$.



Figure 2-5 Software Screenshot

Or users can add device manually by right click $VH_LeftExtensionModule \rightarrow Add Device \rightarrow VH_RTC \rightarrow Add Device]$.

5. Write a user program and download it. Double-click on 【PLC_PRG】 to open the toolbar, and drag it to the function block with EN/ENO-. Read the time of 【RTCLK.GetDateAndTime】, set the time of 【R TCLK.SetDateAndTime】 and log in and tun it after compiling. Specific steps are shown in the figure below:

H_2WT_1 H PLC_PRG X H FB_2WT0JiaoZhun_ECT	Device VH_LeftExpansionModule III Library Manager	 ToolBox
9000801 92C_986 VAR 1000: 82AL;	100 % 🕅 V	General
GetDateAndTime_0 TRUE RTCLK.GetDateAndTime xDone xBusy xKrcor effror effror effror effror effror effrore	Read access time	
RTCLK.SetDateAndTime RTCLK.SetDateAndTimE RTCLK.SetDateAndTimE RTCLK.SetDateAndTimE	set time	Function Blocks Ladder Elements POUs

Figure 2-6 Software Screenshot

Note:

- 1. The backup battery powers the product when the PLC is off. It has a service life of about 5 years depending on the environment in which it is used. When the backup battery runs out of power, replace it promptly.
- 2. Replacement of the backup battery must be done within 15 seconds (excluding the time to remove the extension card) or the RTC clock will be lost.

2.4 AutoStudio Programming Example(with VH500)

Taking the VH-RTC module with the VH500 series PLC as the master control as an example, the usage instructions are as follows.

- 1. Create a new project.
- 2. In the [Project Manager] window, double-click the navigation tree [Extension Modules],

double-click and select 【VH-RTC】, and add it to the left extension module, as shown in the following figure.



Figure 2-7 Software Screenshot

Or right click on the **[**Extension Modules **]**, select **[**Scan for Devices **]** (Auto scan will only work after downloading the new project).



Figure 2-8 Software Screenshot

3 VH-4DI Extension

3.1 Product Information

3.1.1 Naming Rules

1	Product Series VEICHI VH series general extensions
2	Product Code $4 \times DI$
3	Optional-RTC: Optional with RTC





Figure 3-1 DI Module

3.1.2 Component

Table 3-1 Component

No.	Туре	Mark	Definition	Indicator	Description
1	Power indicator	PWR	Normal power supply	Yellow/green	ON when the extension is powered
1	Input indicator	0, 1, 2, 3	Input status	Yellow/green	ON when input is valid

3.2 Product Specification

3.2.1 Basic Specifications

Table 3-2 DI Module Basic Specifications

Item	Specification	
IP	IP20	
Dimension(W*D*H)	58.7mm×62.9mm×22.7mm	
Weight	Approximately 30g	

3.2.2 Power

Table 3- 3 DI Module Power		
Item	Specification	
Rated Voltage	5VDC(4.75VDC~5.25VDC)	
Rated Current	40mA (typical at 5V)	
Hot swap	NO	

3.2.3 Input

Table 3-4	4 DI Mo	dule Inpu	t Specifi	cations
1 4010 5		a are mpa	a speem	outronio

Item		Specification	
Input type		Digital input	
Input channel		4	
Input method		Source/leakage	
Input voltage level		24VDC ± 10% (21.6VDC~26.4VDC)	
	Current when input is ON	Input current>2.5mA	
	Current when input is OFF	Input current<1mA	
Common input(0~3)	Response time	$\approx 10 \text{ms}(\text{RC filter constant})$	
	Input impedance	6kΩ	
ON voltage		≥15VDC	
OFF voltage		≤5VDC	
Software filter time		NO	
Isolation		Optocoupler Isolated	
Public terminal		One public terminal/4 input (Input power supply polarity +/- can be changed.)	
Input status display		When it is the driving state, the input indicator is ON (controlled by hardware)	

3.2.4 Terminal Definition



Figure 3- 2 DI Module Terminal Layput

Name	Signal
X0	Switching input X0
X1	Switching input X1
X2	Switching input X2
X3	Switching input X3
SS	Switching input public

3.2.5 Terminal Wiring

■ Sinking input



Figure 3-3 Sinking Wiring

■ Sourcing input



Figure 3-4 Sourcing Wiring

Refer to "1.4 Cable Selection" for cable selection.

3.2.6 Installation Method

Refer to "Installation Method" on page 7 for the left extension card.

3.3 Codesys Programming Example (with VH600)

Note: Be sure to configure the extension type to match the actual extension in use.

Steps:

1. Click on $[File] \rightarrow [New Project] \rightarrow [Standard Project], enter the project name, and then select the save path, the specific steps are shown in the figure below:$

Categories	5	Templates			
Lit	oraries ojects	Empty project	HMI project	Standard project	Standard project w
A project c	iontaining one device, or	ne application, and an	empty implemen	tation for PLC	PRG
A project c <u>l</u> ame <u>l</u> ocation	untaining one device, or Untitled 1 C: \Users\v5415\Desk	ne application, and an other top\vh600	empty implemen	tation for PLC	PRG

Figure 3-5 Software Screenshot

2. In the [Device] window, right-click on the [Device] \rightarrow [Add Device] in the list.



Figure 3-6 Software Screenshot

3. In the 【Add Device】 page, select 【VH_LeftExtensionModule】 and click 【Add Device】.

Devices 👻 4	Add Device			
	Name Action Append device Insert device	O Blug device O Update device		48A0381 4555A
	String for a full text search	Vendor <all vendors=""></all>		
B 20/00 Manager B 20/00 JaoZhun (FB) B 20/00 Manager	Name	Vendor	Version	Description
FB 2WT13laoZhun (FB)	FreeProtocolSerialPort	Shenzhen Veichi Control Technology Co. Ltd.	1.0.0.1	Free Protocol Serial Port
1 jaozhun (PRG)	- mg gpio	35 - Smart Software Solutions GmbH	3.5.17.0	GPIOs using Sysfs
PLC_PRG (PRG)		Shenzhen Veichi Control Technology Co. Ltd.	1.0.0.1	Modbus RTU device
POU (PRG)	ModbusRtuMaster	Shenzhen Veichi Control Technology Co. Ltd.	1.0.0.1	Modbus RTU master
🖻 🌃 Task Configuration	ModbusTcpDevice	Shenzhen Veichi Control Technology Co. Ltd.	1.0.0.3	Modbus TCP device
EtherCAT_Task (IEC-Tasks)	VH_ExtensionDevice	Shenzhen Veichi Control Technology Co. Ltd.	1.0.0.1	VH series Vbus communication protocol native extension of
🖻 🍪 MainTask (IEC-Tasks)	III VH_LeftExpansionModule	Shenzhen Veichi Control Technology Co. Ltd.	1.0.0.0	VH series left extension module
- @ PLC_PRG - @ POU - @ Trace	❀ M Fieldbuses			
B VH600_LocalDevice				
Local_Digital_IO (Local_Digital_IO)				
VH_ExtensionDevice (VH_ExtensionDevice)				
VH_2WT (VH-2WT)	<			
VH_4DA (VH-4DA)	Group by category Display all	versions(for experts only) 🔲 Display outdate	d versions	
VH 4AD (VH-4AD)		T also		

Figure 3-7 Software Screenshot

4. Scan to add the left extension device, right-click $[VH_LeftExtensionModule] \rightarrow [Scan for Devices] \rightarrow$, check $[Show difference to project] \rightarrow [Copy] \rightarrow [OK]$.

