VEICHI

PLC/HMI Catalog

VEICHI

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Drive For Ever

Shenzhen Veichi Electric Co., Ltd. is a high-tech enterprise that is professionally engaged in the development, manufacturing and marketing of industrial automation control products, and committed to becoming a global leading provider of industrial automation control products and system solutions.

The company owns powerful R&D team, relatively perfect production system, independent intellectual property and manufacturing bases in Shenzhen and Suzhou. To improve our R&D strength, we keep on introducing advanced overseas technology and broadening our partnerships with first-class universities and research institutions.

The main products of Veichi Electric include a variety of Variable Frequency Drive (VFD), Servo Drive System, Photovoltaic Inverter, PLC, HMI, automation equipment, etc, which are widely used in industries such as oil & gas, chemical industry, ceramic, crane & hoist, metallurgy, electrical cable and wire, plastic, print and package, textile, metal work and cable, coal mining and municipal engineering. Suitable solutions and products are always ready to meet the demands and improve comprehensive competitiveness of users.

With the spirit of "Innovation is the lifeblood of Veichi", we're committed to becoming one of the leading providers of electric drives, industrial control and green energy products. Veichi has set up more than 40 branch offices in China and dozens of partners in Asia, Europe and Africa. Veichi has been named Chinese Electric Industry's Top Ten National Brands, Chinese Electric Industry Top Ten Satisfying Brands and Top Ten National Brands of Inverter Industry. Veichi products have become the first choice of many enterprises.

Content

VE 100 Series Economical PLC

CPU 124 Profile

VE 100 series Economical PLC are micro high cost-efficient plc which are independently researched and developed, self-produced by VEICHI , for the field of automated machinery equipment. Based on stable reliable quality, rigorous cost control, VE 120 series PLC are the best choice of solving machinery equipment automated production.

CPU 124 of VE 100 series has compact structure and powerful instruction set, rich bus and perfect performance, can control various industrial equipment, it is mainly compatible with small automation control system and meet various control requirements.

General Technical Specification

VE 100 series PLC general technical specification	
Protection Grade	IP20, Match IEC 60529
Environment Temperature ·Horizontal installation ·Vertical installation	0℃~ 60℃ 0℃ ~ 40℃
Relative humidity	5% ~ 95%, non condensing (RH Grade2, Match IEC61131-2)
Atmosphere	795~1080hPa
Isolation ·24V DC cirtuit ·230V AC circuit	Test voltage 500V DC Test voltage 1460V AC
Electromagnetic compatibility	Accord with EMC regulations requirements Noise suppression, accord with IEC 61000-6-2 Testing accord with: IEC 61000-4-2, 61000-4-3, IEC61000-4-4, IEC61000-4-5, IEC 61000-4-6
Mechanical grade ·vibration, testing condition is accord with	IEC 60068, Part2-6/10 μp58Hz; Constant amplitude 0.075mm; 58~150Hz; constant accelerated speed 1g; Vibration period: in every direction of three mutually orthogonal axis, every axis is 10 vibration period.

VE 120 series CPU module

CPU 124-1Q	CPU 124-2Q	CPU 124-1R
		
· Local Digital 14DI/10DO, Transistor output · Communication ports: 1RS485, supports PPI Protocol, free port communication · Expansion Modules Max. allowed: 3 IO Modules · Supports 128 digital and 32 Analog · Apply FLASH's long-time data-holding on power-off, no need of power supply, can save data for 10 years · Unique AES Iterative encryption algorithm, which protects clients' intellectual property.	· Local Digital 14DI/10DO, Transistor output · Communication ports: 2RS485, both support PPI Protocol, free port communication · Expansion Modules Max. allowed: 3 IO Modules · Supports 128 digital and 32 Analog · Apply FLASH's long-time data-holding on power-off, no need of power supply, can save data for 10 years · Unique AES Iterative encryption algorithm, which protects clients' intellectual property.	· Local Digital 14DI/10DO, Relay output · Communication ports: 1RS485, supports PPI Protocol, free port communication · Expansion Modules Max. allowed: 3 IO Modules · Supports 128 digital and 32 Analog · Apply FLASH's long-time data-holding on power-off, no need of power supply, can save data for 10 years · Unique AES Iterative encryption algorithm, which protects clients' intellectual property.

CPU 124-2R	CPU 124XP-2Q	CPU 124XP-2R
		
· Local Digital 14DI/10DO, Relay output · Communication ports: 2RS485, both support PPI Protocol, free port communication · Expansion Modules Max. allowed: 3 IO Modules · Supports 128 digital and 32 Analog · Apply FLASH's long-time data-holding on power-off, no need of power supply, can save data for 10 years · Unique AES Iterative encryption algorithm, which protects clients' intellectual property.	· Local Digital 10DI/8DO, Transistor output · Local Analog4AI/2AO, non-Isolated output · Communication ports: 2RS485, both support PPI Protocol, free port communication · Expansion Modules Max. allowed: 4 IO Modules · Supports 128 digital and 32 Analog · Apply FLASH's long-time data-holding on power-off, no need of power supply, can save data for 10 years · Unique AES Iterative encryption algorithm, which protects clients' intellectual property.	· Local Digital 12DI/8DO, Transistor output · Local Analog 4AI/2AO, non-Isolated output · Communication ports: 2RS485, both support PPI Protocol, free port communication · Expansion Modules Max. allowed: 4 IO Modules · Supports 128 digital and 32 Analog · Apply FLASH's long-time data-holding on power-off, no need of power supply, can save data for 10 years · Unique AES Iterative encryption algorithm, which protects clients' intellectual property.

CPU 124 Specifications

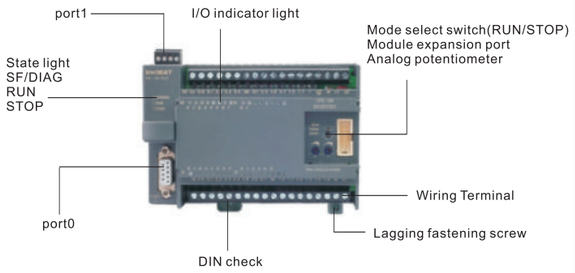
Model		CPU 124-1Q	CPU 124-2Q	CPU 124-1R	CPU 124-2R	CPU 124XP -2Q	CPU124XP-2R
Power consume		7W					
Program area		8K				16K	
Data area		10K					
Local digital		14DI/10DO				12DI/8DO	
Local Analog		-				4AI/2AO	
I/O Imagine Area	digital	128 (64DI/64DO)					
	analog	32 (16AI/16AO)					
	Expansion module	3				4	
	Data-holding on power off	support					
	Analog adjustmnet	two 8 bits resolution					
	Real time clock	Built-in					
	Removeable Terminal	Non-removable				removable	
	Timer	Total 256pcs: 4pcs 1ms, 16pcs 10ms, 236pcs 100ms					
	Counter	256					
Power consumption	Sensor 24V	300mA				-	
	Bus 5V	340mA					
Integration Communication function	Communication port	1	2	1	2	2	2
	PPI baud rate(kbps)	9.6, 19.2, 187.5					
	Freeport baud rate(kbps)	1.2-115.2					

Model		CPU 124-1Q	CPU 124-2Q	CPU 124-1R	CPU 124-2R	CPU 124XP -2Q	CPU124XP-2R
Integration Communication function	Max.Cable Length of each period	Using Isolated repeater:187.5kbps then can be 1000meters 38.4kbps can be 1200meters Non-using Isolated repeater:50meters					
	PPI Master	Not support				Support	
	Max. stations	Every segment 32 stations, every network 126 stations					
	Max. masters	-				32	
Power Characteristics	Input voltage	20.4-28.8 VDC					
	Inrush current	12A(28.8 VDC)					
	Isolation	Not isolated					
	insurance	3A 250V slow fusing					
Digital input characteristics	Local Digital Inputs	14 inputs				12 inputs	
	General	24V DC input					
	Type	PNP/NPN					
	Rated voltage	24 VDC 4mA					
	Max. Continuous permissible voltage	30 VDC					
	Surge voltage	35 VDC 0.5s		35 V DC 0.5s		35V DC 0.5s	
	Logic “1”(Min.)	15 VDC 2.5mA		15 V DC 2.5mA		15 V DC 2.5mA	
	Logic “0”(Max.)	5 VDC 1mA		5V DC 1mA		5V DC 1mA	
	Input delay	Optional (1-13ms)					
	Permissible leakage current (Max.)	1mA					
	Isolation	Yes					
	Optoelectronic isolation	500 VAC for 1 minute					
	High- speed Counter	Single -phase 2 pcs 20K (|0.0|0.1)					
Digital output standard	Local digital outputs	10 outputs				8 outputs	
	General	24V output	Relay output			24V Output	Relay output
	Type	Solid state-MOSFET (Signal source)	Dry contact			Solid state-—MOSFET (Signal source)	Dry contact
	Rated voltage	24 V DC	24 V DC or 250 V AC			24 V DC	24 V DC or 250 V AC
	Voltage range	20.4-28.8 V DC	5-30 V DC, 5-250 V AC			20.4-28.8 V DC	5-30 V DC, 5-250 V AC
	Surge current (Max.)	8 A 100ms	5 A 4S at 10% duty cycle			8 A 100ms	5 A 4S at 10% duty cycle
	Logical “1” (Min.)	20V DC(Max. Current)	–			20V DC(Max. Current)	–
	Logical “0” (Max.)	0.1 V DC 10KΩ load	–			0.1 V DC 10KΩ load	–
	Rated current per point(Max.)	0.5A	2A			0.5A	2A
	Rated current of common end (Max.)	4A	8A			4A	8A

Model		CPU 124-1Q	CPU 124-2Q	CPU 124-1R	CPU 124-2R	CPU 124XP -2Q	CPU124XP-2R
Digital output standard	Leakage current (Max.)	10uA		–		10uA	–
	Lamp load (Max.)	5W		30 WDC, 200 WAC		5W	30 WDC, 200 WAC
	Inductive clamp voltage	L+minus 48 VDC, 1W dissipation		–		L+minus 48 VDC, 1W dissipation	–
	On state resistance (contact)	0.3 Ω Typical (0.6Ω max.)		0.2 Ω		0.3 Ω Typical (0.6Ω max.)	0.2 Ω
	isolation	Optocoupler Isolation		Relay isolation		Optocoupler Isolation	Relay isolation
	Pulse Frequency (Max.)	2 pcs 20kHz (Q0.0 Q0.1)		1Hz		2 pcs 20kHz (Q0.0 Q0.1)	1Hz
	Mechanical lifetime cycles	–		10,000,000 (No load)		–	10,000,000 (No load)
	Contact lifetime two	–		100,000 (Rated load)		–	100,000 (Rated load)
	Output in parallel connection	Yes, only outputs in same group		no		Yes, only outputs in same group	no
Analog input Characteristics	Local Analog input points	–				4	
	Analog input bytes	–				Single-ended	
	Voltage range	–				±10V	
	Data word format, full -scale range	–				-32,000 to +32,000	
	DC input impedance	–				> 100KΩ	
	Max. input voltage	–				30V DC	
	Resolution	–				11bits plus 1sign bit	
	LSB value	–				4.88mV	
	Isolation	–				Without	
	Accuracy	–				±2.5% full range [Max. Error 0 to 55 degree] ±1.0% full range [typical 25 degree]	
	Repeatability	–				±0.05% full range	
	Transfer time of analog to digital	–				125ms	
	Transformation byte	–				SAR	
	Step response	–				Max. 250ms	
	Noise restrain	–				Typical-40dB@50Hz	
Analog output Characteristics	Local Analog output	–				2	
	Signal Range	–				Voltage 0-10V Current 0-20mA	
	Data word format, full-scale range	–				0 to +32000	
	Resolution Full range	–				12 bits	
	LSB	–				Voltage 2.44mV Current 4.88μA	

Model		CPU 124-1Q	CPU 124-2Q	CPU 124-1R	CPU 124-2R	CPU 124XP -2Q	CPU124XP-2R
Analog output Charac-teristics	Isolation	–				No	
	Accuracy	–				Max. error: voltage output ±2% full range; current output ±3% full range Typical case: voltage output ±1% full range; Current output ±1% full range	
	Set up time	–				Voltage output: 50μs Current output: 100μs	
	Max. Output drive	–				Voltage output >=5000Ω (min.) Current output <=500Ω (max.)	
Size L*W*H (mm)		120.5×80×62					
Order number		VE 124 -1AD23-0XB0	VE 124-2AD23-0XB0	VE 124-1BD23-0XB0	VE 124-2BD23-0XB0	VE 124-2CD23-0XB0	VE 124-2DD23-0XB0

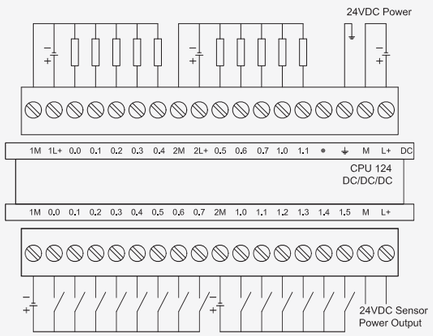
CPU124 Structure



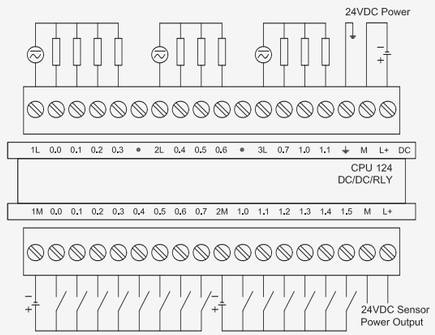
Remark: the definition of port1 (only for CPU 124-2Q and CPU 124-2R)

Name of port	VE 124-2AD23-0XB0 VE 124-2BD23-0XB0
⏚	Shielding ground
B	RS-485 signal B
A	RS-485signal A
R	End resistance selecting(short-connect with A means add end resistance)

CPU 124 wiring diagram

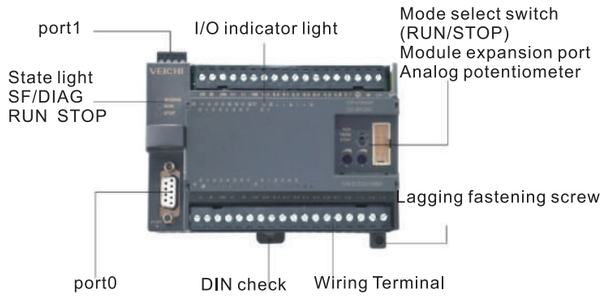


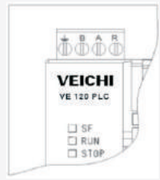
VE 124-1AD23-0XB0,VE124-2AD23-0XB0 wiring diagram



VE 124-1BD23-0XB0,VE124-2BD23-0XB0 wiring diagram

CPU 124XP structure

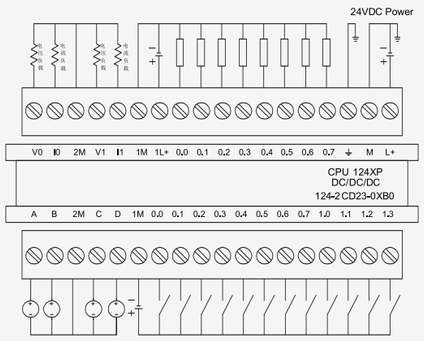




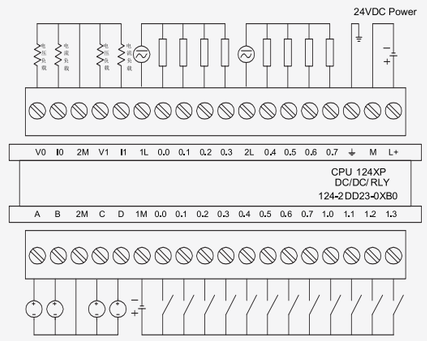
Name of port	Port 1
⏚	Shielding ground
B	RS-485 signal B
A	RS-485signal A
R	End resistance selecting

End resistance selecting (short-connect with A means add end resistance)

CPU124XP wiring diagram



VE 124XP-2CD23-0XB0 wiring diagram



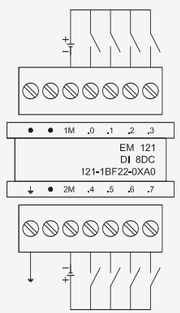
VE 124XP-2DD23-0XB0 wiring diagram

VE 120 Digital input modules

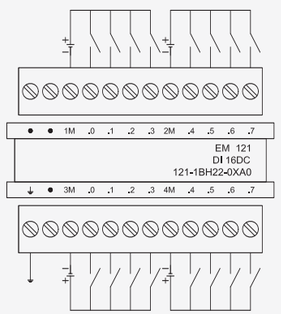
Technical Specification

Product		EM 121 8 input	EM 121 16 Input
Picture of product			
Product Introduction		• 8 digital input, 24V DC; • optocoupler isolation with high immunity.	• 16 digital input, 24V DC; • optocoupler isolation with high immunity.
Bus current consumption		40 mA	85mA
Total power consumption		2 W	3W
Inputs		8	16
Input type		PNP/NPN	
Rated voltage		24V DC 4mA	
Max. continuous permissible voltage		30V DC	
Surge voltage		35V DC, 0.5s	
Logic “0”		0~5V DC	
Logic “1”		15~30V DC	
Max. Input delay		4.5 ms	
Optical isolation (field to logic)		500 V AC for 1 minute	
Permissible max.leakage current (Bero)		1 mA	
Cable length	shielded	500m	
	unshielded	300m	
Size (L*W*H)		46×80×62 mm	71.2x80x62 mm
Order number		VE 121-1BF22-0XA0	VE 121-1BH22-0XA0

Wiring diagram



VE 121-1BF22-0XA0



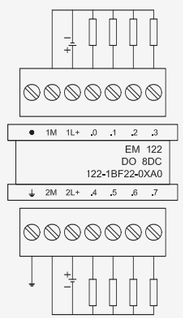
VE 121-1BH22-0XA0

VE 120 Digital Onput modules

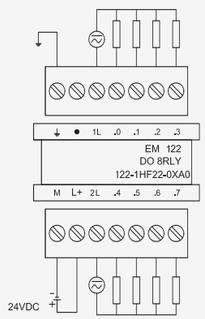
Technical Specification

Model		EM 122 8 output, transistor	EM 122 8 output, relay
Picture of product			
Product Introduction		• 8 digital output, 24V DC; • strong anti-interference performance with a stable state; • Transistor output, optical isolation.	• 8 digital output, 24V DC/250V AC • It has a strong anti-interference performance with a stable state; • Relay output.
Bus current consumption		65 mA	60 mA
Total power consumption		2 W	3W
Digital output data units		8	8
Output type		transistor	relay
Isolation		optocoupler	relay
Rated voltage		24 V DC	24V DC/ 250V AC
Voltage range		20.4~28.8V DC	5~30V DC/ 20~250V AC
Rated current		0.75 A	2.0 A
Lamp load		5 W	30W DC/200W AC
Cable length	shielded	500m	
	unshielded	150m	
Switching frequency		/	1 Hz
Contacts machine lifetime		/	10,000,000
Contacts machine lifetime (rated load voltage)		/	100,000
Size (L*W*H)		46×80×62 mm	46×80×62 mm
Order number		VE 122-1BF22-0XA0	VE 122-1HF22-0XA0

Wiring diagram



VE 122-1BF22-0XA0



VE 122-1HF22-0XA0

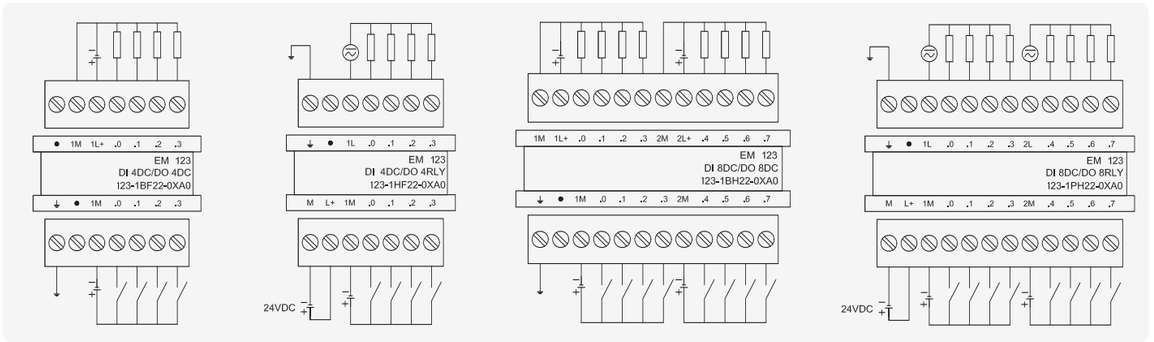
VEICHI
VE 100 SERIES PLC

VE 120 Digital input/output modules

Technical Specification

Model	Em123 4input/4 output	EM123 4input/4 output	EM123 8input/8output	EM123 8input/8output
Product Picture				
Product Introduction	• 4 digital input/ 4 output, 24V DC; • Transistor output, optocoupler isolation; • Strong anti-interference performance with a stable state.	• 4 digital input/4 output, 24V DC/250V AC • Relay output, electro-magnetism isolation; • Strong anti-interference performance with a stable state.	• 8 digital input /8 output, 24V DC; • Transistor output,opto-coupler isolation; • Strong anti-interference performance with a stable state.	• 8 digital input/ 8 output, 24V DC/250V AC; • Relay output, electrom-agnetism isolation; • Strong anti-interference performance with a stable state.
Bus current consumption	40mA		80mA	
Total power consumption	2W		3W	
Input characteristics				
Number of digital input	4		8	
Rated voltage	24V DC,4mA			
Logic “0” voltage range	0~5V DC			
Logic “1” voltage range	15~30V DC			
Input delay (max.)	4.5ms			
Signal input type	PNP/NPN			
Optical isolation (field to logic)	500V AC for 1 minute			
Cable length	500m(shielded); 300m(unshielded)			
Output characteristics				
Number of digital output	4	4	8	8
Output type	transistor	relay	transistor	relay
Isolation	optocoupler	relay	optocoupler	relay
Rated voltage	24V DC	24V DC/250V AC	24V DC	24V DC/250V AC
Voltage range	20.4~28.8V DC	5~30V DC/20~250V AC	20.4~28.8V DC	5~30V DC/20~250V AC
Rated current	0.75A	2.0A	0.75A	2.0A
Lamp load	5W	30W DC/200W AC	5W	30W DC/200W AC
Contacts machine lifetime	/	10,000,000	/	10,000,000
Contacts machine lifetime (rated load voltage)	/	100,000	/	100,000
Cable length	500m (shielded); 150m (unshielded)			
Size (L*W*H)	46×80×62 mm	46×80×62 mm	71.2×80×62 mm	71.2×80×62 mm
Order number	VE 123-1BF22-0XA0	VE 123-1HF22-0XA0	VE 123-1BH22-0XA0	VE 123-1PH22-0XA0

Wiring Diagram



VE 123-1BF22-0XA0 VE 123-1HF22-0XA0 VE 123-1BH22-0XA0 VE 123-1PH22-0XA0

VE 120 AI Modules

Technical Specification

Model	EM 131 4 inputs×12bits	EM 131 8 inputs×14bits
Product Picture		
Product Introduction	•4 AI, resolution 12bits, 24V DC; •Circuit design support no gain correction, easy to use; •strong anti-interference performance with a stable state.	•8 AI, resolution 14bits,24V DC; •Circuit design supports no gain correction,easy to use; •All channels support Voltage range and current rang, high flexibility.
From bus current consumption	20 mA	20 mA
From L+current consumption	60 mA	60 mA
Total power consumption	2W	2W
AI port	4	8
Input type	Differencial input	
Voltage input range: unipolarity	0~5V, 0~10V	
Voltage input range: bipolar	±2.5V,±5V	±5V,±10V
Input range: current	0~20mA	0~20mA,±20mA
Resolution	12bits	14bits
Bipolar range	−32,000~+32,000	
Unipolarity range	0~+32,000	
Cable length (unshielded)	300m	
Input Impedance	⩾10M Ω voltage input	
	250 Ω current input	
Isolation (field to logic)	>2000V	no
transfer time of analog to digital	<250μs	
Common-mode rejection	40dB, DC to 60Hz	
Common-mode voltage	Signal voltage + common-mode voltage ≤12V	
Max. input voltage	30V DC	
Max. input current	32mA	
Address range	AIW	
Size (L*W*H)	71.2×80×62 mm	
Order number	VE 131-0HC22-0XA0	VE 131-0HF22-0XA0

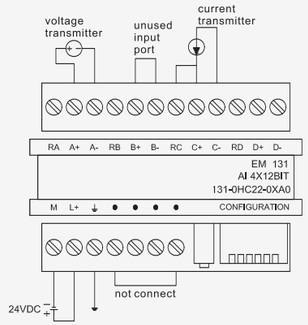
DIP Switch configuration table

Model No. \ Switch	SW 1	SW 2	SW 3	SW 4	SW5	SW 6	Full inputs
VE 131-0HC22-0XA0	ON	OFF	ON			OFF	0 ~ 10V
	ON	ON	OFF			OFF	0 ~ 5V
	ON	ON	OFF			OFF	0 ~ 20mA
	OFF	OFF	ON			OFF	±5V
	OFF	ON	OFF			OFF	±2.5V

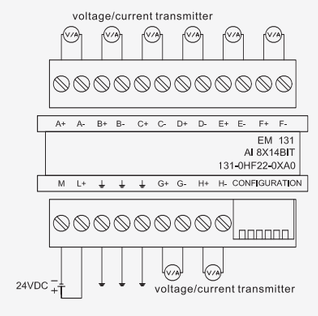
Model No. \ Switch	SW 1	SW 2	SW 3	SW 4	SW5	SW 6	Full inputs
VE 131-0HF22-0XA0	OFF	OFF	ON	OFF	OFF	OFF	0 ~ 10V
	OFF	OFF	ON	ON	OFF	OFF	0 ~ 5 V
	ON	ON	ON	ON	ON	OFF	0 ~ 20mA
	OFF	OFF	OFF	OFF	OFF	OFF	±10V
	ON	OFF	OFF	ON	OFF	OFF	±5V
	ON	ON	OFF	ON	ON	OFF	±20mA

★ Remark: In order that the configuration of DIP switch effective, it should be power on PLC.

Wiring Diagram



VE 131-0HC22-0XA0



VE 131-0HF22-0XA0

VE 120 AO Modules

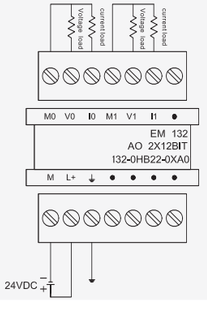
Technical Specification

Model	EM 132 2 output×12bits	EM 132 4 output×12bits
Product Picture		
Product Introduction	•2 AO; •12 bits voltage output, 11 bits resolution current output; •All channel to support voltage output and current output, which has a high flexibility.	•4 AO; •12 bits voltage output, 11 bits resolution current output; •All channel to support voltage output and current output, which has a high flexibility

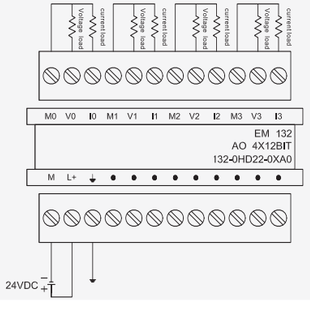
Bus current consumption		20 mA	22 mA
From L+ current consumption		70mA	92mA
Total power consumption		2W	2.5W
Output Feature			
Number of analog output		2	4
Voltage output range		−10 ~ +10V	
Current output range		0 ~ 20mA	
Load resistance	For voltage output	Min. 5KΩ	
	For current output	Max. 0.5KΩ	

Model		EM 132 2 output×12bits	EM 132 4 output×12bits
Resolution		12 bits voltage output; 11 bits current output	
Data word format	Voltage output	-32,000 ~ + 32,000	
	Current output	0 ~ 32,000	
Basic error		±0.5% FS	
Size (L*W*H)		46×80×62 mm	71.2×80×62 mm
Order Number		VE 132-0HB22-0XA0	VE 132-0HD22-0XA0

Wiring Diagram



VE 132-0HB22-0XA0



VE 132-0HD22-0XA0

VE 120 AI/AO Modules

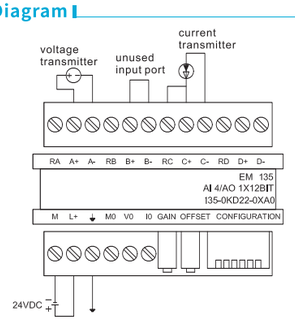
Technical Specification

Model	EM 135 4 input/1 output × 12bits
Product Picture	
Product Introduction	• 4 AI; • 1 AO; • Resolution 12 bits voltage output, 11 bits current output.

Input Feature		
Bus current consumption		30mA
From L+ current consumption		60mA
Total power consumption		2W
Number of analog input		4
AI type		Differencial input
Max. Input voltage		30V
Max. Input current		32mA
Voltage input range	unipolarity	0 ~ 50mV, 0 ~ 100mV, 0 ~ 500mV, 0 ~ 1V, 0 ~ 5V, 0 ~10V
	bipolar	±1V, ±2.5V, ±5V, ±10V, ±25mV, ±50mV, ±100mV, ±250mV, ±500mV
Current input range		0 ~ 20mA
Resolution		12 bits
Unipolarity, full-scale range		0 ~ 32,000
Bipolar, full-scale range		– 32,000 ~ + 32,000
Analog to digital conversion time		< 250 μs

Output Feature		
Number of analog output		1
Voltage output range		–10 ~ +10V
Current output range		0 ~ 20mA
Load resistant	For voltage output	Min. 5KΩ
	For current output	Max. 0.5KΩ
Resolution		12 bits voltage output; 11 bits current output
Data word format	Voltage output	–32,000 ~ + 32,000
	Current output	0 ~ 32,000
Basic error		±0.5% of full range
Size (L*W*H)		71.2×80×62 mm
Order number		VE 135-0KD22-0XA0

Wiring Diagram



VE 135-0KD22-0XA0

DIP switches configuring table

Model No. \ Switch	SW 1	SW 2	SW 3	SW 4	SW 5	SW 6	Full scale input
VE 135-0KD22-0XA0	ON	OFF	OFF	ON	OFF	ON	0 ~ 50mV
	OFF	ON	OFF	ON	OFF	ON	0~100mV
	ON	OFF	OFF	OFF	ON	ON	0~500mV
	OFF	ON	OFF	OFF	ON	ON	0 ~ 1V
	ON	OFF	OFF	OFF	OFF	ON	0 ~ 5V
	ON	OFF	OFF	OFF	OFF	ON	0 ~ 20mA
	OFF	ON	OFF	OFF	OFF	ON	0 ~ 10V
	ON	OFF	OFF	ON	OFF	OFF	± 25mV
	OFF	ON	OFF	ON	OFF	OFF	± 50mV
	OFF	OFF	ON	ON	OFF	OFF	± 100mV
	ON	OFF	OFF	OFF	ON	OFF	± 250mV
	OFF	ON	OFF	OFF	ON	OFF	± 500mV
	OFF	OFF	ON	OFF	ON	OFF	± 1V
	ON	OFF	OFF	OFF	OFF	OFF	± 2.5V
	OFF	ON	OFF	OFF	OFF	OFF	± 5 V
	OFF	OFF	ON	OFF	OFF	OFF	± 10V

★ Remark:After DIP switches are set up, it will be effective only when the PLC is recharged.

Product Instructions

How to input and calibrate VE 135-0KD22-0XA0:Using a voltage source or a current source to add“ 0” signal to one input terminal, regulating OFFSET Potentiometer till its reading is“ 0” .Then adding a signal of full-scale value to another input terminal, regulating GAIN Potentiometer till its reading is “ 32000”.

VE 120 TC Modules

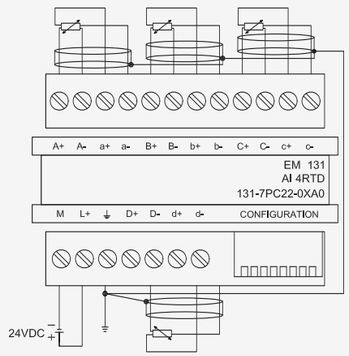
Technical Specification

Model	EM 131 4 input, RTD	EM 131 4 input, TC
Product Picture		
Product Introduction	•4 input thermal resistance temperature measurement modules; •Resolution: 16 bits •Optical isolation, stable performance	•4 input thermal couple temperature measurement modules; •Resolution: 16 bits; •Optical isolation, stable performance

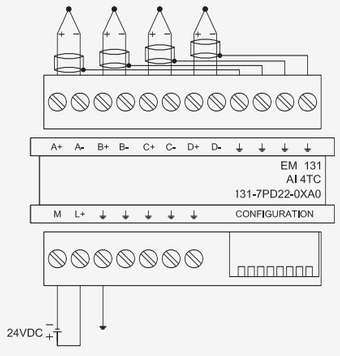
Bus current consumption	45mA	87mA
From L+ current consumption	20mA	60mA
Total power consumption	1W	1.8W
Number of analog input	4	4
Input type	Module reference ground thermal resistance	Floating thermal couple
Common-mode rejection	> 120dB @ 120V AC	
Line loop resistance (Max.)	20Ω (Cu10 is 2.7Ω)	100Ω
Module update cycle	800 ms	290 ms

Model	EM 131 4 input, RTD	EM 131 4 input, TC
Data word format	Resistance: 0 ~ +27648	Resistance: –27648 ~ +27648
Input range	Thermal resistance: Pt100, Pt200, Pt500, Pt1000, Pt10000, Ni100, Ni120, Ni1000, Cu10 (9.035) Resistance: 150Ω, 300Ω, 600Ω	Type: E, J, K, N, R, S, T Voltage range: ±80mV
Measurement principle	sigma→delta	
Resolution	15 + 1 sign bit	
Address interval	AIW	
Basic error	0.1% FS	
Isolation (field to logic)	> 500V	> 3000V
24V DC supply voltage range	20.4 ~ 28.8V DC	
Size (L*W*H)	71.2×80×62 mm	
Order Number	VE 131-7PC22-0XA0	VE 131-7PD22-0XA0

Wiring Diagram



VE 131-7PC22-0XA0



VE 131-7PD22-0XA0

VE 120 RTD temperature measurement modules DIP switches configuring table

Model / Location	VE 131-7PC22-0XA0		
	Options	Setting	
SW1 ~ SW5	Thermal resistance: Pt100, Pt200, Pt500, Pt1000, Pt10000, Ni100, Ni120, Ni1000, Cu10 (9.035) Resistance: 150Ω, 300Ω, 600Ω		
SW 6	Offline detection direction	0: positive (+3276.7)	1: negative (-3276.8)
SW 7	Measurement units options	0: degree centigrade	1: fahrenheit degree
SW 8	Connection method selection	0: line3	1: line2 or line4

VE 120 TC temperature measurement modules DIP switches configuring table

Model / Location	VE 131-7PD22-0XA0		
	Options	Setting	
Sw1 ~ SW3	TC type: J, K, T, E, R, S, N, ±80mV		
SW 4	Hold unused	Hold unused	
SW 5	Offline detection direction	0: positive (+3276.7)	1: negative (-3276.8)
SW 6	Offline detection enable	0: enable	1: prohibit
SW 7	Measurement units option	0: degree centigrade	1: fahrenheit degree
SW 8	Cold junction compensation	0: yes	1: no

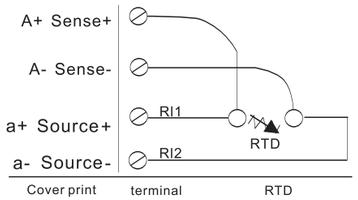
VE 120 RTD temperature measurement modules type selection and DIP switch configuring table

RTD type	SW 1	SW 2	SW 3	SW 4	SW 5	RTD type	SW 1	SW 2	SW 3	SW 4	SW 5
100Ω Pt0.003850 (default)	0	0	0	0	0	100Ω Pt0.003902	1	0	0	0	0
200Ω Pt0.003850	0	0	0	0	1	200Ω Pt0.003902	1	0	0	0	1
500Ω Pt0.003850	0	0	0	1	0	500Ω Pt0.003902	1	0	0	1	0
1000Ω Pt0.003850	0	0	0	1	1	1000Ω Pt0.003902	1	0	0	1	1
100Ω Pt0.003920	0	0	1	0	0	Nc	1	0	1	0	0
200Ω Pt0.003920	0	0	1	0	1	100Ω Ni0.00672	1	0	1	0	1
500Ω Pt0.003920	0	0	1	1	0	120Ω Ni0.00672	1	0	1	1	1
1000Ω Pt0.003920	0	0	1	1	1	1000Ω Ni0.00672	1	0	1	1	1
100 Ω Pt.0.00385055	0	1	0	0	0	100 Ω Ni0.006178	1	1	0	0	0
200Ω Pt0.00385055	0	1	0	0	1	120 Ω Ni0.006178	1	1	0	0	1
500Ω Pt.0.00385055	0	1	0	1	0	1000Ω Ni0.006178	1	1	0	1	0
1000Ω Pt0.00385055	0	1	0	1	1	10000Ω Pt0.003850	1	1	0	1	1
100Ω Pt0.003916	0	1	1	0	0	10Ω Cu0.004270	1	1	1	0	0
200Ω Pt0.003916	0	1	1	0	1	150Ω FS resistance	1	1	1	0	1
500Ω Pt0.003916	0	1	1	1	0	300Ω FS resistance	1	1	1	1	0
1000Ω Pt0.003916	0	1	1	1	1	600Ω FS resistance	1	1	1	1	1

★Remark: When RTD resistance value is corresponding to table, indicating that measuring temperature is 0°C; Cu10 indicates its measuring resistance value when the temperature is 25°C; the resistance value is 9.035Ω when the temperature is 0 °C.

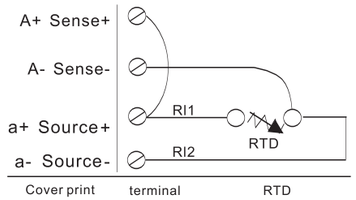
VE 120 RTD temperature measurement modules wiring diagram

1.
4 Lines RTD sensor connection method
(top precision)



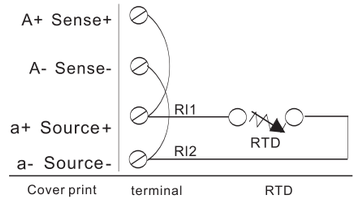
Remark:
RL1=wire resistance from “a+” terminal to RTD
RL2=wire resistance from “a-” terminal to RTD

2.
3 Lines RTD sensor connection method
(the most commonly used)



Remark: if RL1=RL2, error is minimum

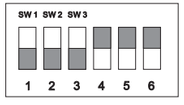
3.
2 Lines RTD sensor connection method
(lowest precision)



Remark:
RL1+RL2=error
Setting switch is the same as 4 lines mode

VE 120 4TC type and DIP switch SW1-SW3 corresponding table

On-off state
↑ 1－ON
↓ 0－OFF



TC type	SW1	SW2	SW3
J (default)	0	0	0
K	0	0	1
T	0	1	0
E	0	1	1
R	1	0	0
S	1	0	1
N	1	1	0
+/-80mv	1	1	1

PLC CPU224/226

High Anti-Interference Ability, Powerful Data Processing Ability
-Priority Overall Solution of High-Performance Automatic Control

Feature:
(1) High-speed calculation and data processing ability;
(2) Larger storage space;
--Program storage space 20k;
-- User data storage space 10K;
(3) Simple and flexible PID sub function without limit to I/O ports, to facilitate users to realize more channels for PID control;
(4) Adopt the ultra long-time power-off maintenance of FLASH, which could save data for 10 years without the sup[port of battery;
(5) Unique AES iterative encryption algorithm to protect intellectual property right;

Feature:
(1) High-speed calculation and data processing ability;
(2) Larger storage space;
--Program storage space 24k;
-- User data storage space 10K;
(3) Simple and flexible PID sub function without limit to I/O ports, to facilitate users to realize more channels for PID control;
(4) Adopt the ultra long-time power-off maintenance of FLASH, which could save data for 10 years without the sup[port of battery;
(5) Unique AES iterative encryption algorithm to protect intellectual property right;
(6) Number of communication ports:two RS-485 interface,which support PPI communication protocol.