ices 👻	🕈 🗙 VT_1 🕐 PLC_PRG 🕐 FB_2WT0JiaoZhun_ECT	Device 🗙 🚹 VH_LeftExpansionModule 🏦 Library Manager 📲 VH_04DO_TN_RTC
WH語合語-2WT林重投港1	A Communication Settings Scan Network Gateway	w • Device •
= 📆 Device [connected] (VH600-0808TN)	Communication Settings	i) ecite
PLC Logic	Applications	10 ³⁰
Application		
- 🧭 GVL	Ba Scan Devices	- D V
Library Manager	el el	
FB_2WT0JiaoZhun (FB)	Scanned Devices	Configured Devices
FB_2WT0JiaoZhun_ECT (FB)	Lo Device name Device type	Device name Device type
FB_2WT1JlaoZhun (FB)	- VN (ADI RTC VN-OADI-RTC	- W 0400 78 870 W-0400-78-870
jiaozhun (PRG)	PL PL	
PLC_PRG (PRG)	~	1. LL
POU (PRG)	PL CONTRACTOR	
😑 🧱 Task Configuration	Us	2 () () () () () () () () () (
EtherCAT_Task (IEC-Tasks)		
🖻 🍪 MainTask (IEC-Tasks)	Ac	ы Сору
PLC_PRG		
POU N	Sy	Xe
- 🚭 Trace	LK	Co. Ltd.
A VH600_LocalDevice		
Local_Digital_IO (Local_Digital_IO)	IE	
WH_ExtensionDevice (VH_ExtensionDevice)		
	та	
WH_4DA (VH-4DA)	9	D DROW GITTEREBOES TO
VH_4AD (VH-4AD)	Lientity	of maint
- WH_4TC (VH-4TC)	In Scan Bevice	OK Cancel

Figure 3-8 Software Screenshot

Or users can add device manually by right click 【VH_LeftExtensionModule】 → 【Add Device】 → 【VH_04DI】 → 【Add Device】.

5. Double click "VH_04DI" to open "VH_04DI" configuration interface to change parameters and set I/O mapping as shown in the following figure:

	H VH_2WT_1 PLC_PR	.G 🖲 F8_2WT03aoZhun_BCT 💮 D	evice 🚹 VH_LeftE	hipansionModule 👔	Library Manager / WH_0+	IDI_RTC X
Library Manager A	veichi:LeftBus IEC Objects	Find	Fiter Show all		• I Add FB for IO Channel.	. → [] Go to Instance
F8_2V/T03ao2hun_ECT (F8) F8_2V/T13ao2hun (F8)	04D1 Parameters	Variable Mapping	Channel Address	Type Default Valu	e Current Value	Prepared Value Unit Description
jaozhun (PRG)	04D1 1/0 Mapping (2)	-* 3	BR0 %DX122.0	BOOL	FALSE	
PLC_PRG (PRG)		- * Mariahla	8k1 %DX122.1	BOOL	FALSE	
POU (PRG)	Status	variable	BR2 %EX122.2	BOOL	FALSE	
Task Configuration	Information	- mapping	883 %X122.3	BOOL	FALSE	
- 21 POJ - 27 Pose - 31 Losi, Dyski, J0 (kosi, Dyski, J0) - 31 W+, ExtensionDevice - 31 W+, ExtensionDevice - 31 W+, ExtensionDevice - 31 W+, ExtensionDevice - 31 W+, 20 (N+-20) - 31 W+, 20 (N+-20)		Stati vissai teass	4			
U H_4TC (VH-4TC)	~					
G VH_PT (VH-PT) G VH_LeftExpansionModule (VH_LeftExpans G VH_D40L_RTC (VH-040L4RTC)	 double-click 					
G W 4PT (H-PT) G W 4PT (H-PT) G W 5PT (H-PT) G W 5PT (H-PT) (H-PT) G W 5PT (H-PT) (H-PT) (H-PT) G M W RU ECT (H-PT) (H-PT) (H-PT) (H-PT)	double-click			Reset M	Always update variable	Enabled 1 (use bus cycle task if not used in a
	D double-click	🍫 = Create new variable 🏻 🍫 = Ma	p to existing variable	Reset M	Always update variable	Enabled 1 (use bus cycle task if not used in a

Figure 3-9 Software Screenshot

6. After compiling and passing, click Login⁹⁹¹ to download the program and run it.



Figure 3-10 Software Screenshot

3.4 AutoStudio Programming Example(with VH500)

Taking the VH-4DI module with the VH500 series PLC as the master control as an example, the usage instructions are as follows.

1. Create a new project.

2. In the **[**Project Manager **]** window, double-click the **[**Extension Modules **]**, double-click to select VH-DI and add it to the left extension module, as shown below.



Figure 3-11 Software Screenshot

Or right click on the [Extension Modules], select [Scan for Devices] (Auto scan will only work after downloading the new project).



Figure 3-12 Software Screenshot

3. In the 【Extension Modules】 interface, double-click the VH-4DI module or right-click the VH-4DI module 【Configuration】, configure the VH-4DI parameters and address, and then we can compile and download the finished program. Monitor the channel address X200~X203, connect SS to the positive end of the power supply, and connect the negative end to the X200 ~X203, and the DI lights are all on, the input is valid.



Figure 3-13 Software Screenshot

4 VH-4DO-TN Sinking Transistor Output Extension

4.1 Product Information

4.1.1 Naming Rules

 $\underline{\text{VH}} - \underline{\text{4DO}} - \underline{\text{TN}} - \underline{\text{RTC}}$

	1 2 3 4
1	Product Series VEICHI general extensions VH series
2	Product Code Sinking transistor
3	Product Code $4 \times DI$
4	Optional Or Not RTC: Optional with RTC





Figure 4-1 DO Module

4.1.2 Component

Table 4-1 DO Module Component

No.	Туре	Mark	Definition	Indicator	Description
	Power indicator	PWR	Normal power supply	Yellow/green	ON when the extension is powered
	Output indicator	0, 1, 2, 3	Output status	Yellow/green	ON when output is valid

4.2 Product Specification

4.2.1 Basic Specifications

Table 4-2 DO Module Specifications

Item	Specification
IP	IP20
Dimension(W*D*H)	58.7mm × 62.9mm × 22.7mm
Weight	Approximately 30g

4.2.2 Power

Table 4- 3 DO Module Power

Item	Specification
Rated Voltage	5V DC (4.75V~5.25V DC)
Rated Current	40mA (max at 5V)
Hot swap	NO

4.2.3 Input Specifications

Table 4- 4 DO Module Input Specifications

	Item	Specification		
Output ty	уре	DO,NPN low side		
Output c	hannel	4		
Voltage	evel	24VDC(21.6V~26.4V)		
	Resistance load	0.5A/output, 1A/public		
	Inductance load	6W/24VDC (in total)		
	Lamp load	1W/24VDC (in total)		
Commor output	Hardware response time ON/OFF	$\leq 100 \mu s (OFF \rightarrow ON \text{ and } ON \rightarrow OFF)$		
	Load current	Load current≥5mA		
	Max. output	Resistance load 100Hz, inductance load 0.5Hz, lamp load 10Hz		
OFF sink	ting current	<50µA		
Max ON	residual voltage	<0.5VDC		
Isolation		Optocoupler Isolated		
Public te	rminal	One public terminal/4 output (Output power supply polarity +/- can be changed.)		
Surge su	ppressor	Zener diode		
Short cire	cuit protection	No		
Output d	isplay	When it is the driving state, the output indicator is ON(controlled by hardware)		

4.2.4 Terminal Definition



Figure 4-2 DO Module Terminal Layout

Name	Signal
Y0	Switching output Y0
Y1	Switching output Y1
Y2	Switching output Y2
Y3	Switching output Y3
+24V	Input power supply
0V	Output public

4.2.5 Terminal Wiring



Figure 4- 3 DO Module Internal Wiring

Note: When there is inductive load, it is necessary to connect freewheeling diodes externally, and the diodes can be 1N4001 or similar ones. Refer to "1.4 Cable Selection" for cable selection.

4.2.6 Installation Method

Refer to "Installation Method" on page 7 for the left extension card.

4.3 Codesys Programming Example (with VH600)

Note: Be sure to configure the extension type to match the actual extension in use.

Steps:

1. Click on $[File] \rightarrow [New Project] \rightarrow [Standard Project], enter the project name, and then select the save path, the specific steps are shown in the figure below:$

Categories	s oraries		Templates			8.1
Pr	ojects		Empty project	HMI project	Standard project	Standard project w
0468	v5415 "					
A project c	ontaining one	device, one	application, and an e	empty implemen	tation for PLC	_PRG
A project c	ontaining one	device, one	application, and an e	empty implemen	tation for PLC	_PRG
project c lame ocation	ontaining one Untitled 1 C:\Users\v	device, one	application, and an e	empty implemen	tation for PLC	_PRG

Figure 4- 4 Software Screenshot

2. In the [Device] window, right-click on the [Device] \rightarrow [Add Device] in the list.



3. In the 【Add Device】 page, select 【VH_LeftExtensionModule】 and click 【Add Device】.

Devices 👻 🕂	Add Device			
■)) H橋右部-2WT邦重伝准1 ■)) Device (14650-0008070) ① right Click ■)) PLCLopic ■ ② Application ■ Gr. ② add Device	Name Action Action Append device Insert device String for a full text search	⊖ ⊵ug device ○ ∐pdate device Vendor ⊂All vendors>		NRADJEL VSSCA V
Il Unerry Manager III Unerry Manager III Reg. XV10aba2hun (FB) III FB_XV110ab2hun (FB)	Name Image: State	Vendor Shenzhen Yeich Control Technology Co. Ltd. 35 - Smart Software Solutions GribH Shenzhen Veich Control Technology Co. Ltd. Shenzhen Veich Control Technology Co. Ltd. Shenzhen Veich Control Technology Co. Ltd. Shenzhen Veich Control Technology Co. Ltd.	Version 1.0.0.1 3.5.17.0 1.0.0.1 1.0.0.3 1.0.0.1 1.0.0.0 1.0.0.0 1.0.0.0 1.0.0.0 1.0.0.0 1.0.0.0 1.0.0.0 1.0.0.0 1.0.0.0 1.0.0.0 1.0.0.1 1.0.0.0.0 1.0.0.0.0 1.0.0.0.0 1.0.0.0 1.0.0.0 1.0.0.0 1.0.0	Description Free Protocol Serial Port GPDG using Sysfs Modbus RTU device Modbus TCP device Wh series Volus communication protocol native extension devi Wh series left extension module

Figure 4- 6 Software Screenshot

4. Scan to add the left extension device, right-click $VH_LeftExtensionModule \rightarrow Scan for Devices \, check <math>Show difference to project \rightarrow Copy \rightarrow OK$.

	A HE HOLEN A POUND	2WT0JiaoZhun_ECT Device 🗙 🔢 VH_LeftExpansionModul	a 👔 Library Manag
Library Manager FB 2WT0JiaoZhun (FB)	Communication Settings Scan Network	Gateway - Device -	5 ⁰⁰
FB_2WT0JiaoZhun_ECT (FB)	Applications		
jiaozhun (PRG)	Scan Devices		
PLC_PRG (PRG)	Scanned Devices	Configured Devices	^
■ Stark Configuration SetterCAT_Task (IEC-Tasks) SetterCAT_Task (IEC-Tasks) MainTask (IEC-Tasks) Other C_PRG Other C_PRG Other Content of the task of task o	Device name Device type - VH_04D0_TN_RTC VH-04D0-TN-RTC	VR_0400_TK_KTC VH-0410-TR-K	rc
et Trace	ALE A	R ^{34K}	0.36
S Web0_LocalDevice (H=460_LocalDevice (H=460_LocalDevice(H=LstensionDevice) (H=LstensionDevice) (H=2NT(H=2NT) (H=40) (H=40) (H=40) (H=40) (H=47C) (H=47C) (H=47C)	slick - Scan for Device	Copy All	che
VH_4PT (VH-4PT)		- SROW 4111	Cerences to

Figure 4-7 Software Screenshot

Or users can add device manually by right click 【VH_LeftExtensionModule】 → 【Add Device】 → 【 VH_04DO 】 → 【 Add Device 】.

5. Double click "VH_04DO" to open the configuration interface, click "VH_04DOI/O Mapping" and to change the parameters or set I/O mapping as shown in the following figure:

EB 20/00 liso2bup (EB)	veichi:LeftBus IEC Objects	Find		Filter Show	v all		155°	- Ad	d FB for IO Chann
FB_2WT0JiaoZhun_ECT (FB) FB_2WT1JiaoZhun (FB)	04D0 I/O Mapping 🥑	Variable	Mapping	Channel	Address	Туре ВУТЕ	Default Value	Unit	Description Digital output0~3
iaozhun (PRG)	Status	- **		Bit0	%QX44.0	BOOL			
PLC_PRG (PRG)	1.5 ³⁰	- 10		Bit1	%QX44.1	BOOL			
POU (PRG)	Information	-**		Bit2	%QX44.2	BOOL			
= 🧱 Task Configuration		-**		Bit3	%QX44.3	BOOL			
d) PLC_PRG									
Image: The set of th		Stad BUSSE							
↓ ⊕ ↓ ⊕ ↓ ↓		Sta WER							
↓ ● •			Reset	fapping	Always updat	tevariables	NBA03	e setting	

Figure 4-8 Software Screenshot

6. After compiling and passing, click Login 🥵 to download the program and run it.



Figure 4-9 Software Screenshot

4.4 AutoStudio Programming Example(with VH500)

Taking the VH-4DO module with the VH500 series PLC as the master control as an example, the usage instructions are as follows.

1. Create a new project.

2. In the **[**Project Manager **]** window, double-click the **[**Extension Modules **]**, double-click to select VH-4 DO and add it to the left extension module as shown below.



Figure 4-10 Software Screenshot

Or right click on the 【Extension Modules】, select 【Scan for Devices】 (Auto scan will only work after downloading the new project).



Figure 4-11 Software Screenshot

3. In the 【Extension Modules】 interface, double-click the VH-4DO module or right-click the VH-4DO module 【Configuration】, configure the VH-4DO parameters and address as shown in the figure below.



Figure 4-12 Software Screenshot

4. Compile and download the finished program. Monitor the channel address M1000~DM1003, assign the four channels and the VH-4DO indicator lights are all on, the output is valid.

nager	7 × / 1	MAIN X			-	C Extension Modules x		 Module Tree
hager VH523) Ubdal Variable System Variable Ubdal Variable System Variable Ubdal Variable Ubdal Variable Ubdal Ubd		MAN × 20 20 10 10 10 10 10 10	>	1 2000 1 2001 1 2001 1 2002 1 2003		To Extension Modules X	DO-RTC — E Mapping Address 1: 800(Y,M/War) Mapping Address 2: 800(Y,M/War) Mapping Address 2: 800(Y,M/War)	Model Tee • • • • • • • • • • • • •
ement Memory Table	~					×	anon	VH-8AD-V
Element Name	Data Type	Display Format	Current Value	New Value	Element Remark		Mapping Address 4: BOOL(Y,M,Var)	
M1000	BOOL	Binary	ON	ON		1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	M1002	
M1001	BOOL	Binary	ON	ON		N 80	MIND	02
M1002	BOOL	Binary	ON	ON	·		A description in a section of data and	
M1003	BOOL	Binary	ON	ON			Automatically assign address	
	INT	Binary			2.02			
	INT	Decimal			Span .		OK	
	INI	Decmal						
	INT	Decmal		-				
	INT	Decimal						
	INT	Decimal		-				
	IN	Decma						