Technical Specification

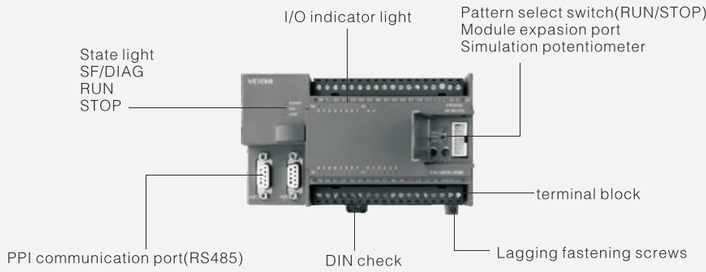
Item		CPU224 DC/DC/DC	CPU224 AC/DC/Relay	CPU226 DC/DC/DC	CPU226 AC/DC/Relay
Dimension (W*H*D)		140*80*62mm	140*80*62mm	196*80*62mm	196*80*62mm
Power Consume		7W	10W	11W	17W
Storage Traits	On-line Program Editing	20K		24K	
	Off-line Program Editing	20K		24K	
	Data Storage	10K (Power off maintenance for 10 years)		10K (Power off maintenance for 10 years)	
I/O Characteristics	Native DI	14 Input		24 Input	
	Native DO	10 Output		16 Output	
	Digital I/O Image Area	256 (128 Input / 128 Output)		256 (128 Input / 128 Output)	
	Analog I/O Image Area	64 (32 Input / 32 Output)		64 (32 Input / 32 Output)	
	Allowed Max Expansion of I/O Module	7 Modules		7 Modules	
	Allowed Max Intelligent Module	7 Modules		7 Modules	
	Pulse Capture Input	14		24	
	Total number of High-speed counter	6 Pcs		6 Pcs	
	Single-phase Counter	6 of 30KHz		6 of 30KHz	
	Two-phase Counter	4 of 20KHz		4 of 20KHz	
	Pulse Output	2 of 30KHz	—	2 of 30KHz	—
Ordinary Characteristics	Total Value of Timer	256 in total, 4 of 1ms,16 of 10ms, and 236 of 100ms		256 in total, 4 of 1ms,16 of 10ms, and 236 of 100ms	
	Total Value of Counter	256		256	
	Bit Memory of Internal Storage when Power Off	256		256	
	Time Interruption	2 of 1ms resolution		2 of 1ms resolution	
	Edge Interruption	4 rising edge and 4 falling edge		4 rising edge and 4 falling edge	
	Analog Potentiometer	2 of 8-bit resolution		2 of 8-bit resolution	
	Clock	Built-in		Built-in	
Integrated Communication Function	Interface	2 PPI communication port of RS-485 interface standard		2 PPI communication port of RS-485 interface standard	
	PPI Baud Rate	9.6.19.2 and 187.5Kbps		9.6.19.2 and 187.5Kbps	
	Baud Rate of Free Interface	1.2kbps - 115.2kbps		1.2kbps - 115.2kbps	
	Max Cable Length for each section	Isolated intermediate relays: up to 1000m for 187.5kbps, 1200m for 38.4kbps, and 50m without relay			
	Max Station Number	32 stations for each section and 126 stations for each network		32 stations for each section and 126 stations for each network	
	Max Main Station Number	32		32	
	Point to Point (PPI Main Station Mode)	no		no	

Technical Specification

Item		CPU224 DC/DC/DC	CPU224 AC/DC/Relay	CPU226 DC/DC/DC	CPU226 AC/DC/Relay
Power	Input voltage	20.4 to 28.8V DC	85 to 264 V AC(47 to 63Hz)	20.4 to 28.8V DC	85 to 264V AC(47 to 63Hz)
	Input current	110mA while CPU only at 24 V DC 700mA while Max. load at 24 V DC	60/30mA while CPU only at 120/240V AC 200/100Ma while Max. load at 120/240V AC	110mA while CPU only at 24 V DC 700mA while Max. load at 24 V DC	60/30mA while CPU only at 120/240V AC 200/100Ma while Max. load at 120/240V AC
	Inrush current	12A at 28.8 V DC	20A at 264V AC	12A at 28.8 V DC	20A at 264V AC
	Isolation(field to logic)	Not isolated	1500V AC	Not isolated	1500V AC
	Hold up time(loss of power)	10ms at 24V DC	10ms at 120/240 V AC	10ms at 24V DC	10ms at 120/240 V AC
	Sensor voltage	L+ minus 5 V	20.4 to 28.8VDC	L+ minus 5 V	20.4 to 28.8VDC
	Current limit	1.5A peak,thermal limit non-destructive		1.5A peak,thermal limit non-destructive	
	Ripple noise (sensor to logic)	Derived from input power	Less than 1V peak-to-peak	Derived from input power	Less than 1V peak-to-peak
	Isolation (sensor to logic)	Not isolated			
CPU Digital Input Specifications	Built-in digital input	14 inputs		24 inputs	
	Input type	PNP/NPN			
	Rated voltage	24V DC，4mA			
	Max. continuous permissible voltage	30V DC			
	Surge voltage	35V DC，0.5s			
	Logic “1” voltage range	15V~30V DC			
	Logic “0” voltage range	0~5V DC			
	Input delay	Selectable (0.2 to12.8ms)			
	Connection of 2-wire proximity sensor (Bero)				
	Premissible leakage current (Max.)	1mA			
	Isolation: Isolation (field to logic)	Yes			
	Isolation: Optical galvanic	500 V AC for 1minute			
	Isolation: Isolation groups	Refer to Wiring diagram			
	High Speed Counter (HSC) input rate: Logic=15–30V DC	20K Hz (Single phase), 10K Hz (Two phase)			
	High Speed Counter (HSC) input rate: Logic1=15–26V DC	30K Hz (Single phase), 20K Hz (Two phase),			
	Inputs on simultaneously	All			
	Cable: Cable length Max	500m normal inputs			
	Cable: Shielded	50m HSC inputs			
	Cable: Unshielded	300m normal inputs			
CPU Digital output Specifications	Built-in outputs	10 outputs		16 outputs	
	Output type	Solid State-MOSFET(Sourcing)	Dry contact	Solid State-MOSFET(Sourcing)	Dry contact
	Rated voltage	24V DC	24V DC or 250V AC	24V DC	24V DC or 250V AC
	Voltage range	20.4 to 28.8 VDC	5 to 30V DC or 5 to 250V AC	20.4 to 28.8 VDC	5 to 30V DC or 5 to 250V AC
	Surge current (Max.)	8A，100ms	5A for 4s at 10% duty cycle	8A，100ms	5A for 4s at 10% duty cycle
	Logic “1” (Min)	20 V DC,at maximum current	–	20 V DC,at maximum current	–
	Logic “0” (Max)	0.1 V DC with 10KΩ load	–	0.1 V DC with 10KΩ load	–
	Rated current per point(Max.)	0.75A	2.0A	0.75A	2.0A
	Rated current per common（Max)	6 A	10A	6 A	10A
	Leakage current (Max)	10μA	-	10μA	-
	Lamp load (Max)	5 W	30W DC ；200W AC	5 W	30W DC ；200W AC
	Inductive clamp voltage	L+ minus 48 V DC, 1w dissipation	-	L+ minus 48 V DC, 1w dissipation	-
	On State resistance (contact)	0.3Ω Typical(0.6Ω max.)	0.2Ω(max. when new)	0.3Ω Typical(0.6Ω max.)	0.2Ω(max. when new)
	Isolation: Optical (galvanic, field to logic)	500 VAC for 1 minute	–	500 VAC for 1 minute	-
	Isolation: Logic to contact	–	500 VAC for 1 minute	–	500V AC for 1 minute
	Isolation: Resistance (logic to contact)	–	100 MΩ	–	100 MΩ
	Isolation: Isolation groups	Refer to wiring diagram		Refer to wiring diagram	
	Off to on	2μs(Q0.0, Q0.1),15μs(Other)	–	2μs(Q0.0, Q0.1),15μs(Other)	–
	On to off	10μs(Q0.0, Q0.1),130μs(Other)	–	10μs(Q0.0, Q0.1),130μs(Other)	–
	Switching	–	10ms	–	10ms
	Pulse frequency (Max.)	20KHz(Q0.0 and Q0.1)	1Hz	20KHz(Q0.0 and Q0.1)	1Hz
	Lifetime mechanical cycles	-	10,000,000(No load)	-	10,000,000(No load)
	Lifetime contacts	-	100,000(No load)	-	100,000(No load)
	Outputs on simultaneously	All at 60℃(horizontal) All at 50℃（Vertical)		All at 60℃(horizontal) All at 50℃（Vertical)	
	Connecting two outputs in parallel	Yes, only outputs in same group	No	Yes, only outputs in same group	No
	Cable length(Max): Shielded	500 m			
	Cable length(Max): Unshielded	150 m			
Order number		VE 214–1AD23–0XB0	VE 214–1BD23–0XB0	VE 216–2AD23–0XB0	VE 216–2BD23–0XB0

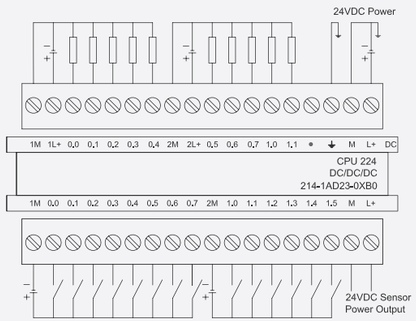
CPU224

CPU224 Structure

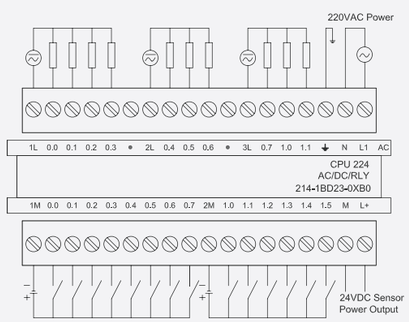


CPU224 structure (Picture:1)

CPU224 Wiring Diagram



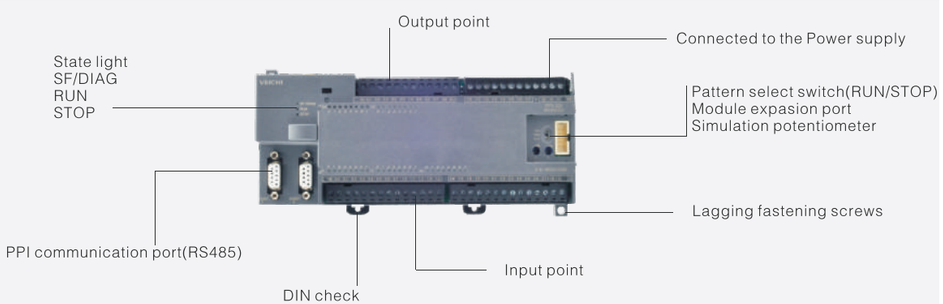
CPU224 DC/DC/DC(Picture:2)



CPU224 AC/DC/RLY (Picture:3)

CPU226

CPU226 Structure



CPU226 structure (Picture:4)

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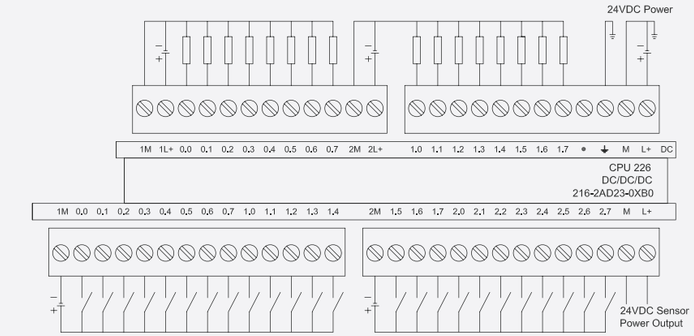
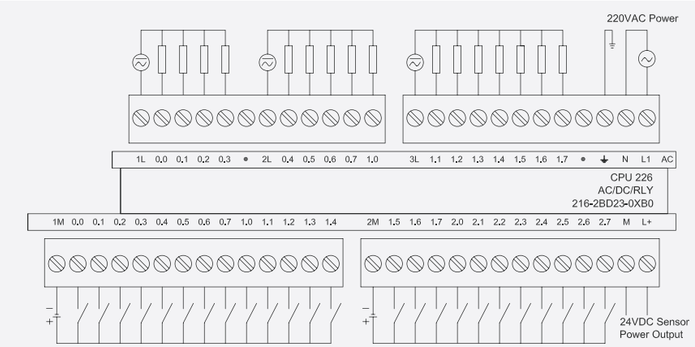
VE 200 SERIES PLC

CPU226 Wiring Diagram



CPU226 DC/DC/DC (Picture:5)



CPU226 AC/DC/RLY (Picture:6)

CPU224、CPU226 specification

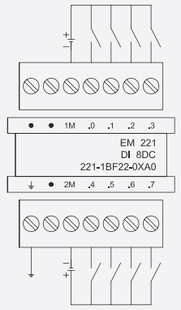
1、CPU224 DC/DC/DC wiring diagram is shown as picture 2, CPU226 DC/DC/DC wiring diagram is shown as picture 5. The two CPUs are 24 VDC power supply, please shut off the power when connecting.
2、 CPU224 AC/DC/RLY wiring diagram is shown as picture 3, CPU226 AC/DC/RLY wiring diagram is shown as picture 6. The two CPUs are 120/240 v AC power supply. You must shut off the power when connecting. Please pay attention to safety, do not use hand to touch power supply terminals.
3、the using of PPI adapter or CP 5611 PPI port is connected as picture 1 or picture 4.
4、 if you install an external extension module, please connect extension module on port of picture 1 and picture 4. A CPU224 or a CPU226 can connect up to seven extension modules.
5、Install STEP 7 MicroWIN software and open, double-click the communication options, click refresh to find information on the CPU. If CPU224 or CPU226 connects external extension modules, double click on the icon of CPU ,then you can see information of the extension modules.

VE 200 DI Modules

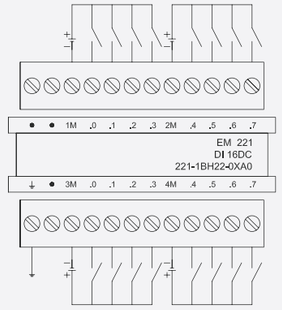
Technical Specification

Model:	EM 221 8 inputs	EM 221 16 inputs	EM 221 32 inputs
Product Picture			
Product Description	8DI, 24VDC; Optical isolation with high immunity	16DI, 24VDC; Optical isolation with high immunity	32DI, 24VDC; Optical isolation with high immunity
From bus current consumption	40mA	85mA	140mA
Power loss	2W	3W	5.2 W
Number of digital inputs	8	16	32
Input type	PNP/NPN		
Input voltage range	24V DC 4mA		
Maximum input voltage	30V DC		
Surge voltage	35V DC , 0.5s		
Logic 0 signal	0~5 V DC		
Logic 1 signal	15~30V DC		
Input delay(max)	4.5ms		
Optical isolation(Galvanic) (Field Side to Logic)	500V AC for 1 minute		
Premissible leakage current(Bero)	1mA		
Cable Length Shielded	500M		
Cable Length Unshielded	300M		
Dimensions(W x H x D)	46 × 80 × 62 mm	71.2 × 80 × 62 mm	137.5 × 80 × 62 mm
Order Number	VE 221–1BF22–0XA0	VE 221–1BH22–0XA0	VE 221–1BL22–0XA0

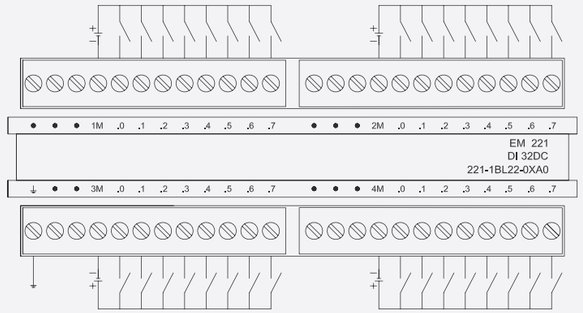
Wiring Diagram



VE 221-1BF22-0XA0



VE 221-1BF22-0XA0



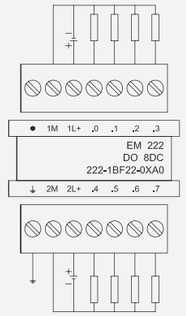
VE 221-1BL22-0XA0

VE 200 DO Modules

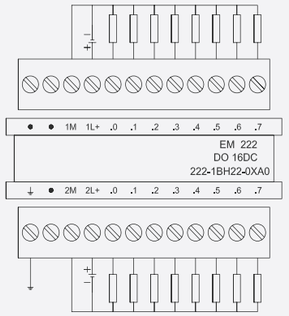
Specifications:

Model:	EM 222 8 outputs Transistor	EM 222 8 outputs Relay	EM 222 16 outputs	EM 222 16 outputs Relay	EM 222 32 outputs
Product Picture					
Product Description	8DO,24V DC; Transistor; Optical isolation with high immunity	8DO,24V DC/250V AC Relay; high immunity	16DO,24V DC; Transistor; Optical isolation with high immunity	16DO,24V DC/250V AC Relay; high immunity	32DO,24V DC; Transistor; Optical isolation with high immunity
From bus current consumption	65mA	60mA	110mA	98mA	140mA
Power loss	2W	3W	3W	3W	5.2W
Number of DI	8	8	16	16	32
Input type	Transistor	Relay	Transistor	Relay	Transistor
Isolation	Optical coupler	Relay	Optical coupler	Relay	Optical coupler
Rated voltage	24 V DC	24 V DC or 250 V AC	24V DC	24V DC or 250V AC	24V DC
Input voltage range	20.4~28.8VDC	5~30V DC、20~250V AC	20.4~28.8VDC	5~30V DC，20~250V AC	20.4~28.8VDC
Rated current	0.75A	2.0A	0.75A	2.0A	0.75A
lamp load	5W	30W DC/200W AC	5W	30W DC/200W AC	5W
Cable Length Shielded	500m				
Cable Length Unshielded	150m				
Switching frequency	/	1 Hz	/	1Hz	/
Lifetime contact mechanical	/	10,000,000	/	10,000,000	/
Lifetime contact mechanical(rated load voltage)	/	100,000	/	100,000	/
Dimensions(W x H x D)	46 × 80 × 62 mm	46 × 80 × 62 mm	71.2 × 80 × 62 mm	71.2 × 80 × 62 mm	137.5 × 80 × 62 mm
Order Number	VE 222-1BF22-0XA0	VE 222-1HF22-0XA0	VE 222–1BH22–0XA0	VE 222–1HH22–0XA0	VE 222–1BL22–0XA0

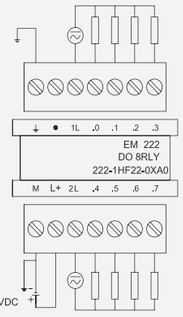
Wiring Diagram



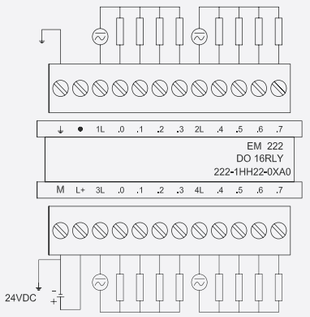
VE 222-1BF22-0XA0



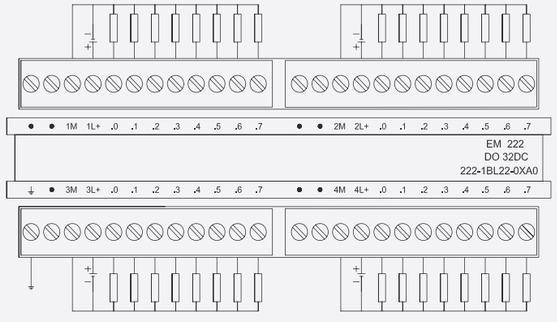
VE 222-1BH22-0XA0



VE 222-1HF22-0XA0



VE 222-1HH22-0XA0



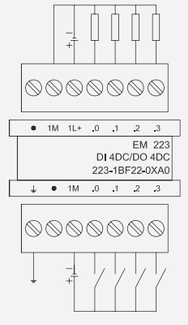
VE 222-1BL22-0XA0

VE 200 DI/ Do Modules

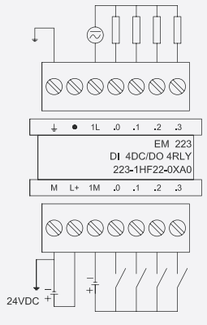
Technical Specification

Model	EM223 4DI/4DO	EM223 4DI/4DO, Relay	EM223 8 DI/8 DO	EM223 8 DI/8 DO, Relay
Product Picture				
Product Description	4DI 24VDC/4DO 24VDC, Transistor, Optical isolation with high immunity	4DI 24VDC/4DO 24 VDC /250VAC, Relay isolation with high immunity.	8DI 24VDC/8DO,24VDC Transistor; Optical isolation with high immunity	4DI 24VDC/4DO 24 VDC /250VAC, Relay isolation with high immunity.
Technical Specification				
From bus current consumption	40mA	40mA	80mA	80mA
Power loss	2W	2W	3W	3W
Input Features				
Number of digital inputs	4	4	8	8
Input voltage	24V DC,4mA	24V DC,4mA	24V DC,4mA	24V DC,4mA
Logic 0 signal	0~5V DC	0~5V DC	0~5V DC	0~5V DC
Logic 1 signal	15~30V DC	15~30V DC	15~30V DC	15~30V DC
(Max.) Input Delay Time	4.5ms	4.5ms	4.5ms	4.5ms
Signal input type·	PNP/NPN	PNP/NPN	PNP/NPN	PNP/NPN
Optical isolation (Galvanic) (field to logic)	500 VAC for 1 minute			
Cable Length	500m(Shielded); 300m(Unshielded);			
output Features				
Number of digital outputs	4	4	8	8
Output type	Transistor	Relay	Transistor	Relay
Isolation	Optical coupler	Relay	Optical coupler	Relay
Output voltage	24V DC	24V DC or 250V AC	24V DC	24V DC or 250V AC
Output voltage range	20.4~28.8V DC	5~30VDC/20~250V AC	20.4~28.8V DC	5~30V DC/20~250V AC
Output Current	0.75A	2.0A	0.75A	2.0A
Lamp load	5W	30W DC/200W AC	5W	30W DC/200W AC
Lifetime mechanical	/	10,000,000	/	10,000,000
Lifetime contacts(Rated load voltage	/	100,000	/	100,000
Cable Length	500m(Shielded); 300m(Unshielded);			
Dimensions(W x H x D)	46×80×62(mm)	46×80×62(mm)	71.2×80×62(mm)	71.2×80×62(mm)
Order Number	**VE 223-1BF22-0XA0**	**VE 223-1HF22-0XA0**	**VE 223-1BH22-0XA0**	**VE 223-1PH22-0XA0**