Figure 4-13 Software Screenshot

5 VH-2AD1DA Currnet/ Voltage AI/AO Extension

5.1 Product Information

5.1.1 Naming Rules

	$\underline{VH} - \underline{2ADIDA} - \underline{V/I} - \underline{RIC}$
	1 2 3 4
	Product Series VEICHI general extensions VH series
2	Product Code 2×AI, 1×AO
3	Product Code V: Voltage I: Current
4	Optional Or Not -RTC: Optional with RTC



5.1.2 Component

Table 5-1 VH-2AD1DA Component

No.	Туре	Mark	Definition	Indicator	Description
1	Power indicator	PWR	Normal power supply	Yellow/ green	ON when the extension is powered

5.2 Product Specification

5.2.1 Basic Specifications

Table 5- 2 VH-2AD1DA Basic Specifications

Item	Specification
IP	IP20
Dimension(W*D*H)	58.7mm×62.9mm×22.7mm
Weight	Approximately 35g

5.2.2 Power

Table 5-	3 VH-2AD1DA	A Power
1 4010 0		

Item	Specification
Rated voltage	5VDC(4.75VDC~5.25VDC)
Rated current	65mA (typical at 5V)
Hot swap	NO

5.2.3 Input Specifications

Table 5- 4 VH-2AD1DA Input Specifications

Item	Specification
Input channel	2
Voltage range	0V~10V
Input impedance	$>200 \mathrm{k}\Omega$
Current range	0mA~20mA
Current sampling impedance	250Ω
Converting speed	2ms/output
Input accuracy (at 25°C)	Voltage $\pm 1\%$, current $\pm 1\%$ (full-scale)
Input accuracy (at any temp)	Voltage $\pm 3\%$, current $\pm 3\%$ (full-scale)
Input signal frequency	<10Hz
Resolution	12bit
Digital output	0~10000

5.2.4 Output Specifications

Table 5- 5 VH-2AD1DA Output Specifications

Item	Specification
Output channel	1
Output voltage range	0V~10V
Output voltage load	>2KΩ
Output current range	0mA~20mA
Output current load	<500Ω
Converting speed	2ms
Output accuracy (at 25°C)	±1% (full-scale)
Output accuracy (at any temp)	±5% (full-scale)
Resolution	12bit
Digital output	0~10000

5.2.5 Terminal Definition



Figure 5-2 VH-2AD1DA-V-RTC Terminal Layout

Name	Signal
VI0+	Voltage input0 +
VIO-	Voltage input0 -
VI1+	Voltage input1 +
VI1-	Voltage input1 -
VO+	Voltage output +
VO-	Voltage output -



Figure 5- 3 VH-2AD1DA-I-RTC Terminal Layout

Name	Signal
VI0+	Current input0 +
VI0-	Current input0 -
VI1+	Current input1 +
VI1-	Current input1 -
IO+	Current output +
IO-	Current output -

5.2.6 Terminal Wiring

Wiring precautions

When wiring, avoid bundling them with power lines (high voltage, high current) and other cables with strong interference signals. They should be separated and not be paralleled.

• Select the recommended cables for connection, and use shielded cables for extension wiring to improve anti-interference capability.

• Single-point ground the shielded wires and weld-sealed cables.

• External input wiring



Figure 5- 4 VH-2AD1DA Input Wiring

[1]: Use two-core twisted shielded cables for the analog signal lines.

[2]: The current type has a 250Ω resistor, while the voltage does not.

External output wiring



Figure 5- 5 VH-2AD1DA Output Wiring

[1]: Use two-core twisted shielded cables for the power lines.

[2]: If there is noise or ripple in the external wiring, connect a capacitor of $0.1 uF \sim 0.47 mF$ between the VO+ and VO- terminal.

[3]: Refer to "1.4 Cable Selection" for cable sizes.

5.2.7 Installation Method

Refer to "Installation Method" on page 7 for the left extension card.

5.3 Codesys Programming Example (with VH600)

Note: Be sure to configure the extension type to match the actual extension in use.

1. In the [Project Manager] section, right click on [Device] \rightarrow [Add Device], and select [VH _LeftExtensionModule].



2. In the 【Add Device】 page, select 【VH_LeftExtensionModule】 and click on 【Add Device】.



Figure 5-7 Software Screenshot

3. Scan to add the left extension device, right-click $[VH_LeftExtensionModule] \rightarrow [Scan for Devices] \rightarrow$, check $[Show difference to project] \rightarrow [Copy] \rightarrow [OK]$.

Jevices 🗸 🗸	X VH_2WT_1 PLC_PRG H FB_2WT0JiaoZhun_	_ECT
Library Manager FB 2WT0JiaoZhun (FB)	Communication Settings Scan Network Gateway -	Device *
FB_2WT0JiaoZhun_ECT (FB)	Applications	
FB_2WT1JiaoZhun (FB)	Scan Devices Backu	N ^{BA} - D >
PLC PRG (PRG)	Scanned Devices	Configured Devices
POU (PRG) Pou (PRG)	Priles Device name Device type Log - M2 2ADLDA_T_RTO M-2ADLDA-T-RTO PLC S	Image: Constraint of the second se
VH_4PT (VH-4PT)	Right click - Scan for Device	Snow allierences to
VH_04DI_RTC (VH-04DI-RTC) SoftMotion (EtherCAT) EtherCAT_Master_SoftMotion (EtherCAT)	Statu: Scan Device	OK Cancel

Figure 5-8 Software Screenshot

4. Double click "VH_2AD1DA-I" to open the configuration interface, click onb the "IO Mapping" as shown in the following figure:

s +	M VH_2WT_1 PLC_F	RG PB_2WT03aoZhun_EC	T Device	VH_Left	Expansion	fodule 👔	Library Manager 🖉 🖩 🛛	H_2AD1DA_I_RTC	×	
Library Manager A	veichi:LeftBus IEC Objects	Find	Filter Shor	v all			+ 🕂 Add FB for IO Chan	nel ⇒∏Go to Ins	stance	
FB_2WT0JiaoZhun_ECT (FB) FB_2WT1JiaoZhun FB)	2AD 1DA-I Parameters	Variable	Mapping Channel	Address	Type	Default Value	Current Value	Prepared Value	Unit Descript	tion ts data0
jaozhun (PRG)	2AD1DA-I I/O Mapping (2)	-*	AD_CH1	%IW62	INT		238		AD conver	ts data 1
PLC_PRG (PRG)		-**	DA_CH0	%QW22	INT		0		DA conver	ts data0
POU (PRG)	Status	All and a second sec	able manning							
Task Configuration Setting CAT_Task (REC_Tasks)	Information	Van	able mapping							
😑 😏 😂 MainTask (IEC-Tasks)										
POU P		231 VISSA BURN								
(a) AC,PAC (b) AC,PAC (c) A (b) AC,PAC (c) A (b) AC,PAC (c)		30 15564 BEER								
)double-click	na wante barre								
-@) AC/R0 -@ hos -@ hos -@ hos -@ last part of	good)double-click	and which there are a set				Reset Mapp	Ing Always update variab	es Enabled 1 (use t	aus cycle task if not us	sed in an
(a) AC,PRC (b) AC,PRC (c) AC,PRC (your	a - Crest new vrigitie	Ta - Map to existing	variable		Reset Mapp	ng Alwaya updatewanab	Cashi Enabled 1 (use t	the state of the s	sed in an

Figure 5-9 Software Screenshot

5. Double click the VH-2AD1DA to enter its configuration page, enable the channel and set the channel and conversion mode as needed, set the sampling time and filter constant, and modify the input and output range. Send the status when it stops.



Figure 5-10 Software Screenshot

6. After compiling, click Login ^{ss} to download the program and run it.



Figure 5-11 Software Screenshot

5.4 AutoStudio Programming Example(with VH500)

Taking the VH-2AD1DA-I-RTC module with the VH500 series PLC as the master control as an example, the usage instructions are as follows.

1. Create a new project.

2. In the 【Project Manager]】 window, double-click the 【Extension Modules】, double-click to select VH-2AD1DA-I-RTC and add it to the left module, as shown below.



Figure 5-12 Software Screenshot

Or right click on the 【Extension Modules】, select 【Scan for Devices】 (Auto scan will only work after downloading the new project).

File(F) Edit(E) View(V) PLC(P) Debug(D) Tool(T) Wind	low(W) Help(H)			
BBBB * BB * P B * • • • • • • • • • • • • • • • • • •	□□□ 🖆 🔠 🧶 ▶ ■ 🕁 🗟 🖓	8 6 6 6 📰 🛛	8 □ □ + → ↓ ≒ ! = + → + →	-+] ++
Project Manager # × M MAIN	Extension Module VH-2AD1DA-I-RTC	noromator	e etting - D	×
Image: System Variable Image: System Variable Image: System Variable	ADO Ceneration mode: 20ma-20mA ~ Digital output range: © -20000-20000	○-32000~32000	Filter perameter: a Sampled Data: Dr(D,R,W,Var) D200	
	AČ3 ✓ Enable Conversion mode: 2000-2000 Digital output range: ⊕ -20000-20000	O-32000~32000	Filter parameter: Sampled Dats: Dff(D,R,W,Var)	
Data Block Data Block Geternston Modules Geternston Module Geternston Modules GeternstonM	DAO DAO Conversion mode: 2011A-2011A Digital output range: © -20000-20000	O-32000~32000	Output Volue: INT(D.R.W, Vor)	
Output Window Communication message W2001 Download communication command executed correctly W2001 Ran communication command executed correctly W2001 Enter online editing mode communication command execu- W2001 Ext online editing mode communication command executed W2001 Ext online editing mode communication command executed W2001 With communication command executed correctly, W W2001 With communication command executed correctly, W W2001 Abnormal communication, plasse check the communica-	Stop output status: © Output reset: Analog Value: 0.00000 m re ted correctly ted correctly ted correctly ted correctly fon port	Output hold 4 = vassign address	O Output presets Digital Value: 0 OK	

Figure 5-13 Software Screenshot

3. In the 【Extension Modules】 interface, double-click the VH-2AD1DA-I-RTC module or rightclick on it and select 【Configuration】, configure its parameters and addresses as shown in the figure below.

oject Manager	9 × M M	AIN 🗘 Extensio	n Modules ×		VH-2AD1DA-I-RTC		
yert Manager ying(VH523) Global Variable Global Variable Global Variable Global Variable Global Variable Global Variable ECATSlave ECATSlave ECATSlave Function Block Data Global E Table Global Block F rorgans Blo			n Modules ×	1995 1997 1997	VI-2AD IDAHRIC ✓Enable Conversion mode: -2000-2000 AD1 ○ finable Conversion mode: -2000-2000 AD1 ○ finable Conversion mode: -2000-32000 → 2000-32000 → 2000-3200 → 2000 → 2000-3000 → 2000-300 → 2000-3000 → 2000-3000	Filter parameter:	
Element monitoring table Element Memory Table Turt Window	~ <				-20000~20000 -32000~32000 Stop output status:		
Element Name	Data Type	Display Format	Current Value	New Value	Output reset Output hold	Output presets	
M1000	BOOL	Binary	OFF	ON	Analog Value:	Digital Value:	
M1001	BOOL	Binary	OFF	ON			
M1002	BOOL	Binary	OFF	ON		0	
M1003	BOOL	Binary	OFF	ON	and the second s		
	INT	Binary		-	A the method is a sector of damage	OK	
D200	INT	Decimal	20226		Automaucally assign address	UK	
D201	INT	Decimal	210		1999 - Carlos - Carlo		
D202	INT	Decimal	20000	20000	4		
OLUL .	INCT	D i i	0	20000			
D203		Decmal					

Figure 5-14 Software Screenshot

4. Compile and download the finished program. Monitor the channel address D200~D202, give 5V to the first channel of the 2AD and the current value of the D200 shows 20226.

6 VH-485 Communication Extension

6.1 Product Information

6.1.1 Naming Rules

<u>VH</u> -	485(- RTC)

	(1) (2)
1)	Product Series VEICHI general extensions VH series
2	Product Code RS485 extension -RTC Optional RTC



Figure 6- 1 VH-485 Module

6.1.2 Component

Table 6-	1 VH-485	Module	Component
			1

No.	Туре	Mark	Definition	Indicator	Description
1	Power indicator	PWR	Normal power supply	Yellow/ green	ON when the extension is powered
2	User terminal	-	-	-	Refer to 7.4.2 <u>bookmark21</u> Terminal Description for details <u>bookmark21</u> .
3	RS485 DIP switch	-	Control the termination resistor	-	ON means termination resistor is connected

6.2 Product Specification

6.2.1 Basic Specifications

Table 6- 2 VH-485 Basic Specifications

Item	Specification
IP	IP20
Dimension(W*D*H)	58.7mm × 62.9mm × 22.7mm
Weight	Approximately 30g

6.2.2 Power

Table 6- 3 VH-485 Power

Item	Specification
Rated Voltage	5VDC (4.75V~5.25V)
Rated Current	60mA (typical at 5V)
Hot swap	NO

6.2.3 Communication Specifications

Table 6- 4 VH-485 Communication Specifications

	Item	Specification
	Channel No	2
	Isolation	Yes
	Termination Resistor	Yes, controllable by the dipswitch which defaults to ON (resistor connected)
RS485	Slave No.	31 max.(The distance between each slave branch must be less than 3m.)
	Baud Rate	9.6 kbit/s, 19.2 kbit/s, 38.4 kbit/s, 57.6 kbit/ s, 115.2 kbit/s
	Communication distance	 115.2kbit/s when<100m 19.2kbit/s when<1000m

6.2.4 Terminal Definition



Figure 6- 2 VH-485 Terminal Layout

Name	Signal
1A+	1st 485 communication signal +
1B-	1st 485 communication signal -
SGND	485 communication ground
SGND	485 communication ground
2A+	2nd 485 communication signal +
2B-	2nd 485 communication signal -

6.2.5 Installation Method

Refer to "Installation Method" on page 9 for the left extension card.

6.2.6 RS485 Communication

Note:

> When wiring, avoid bundling them with power lines (high voltage, high current) and other cables that transmit strong interference signals. They should be separated and not be paralleled.

> Select the recommended cables for connection, and use shielded cables for extension wiring to improve anti-interference capability.

We recommend to use shielded twisted pair cables for RS485 bus, and twisted pair cables for 485+ and 485-. A 120Ω terminal resistor is connected to the bus ends respectively to prevent signal reflection; The reference ground of 485 signals at all nodes is connected together, 31 nodes max, and the distance between each node should be within 3m. The RS485 bus connection topology is shown in the following figure.



Figure 6-3 Communication Wiring

■ Multi-node wiring

When there are too many nodes, the RS485 bus must be connected in daisy chain. If a branch line is required, a shorter the length from the bus to the node will deliver the better performance, and it is recommended not to exceed 3m. Star connection is strictly prohibited. The common bus structure is shown below.

• Daisy Chain Connection



• Star Connection (Prohibited)



Figure 6-5 Start C Wiring

■ Terminal Wiring

Please check that the 485 bus contains three cables and the terminals are not reversed or connected incorrectly. If you use shielded cable, especially note that the shielding layer must also be connected to the GND terminal. At any node or any spot in-between, the shield is prohibited to connect to any other place (including the field enclosure, the equipment grounding terminal can not be connected) except the GND of the nodes.

Due to the attenuation effect of the cable, it is recommended to use AGW26 or thicker cables for connection farther than 3m, and it is recommended to use twisted-pair cables for 485+ and 485-connection cables at all times.





1. Recommended cables: Multi-core unshielded twisted pair cable, take one pair among them for the connection of 485+ and 485-, and twist the other extra cables together for GND.