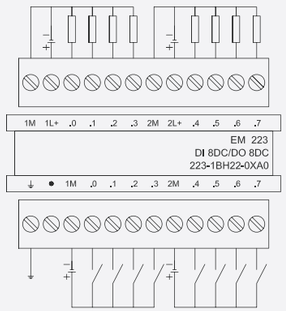
Wiring Diagram



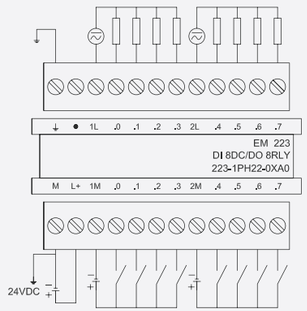
VE 223-1BF22-0XA0



VE 223-1HF22-0XA0



VE 223-1BH22-0XA0



VE 223-1PH22-0XA0

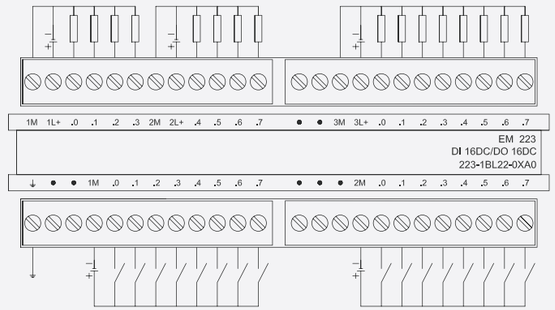
VE 200 DI/ Do Modules

Technical Specification

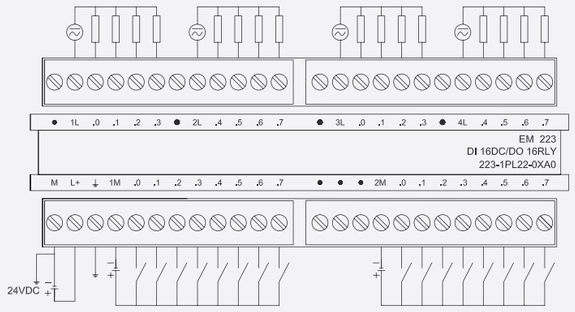
Model	EM223 16 inputs/16 outputs	EM223 16 inputs/16 outputs Relay
Product Picture		
Product Description	16DI 24VDC/16DO 24 VDC Optical isolation with high immunity.	16DI 24VDC/16DO 24 VDC/250VAC, Relay isolation with high immunity.
Input Feature		
From bus current consumption	140mA	140mA
Power loss	5.2W	5.2W
Digital Input Specification		
Number of digital inputs	16	16
Input voltage	24 VDC	24 VDC,4mA
Logic 0 signal	0~5 VDC	0~5 VDC
Logic 1 signal	15~30 VDC	15~30 VDC
Maximum Input Delay Time	4.5ms	4.5ms
Signal input type·	PNP/NPN	PNP/NPN
Optical isolation(Galvanic)	500 V AC for 1 minute	500 V AC for 1 minute
Cable Length	500m(Shielded);300m (unshielded)	
Output Feature		
Number of digital outputs	16	16
Output type	Transistor	Relay
Isolation	Optical coupler	Relay
Output voltage	24 VDC	24 VDC or 250V AC
Output voltage range	20.4~28.8V DC	5~30 VDC/20~250V AC
Output Current	0.75A	2.0A
Lamp load	5W	30W DC/200W AC
Lifetime contact mechanical	/	10,000,000
Lifetime contact mechanical (rated load voltage)	/	100,000
Cable Length	500m(Shielded);300m (unshielded)	
Dimensions(W x H x D)(mm)	137.5×80×62	137.5×80×62
Order Number	**VE 223-1BL22-0XA0**	**VE 223-1PL22-0XA0**

VEICHI
VE 200 SERIES PLC

Wiring Diagram



VE 223-1BL22-0XA0



VE 223-1PL22-0XA0

VE 200 AI Modules

Technical Specification

Model	EM231 4 inputs × 12 bits	EM231 8 inputs × 14 bits	EM231 8 inputs × 14 bits
Picture			
Product Description	4AI,24V DC; Resolution:12bits; High immunity,stable	8AI,24V DC; Resolution:14bits; High immunity,stable	8AI,24V DC; Resolution:14bits; High immunity,stable
Technical Specification			
From bus current consumption	20mA	20mA	20mA
From L+ current consumption	60mA	60mA	60mA
Power loss	2W	2W	2W
Number of analog Inputs	4	8	8
Input type	Differential	Differential	Differential
Voltage input range: Unipolar	0~5v,0~10V	0~5v,0~10V	0~5v,0~10V
Voltage input range: Bipolar	±2.5V,±5V	±5V,±10V	±5V,±10V
input range:current	0~20mA	0~20mA,± 20mA	0~20mA,± 20mA
Resolution	12 bit	14bit	14bit
Bipolar,full-scale range	-32,000 to +32,000	-32,000 to +32,000	-32,000 to +32,000
Unipolar, full-scale range	0 to +32,000	0 to +32,000	0 to +32,000
Cable Length (unShielded)	300m	300m	300m
Input impedance	⩾10MΩ Voltage Input	⩾10MΩ Voltage Input	⩾10MΩ Voltage Input
	250 Ω Current Input	250 Ω Current Input	250 Ω Current Input
Isolation tested for contact (field to logic)	＜2000V	No	No
Analog to digital conversion time	<250μs	<250μs	<200μs
Common-mode rejection	40db,DC to 60Hz	40db,DC to 60Hz	80dB
Common-mode voltage	Signal voltage + Common-mode voltage⩽12V	Signal voltage + Common-mode voltage⩽12V	Signal voltage + Common-mode voltage⩽12V
Maximum input voltage	30V DC	30V DC	30V DC
Maximum input current	32mA	32mA	32mA
Address of the interval	AIW	AIW	VW
Dimensions(W x H x D)(mm)	71.2×80×62	71.2×80×62	71.2×80×62
Order Number	**VE 231-0HC22-0XA0**	**VE 231-0HF22-0XA0**	**VE 231-0HH32-0XA0**

VE 200 analog input modules DIP switches configuring table

Switch Location / Modules model	SW 1	SW 2	SW 3	SW 4	SW 5	SW 6	Full inputs
VE 231-0HC22-0XA0	ON	OFF	ON				0 ~ 10V
	ON	ON	OFF				0 ~ 5V
	ON	ON	OFF				0 ~ 20mA
	OFF	OFF	ON				± 5V
	OFF	ON	OFF				± 2.5V
VE 231-0HF22-0XA0 VE 231-0HH32-0XA0	OFF	OFF	ON	OFF	OFF		0 ~ 10V
	OFF	OFF	ON	ON	OFF		0 ~ 5V
	ON	ON	ON	ON	ON		0 ~ 20mA
	OFF	OFF	OFF	OFF	OFF		± 10V
	OFF	OFF	OFF	ON	OFF		± 5V
	ON	ON	OFF	ON	ON		± 20mA

★Remark：After DIP switches are set up, it will be effective once the PLC is powered.

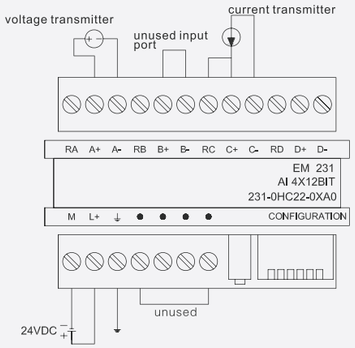
Address configuration of UN 200 analog expansion modules

For example, software address configuration of UN231-0HH32-0XA0 is VW area. Different location in rail should have different address value. Calculation formula: VW(64∗i+2∗j).
Remark: “i” is the location of modules. “j”is the series number of input channel. “i” and “j” start from 0 and each module has 8 input channels.

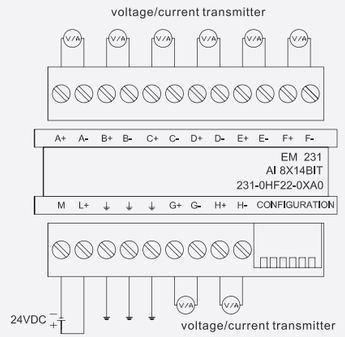
The table of UN231-0HH32-0XA0 address configuration

Location value in Rail	Channel 0	Channel 1	...	Channel 7
Location 0	VW0	VW2	...	VW14
Location 1	VW64	VW66	...	VW78
Location 2	VW128	VW130	...	VW142
Location 3	VW192	VW194	...	VW206
Location 4	VW256	VW258	...	VW270
Location 5	VW320	VW322	...	VW334
Location 6	VW384	VW386	...	VW398

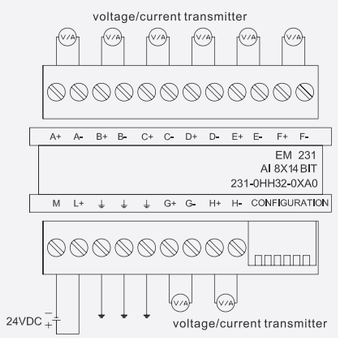
Wiring Diagram



VE 231-0HC22-0XA0



VE 231-0HF22-0XA0



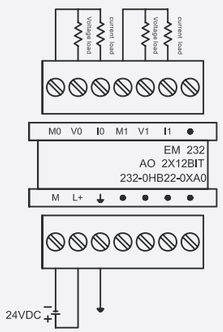
VE 231-0HH22-0XA0

VE 200 AO Modules

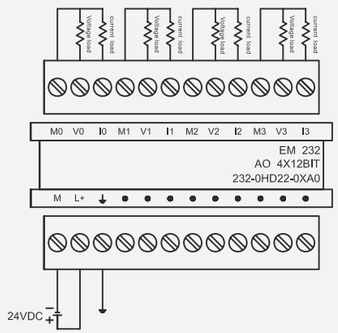
Technical Specification

Model	EM232 2 outputs ×12bits	EM232 4 outputs ×12bits
Picture		
Product Description	2AO; 12 bits resolution voltage output; 11 bits resolution current output	4AO;Resolution:16bits; 12 bits resolution voltage output; 11 bits resolution current output
Input Feature		
From bus current consumption	20mA	22mA
From L+ current consumption	70mA	92mA
Power loss	2W	2.5W
Output Feature		
Number of analog output	2	4
Output voltage range	-10~+10V	-10~+10V
Output current range	0~20mA	0~20mA
Load inpedance		
·for voltage outputs	Min:5KΩ	Min:5KΩ
·for current outputs	Max:0.5KΩ	Max:0.5KΩ
Resolution	12 bits voltage output; 11 bits current output	12 bits voltage output; 11 bits current output
Data word format		
·Displayable:voltage output	-32，000~+32，000	-32，000~+32，000
·Displayable:current output	0~32，000	0~32，000
Basic tolerance	±0.5% of full range	±0.5% of full range
Dimensions(W x H x D)(mm)	46×80×62	71.2×80×62
Order Number	**VE 232-0HB22-0XA0**	**VE 232-0HD22-0XA0**

Wiring Diagram



VE 232-0HB22-0XA0



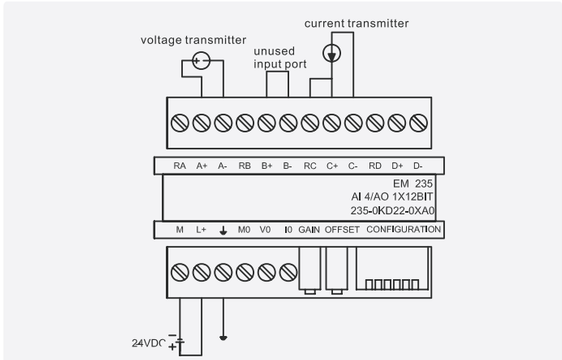
VE 232-0HD22-0XA0

VE 200 AI/AO Modules

Technical Specification

Model	EM235 4 AI /1 AO ×12bits
Picture	
Product Description	4AI; 1AO; 12 bits resolution voltage output; 11 bits resolution current output
Input Feature	
From bus current consumption	30mA
From L+current consumption	60mA
Power loss	2W
Number of analog Input	4
Signal input type	Differential
Maximum input voltage	30V
Maximum input current	32mA
Voltange input range: nipolar	0~50mV, 0~100mV, 0~500mV, 0~1V,0~5V,0~10V
Voltange input range: Bipolar	±1V, ±2.5V, ±5V, ±10V ±25mV, ±50mV, ±100mV, ±250mV, ±500mV,
current input range	0~20mA,
Resolution	12bits
Bipolar,full-scale range	0~32,000
Unipolar, full-scale range	-32，000~+32，000
Analog to digital conversion time	<250μs
Output Feature	
Number of analog output	1
Output voltage range	-10~+10V
Output current range	0~20mA
Load inpedance	
·for voltage outputs	Min:5KΩ
·for current outputs	Max:0.5KΩ
Resolution	12 bits voltage output; 11 bits current output
Data word format	
·Displayable:voltage output	-32，000~+32，000
·Displayable:current output	0~32,000
Basic error	±0.5% of full range
Dimensions(W x H x D)(mm)	71.2×80×62
Order Number	**VE 235-0KD22-0XA0**

Wiring Diagram



VE 235-0KD22-0XA0

DIP switches configuring table

Modules model \ Switch Location	SW 1	SW 2	SW 3	SW 4	SW 5	SW 6	Full inputs
VE 235-0KD22-0XA0	ON	OFF	OFF	ON	OFF	ON	0 ~ 50mV
	OFF	ON	OFF	ON	OFF	ON	0 ~ 100mV
	ON	OFF	OFF	OFF	ON	ON	0 ~ 500mV
	OFF	ON	OFF	OFF	ON	ON	0 ~ 1V
	ON	OFF	OFF	OFF	OFF	ON	0 ~ 5V
	ON	OFF	OFF	OFF	OFF	ON	0 ~ 20mA
	OFF	ON	OFF	OFF	OFF	ON	0 ~ 10V
	ON	OFF	OFF	ON	OFF	OFF	± 25mV
	OFF	ON	OFF	ON	OFF	OFF	± 50mV
	OFF	OFF	ON	ON	OFF	OFF	± 100mV
	ON	OFF	OFF	OFF	ON	OFF	± 250mV
	OFF	ON	OFF	OFF	ON	OFF	± 500mV
	OFF	OFF	ON	OFF	ON	OFF	± 1V
	ON	OFF	OFF	OFF	OFF	OFF	± 2.5V
	OFF	ON	OFF	OFF	OFF	OFF	± 5V
	OFF	OFF	ON	OFF	OFF	OFF	± 10V

★Remark：After DIP switches are set up, it will be effective once the PLC is powered.

Remark for Analog input module

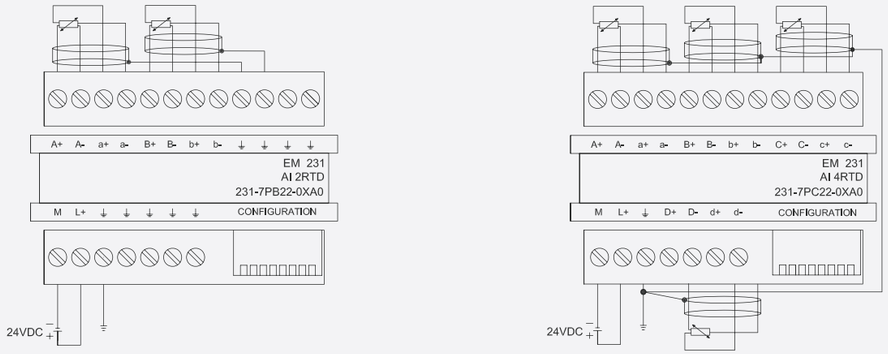
When input correction on VE 235-0KD22-0XA0: Firstly we use a voltage source or a current source to input “0”signal to one input terminal, and regulate OFFSET Potentiometer till its read number is “0”. Then input a signal of full-scale value to another input terminal, and regulate GAIN Potentiometer till its read number is “32000”.

VE 200 RTD Modules

Technical Specification

Model	EM231 2 inputs,RTD	EM231 4 inputs,RTD
Product Picture		
Product Description	2AI RTD temperature measurement, Resolution:16bits, Optical isolation with high immunity	4AI RTD temperature measurement, Resolution:16bits, Optical isolation with high immunity
Technical Specification		
From bus current consumption	45mA	45mA
From L+ current consumption	20mA	20mA
Power loss	1W	1W
Number of analog inputs	2	4
Input type	Refer to ground RTD	Refer to ground RTD
Common-mode rejection	>120dB@120V AC	>120dB@120V AC
Wire loop resistance(Max)	20 Ω	20 Ω
Module update time	405ms	800ms
Data word format	Resistance:0~+27648	Resistance:0~+27648
Input range	RTD:Pt100,Pt200,Pt500,Pt1000,Pt10000,Ni100,Ni120,Ni1000,Cu10(9.035) Resistance: 150Ω, 300Ω,600Ω	
Measuring principle	Sigma→delta	Sigma→delta
Resolution	15+1 Sign bit	15+1 Sign bit
Basic tolerance	0.1%FS	0.1%FS
Isolation (field to logic)	>500V	>500V
24VDC supply voltage range	20.4~28.8V DC	20.4~28.8V DC
Dimensions(W x H x D)(mm)	71.2×80×62	71.2×80×62
Order Number	**VE 231-7PB22-0XA0**	**VE 231-7PC22-0XA0**

Wiring Diagram



VE 231-7PB22-0XA0 **VE 231-7PC22-0XA0**

VE 200 RTD temperature measurement modules DIP switches configuring table

Model	VE 231-7PB22-0XA0		VE 231-7PC22-0XA0	
location	Options	Setting	Options	Setting
SW1~SW3	RTD:Pt100,PT200,PT500,PT1000,Pt10000 Ni100,Ni120,Ni1000,Cu10(9.035) Resistance: 150Ω, 300Ω, 600Ω		RTD:Pt100,PT200,PT500,PT1000,Pt10000 Ni100,Ni120,Ni1000,Cu10(9.035) Resistance: 150Ω, 300Ω, 600Ω	
SW4				
SW5				
SW6	Open wire detection direction	0:positive(+3276.7) 1:Negative(-3276.8)	Open wire detection direction	0:positive(+3276.7) 1:Negative(-3276.8)
SW7	Options of measurement unit	0:Centigrade Degrees 1: Fahrenheit Degrees	Options of measurement unit	0:Centigrade Degrees 1: Fahrenheit Degrees
SW8	Wiring mode	0:3-wire 1:2-wire or 4 wire	Wiring mode	0:3-wire 1:2-wire or 4 wire

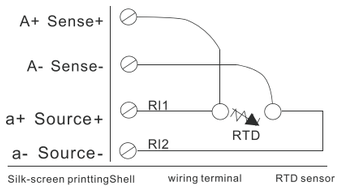
VE 200 RTD temperature measurement modules DIP switches configuring table

RTD type	SW1	SW2	SW3	SW4	SW5	RTD type	SW1	SW2	SW3	SW4	SW5
100Ω Pt0.003850(default)	0	0	0	0	0	100Ω Pt0.003902	1	0	0	0	0
200Ω Pt0.003850	0	0	0	0	1	200Ω Pt0.003902	1	0	0	0	1
500Ω Pt0.003850	0	0	0	1	0	500Ω Pt0.003902	1	0	0	1	0
1000Ω Pt0.003850	0	0	0	1	1	1000Ω Pt0.003902	1	0	0	1	1
100Ω Pt0.003920	0	0	1	0	0	Nc	1	0	1	0	0
200Ω Pt0.003920	0	0	1	0	1	100Ω Ni0.00672	1	0	1	0	1
500Ω Pt0.003920	0	0	1	1	0	120Ω Ni0.00672	1	0	1	1	0
1000Ω Pt0.003920	0	0	1	1	1	1000Ω Ni0.00672	1	0	1	1	1
100Ω Pt0.00385055	0	1	0	0	0	100Ω Ni0.006178	1	1	0	0	0
200Ω Pt0.00385055	0	1	0	0	1	120Ω Ni0.006178	1	1	0	0	1
500Ω Pt0.00385055	0	1	0	1	0	1000Ω Ni0.006178	1	1	0	1	0
1000Ω Pt0.00385055	0	1	0	1	1	10000Ω Pt0.003850	1	1	0	1	1
100Ω Pt0.003916	0	1	1	0	0	10Ω Cu0.004270	1	1	1	0	0
200Ω Pt0.003916	0	1	1	0	1	150Ω FS RTD	1	1	1	0	1
500Ω Pt0.003916	0	1	1	1	0	300Ω FS RTD	1	1	1	1	0
1000Ω Pt0.003916	0	1	1	1	1	600Ω FS RTD	1	1	1	1	1

Note: If RTD is the corresponding resistance value in the table, it indicates that the temperature measured is 0℃; and it indicates the resistance value at 25℃ for Cu10, of which the corresponding resistance is 9.035 Ω at 0℃.