2. Recommended cables: Shielded twisted pair cable, take one pair among them for the connection of 485+ and 485-, and the shielding layer for GND. When use shielded twisted pair cables, it is especially important to note that the shielding layer can only be connected to GND, not to the earth at the site.

6.3 Codesys Programming Example (with VH600)

Note: Be sure to configure the extension type to match the actual extension in use.

1. In the [Project Manager] section, right click on [Device] \rightarrow [Add Device], and select [VH _LeftExtensionModule].



2. In the 【Add Device】 page, select 【VH_LeftExtensionModule】 and click on 【Add Device】.

Devices 👻 🕂	III Add Device			
Some of the second secon	Name Action Append device Insert device	O Bug device O Update device		45A0381 45354 T
GVL G	String for a full text search Name	Vendor <all vendors=""></all>	Version	Description
에 FB_2AVTOJ&baZhun_ECT (FB) 에 FB_2AVTOJ&baZhun_EFB) 에 FB_2AVTOJ&baZhun (FB) 에 PAC_PR6(PR6) 이 PAC (PR6) 응 OU (PR6) 응 OU (PR6) 응 한 PatherCAT_Task (EC-Taska) 이 한 MainTask (EC-Taska)	Miccelaneous Miccelaneous	Shenzhen Vicihi Control Technology Co. Ltd. 35 - Sinert Software Solutions GribH Shenzhen Vicihi Control Technology Co. Ltd. Shenzhen Vicihi Control Technology Co. Ltd. Shenzhen Vicihi Control Technology Co. Ltd. Shenzhen Vicihi Control Technology Co. Ltd.	1.0.0.1 3.5.17.0 1.0.0.1 1.0.0.1 1.0.0.3 1.0.0.1 1.0.0.0	Free Protocol Serial Port GPDG using Sysfs Modbus RTU exice Modbus RTU master Modbus TG device WH series lobus communication protocol native extension dev UH series left extension module
	< ✓ Group by category ☐ Display all t	ersions (for experts only) 🗌 Display outdate	d versions	

Figure 6-8 Software Screenshot

3. Scan to add the left extension device, right-click $VH_LeftExtensionModule \rightarrow Scan for Devices \rightarrow, check (Show difference to project \rightarrow Copy \rightarrow OK).$

evices 🗸 🗸 🛪	/ NH_2WT_1 P	LC_PRG 🛛 FB_2WT0JiaoZhun_ECT 🖉 Device 🗙 👖 🕔	VH_LeftExpansionModule 👔 Library Manager 📲 VH_2AD 1DA_J_
💮 WH耕合類-2WT林重技准1 💌 ^	Communication Cotting	Scan Network Gateway + Device +	-5 ⁰⁰
E 😳 🗊 Device [connected] (VH600-0808TN)	Communication Settings		397
PLC Logic	Applications	10-m	N030
Application [run]	550		
- 🎒 GVL	Backup and Restore	Scan Devices	— 🗆 X
Library Manager	- 04 m		
FB_2WT0JiaoZhun (FB)	Files	Scanned Devices	Configured Devices
FB_2WT0JiaoZhun_ECT (FB)	Log	Device name Device type	Device name Device type
FB_2WT1JiaoZhun (FB)		- WL_R5485_RTC WH-#S485-RTC	- WH_ZADIDA_I_RTC WH-ZADIDA-I-RTC
jiaozhun (PRG)	PLC Settings		
PLC_PRG (PRG)			11.37
DOU (PRG)	PLC Shell		3
😑 🧱 Task Configuration	Lisers and Groups		Key and a state of the state of
😏 🎲 EtherCAT_Task (IEC-Tasks)			Copy All
😑 😏 🆃 MainTask (IEC-Tasks)	Access Rights	and the second sec	
D PLC_PRG		130	
- AD POU	Symbol Rights		Xa
GI Trace	Licensed Coffuges Matrice		
Contraction Contraction	cicelised boltware rietrics		
G Tocal_Digital_IO (Local_Digital_IO)	IEC Objects		
= G VH ExtensionDevice (VH ExtensionDevice)			
	Task Deployment		
	0.0	Trientifu.	2 Show differences to
	Scalus	25.67	- nrotect
O WH ATC (VH-ATC)	Information	Scan Device	0K Cancel
Right cl	ick - Scan for Dev	ice	
= GI VH LeftExpansionModule (VH LeftExpansion			
A VH 24D IDA I BTC (VH-24D IDA-L-BTC)			
EtherCAT Master SoftMation (EtherCAT Mast		Your device can be secured, Learn more	

Figure 6-9 Software Screenshot

4. When it is used ad a master, right click on 【Device】→ 【Add Device】→ 【ModbusRtuMaster】 to add a Modbus master→, and right click on 【ModbusRtuDevice】→ to add a channel for reading or wiring.

ices v a x	Name ModbusRtuMaster_1			
③ WH薪合證-2WT林重仮燈1	Action			
= Device (VH600-0808TN)	Append device Insert device) Plug device O Update device		
BIPLCLogRight click - Add Device Application	String for a full text search	Vendor <all vendors=""></all>		
- 🍯 GIL	Name	Vendor	Version	Description
Library Manager	- Miscelaneous			
FB_2WT0JaoZhun (FB)	FreeProtocolSerialPort	Shenzhen Veichi Control Technology Co. Ltd.	1.0.0.1	Free Protocol Serial Port
FB_2WT0JiaoZhun_ECT (FB)	1 - 1 GPIO	35 - Smart Software Solutions GmbH	3.5.17.0	GPIOs using Sysfs
FB_2WT1JiaoZhun (FB)	ModbusRtuDevice	Shenzhen Veichi Control Technology Co. Ltd.	1.0.0.1	Modbus RTU device
jiaozhun (PRG)	ModbusRtuMaster	Shenzhen Veichi Control Technology Co. Ltd.	1.0.0.1	Modbus RTU master
PLC_PRG (PRG)	ModbusTcpDevice	Shenzhen Veichi Control Technology Co. Ltd.	1.0.0.3	Modbus TCP device
DU (PRG)		Shenzhen Veichi Control Technology Co. Ltd.	1.0.0.1	VH series Vbus communication protocol native extension devi
Task Configuration	I H_LeftExpansionModule	Shenzhen Veichi Control Technology Co. Ltd.	1.0.0.0	VH series left extension module
EtherCAT_Task (IEC-Tasks)	* 🗊 Fieldbuses			
🖹 😂 MainTask (IEC-Tasks)	1000			
d] PLC_PRG	1 0 A 8 1 A			
- 면] POU	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			
- Q ^g Trace	4			
= 3 VH600_LocaDevice				
Local_Digital_IO (Local_Digital_IO)				
WH_ExtensionDevice (WH_ExtensionDevice)	Group by category . Directly allow	releas (for month only).	Luerringe	
11 2WI (VT-2WI)	E anote of californy E outputy and			
	Name: ModbusRtuMaster			
WH_MAD (VH-MAD)	Vendor: Shenzhen Veichi Control	Technology Co. Ltd.		
III of an and a set of the	Categories:			
чнепс (чн_епс)	Version: 1.0.0.1			-765
- ₩ vH_4TC (vH-4TC) - ₩ vH_4PT (vH-4PT)	Version: 1.0.0.1 Order Number: 4711			~
WH_4TC (WH-4TC)	Version: 1.0.0.1 Order Number: 4711 Description: Modbus RTU maste			~

Figure 6-10 Software Screenshot



Figure 6-11 Software Screenshot

5. Add read/write channel

FILE Edit View Project Build Online Debug	Mame Name				×
	Action Append device Insert device	Plug device O Update device			6
FB 2WT0JaoZhun (FB)	String for a full text search	Vendor All vendore >		- 60	×
	Nome Name Second Second Sec	Vendor Vendor Bennten Vedk Control Technology Co. Ltd.	Version 1.0.0.1 1.0.0.1	Description Modus silve real channel for communication Modus silve write channel for communication	v5564
	Group by category Display all ve	ersions (for experts only) 🔲 Display outdated	versions		
		Please select a device from the list abo	21.98		
VH_LeftExpansionModule (VH_LeftExpansionModule) VH_RS485_RTC (VH-RS485-RTC)		Presse select o derice in one of each			
B EtherCAT_Master_SoftMoton (EtherCAT Master SoftMotol M IV, RTU_ECT (MHRTU-ECT_L.1.1) M VH.2V/T_L(MHRTU-ECT_L.1.1) M VH.2V/T_L(MHRTU-ECT_L.1.1) ModbusRLMaster (ModbusRLMaster) M ModbusRLMaster (ModbusRLMaster)	nt click - Add Device				
<					
Cross Reference List	(You can select another target not	de in the navigator while this window is open.)			
Messages - Total 0 error(s), 0 warning(s), 0 message(s)			. 8	3 Add Device	Close

Figure 6-12 Software Screenshot

When it is used ad a slave, right click on $[Device] \rightarrow [Add Device] \rightarrow [ModbusRtuDevice]$ to add a slave. This is shown in the figure below:

File Edit View Project Build Online Debug To	ols Window H	Insert Device	Controller as slave sta	tion	
自営 副 過 1 0 2 3 1 1 1 1 1 1 4 4 4 4 1 1 1 1	1 개 개 🔛 🛅	Name ModbusRtuDevice_1			
evices v 4 X	VH_2WT_1	Action Append device Insert device	O Plug device O Update device		
Device (VH600-0808TN)	Communication 5	String for a full text search	Vendor <all vendors=""></all>		
Right click - Add Device	Applications	Name	Vendor	Version	Description
- S GVL	Backup and Rest	Miscellaneous	Shanahan Vaidhi Cantral Tashaalami Ca. 1 M	1001	Free Protocol Carial Dect
1 Library Manager	Files	Mode alth Desire	Shenzhen Veichi Control Technology Co. Ltd.	10.0.1	Modhure RTI I device
H FB_2WT0JiaoZhun (FB)	riles	Modelskielence	Shanshan Vaichi Control Technology Co. Etc.	10.0.1	Modeus RTO device
	Log add L	ModbusTcoDevice	Shenzhen Veichi Control Technology Co. Ltd.	1.0.0.3	Modbus TCP device
FB_2WT1JlaoZhun (FB)		VH ExtensionDevice	Shenzhen Veichi Control Technology Co. Ltd.	1.0.0.1	VH series Vbus communication protocol native extension dev
	PLC Settings	VH LeftExpansionModule	Shenzhen Veichi Control Technology Co. Ltd.	1.0.0.0	VH series left extension module
PLC_PRG (PRG) POL (PRG)	PLC Shell	*			
Kask Configuration SetterCAT_Task (IEC-Tasks)	Users and Group	IS64 BLAN			
😑 🥵 MainTask (IEC-Tasks)	Access Rights	A A A A A A A A A A A A A A A A A A A			
- 롄 PLC_PRG - 롄 POU	Symbol Rights	R1030			
Q [®] Trace	Licensed Softwar				
B & VH600_LocalDevice		٢			
Local_Digital_IO (Local_Digital_IO)	IEC Objects	Group by category Display all	ersions(for experts only) 🔲 Display outdates	d versions	
WH_ExtensionDevice (VH_ExtensionDevice)					
	Task Deploymen		riease select a device from the list at	ove.	
- WL_4DA (VH-4DA)	Status				
VH_4AD (VH-4AD)					
WH_4TC (VH-4TC)	Information	181			
WH_4PT (VH-4PT)		10 DA 201			
Image: The State of the Stat		100			

Figure 6-13 Software Screenshot

6. Add read/write channel

evices • 4	Append device Insert device	Plug device OU	pdate device		
● P. J. (This Junc, ECT (PE)) E ● PE_J. (This Junc, PE, Teiska) E ● ETERCT, Task (ECT reliska) E ● PE_J. (Task (DCT reliska)) E ● Total Poile J South PS(F) ● Total Poile J E ● Total Poile J E ● Total Poile J South PS(F) ● Total Poile J South Poile J ● Total Poile J	String für a ful text search: Name Medicalisences ModbudSeneBeadChannel ModbudSeneWinteChannel ModbudSeneWinteChannel	Vendor Vendor Shenzhen Velchi Co	«All vendors» ontrol Technology Co., Ltd. notrol Technology Co., Ltd.	Version 1.0.0.1 1.0.0.1	Description Modus sieve read damei for communication Modus sieve write channel for communication
		2 march 1			
■ III VI_LEREparamethodule (VI_LEREparamethodule) U_I VI_LEREparamethodule (VI_LEREparamethodule) U_I VI_LERES_RTC (VI-RESERTC) EffectAT (Nate: Software Sof	nt click - Add Device	MBA0381	15564 HEBIN		

Figure 6-14 Software Screenshot

7. Double click on the Modbus Master or Modbus Device to enter their parameter configuration page, and set the COMID, baud rate and slave address, parity bit, stop bit, framespace, etc.

Devices • 4 ×	VH_2WT_1 PLC_PRG	FB_2WT0JiaoZhun_EC	r 💮 Device	VH_Lef	ExpansionModule	Library Manager ModbusRtuSlave Mo
FB_2WT13aoZhun (PB) A	ModbusRtuMasterParameters 2	Parameter	Туре	Value	Default Value Ur	it Description
PLC_PRG (PRG)	Marchardten Martine Montenation	COMID	Enumeration of BYTE	1	31	Specify the communication port number
POU (PRG)	Hodbusktumaster vomapping	Baudrate	Enumeration of DWORD	9600	9600	Baud rate
🗏 饠 Task Configuration	ModbusRtuMaster IEC Objects	Databit	Enumeration of BYTE	8	8	Data bits
EtherCAT_Task (IEC-Tasks)	230	Stopbit	Enumeration of BYTE	1	1	Stop bit
😑 🥵 MainTask (IEC-Tasks)	Status	Parity	Enumeration of STRING	EVEN	EVEN	Parity
- 웹 PLC_PRG	Information	FrameSpace	WORD	5	5 ms	The time between data frames during continuous communication
el rec					Change (COM ID and baud rate and
B > VH600 LocalDevice						address
I local Digital IO (local Digital IO)						add. oco
S I VH ExtensionDevice (VH ExtensionDevice)						
WH 2WT (VH-2WT)						
WH 40A (VH-40A)						
W., 400 (HH400) W., 400 (HH400) W., 47 (HH470) W., 400 (HH400) W., 400						
IV 4.00 (144.00) IV 1.00 (144.00)						
IV.4.00 (HH40) IV.4.00 (HH40) IV.4.70 (HH40) IV.70 (HH40) I						

Figure 6-15 Software Screenshot

7. After compiling, click Login 🧐 to download the program and run it.

● VH耦合器-2WT核量的第1.project*-CODESYS File Edit View Project Build Online Debug Ioc 管 22 星 番 い	ls <u>W</u> indow <u>H</u> elp 케 챔 (읍) 딸~ 다 (편) Ap	plication [Device: PLC Logic]		- % (3	[6]] ¢]] +]]	-95 	第1年1 シ
Devices - 4 ×	VT_1 PLC_PRG	FB_2WT0JiaoZhun_ECT	Device	VH_LeftE	xpansionModul	. 1	Library Manage
Library Manager FB_2WT0JiaoZhun (FB)	veichi:LeftBus IEC Objects	Find		Filter Sho	w all		155 ⁶⁴
Fe_2V/T03eo2hun_ECT (*8) Fe_2V/T13eo2hun (*8) Seozhun (*8) Seozhun (*86) Fe_2V/T13eo2hun (*86) Fe_2V(Fe6) Fe_2V(Fe6) Fe_2V(Fe6)	04DO I/O Mapping Status Information	Variable	Mapping	Channel out Bit0 Bit1 Bit2	Address %QB44 %QX44.0 %QX44.1	Type BYTE BOOL BOOL	Default Value
	CODESYS	ication changed since last downlo with online change with download without any change te boot application	ad. What do you Cancel	want to do?		Details	×

Figure 6-16 Software Screenshot

6.4 AutoStudio Programming Example(with VH500)

Taking the VH-RS485-RTC module with the VH500 series PLC as the master control as an example, the usage instructions are as follows.