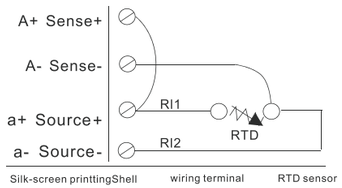
The wiring mode of VE 200 RTD temperature measurement modules

1、4-wire RTD sensor (The highest accuracy)



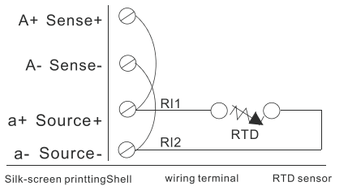
Remark:RL1=the resistance of guide line from a+ terminal to RTD
RL2=the resistance of guide line from a- terminal to RTD

2、3-wire RTD sensor (The general)



Remark:if RL1=RL2,tolerance is Minimum.

3、2-wire RTD sensor (The lowest accuracy)



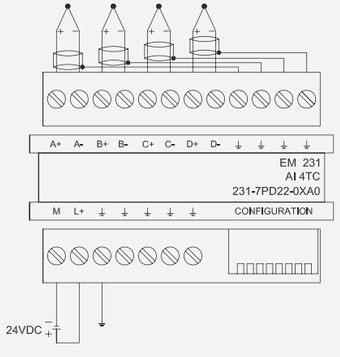
Remark:if RL1+RL2=Tolerance , switches sets as same as 4-wire mode.

VE 200 TC Modules

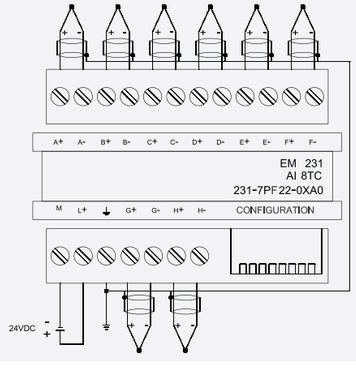
Technical Specification

Model	EM231 4AI TC	EM231 8AI TC	EM231 8AI TC	EM231 16AI TC
Product Picture				
Product Description	4AI; Thermocouple temperature measurement modules; Resolution:16bits Optical isolation; high immunity;stable	8AI; Thermocouple temperature measurement modules; Resolution:16bits Optical isolation; high immunity;stable	8AI; Thermocouple temperature measurement modules; Resolution:16bits Optical isolation; high immunity;stable	16AI; Thermocouple temperature measurement modules; Resolution:16bits Optical isolation; high immunity;stable
Technical Specification				
From bus current consumption	87mA	107mA	107mA	110mA
From L+ current consumption	60mA	60mA	60mA	40mA
Power loss	1.8W	2.1W	2.1W	2.1W
Number of analog inputs	4	8	8	16
Signal input type·	Floating Thermocouple			
Common-mode rejection	>120dB@120V AC	>120dB@120V AC	>120dB@120V AC	>120dB@120V AC
	100 Ω	100 Ω	100 Ω	100 Ω
Module update time	290ms	580ms	580ms	1030ms
Data word format	Voltage:-27648~+27648			
Input range	Type：E,J,K,N,R,S,T Voltage range:±80mV			TC Type(choice one)· J,K Voltage range:±80mV
Measuring principle	Sigma→delta	Sigma→delta	Sigma→delta	Sigma→delta
Resolution	15+1 Sign bit	15+1 Sign bit	15+1 Sign bit	15+1 Sign bit
Address of the interval	AIW	AIW	VW	VW
Basic error	0.1%FS	0.1%FS	0.1%FS	0.1%FS
Isolation (field to logic)	>3000V	>3000V	>3000V	>3000V
24VDC supply voltage range	20.4~28.8V DC	20.4~28.8V DC	20.4~28.8V DC	20.4~28.8V DC
Dimensions(W x H x D)	71.2×80×62(mm)	71.2×80×62(mm)	71.2×80×62(mm)	71.2×80×62(mm)
Order Number	**VE 231-7PD22-0XA0**	**VE 231-7PF22-0XA0**	**VE 231-7PH22-0XA0**	**VE 231-7PL22-0XA0**

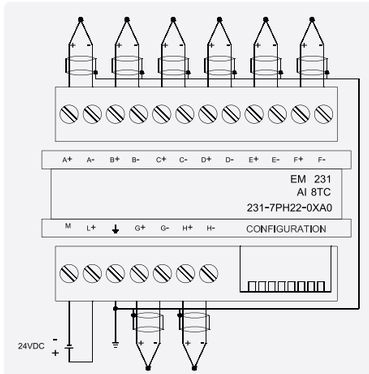
Wiring Diagram



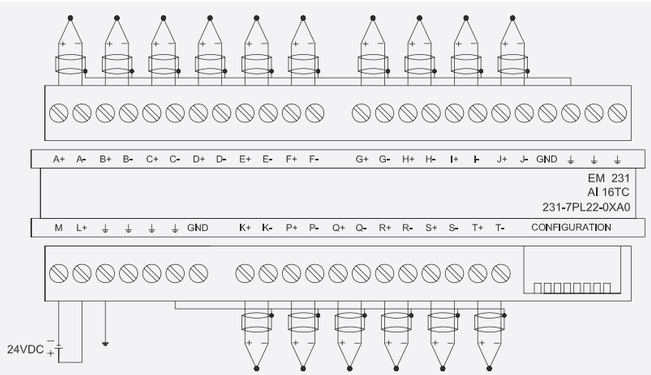
VE 231-7PD22-0XA0



VE 231-7PF22-0XA0



VE 231-7PH22-0XA0



VE 231-7PL22-0XA0

■ VE 200 thermocouple temperature measurement modules DIP switches configuring table

Model	VE 231-7PD22-0XA0 VE 231-7PF22-0XA0 VE 231-7PH22-0XA0		VE 231-7PL22-0XA0	
	Options	Setting	Options	Setting
SW1~SW3	Thermocouple type:J,K,T,E,R,S,N,±80mA		Thermocouple type:J,K,±80mV	
SW4	Reserved for use			
SW5	Open wire detection direction	0:positive(+3276.7) 1:Negative(-3276.8)	Open wire detection enable	0:enable 1:disable
SW6	Open wire detection enable	0:enable 1:disable	Options of measurement unit	0:Centigrade Degrees 1: Fahrenheit Degrees
SW7	Options of measurement units	0:Centigrade Degrees 1: Fahrenheit Degrees		
SW8	Cold junction compensation	0:Yes 1: No		

■ VE200 4TC/8TC/16TC thermocouple type and DIP switches configuring table

Switching state
↑ 1-ON
↓ 0-OFF

TC type	SW1	SW2	SW3
J (default)	0	0	0
K	0	0	1
T	0	1	0
E	0	1	1
R	1	0	0
S	1	0	1
N	1	1	0
+/-80mv	1	1	1

■ Address configuration of UN 200 analog expansion modules

For example, software address configuration of VE 231-7PL22-0XA0 、VE 231-7PH22-0XA0 is VW area. Different location in rail should have different address value. Calculation formula: VW(64＊i+2＊j).
Remark: “i” is the location of modules. “j”is the series number of input channel. “i” and “j” start from 0 and each module has 16 input channels.

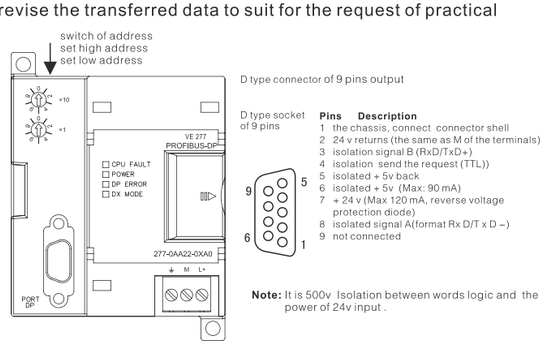
Location value in Rail	Chanal 0	Chanal 1	• • •	Chanal 7	Chanal 8	• • •	Chanal 14	Chanal 15
Location 0	VW 0	VW 2	• • •	VW 14	VW16	• • •	VW 28	VW 30
Location 1	VW 64	VW 66	• • •	VW 78	VW80	• • •	VW92	VW94
Location 2	VW 128	VW 130	• • •	VW 142	VW144	• • •	VW156	VW158
Location 3	VW 192	VW 194	• • •	VW 206	VW208	• • •	VW220	VW222
Location 4	VW 256	VW 258	• • •	VW 270	VW272	• • •	VW284	VW286
Location 5	VW 320	VW 322	• • •	VW 334	VW336	• • •	VW348	VW350
Location 6	VW 384	VW 386	• • •	VW 398	VW400	• • •	VW412	VW414

VE 277 PROFIBUS-DP Module

1、VE 277 Profile

VE 277 is an intelligent expansion module which connects S7-200 CPU to PROFIBUS-DP net by Serial I/O BUS, and works at 9.6Kbps to 12Mbps PROFIBUS. As a DP substation, VE 277 Module receives different I/O configurations from main station, sends and receives different quantites Data, it is convenient for customer to revise the transferred data to suit for the request of practical application.

Note: Not support the program download and HMI connection.



VE 227 Structure diagram

D type connector of 9 pins output

D type socket of 9 pins

Pins	Description
1	the chassis, connect connector shell
2	24 v returns (the same as M of the terminals)
3	isolation signal B (RxD/TxD+)
4	isolation send the request (TTL))
5	isolated + 5v back
6	isolated + 5v (Max: 90 mA)
7	+ 24 v (Max 120 mA, reverse voltage protection diode)
8	isolated signal A(format Rx D/T x D –)
9	not connected

Note: It is 500v Isolation between words logic and the power of 24v input .

2、Function Features

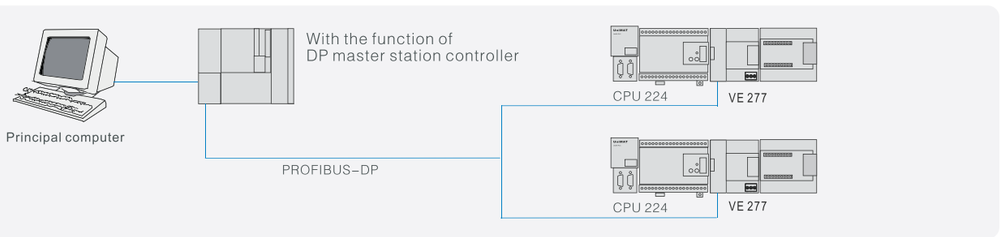
- Supports S7-200 PLC(such as CPU 224, 224XP)
- Supports S7-300 CPU with DP master station function
- RS-485 communication and self suit for 9.6kbps-12mbps
- Max. support 99 DP substations
- RS-485 port with Photoelectric isolation, over-current protection
- Power supply with reverse connection protection and surge absorption.

Model	VE 277 PROFIBUS-DP Module
Description	Be used in distributed I/O system with PROFIBUS-DP interface Optical isolation, Stable
Module feature	
Port	1
Port Type	RS-485
Protocol	PROFIBUS-DP
PROFIBUS-DP Speed	9.6, 19.2, 45.45, 93.75, 187.5 and 500Kbps1.5, 3, 6 and 12Mbps
Net Ability	
Sub-station address setting	0 to 99（setting by rotary swtich）
Max Sub-staion per Net section	32
Max Sub-staion per section	126, but just 99 VE 277 Sub-station

Cable Length	
Below 93.75kbps	1200 meters
187.5kbps	1000 meters
500kbps	400 meters
1-1.5Mbps	200 meters
3-12Mbps	100 meters
24V DC input power	
Voltage range	20.4-28.8V DC
Current consumption.Max(24VDC)	70mA
Isolation(Input power with Logic circuit)	500V
Power Supply consume	
5V DC consume on BUS	150mA
Dimension (Wx H x D)	71 x 80 x 62
Order part No.	**VE 277-0AA22-0XA0**

3、GSD

The latest Related programming software include VE 277 configuration file. If your software version does not include the configuration file for VE 277 , you can download the latest GSD files at www.veichi.org.



4、EM277 Module LED Indicator

There are 4 status indicators in the pre-cover of EM277 module, indicating the running state of DP port:

(1) After electrifying 200CPU, DX MODE light keeps off until the start-up of DP communication;

(2) After the successful initialization of DP communication (EM277 PROFIBUS-DP module enters into the data exchanging state with main station), DX MODE light turns into green until the data exchanging state is over;

(3) If the DP communication is interrupted, EM277 module will be forced to exit the data exchanging mode, and at this time the DX MODE light will turn off and DP/ERROR light will turn red. This state will be maintained until 200CPU power off or the data exchange restarts;

(4) If there is any mistake while the main station writes I/O configuration or parameter information into EM277 module, the DP ERROR red light will be flashing;

(5) If there is no 24VDC power supply, the POWER (power) light will turn off.

LED	OFF	RED	RED Flash	GREEN
CPU fault	Good Module	Internal module Fault	–	–
POWER	No 24VDC Power Supply	–	–	Good 24VDC Power Supply
DP ERROR	No ERROR	Exit data exchanging mode	Parameter/Configuration Error	–
DX MODE	Not in data exchanging mode	–	–	In data exchanging mode

5.VE200 PLC could be connected to PROFIBUS-DP network trough EM277 module, and then be connected to 200 Series CPU through the bus. And PROFIBUS-DP network is connected to EM277 module through the DP communication port. The Fig.2 is a PROFIBUS -DP network using EM277 communication.

6、Order Data：

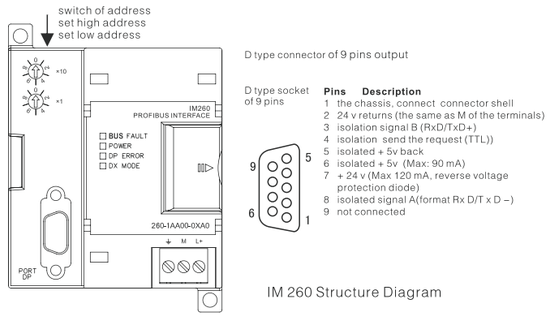
Name	Specifications	Order No.
VE 277	PROFIBUS–DP interface module，Photoelectric isolation	VE 277-0AA22-0XA0

IM 260 PROFIBUS-DP Interface Module

一、IM 260 Profile

IM260 is communication interface module observing PROFIBUS-DP. This protocol is a remote I/O communication protocol customized by European standard EN50170. DP stands for distributed peripheral equipment, and PROFIBUS stands for process field bus. PROFIBUS-DP interface modules can be used as standalone slave station device (supports PROFIBUS-DP VO protocol only) for the communication of remote distributed I/O.

As analog slave station device of PROFIBUS-DP net, PROFIBUS-DP interface modules can transmit and receive different amounts of data by 7 VE 200 digital/analog inputs/outputs expansion modules. This property enables users to change different VE200 serials modules so as to meet the demand of practical use.



D type connector of 9 pins output

D type socket of 9 pins

Pins	Description
1	the chassis, connect connector shell
2	24 v returns (the same as M of the terminals)
3	isolation signal B (RxD/TxD+)
4	isolation send the request (TTL))
5	isolated + 5v back
6	isolated + 5v (Max: 90 mA)
7	+ 24 v (Max 120 mA, reverse voltage protection diode)
8	isolated signal A(format Rx D/T x D –)
9	not connected

IM 260 Structure Diagram

2、Characteristics

- Supports VE 300 CPU which is provided with the function of DP master station;
- RS-485's communication baud rate self adapts from 9.6Kbps to 12Mbps;
- Supports at most 99 DP slave stations;
- RS-485 port adopts optical isolation, and is provided with overcurrent protection;
- The power supply is provided with the functions of reverse connection protection and surge absorbing.

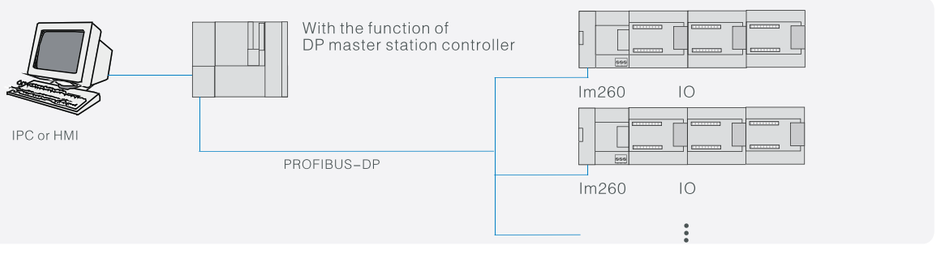
3、Technical Parameters

Number of ports	1
Electrical Interface	RS-485
PROFIBUS-DP Baud Rate (auto set)	9.6, 19.2, 45.45, 93.75, 187.5, 500Kbps
Protocol	PROFIBUS-DP, V0
Length of Cable	
Less than 93.75Kbps	1200m
187.5Kbps	1000m
500Kbps	400m
1M to 1.5Mbps	200m
3M to 12Mbps	100m

Networking Performance	
Station Address Setup	0 to 99 (set by rotary switch)
Max. number of stations per segment	32
Max. number of stations per net	126, up to 99 IM260 stations
Number of UN200 modules	7
24V DC Input Power	
Voltage range	20.4~28.8V DC
Output current	300mA (strongest)
Isolation	No isolation, same with 24V DC circuit

4、GSD

Before using IM260, you need to install IM260 corresponding GSD files in the software. Through IM260 interface module, it can let the Profibus-DP master station in the network to remote operations UN200 I/O port extension module. Though DP port of IM260 module , it can be connected to the Profibus-DP network in the DP master station, and communicate such as 315-2DP and other DP master Station on the same network.(You can download from www.veichi.org for IM 260 GSD document.)



5、Order Data

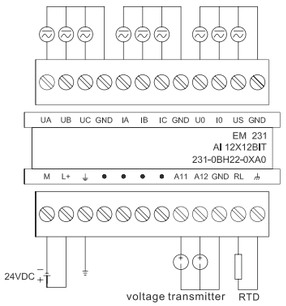
Name	Specifications	Order No.
IM 260	PROFIBUS-DP interface module, Photoelectric isolation	VE 260-1AA00-0XA0

Three-Phase AC&Leakage Detection Module

1、Brief description

VEICHI three-phase AC & leakage detection module, the highly anticipated module was finally brought to the market.Its order number: VE231-0BH22-0XA0. This type of module is VE200 series PLC expansion module. It can be used to measure the voltage and current of single-phase & three-phase AC, and is provided with the functions of leakage resistance measurement and multi channel DC voltage measurement. Coordinating with the computing and control of CPU, it can realize the protection of over voltage, under voltage, over loading, leakage and imbalance of three phases, detect the grid insulation resistance and collect zero sequence voltage & current.