1. Create a new project.

2. In the **[**Project Manager **]** window, double-click the **[**Extension Modules **]**, double-click to select VH-RS485-RTC and add it to the left module, as shown below.



2001 Download communication command executed correctly

Figure 6-17 Software Screenshot

Or right click on the [Extension Modules], select [Scan for Devices] (Auto scan will only work after downloading the new project).



Figure 6-18 Software Screenshot

3. In the [Extension Modules] interface, double-click the VH-RS485-RTC module or right-click the VH-RS485-RTC module- [Configuration], and configure the its parameters and address as shown in the figure below.

ject Manager 🔋 🛪	MAIN O Extension Mo	vdules ×	SUUTVV[##################################					Module Tree			
🗄 🖪 Global Variable 🔷 👘			Flamant N. Data Tuna Dimini Format			Current Value	Ne o				
😑 🖻 System Variable	TO		5 D3006	INT	Decimal	407	146	😑 📮 Left Extension Modul			
- McAxis	10 20		6 D3008	INT	Decimal	407		- VH-4DI-RTC			
- ECATMaster	🗧 mei kar 🔹 💌		Z D3010	INT	Decimal	407		- VH-4DO-RTC			
- ECATSlave			8 D3012	INT	Decimal	407		-T VH-RS485-RTC			
- Element Comment	A 1	2.6A	9 D3014	INT	Decimal	407		-T VH-RTC			
- E Struct		527	10 D3016	INT	Decimal	407		VH-2AD1DA-I-RT			
- Eupction Block Data			D3018	INT	Decimal	407		- VH-2AD1DA-V-R			
R Variable Table	2 KUT - 2		12 D3020	INT	Decimal	407		VH-4DI			
VAP 1	1 DOM		13 D3022	INT	Decimal	407		TVH-4DO			
Program Block	100 - 2 		14 D3024	INT	Decimal	407		T VH-PS485			
MAAIN			15 D3026	INT	Decimal	407		TVH 2001DA I			
C CPP 01	· · · · · · · ·		16 D3028	INT	Decimal	407		WH-2AD1DA-V			
TINT OI		COM1 Confin	×	INT	Decimal	407		Right Extension Mo			
C Curatian Diants		cown comig	^	INT	Decimal		1.1				
E PB Function block				INT	Decimal		3.22	VIII 0000ETIN			
F PC Function		Others		INT	Decimal	406		VH-0008ETP			
Data Block		Unite		INT	Decimal	406		VH-OUTGETN			
System Block		1000		INT	Decimal	406		- VH-0016ETP			
- O Extension Modules				INT	Decimal	406		- VH-0B00END			
-78 E-CAM		O Freeport Protocol		INT	Decimal	406		VH-1600END			
Cross reference table		Free port setting		INT	Decimal	406		- VH-0808ETN			
				INT	Decimal	406		- VH-0808ETP			
Element monitoring table		2 Modbus Protocol		INT	Decimal	406		- VH-4AD			
- Element Memory Table		Madhus cotting	31	INT	Decimal	406		T VH-8AD-I			
Instruction Wizard		Robbus setting		INT	Decimal	406		TH-8AD-V			
🗄 📽 Communication Config		N:N Protocol		INT	Decimal	406		-T VH-4DA			
- COM0				INT	Decimal	406		- VH-8DA-I			
double-click	ĸ	N:N setting	- a 3 - 7 - 4	INT	Decimal	406		- VH-8DA-V			
O MODBUS Config			1021	INT	Decimal	406		VH-4PT			
COM2				INT	Decimal	406		- VH-4TC			
		OK Cancel		INT	Decimal	406	_	-T VH-8TC			
- m EtherNet		181		INT	Decimal	406	_	-T VH-2WT			
- Axis Config			37 D2034	INT	Decimal	406					
O also care care			38 D2036	INT	Decimal	406					

Figure 6-19 Software Screenshot

4. Enter the MODBUS configuration interface, set the communication station number, read/write address and other parameters, write the program to compile and download.

roject Manager 🛛 🕫 🛪	MAIN 🗘 Extensio	on Modules 😸 EMT_1*	×							Instruction Tree		
🖶 🖪 Global Variable 🔷 🗠	Element Name	Data Type	Display Format	Current Value	New Valu	Eleme	t Remark		^			
😑 🖻 System Variable	5 D3006	INT	Decimal	43						🕀 🗮 Basic instruc	tions	
McAxis	6 D3008	INT	Decimal	43						🖶 📕 Comparison	instructions	
— ECATMaster	7 D3010	INT	Decimal	43						🕀 🗮 Timing and i	counting instruction	ons
- ECATSlave	8 D3012	INT	Decimal	43	MODBUS Con	a comi	. 639					
- Element Comment	9 D3014	INT	Decimal	43	1000000000	g_com						
- E Struct	10 D3016	INT	Decimal	43	Num Slave I	Comm Typ	Eurotion	Tripper Flem	Slave Regist	er Length	Master Fiern	Remark
— Function Block Data	11 D3018	INT	Decimal	43	0 2	Loop	Read Resistor(02)		300	100	03000	Tread
😑 🖭 Variable Table	12 D3020	INT	Decimal	43	4 2	Loop	Cab Darister(10)		200	100	02000	wirte
- VAR 1	13 D3022	INT	Decimal	43	1 2	Loop	Sec Resistor(10)		200	100	03000	_ wirte
😑 🔚 Program Block	14 D3024	INT	Decimal	43								
-MAIN	15 D3026	INT	Decimal	43								
-5 SBR 01	16 D3028	INT	Decimal	43								
-II INT 01	17 D3030	INT	Decimal	43								
- FI FB Function Block	18	INT	Decimal									
- FLEC Function	19	INT	Decimal	2								
Data Block	20 D2000	INT	Decimal	42								
System Block	21 D2002	INT	Decimal	42								
Extension Modules	22 D2004	INT	Decimal	42								
F-CAM	23 D2006	INT	Decimal	42								
Cross reference table	24 D2008	INT	Decimal	42								
- Element browne table	25 D2010	INT	Decimal	42								
Element monitoring table	26 D2012	INT	Decimal	42								
Element Memory Table	27 D2014	INT	Decimal	42								
Element memory rable	28 D2016	INT	Decimal	42								
Gammunisation Config	29 D2018	INT	Decimal	42								
Contraction Coning	30 02020	INI	Decimal	12								
COMO	31 02022	INI	Decimal	12								
E COMI	32 02024	INI	Decimal	12	Slave register	Aboress format		Add		Insert	Delete	d
- O MODBOS Config	33 02026	- INI	Decimal	12	Hexadecim	sl number						
- COM2	34 D2028	INT	Decimal	42	Decimal ru	nber		Up		Down	Import	Eq
- IN CAN	26 02030	INT	Decimal	42								
EtherNet	30 02032	INT	Decimal	42						me aus con	dormbuocuons-	
- Carl Axis Config	28 02034	INT	Decimal	42						Ethernet fre	e protocol instruc	aons
- G Axis Group Contig	30 D2030	INT	Decimal	42	_					E Cocal high s	beed counter insti	uctions
- EtherCAT	02036	100	Deciria	12					×	Other instru	ctions	
utput Window												
Flow and Manual Date	Type Display Format	Current Value New	/alue Element	Remark								1 N 72"
Demetric rearrie Data												

Figure 6-20 Software Screenshot