Three-phase AC & leakage detection module



2、Characteristics

- Supports leakage resistance measurement;
- Supports duplex channel DC voltage measurement;
- Can monitor grid insulation resistance;
- Can collect zero sequence voltage & current;
- Can realize the protection of over voltage, under voltage, over loading, leakage and imbalance of three phases

3、Technical Parameters

Model: EM231 AI 12×12bits	
Product Description	9 AC AI, 2 DC AI;1 resistance detection, resolution: 12 bits
Input characteristics	
From bus current consumption	30mA
From L+ current consumption	100mA
Power loss	2W
Number of AI	12
Type of AI	Differential input
Max. input voltage	16V AC
Range of input voltage	0~16V AC, 0~10V DC, 0~150V AC, 0~1.5V AC
Range of input current	0~500μA
Resolution	12 Bits
Range of resistance measurement	0~1MΩ
ADC switching time	＜250μs
Data Word Format	
AC voltage input	0~32000
DC voltage input	0~32000
Resistance input	0~10000
Basic tolerance	1%FS
Dimensions(W×H×D)	71.2×80×62(mm)
Order Number	VE 231-0BH22-0XA0

4、Module Terminal Definition

Terminal	Definition	Data Address	Measurement Range	Accuracy	Data range
UA	AC analog input	VW0	0-16VAC	1%FS	0-32000
UB	AC analog input	VW2	0-16VAC	1%FS	0-32000
UC	AC analog input	VW4	0-16VAC	1%FS	0-32000
GND	Common Port of Input signal				
IA	AC analog input	VW6	0-16VAC	1%FS	0-32000
IB	AC analog input	VW8	0-16VAC	1%FS	0-32000
IC	AC analog input	VW10	0-16VAC	1%FS	0-32000
U0	AC analog input	VW12	0-150VAC	1%FS	0-32000
I0	AC analog input	VW14	0-1.5VAC/0-500μA	1%FS	0-32000
US	AC analog input	VW16	0-16VAC	1%FS	0-32000
AI1	AC analog input	VW18	0-10VAC	1%FS	0-32000
AI2	AC analog input	VW20	0-10VAC	1%FS	0-32000
RL	Resistance Measurement Input	VW22	0-1M	3%FS	0-10000
M	The cathode of DC Power 24V Input terminal				
L+	The anode of DC Power 24V Input terminal				

Note:
The addresses are different as the positions of module differs in the configuration. The calculation function is: VW(64*i+2*j),in which is the module position and j is the channel no. And the initial value of i and j are both from 0. The above table defaults that module is in the first position after CPU, that is i=0. It indicates that the 24V power of lower board is normal while the green LED light in module turns on, and power off while light turns off.

5、User Instruction

1. The terminals of UA/UB/UC/IA/IB/IC/U0/I0/US are input AC signals, of which the magnitude should be no more than the measurement range of corresponding channel and the AC signal frequency must be 50Hz;
2. There is a large AC range for U0 terminal and the max measurement range is 150VAC. Pay attention to the wiring as it is force electricity and never operate with power in case of accidents. The wiring terminal must be taped well;
3. The power supply for module must be stable and normal before using. The standard working voltage of module is 24VDC, and module could operate normally within the range of (20.4-28.8VDC) . The module will not be damaged if the power is connected reversely, but it can not operate normally;
4. There is a small measurement range (0-1.5VAC) in I0 terminal, and the input signal must be ensured within the range before wiring, as too large input signal will damage this terminal;
5. The measurement range of AI1 and AI2 DC voltage gear is 0-10VDC, which could not be connected AC power.

6、Special Instructions

1. Cut off all the power supply before the installation and dismantlement of module or other equipments. Operation with power is banned;
2. The module uses 24VDC power and please ensure the supply voltage is normal and wiring is correct and all the channels are within the measurement range;
3. The calculation method of RL resistance gear: Resistance value*10 (K as unit). For example, if the resistance is 100K, the displayed data value of RL terminal is 1000;
4. Theoretically,there should be no overvoltage in input terminals (UA/UB/UC/IA/IB/IC), and the max input is 30VAC; (Short time power on; otherwise the module will be damaged in a long-time);
5. The accuracy of module is 1% FS. Except for the resistance measurement gear, the allowed data error of other terminals is ±320. The installation position must be apart from the inverter as the big power motor equals to an interference source.

7、Order Data

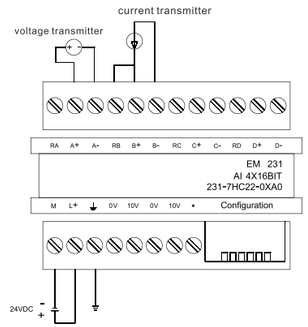
Name	Order No.
Three-phase AC & leakage detection module	VE 231-0BH22-0XA0

Four-input high-speed & high precision module

1、Description

VEICHI electronic scale module (VE231-7HC22-0XA0) is a high precision, high speed 4 channel analog input module. It belongs to the extension of VE200PLC module.Through the dial switch users may choose to measure the voltage, current, or range, resolution reaching 16 bits. The module provides two channel high accuracy of 10v power supply, and can be used as electronic scale sensor(slide rheostat) reference input power supply.

VEICHI electronic scale module is widely used in injection molding machine, woodworking machinery, printing machine, electronic scale, spraying, machine tools, robots, computer engineering monitoring control sports-equipment and other industries.



2、Characteristics

- ☐ four channels of analog input, can measure voltage and current, 16-bits resolution
- ☐ Can select the input filter function through the dial switch
- ☐ 10 VDC, precise voltage output
- ☐ strong anti-interference performance, stable

3、Technical Specification

Model	EM 231，4AI x 16bits
From bus current consumption	20mA
From L+current consumption	60mA
Power loss	2W
Number of analog input	4
Power input	10VDC,0.1%FS
input type	Differentail
Voltange：Unipolar	0~5V, 0~10V
Voltange：Bipolar	±5V, ±10V
Current input range	0~20mA, 4~20mA , ±10 mA
Resolution	16 bits
Bipolar,full-scale range	-32000 ~ +32000
Uipolar,full-scale range	0 ~ 32000
Cable length	100m
Input impedance	≥2MΩvoltage input 250Ωcurrent input
Isolation(field to logic)	>3000V
Analog to digital conversion time	<1ms
Common-mode rejection	40dB, DC to 60Hz
Common-mode voltage	Signal voltage + Common-mode≤12V
Maximum input voltage	30VDC
Maximum input current	32mA
Dimensions(W x H x D)(mm)	71.2 x 80 x 62mm
Weight	150g
Order Number	VE 231-7HC22-0XA0

4、Selection Sliding Switch Setting & Measurement Range Selection

The following table is the setting method of selection sliding switch. SW1,SW2 and SW3 could select the analog input range. ON is valid and OFF is invalid.

Unipolar				
SW1	**SW2**	**SW3**	**Full Range Input**	**Resolution**
ON	OFF	OFF	0-5V,0-20mA	78.125μV
	OFF	ON	0-10V	156.25μV
	ON	ON	4-20mA	250nA

Bipolar				
SW1	**SW2**	**SW3**	**Full Range Input**	**Resolution**
OFF	OFF	OFF	±5V	156.25μV
	OFF	ON	±10V	312.5μV
	ON	OFF	±10mA	625nA

5、Filtering Function

The following table displays how to set the filtering function with selection sliding switch.

SW5	SW6	Setting	Step response Time
ON	ON	No filtering	1ms
OFF	OFF	Filtering	5ms
ON	OFF	Filtering	10ms

Note: The setting of selection sliding switch is valid only when it is electrified again.
All the input settings are determined by the 6 selection sliding switch, which means that the setting is applied for the whole module.
Using Steps:
(1) Set input range according to the specification of selection sliding switch;
(2) Input signal well to module and connect CPU and module power;
(3) Read the measurement value in CPU of corresponding channels. The module address could be obtained by clicking “PLC” in the program interface and then selecting “Information”. (Such as AIW0, AIW8).

6、Order Data

Name	Order No.
Four-input high-speed & high precision module	VE 231-7HC22-0XA0

VE 200 Special accessories

USB–PPI Adapter

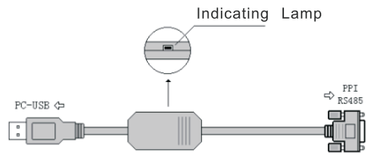
1、Description

USB-PPI adapter is used to connect UniMAT VE200 PLC to all other automatic products that support PPI & advanced PPI protocol. The circuit has built-in optical isolation with high immunity.

It can replace Siemens PC/PPI USB adapter as it has all functions that Siemens adapter has. It supports Multi Master Communication and can adapt Baud rate automatically in MMC.

2、Characteristics & Technical Specification

- ☐ Supports USB/PPI operation system：windows2000/windows XP
- ☐ USB/PPI Software version：STEP7/Micro/WIN V4.0 SP3 and above，no need any drive program.
- ☐ Power Supply & Consumption
  USB port：USB backplane power supply，DC5V，power loss about 50mA
  485 port：PPI port power supply，DC24V，power loss about 15mV
- ☐ USB 485 interface with overcurrent protection，lightning-defend protection and prevention of feedback
- ☐ Optical galvanic Voltage：1000V DC or 3500VAC
- ☐ Baud Rate：9.6Kbps、19.2Kbps、187.5Kbps and automotive adapt baud rate in Multiple Master Network.
- ☐ Supports communication protocol：PPI、Advanced PPI
- ☐ Supports Multiple Master Network
- ☐ Support long distance communication，RS485 port Max. distance: 2Km（9.6Kbps），1Km(187.5Kbps)
- ☐ Each PC just use one USB cable
- ☐ Work temperature：-10~+70℃
- ☐ PC port cable length：0.8M
- ☐ Cable length：3M（can change by order），color：black



USB–PPI cable

3、The definition of the pin

Series No.	Signal	Description
1	Grand	RS485 logic Grand
2	24V-	24V Power Grand
3	Signal B	RXD/TXD+（RS485 signal +）
4	RTS	Current control signal （ TTL level）
5	Land	RS485 Logic Grand
6	+5V	5V Power +
7	24V+	24V Power +
8	Signal A	RXD/TXD-（RS485 Signal -）
9	Protocol Switch	

Indicating Lamp Instruction:

- PPI indicating lamp:PPI cable and PLC 485 port interface normally communicate.
- USB indicating lamp: PPI cable and PC normally communicate.
- POWER indicating lamp: PPI cable and PLC 485 port interface normally powered.

Application of devices supported：

- UniMAT UN200 CPU
- All other CPUs which are compatible with UN200 CPU（Such as Siemens S7—200 CPU）
- All HMI devices that support PC/PPI protocol
- Can connect to EM277 and program S7-200 or compatible CPU

4、Order Data：

Name	Order Number
USB–PPI Adapter	VE901-3DB30-0XA0

VE 200 Special accessories

RS232-PPI Serial-Port Adapter

1、Description

- It is used for PC connect the PPI network and program of S7-200 series PLC
- Supports PPI protocol,MODBUS protocol etc.
- Baud rate adapt automatically,no need to set dial switch.
- The commumiation interface of PC/PPI serial adapter isolate optically. Transient over-voltage protection like built-in anti-static transient,anti-surge,etc. can effectively prevent the commumimation port from being damaged.

2、Technical specification

PPI serial-port adapter	UN 901-3CB30-0XA0
PPI interface	
Type	RS485 Isolation tested for contact type
Cable joints	9-pin SUB-D interface(Male inerface)
Baud rate	0~28.8kbps Automatic adapt
Max.communication distance	2KM(baud rate:9.6kbps)
Communication interface	
Type	RS 232
Cable joints	9-pin SUB-D interface(Female inerface)
Permissible conditions	
Operating temperature	-20℃~+60℃
Storage temperature	-20℃~+60℃
Operating humidity	5%~85%(30℃)
Storage humidity	5%~93%(40℃)
Dimenstions(W×H×D)(mm)	130×50×25,the total length of cable:5m
Weight	255 g

3、Order Data

Name	Order Number
RS232-PPI Serial-Port Adapte	VE901-3CB22-0XA0

VE 200PLC VE 200PLC Bus Extension Cable

1 . Product summary

This cable is used for the bus extension of VE200 & S7 200 series PLC.

2 . Characteristics

- ☐ Be provided with anti-interference magnetic loops;
- ☐ The total length is 80cm, and the space between the adjacent lines is 1.28mm;
- ☐ 10PIN wiring.

3 . Order Data

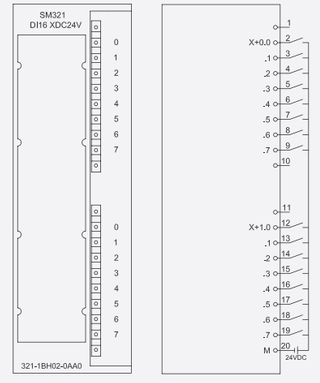
Name	Order Number
VE200 PLC Bus Extension Cable	VE290-6AA20-0XA0

VE 300 DI Modules

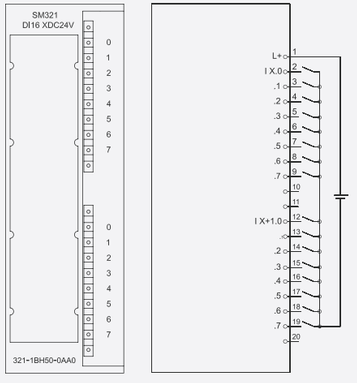
Technical Specification

Model	SM321 16DI NPN	SM321 16DI PNP	SM321 16DI	SM321 32DI
Product Picture				
Product Description	16DI,24V DC; High immunity; stable	16DI,24V DC; High immunity; stable	16DI, 120V AC/230V AC; High immunity;stable	32DI,24V DC; High immunity;stable
Power consumption				
·From bus current consumption	17mA	17mA	40mA	50mA
·Power loss	3.5W	3.5W	4.9W	6.5W
Number of digital inputs	16	16	16	32
Cable Length (Shielded)	1,000m	1,000m	1,000m	1,000m
Cable Length (unshielded)	600m	600m	600m	600m
Input voltage				
• Rate value	24V DC	24V DC	120/230V AC	24V DC
• For ”0” signal	-30~5V DC	-5~30V DC	0~40V AC	-30~5V DC
• For ”1” signal	13~30V DC	-30~-13V DC	85~264V AC	13~30V DC
• Frequency range	/	/	47~63Hz	/
Input current	7mA	7mA	16mA	7mA
Input delay				
·From “0” to “1”,Min	1.2~4.8ms	1.2~4.8ms	25ms	1.2~4.8ms
·From “1” to “0”,Min	1.2~4.8ms	1.2~4.8ms	25ms	1.2~4.8ms
Front connector	20-pin	20-pin	20-pin	40-pin
Input type	NPN	PNP	/	NPN
Connection of 2-wire BERO sensor	Yes	Yes	Yes	Yes
Permissible quiescent current	1.5mA	1.5mA	2.0mA	1.5mA
Isolation tested for contact				
• Between channel and backplane bus	Yes			
• Per group between channels	Yes			
The status indicates	Green LED each channel			
Dimensions(WxHxD)(mm)	40×125×120		40×125×120	40×125×120
Order Number	**VE 321-1BH02-0AA0**	**VE 321-1BH50-0AA0**	**VE 321-1FH00-0AA0**	**VE 321-1BL00-0AA0**

Wiring Diagram



VE 321-1BH02-0AA0



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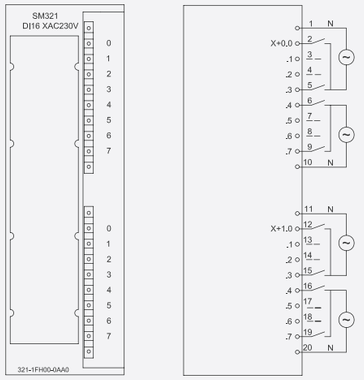
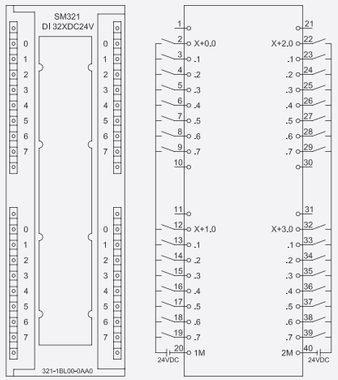
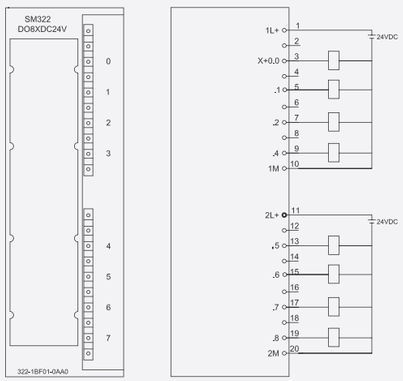


VE 321-1FH00-0AA0



VE 321-1BL00-0AA0

Wiring Diagram Of UN 300 Do Modules



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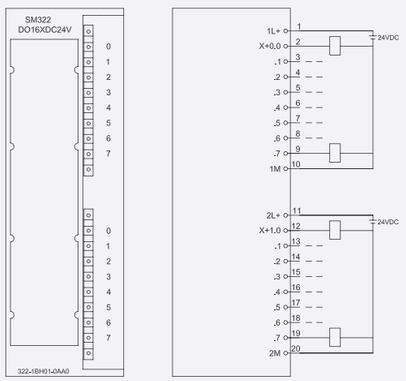

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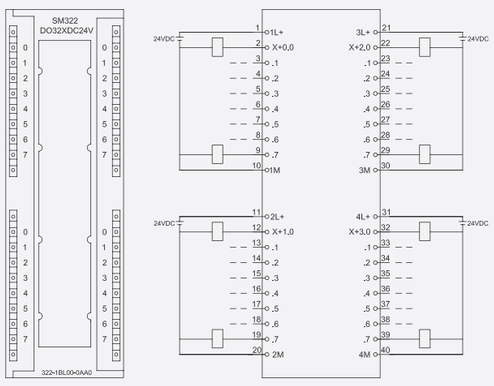

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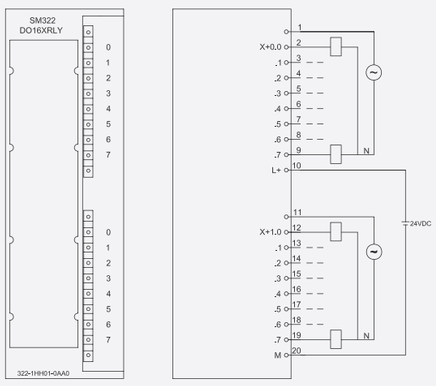


VE 322-1HH01-0AA0

VE 300 DO Modules

Technical Specification

Model	SM322 8DO	SM322 16DO	SM322 16DO Relay	SM322 32 DO
Picture				
Product Description	8DO,24V DC;Transistor; Optical isolation with high immunity	16DO,24V DC;Transistor; Optical isolation with high immunity	16DO;Relay; Optical isolation with high immunity	32DO,24V DC; Transistor;Optical isolation with high immunity
Power consumption				
·From bus current consumption	50mA	80mA	100mA	90mA
·Power loss	6.8W	4.9W	4.5W	6W
Number of digital outputs	8	16	16, Relay	32
Cable Length (Shielded)	1,000m	1,000m	1,000m	1,000m
Cable Length (unshielded)	600m	600m	600m	600m
Short-circuit protection	Yes,Electronic	Yes,Electronic	/	Yes,Electronic
Inductive cutoff voltage	L+(-48V)	L+(-53V)	/	L+(-53V)
Lamp load Max	10W	5W	200W	5W
Output voltage:"1" signal	Min,L+(-0.8V)	Min,L+(-0.8V)	/	Min,L+(-0.8V)
Output current:"1" signal	2A	0.5A	2A	0.5A
Life time contact mechanical	/	/	1,000,000	/
Life time contact mechanical (rated load voltage)	/	/	100,000	/
Sum of output currents(per group)	4A	4A	8A	4A
Isolation tested for contact				
·To backplane bus	Yes,Optocoupler			
·To per group between channels	Yes	Yes	Yes	Yes
Switching frequency for contacts				
·Resistive loads,Max	100Hz	100Hz	1Hz	100Hz
·Inductive loads,Max	0.5Hz	0.5Hz	0.5Hz	0.5Hz
·Lamp loads,Max	10Hz	10Hz	1Hz	10Hz
·Mechanical load,Max	/	/	10Hz	/
The status indicates	Green LED each channel			
Front connector	20-pin	20-pin	20-pin	40-pin
Dimensions(WxHx D)(mm)	40×125×120(mm)			
Order Number	**VE 322-1BF01-0AA0**	**VE 322-1BH01-0AA0**	**VE 322-1HH01-0AA0**	**VE 322-1BL00-0AA0**

Remark: The wiring diagram, please see page 45

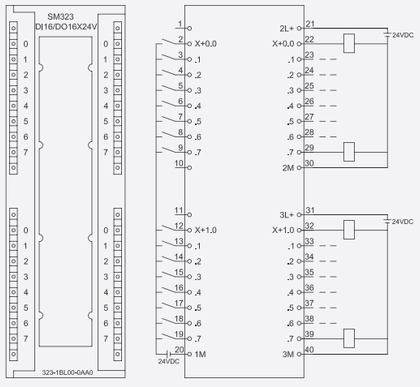
VE 300 DI/DO Modules

Technical Specification

Model	SM323 16 DI / 16 DO
Picture	
Product Description	16DI,24VDC/16DO, 24 VDC; Transistor;Optical isolation with high immunity.
Power consumption	
·From backplane bus current consumption	80mA
·Power loss	6.5W
Input Feature	
Number of digital inputs	16
Input voltage	
·Rate value	24V DC
·For "0" signal	-30~5V DC
·For "1" signal	13~30V DC
Input current	7mA
Input delay	
·From "0" to "1",Min	1.2~4.8ms
·From "1" to "0",Min	1.2~4.8ms
Input type	NPN
Connection of 2-wire BERO sensor	Yes
Permissible quiescent current	1.5mA

Output Feature	
Number of digital outputs	16
Short-circuit protection	Yes,Electronic
Inductive cutoff voltage	L+(-53V)
Lamp load. Max	5W
Output voltage: for "1" signal	Min:L+(-0.8V)
Output current: for "1" signal	0.5A
Isolation tested for contact	
·Between channels and backplane bus	Yes
·Per group between channels	Yes
Cable Length (Shielded)	1,000m
Cable Length (unshielded)	600m
The status indicates	Green LED each channel
Front connector	40-pin
Dimensions(W x H x D)	40×125×120(mm)
Order Number	**VE 323-1BL00-0AA0**

Wiring Diagram

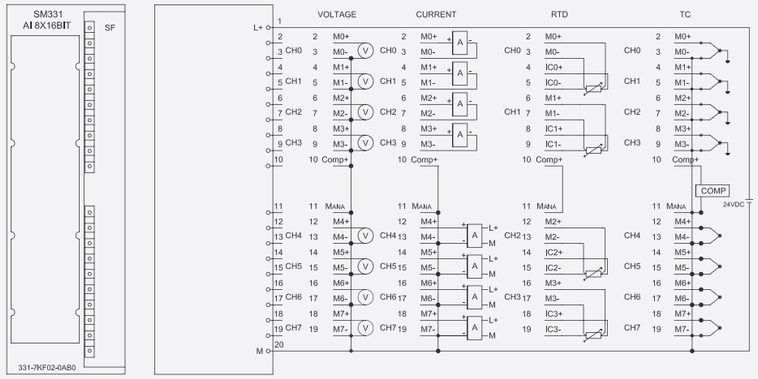


VE 323-1BL00-0AA0

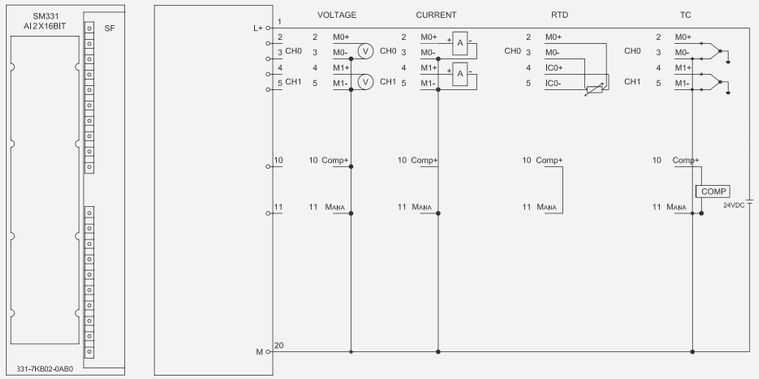
VE 300 AI Modules

Technical Specification

Model	SM331 8 AI	SM331 8 AI	SM331 2 AI	SM331 8AI RTD	SM331 8 AI TC
Product Picture					
Product Description	8AI; voltage/current/ RTD temperature measurement, Resolution:13bits, Optical isolation with high immunity	8AI; Full-function temperature measurement, Resolution:16bits, Short-circuit protection, High immunity	2AI; Full-function temperature measurement, Resolution:16bits, Short-circuit protection, High immunity	8AI RTD temperature measurement,	8AI; thermocouple temperature measurement, Input voltage range: ±150mV
Power consumption					
• Rate value	/	24V DC	24V DC	24V DC	24V DC
• From bus current consumption	90mA	100mA	100mA	50mA	100mA
• From L+	/	25mA	25mA	40mA	200mA
• Power loss	0.4W	1W	1W	1W	3W
The power of transmitter					
• Supply current	/	Per channel (Max)60mA		/	/
• Short-circuit protection	/	Yes	Yes	/	/
Number of analog inputs	8	8	2	8	8
Cable Length (Shielded)	Max. 200m	200m (Max.for 80mV:50m)		Max. 200m	Max. 100m
Input type and input range					
• voltage	1~5V,0~10V,±50mV ±500mV, ±1V, ±5V, ±10V	±80mV,±250mV,±500mV,±1V, ±2.5V ±5V,1~5V, ±10V		/	±150mV(-27648~+27648), at choose U type
• current(4wire)	±20mA, 0~20mA, 4~20mA	±3.2mA, ±10mA, ±20mA, 4~20mA		/	
• current(2wire)	/	4~20mA	4~20mA	/	/
• Resistance	600Ω,6KΩ	600Ω, 300Ω, 150Ω,		150Ω, 300Ω, 600Ω,	
• thermocouple	/	K,J,N,E,L		/	Type:T,E,J,K,N,R,S,B
• RTD	Pt100 standard type/climatic type Ni100 standard type/climatic type Ni1000 standard type/climatic type LG-Ni1000 standard type/climatic type	Pt100,Ni100		Pt10、Pt50、Pt100,Pt200、Pt500、Pt1000、Ni100、Ni120、Ni200,Ni500、Ni1000、Cu10(9.035)、Cu50、Cu100	/
A/D resolution	13bits	16bits		16bits	16bits
Basic conversion time (each channel)	66/55ms	0.5ms/12.5ms/25ms/100ms		190ms	190ms
Interference frequency suppression	50/60Hz	400/60/30/10Hz		400/50/60Hz	400/50/60Hz
Tolerance(Over entire temperature range)					
• Voltage	±0.6%	±0.6%	±0.6%	/	±0.6%
• Current	±0.6%	±0.6%	±0.6%	/	/
• Resistance	±0.6%	±0.6%	±0.6%	±0.1%	/
• Temperature	±1℃	±1℃	±1℃	±1℃	±1℃
Interrupts					
Diagnostic interrupt	None	Per group Yes,Configurable			
Limit-value interrupt	None	Yes,Configurable			
Isolation tested for contact					
• Between channels	None	None	None	Yes	Yes
Between channels and Backplane bus	Yes	Yes	Yes	Yes	Yes
Front connector	40-pin	20-pin	20-pin	40-pin	40-pin
Dimensions(WxHxD)	40x125x120	40x125x120	40x125x120	40x125x120	40x125x120
Order Number	**VE 331-1KF02-0AB0**	**VE 331-7KF02-0AB0**	**VE 331-7KB02-0AB0**	**VE 331-7PF01-0AB0**	**VE 331-7PF11-0AB0**



VE 331-1KF02-0AB0



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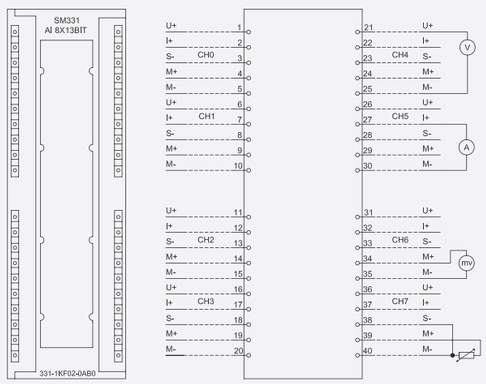

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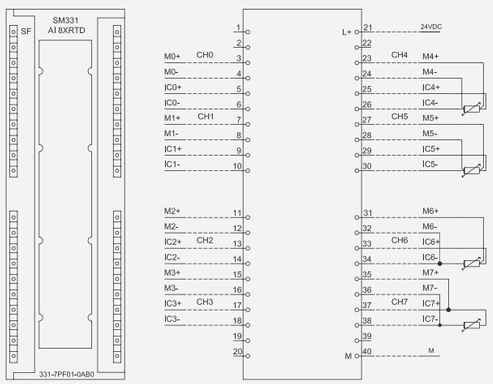


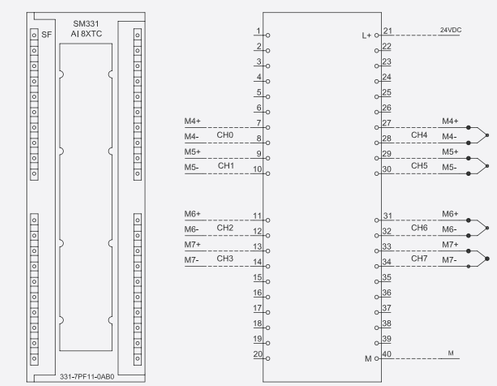
VE 331-7PF01-0AB0

VE 300 AO Modules

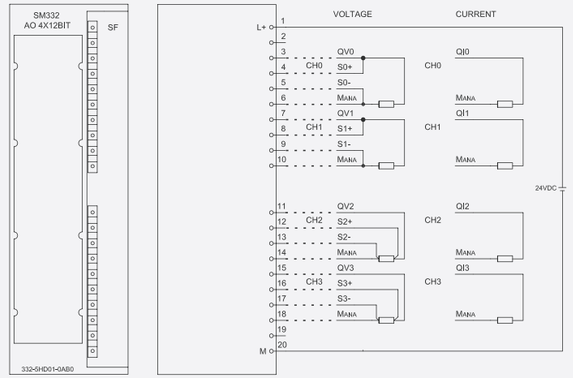
Technical Specification

Model		SM332 4AO	SM332 8AO
Picture			
Product Description		4AO; Resolution:12bits; High-accuracy	8AO; Resolution:12bits; High-accuracy
Power consumption			
·From bus current consumption		40mA	100mA
·From L+		40mA	70mA
·Power loss		3W	6W
Number of analog outputs		4	8
Load voltage+rated value		24V	24V
Shielded cable length,Max		200m	200m
Voltage output,Max,short circuit Current protection		Yes	Yes
Voltage output,Short circuit current(Max)		25mA	25mA
Current output,Open-circuit voltage,Max		18V	18V
Load impedance	·Voltage outputs,Min	1KΩ	1KΩ
	·current outputs,Max	500Ω	500Ω
Output ranges	·voltage	±10V,0~10V,1~5V	±10V,0~10V,1~5V
	·current	±20mA,0~20mA,4~20mA	±20mA,0~20mA,4~20mA
D/A resolution		12 bits	12 bits
conversion time(per channel)		Max:0.8ms	Max:0.8ms
Setting time	·Resistive loads	0.1ms	0.1ms
	·Inductive loads	3.3ms	3.3ms
	·Capactive loads	0.5ms	0.5ms
	Output crosstalk	>40dB	>40dB
Tolerance(Over entire temperature range)			
·Voltage output		±0.5%	±0.5%
·Current output		±0.6%	±0.6%
Diagnostic interrupt		None	None
Group fault error		Red LED	Red LED
Isolution tested for contact			
·Between channels and backplane bus		Yes	Yes
·Between channels and load voltage L+		Yes	Yes
Front connector		20-pin	40-pin
Dimensions(W x H x D)(mm)		40×125×120	40×125×120
Order Number		**VE 332-5HD01-0AB0**	**VE 332-5HF00-0AB0**

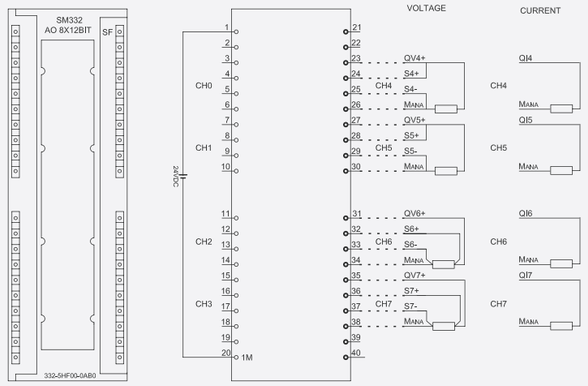
Remark: The wiring diagram, please see page 45 .



VE 331-7PF11-0AB0

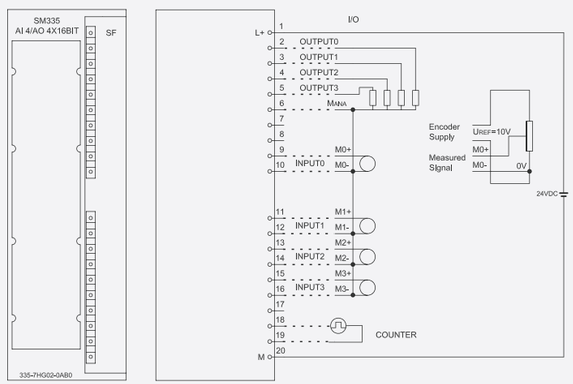


VE 332-5HD01-0AB0



VE 332-5HF00-0AB0

The Wiring Diagram Of UN 335-7HG02-0AB0



VE 335-7HG02-0AB0

VE 300 high-speed I/O module

Technical Specification

Model	**SM335 4 high-speed inputs/ 4 high-speed outputs**
Picture	
Product Description	4 high-speed inputs (basic conversion time of each channel is at most 200μs); 4 high-speed outputs(basic conversion time of each channel is at most 50μs); Encoder power:10V/25mA; 1 counter input(24V/500Hz); used to connect analog sensors and actuators

Model Feature Data	
Number of analog Inputs	4
Number of analog outputs	4
Cable Length (Shielded)	200m
Detection range of breaking wire(0~10V)	30m
Voltage and current	
Load voltage+rated value	24V DC
·Reverse polarity protection	Yes
Electrical isolation	Yes
Current loss	
From backplane bus (Max)	75mA
From L+	150mA
Power loss (Max)	3.6W

Diagnostic interrupt	
• Limit-value interrupt	None
• Circulation interrupt	Yes,Configurable
• Diagnostic interrupt	None
Diagnostic function	
• Group fault error display	Yes,Red LED
• Can read information of Diagnostic	None
Analog Input Feature	
Input range(rated-value)/input impedance	
• Voltage	±1V 10MΩ ±2.5V 10MΩ ±10V 10MΩ 0~2V 10MΩ 0~10V 10MΩ
• Current	±10mA 100Ω 0~20mA 100Ω 4~20mA 100Ω
Voltage(Damage limit)(Max.)	±30V
Current(Damage limit)(Max.)	25mA
Signal sensor wiring	
• For measuring of voltage	Yes
• For measuring of current	
Two-wire sensor	Yes
Four-wire sensor	None
• For measuring of resistance	None
Measuring principle	Successive approximation
conversion time(per channel)	200μs
Four-channel basic conversion time	1ms
Resolution	
• Bipolar	13+Sign bit
• Unipolar	14 bits
The output data of sensor power	
Rated voltage value	10V
Output current(Max)	25mA
To prevent short-circuit	Yes
Tolerance(voltage input limit)	0.2%
Common-mode rejection(Vpp<3V)	>65dB

Analog output Feature	
Resolution	
• ±10V	11 bit +Sign bit
• 0~10V	12bit
Output delay,Max	800μs
Setting time	
• Resistive loads	<0.8ms
• Capacitive loads	<3.3ms
• Inductive loads	<0.5ms
Response to the model of CPU STOP	0CV/KLV
Output cross talk	40dB
Tolerance (voltage output limit)	0.2%
Output range(rated value)	±10V,0~10V
Load impedance	
• Resistive loads,Min	3kΩ
• Capacitive loads,Max	1μF
• Inductive loads,Max	1mH
Voltage output	
Short-circuit protection current(Max)	8mA
For Voltage output wiring	
• Two-wire	Yes
• Four-wire	None
Counter Feature	
Number of inputs	1
Rated load voltage	24V DC
Reverse polarity protection	Yes
Electrical isolation	Yes
Generation of Counter	
Measuring principle	Test 2 up
Time resolution	0.5μs
Max.Frequency	400Hz
The choice data of sensor	
Max.Permissible Voltage(Damage limit)	±30V
Max.Permissible Current(Damage limit)	5mA
Effective Pulse width	1ms
Effective voltage value	18V~30V
Dimensions(W x H x D)(mm)	40×125×120
Order Number	**VE 335-7HG02-0AB0**

Bus Interface Modules

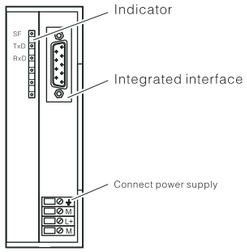
Specifications:

Model	IM 153 PROFIBUS-DP	IM 153 Modbus-TCP interface module	IM 365 Rack expansion module
Product Picture			
Product Description	Used to connect remote I/O modules with profibus-DP interface. Each slave station can connect 8 UN 300 expansion modules.	It can be used to collect/control information of remote I/O modules, completely support HMI, PLC,DCS,IPC and configuration software with Modbus-TCP protocol; can connect at most 32 UN 153-MB slave stations, and each slave station can connect 8 UN 300 series I/O modules (support at most 8192 points)	Used to deploy a central controller and an expansion rack; supports 313C (& above) CPUs
Modules characteristic			
Protocol	PROFIBUS-DP	MODBUS-TCP	Special
Baud rate,Max	12Mbps Automatic adapt	10~100Mbps Automatic adapt	/
Address space, Max	128bits input/128bits output	128bits input/128bits output	/
Expansion modules,Max	8	8	8
Isolation voltage	500V	500V	/
Work voltage	24V DC	24V DC	24V DC
Current consumption (24V DC)	625mA	625mA	100mA
Degree of protection	IP20	IP20	IP20
Operating temprature	-10℃~+70℃	-10℃~+70℃	-10℃~+70℃
Dimensions (W x H x D)(mm)	40×125×120	40×125×120	40×125×120
Order Number	**VE 153-1AA03-0XB0**	**VE 153-3MB00-0XB0**	**VE 365-0BA01-0AA0**

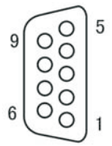
CP 341 RS485/422 MODBUS Communication Module

一、CP 341 overview

CP341 communication modules communicate for serial data with high speed and high performance via point-to-point link, easing the communication burden of CPU. It can be used for SIMANTIC S7-300 and ET200M and supports ASC Ⅱ and MODBUS master-slave station protocols.



2、Definition of communication port pins

9-pin D Front connector	Stitch	Identifier	Input/Output	Implication
	1	-	–	–
	2	-	–	–
	3	R/T (B) +	Input	Receive data (four-wire mode)
			Input/Output	Receive-transmit data (two-wire mode)
	4	T (B) +	Output	Transmit data (four-wire mode)
	5	GND	–	Isolate from ground
	6	5V	–	Isolation 5V
	7	-	–	-
	8	R/T (A) -	Input	Receive data (four-wire mode)
			Input/Output	Receive-transmit data (two-wire mode)
	9	T (A) –	Output	Transmit data (four-wire mode)

3、Specifications

Power supply	From rear panel 5V, no external power
Current consumption, Max.	150mA
Power loss, typical value	0.65W
Power loss, Max.	0.75W
No. of ports	1
Interface type	RS 485/RS 422
Communication protocol	ASCII、MODBUS
Communication speed	0.3 (Min.) ; 0.6; 1.2; 2.4; 4.8; 9.6; 19.2; 38.4; 57.6; 76.8 and 115.2 (Max.) Kbit/s
Communication frame format	Data length: 7-8 bytes Stop bit: 1-2 bits Vertification mode: odd-even check, no vertification
Maximum packet length	2048 byte
Dimensions (W * D * H)	40×125×120 mm

4、Order info.

	Specification	
CP341	MODBUS communication module	VE 341-1CH02-0AE0

PS 307 Power

Technical Specification

Model		PS307 power,5A	PS307 power,10A
Type		5A	10A
Product picture			
Description		Max. output current: 5A; Output voltage: 24V DC; Connect single-phase AC system(input voltage:120/230VAC,50/60Hz) The isolation is stable; Can be used as a load power supply.	Max. output current: 10A; Output voltage: 24V DC; Connect single-phase AC system (input voltage:120/230VAC,50/60Hz) The isolation is stable; Can be used as a load power supply
Input Voltage Value		120/230VAC	120/230VAC
Voltage range		85~132V/170~264V AC	85~132V/170~ 264 V AC
System frequency	value	50 Hz ~ 60 Hz	50 Hz ~ 60 Hz
	Permissible Tolerance	47Hz ~ 63 Hz	47 Hz ~ 63 Hz
The rated input current value	At 230V	1.3A	1.8A
	At 120V	2.1A	4.1A
Starting current		< 45 A, < 3 ms	< 55 A, < 3 ms
I^2t（at starting current）		1.2A^2s	3.3A^2s
Output voltage	value	24VDC	24VDC
	Permissible tolerance	24V±3%	24V±3%
	Rise value	＜2s，typical value: 60ms	Max:1.5s，typical value: 80ms
Output Current Value		5A，can not be connected by Parallel connection	10A，can not be connected by Parallel connection
Short-circuit Protection		Electronic shutoff, cold start automatically	Electronic shutoff, cold start automatically
Residual ripple		Max: 150mV_{pp}	Max: 150mV_{pp}
Discharge current		< 3.5 mA (typical value:0.3 mA)	< 3.5 mA (typical value:0.5 mA)
Efficiency		About 87%	About 87%
Pow er consumption		typical value: 18W	typical value: 34W
Output voltage indicating lamp.		Normally at 24V, green indicating lamp is light up	Normally at 24V, green indicating lamp is light up
Dimensions(W×H×D)(mm)		80×125×120	200×125×120
Weight		About 750g	About 1.2Kg
Order number		**VE 307-1EA01-0AA0**	**VE 307-1KA01-0AA0**

VE 300 Special accessories

USB–MPI /DP Adapter

1、Brief description

It is compatible with Siemens' PC USB Adapter（6ES7 972-0CB20-0XA0）,and enables you to link programming devices/PCs with USB interface to MPI interface, DP interface industry field bus. It receives power supply via USB interface of the industry field bus. It can be used for Siemens S7-300/400 PLC and UniMAT UN300 PLC. PC/MPI USB Adapter is designed for industry fields with isolation functions. It's USB interface and RS485 interface have surge protection and lightning-defend protection circuit, thus it allows hot-plug-in and operation in all industrial fields with much disturbance & interference.

It has power signal, USB communication signal and 485 communication signal. It is a good complementary device for mobile device such as notebook.

2、Technique Characteristics

- ☐ Supports Profibus-DP/MPI communication, field bus protocol self-detection.
- ☐ USB interface supply power, with over current protection and surge protection
- ☐ RS485 interface has surge protection and lightning-defend protection.

Industrial Standard：ITU-TK20/21、VDE0433

- ☐ Power on signal, USB on communication signal, RS485 on communication signal.
- ☐ +24V power can come from outside; USB V2.0 supply power with +5V

3、Specification：

It supports PPI, MPI, PROFIBUS automotive detection，9.6K to 1.5M Baud rate self-adapt.

Baud Rate	MPI	PROFIBUS			
		DP	Standard	General	Self-defined
9.6Kbps		√	√	√	√
19.2Kbps	√	√	√	√	√
45.45Kbps		√	√	√	√
93.75Kbps		√	√	√	√
187.5Kbps	√	√	√	√	√
0.5Mbps		√	√	√	√
1.5Mbps	√	√	√	√	√

4、Order Data:

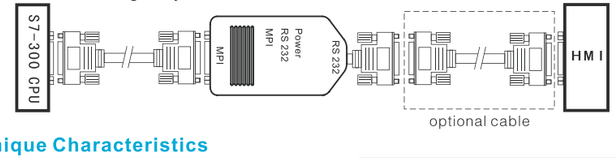
Name	Order Number
USB–MPI /DP Adapter	VE 972-0CB20-0XA0

RS232–MPI Serial–port Adapter

1、Brief description

The RS232-MPI adapter can realize the level switch from RS232 to RS485 port and the switch of protocols from RS232 to MPI MultiPoint Interface and is used for the communication between S7-300 PLC and the third party HMI, such as touch screens Weinview, Kinco, MCGS, Samkoon which support MPI protocol.

It is the optical isolation adapter that aims to industrial designs. Provided with surging protection and lightening-proof circuit both at RS232 and RS485 ports and being able to be inserted and extracted with power on randomly, it is especially suitable for industrial fields where there's much interference to easily destroy the communication ports as the various protection measures guarantee the safe running of systems.



2、Technique Characteristics

MPI interface	
Type	RS485 Isolation type
Cable joints	9-pin SUB-D interface(Male inerface)
Baud rate	19.2~187.5kbps Adjustable
Max.communication distance	1.2KM(baud rate:19.2kbps)
Communication interface	
Type	RS 232
Cable joints	9-pin SUB-D interface(Female inerface)
Baud rate	19.2~38.4kbps Adjustable

Permissible conditions	
Operating temperature	-20℃~+60℃
Storage temperature	-20℃~+60℃
Operating humidity	5%~85%(30℃)
Storage humidity	5%~93%(40℃)
Dimenstions(W×H×D)(mm)	105×50×25,the totallength of cable:3.5m
Weight	105 g

3、Order Data:

Name	Order Number
RS 232–MPI Adapter	VE 972-0CA23-0XA0

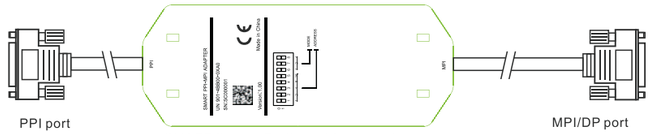
VE 300 Special accessories

SMART Screen Dedicated Adapter

1、Brief description

Developed by VEICHI, the SMART screen dedicated adapter is used for the communication between SMART screens and S7-300 PLC and supports the protocol switch between PPI and MPI/DP. It enables SMART screen which can only connect S7-200 to connect S7-300 PLC. It maps the V, Q, I, M areas of SMART screens separately to the DB, Q, I, M areas of S7-300. The baud rate that PPI side supports is 187.5Kbps, and MPI/DP side supports 1.5M at most.

Order No.: VE 901-4BB00-0XA0.



PPI port　　MPI/DP port

SMART Screen Dedicated Adapter structure

2、Technique Characteristics

SMART Screen Dedicated Adapter supports PPI, MPI, PROFIBUS automotive detection, 9.6K to 1.5M Baud rate self-adapt.

Baud Rate	MPI	PROFIBUS			
		DP	Standard	General	Self-defined
9.6Kbps		√	√	√	√
19.2Kbps	√	√	√	√	√
45.45Kbps		√	√	√	√
93.75Kbps		√	√	√	√
187.5Kbps	√	√	√	√	√
0.5Mbps		√	√	√	√
1.5Mbps	√	√	√	√	√

3、Order Data:

Name	Dimension	Order Number
SMART Screen Dedicated Adapter	130mm × 50mm × 18mm	VE 901-4BB00-0XA0

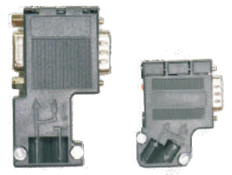
VE 300 Din Rail

Name	Order Number
160mm din rail	VE 390-1AB60-0AA0
320mm din rail	VE 390-1AD20-0AA0
483mm din rail	VE 390-1AE80-0AA0
530mm din rail	VE 390-1AF30-0AA0
830mm din rail	VE 390-1AJ30-0XA0
483mm din rail (Hot-plugging)	VE 195-1GA00-0XA0
530mm din rail (Hot-plugging)	VE 195-1GF30-0XA0
620mm din rail (Hot-plugging)	VE 195-1GG30-0XA0

VE 300 Front Connector

Front Connector	Order Number
20-pin front connector	VE 392-1AJ00-0AA0
40-pin front connector	VE 392-1AM00-0AA0

General accessories



PROFIBUS INTERFACE

Name	Order Number
90° without program interface	VE 972-0BA12-0XA0
90° with program interface	VE 972-0BB12-0XA0
35° without program interface	VE 972-0BA41-0XA0
35° with program interface	VE 972-0BB41-0XA0

PROFIBUS CABLE

Name	Order Number
PROFIBUS cable	VE 830-0EH10-0XA0

FLASH Memory Cards Compatible with S7-400 PLC

Name	Order Number
MC 952, 5V FLASH, 1MB	VE 952-1KK00-0AA0
MC 952, 5V FLASH, 2MB	VE 952-1KL00-0AA0
MC 952, 5V FLASH, 4MB	VE 952-1KM00-0AA0

Order Data

VE100 Economic PLC

VE100 Series CPU	Order Number
CPU124-1R, DC input with single serial port, relay output, 14 input/ 10 output, Extensible 3 IO module	VE124-1BD23-0XB0
CPU124-1Q, DC input with single serial port, transistor output, 14 input/ 10 output, Extensible 3 IO module	VE124-1AD23-0XB0
CPU124-2R, DC input with dual serial port, relay output, 14 input/ 10 output, Extensible 3 IO module	VE124-2BD23-0XB0
CPU124-2Q, DC input with dual serial port, transistor output, 14 input/ 10 output, Extensible 3 IO module	VE124-2AD23-0XB0
CPU124XP-2Q,DC/DC/DC, DC input with dual serial port, transistor output, digital 12 input/ 8 output, analog 4 input/2 output	VE124-2CD23-0XB0
CPU124XP-2R,DC/DC/RLY, DC input with dual serial port, relay output, digital 12 input/ 8 output, analog 4 input/2 output	VE124-2DD23-0XB0

VE100 Series Extended Module	Order Number
Em121 8 input, 24VDC	VE121-1BF22-0XA0
Em121 16 input,24VDC	VE121-1BH22-0XA0
Em122 8 output, relay, 24VDC, 2.0A	VE122-1HF22-0XA0
Em123 4 input/4 output, relay	VE123-1HF22-0XA0
Em123 8 input,24VDC/ 8 output, relay, 2A	VE123-1PH22-0XA0
Em131 4 AI, 12 bits	VE131-0HC22-0XA0
Em132 2 AO	VE132-0HB22-0XA0
Em132 4 AO	VE132-0HD22-0XA0
Em131 4 Thermocouple	VE131-7PD22-0XA0
Em131 4 Thermal resistor	VE131-7PC22-0XA0
Em135 4 AI/1 AO	VE135-0KD22-0XA0

Order Data

VE 200 Series PLC

VE 200 Series CPUs	Order Number
CPU224 DC/DC/DC，14 inputs/10 outputs	VE 214-1AD23-0XB0
CPU224 AC/DC/RLY，14 inputs/10 outputs	VE 214-1BD23-0XB0
CPU226 DC/DC/DC，24 inputs/16 outputs	VE 216-2AD23-0XB0
CPU226 DC/DC/RLY，24 inputs/16 outputs	VE 216-2BD23-0XB0
VE 200 Digital Expansion moudles	**Order Number**
EM221 8 inputs，24V DC	VE 221-1BF22-0XA0
EM221 16 inputs，24V DC	VE 221-1BH22-0XA0
EM221 32 inputs，24V DC	VE 221-1BL22-0XA0
EM222 8 outputs，Transistor，24V DC，0.75A	VE 222-1BF22-0XA0
EM222 8 outputs，Relay，24V DC，2.0A	VE 222-1HF22-0XA0
EM222 16 outputs，24V DC，0.75A	VE 222-1BH22-0XA0
EM222 16 outputs，Relay，2A	VE 222-1HH22-0XA0
EM222 32 outputs，24V DC，0.5A	VE 222-1BL22-0XA0
EM223 4 inputs/4 outputs，24V DC	VE 223-1BF22-0XA0
EM223 4 inputs/4 outputs，Relay	VE 223-1HF22-0XA0
EM223 8 inputs，24V DC/8 outputs，24V DC，0.75A	VE 223-1BH22-0XA0
EM223 8 inputs，24V DC/8 outputs，Relay，2A	VE 223-1PH22-0XA0
EM223 16 inputs，4V DC/16 outputs，24V DC，0.75A	VE 223-1BL22-0XA0
EM223 16 inputs，24V DC/16 outputs，Relay，2A	VE 223-1PL22-0XA0
VE 200 Analog Expansion Modules	**Order Number**
EM231 4 inputs × 12 bits	VE 231-0HC22-0XA0
EM231 8 inputs × 14 bits	VE 231-0HH32-0XA0
EM231 2 inputs，RTD	VE 231-7PB22-0XA0
EM231 4 inputs，RTD	VE 231-7PC22-0XA0
EM231 4 inputs，TC	VE 231-7PD22-0XA0
EM 231 8 inputs，TC	VE 231-7PF22-0XA0
EM231 8 inputs，TC	VE 231-7PH22-0XA0
EM231 16 inputs，TC	VE 231-7PL22-0XA0
EM232 2 outputs，Voltage/Current × 12 bits	VE 232-0HB22-0XA0
EM232 4 outputs，Voltage/Current × 12 bits	VE 232-0HD22-0XA0
EM235 4 inputs/1 output × 12 bits	VE 235-0KD22-0XA0
VE 200 Communication module	**Order Number**
EM277 PROFIBUS-DP Communication module，optoelectronic isolation	VE 277-0AA22-0XA0
IM 260 PROFIBUS-DP interface module，optoelectronic isolation	VE 260-1AA00-0XA0
Special Function Module	**Order Number**
Three-Phase AC&Leakage Detection Module，12 AI x 12 bits	VE 231-0BH22-0XA0
The input module of four channels of high speed and high precision，4AI x 16 bits	VE 231-7HC22-0XA0
VE 200 Special accessories	**Order Number**
RS 232-PPI Serial-port Adapter	VE 901-3CB30-0XA0
USB-PPI Adapter	VE 901-3DB30-0XA0
VE200 PLC Bus Extension Cable	VE 290-6AA20-0XA0

Order Data

VE 300 Series PLC

VE 300 Digital Expasion Modules		Order Number
SM321 16 inputs, 24V DC(NPN)		VE 321-1BH02-0AA0
SM321 16 inputs, 24V DC(PNP)		VE 321-1BH50-0AA0
SM321 16 inputs, 230V AC		VE 321-1FH00-0AA0
SM321 32 inputs, 24V DC		VE 321-1BL00-0AA0
SM322 8 outputs, 24V DC, 2A		VE 322-1BF01-0AA0
SM322 16 outputs, 24V DC, 0.5A		VE 322-1BH01-0AA0
SM322 16 outputs, Relay, 2A		VE 322-1HH01-0AA0
SM322 32 outputs, 24V DC, 0,5A		VE 322-1BL00-0AA0
SM323 16 inputs, 24V DC/16 outputs, 24V DC, 0.5A		VE 323-1BL00-0AA0
VE 300 Analog Expansion Modules		**Order Number**
SM331 8 inputs, voltage/current × 13 bits		VE 331-1KF02-0AB0
SM331 8 inputs, voltage/current		VE 331-7KF02-0AB0
SM331 2 inputs, voltage/current		VE 331-7KB02-0AB0
SM331 8 inputs, RTD		VE 331-7PF01-0AB0
SM331 8 inputs, TC		VE 331-7PF11-0AB0
SM332 4 outputs, voltage/current × 12 bits		VE 332-5HD01-0AB0
SM332 8 outputs, voltage/current × 12 bits		VE 332-5HF00-0AB0
SM335 high-speed 4 inputs/ high-speed 4 outputs × 14/12 bits		VE 335-7HG02-0AB0
VE 300 Bus Interface Module		**Order Number**
IM 153 PROFIBUS-DP module		VE 153-1AA03-0XB0
IM 153 Modbus-TCP interface module		VE 153-3MB00-0XB0
IM 365 Rack Expansion Module		VE 365-0BA01-0AA0
VE 300 Communication Module		**Order Number**
CP 341 RS485/422 MODBUS Communication Module		VE 341-1CH02-0AE0
VE 300 Power		**Order Number**
PS307 power，5A		VE 307-1EA01-0AA0
PS307 power，10A		VE 307-1KA01-0AA0
VE 300 Special Accessories		**Order Number**
RS232-/MPI serial-port adapter		VE 972-0CA23-0XA0
USB-MPI/DP adapter		VE 972-0CB20-0XA0
SMART Screen Dedicated Adapter		VE 901-4BB00-0XA0
VE 300 Din Rail	160mm Din Rail	VE 390-1AB60-0AA0
	320mm Din Rail	VE 390-1AD20-0AA0
	483mm Din Rail	VE 390-1AE80-0AA0
	530mm Din Rail	VE 390-1AF30-0AA0
	830mm Din Rail	VE 390-1AJ30-0XA0
	483mm Din Rail (Hot-plugging)	VE 195-1GA00-0XA0
	530mm Din Rail (Hot-plugging)	VE 195-1GF30-0XA0
	620mm Din Rail (Hot-plugging)	VE 195-1GG30-0XA0
VE 300 Front Connestor	20-pin front connector	VE 392-1AJ00-0AA0
	40-pin front connector	VE 392-1AM00-0AA0

General Accessories

Name		Order Number
PROFIBUS Interface	90° without program interface	VE 972-0BA12-0XA0
	90° with program interface	VE 972-0BB12-0XA0
	35° without program interface	VE 972-0BA41-0XA0
	35° with program interface	VE 972-0BB41-0XA0
PROFIBUS Cable	PROFIBUS cable	VE 830-0EH10-0XA0
FLASH Memory Cards Compatible with S7-400 PLC	MC 952，5V FLASH，1MB	VE 952-1KK00-0AA0
	MC 952，5V FLASH，2MB	VE 952-1KL00-0AA0
	MC 952，5V FLASH，4MB	VE 952-1KM00-0AA0

VI10-043S HMI

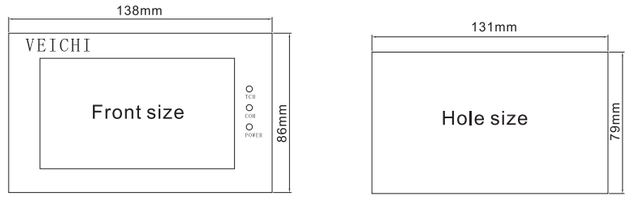
Overview

VEICHI VI10 4.3 inch general purpose human-machine interface is of resolution 480*272, brightness 250 cd/m2, 60,000 color and imported LCD that it can support the vast majority of the PLC products.
It supports USB for data transfer, and RS232/RS485 can be used simultaneously.

Detailed Technical Specifications

Model	VI10-043S
Size(inch)	4.3
Resolution	480*272
Control panel	4 line precise resistor network (surface hardness 4H)
Communication port	COM1:RS232/RS422/RS485
Configuration software	VI10
Other communication ports	none
Brightness	300cd/m2
Backlight	LED
Contrast	400：1
Print port	Serial print/USB printer
SD card	Nonsupport
CPU	32-bit 400MHZ RISC
Memory	128M FLASH + 64M DDRAM
color	65536 color
CE Certificate	EN61000-6-2:2005, EN61000-6-4:2007 standard certificate
Ingress Protection	IP65
Operating ambient Temp	-10～65℃
Power supply	DC24V(±15% 6W)
Power(W)	3
Weight(Kg)	1.2

Installation Size



VI10-070 Series HMI

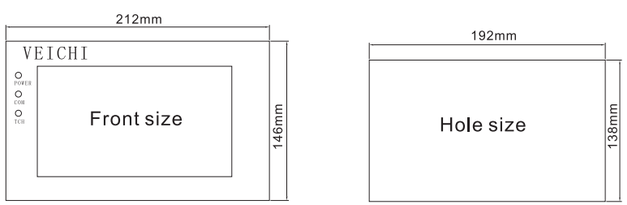
Overview

VEICHI VI10-070S series touch screen adopts imported TFT LCD panel, using the latest LED backlight technology, the screen resolution is as high as 480 * 800, there are a variety of communication methods and serial ports for matching, and in addition, VI10-070S series touch screen adopts high-efficiency 32-bit PISC CPU 128MFLASH. The high response speed of 64DDRAM exceeds other touch screens' on the market.

Specification

Model	VI10-070S
Size (inch)	7.0
Resolution	480*800
Control panel	4 line precise resistor network (surface hardness 4H)
Communication port	COM1:RS232/RS422/RS485
Configuration software	VI10Studio
Other communication ports	None
Brightness	300cd/m2
Backlight	LED
Contrast	400：1
Print port	Serial print/USB printer
SD card	Nonsupport
CPU	32-bit 400MHZ RISC
Memory	128M FLASH + 64M DDRAM
Color	65535 color
CE certificate	EN55022 EN55024
Protection level	IP65
Operating ambient Temp	–10~65℃
Power supply	DC24V(±15% 6W)
Power (W)	<8
Weight (Kg)	1.2

Installation Size



VI10-102 Series HMI

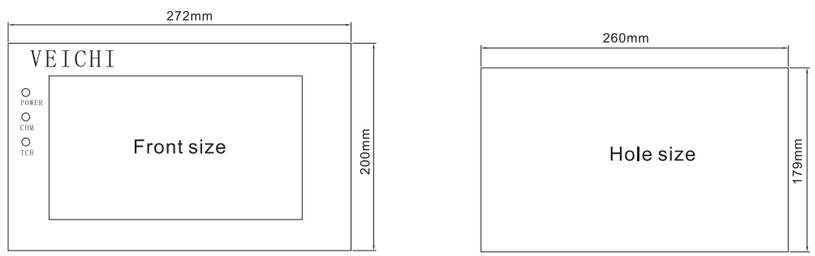
Overview

VEICHI VI10-102S series touch screen adopts imported TFT LCD panel, using the latest LED backlight technology, the screen resolution is as high as 480 * 800, there are a variety of communication methods and serial ports for matching, and in addition, VI10-102S series touch screen adopts high-efficiency 32-bit PISC CPU 128MFLASH. The high response speed of 64DDRAM exceeds other touch screens' on the market.

Specification

Model	VI10–102S
Size (inch)	10.2
Resolution	480 *800
Control panel	4 line precise resistor network (surface hardness 4H)
Communication port	COM1:RS232/RS422/RS485
Configuration software	VI10Studio
Other communication ports	None
Brightness	300cd/m2
Backlight	LED
Contrast	400：1
Print port	Serial print/USB printer
SD card	Nonsupport
CPU	32-bit 400MHZ RISC
Memory	128M FLASH + 64M DDRAM
Color	65536 color
CE certificate	EN55022 EN55024
Protection level	IP65
Operating ambient Temp	–10~65℃
Power supply	DC24V(±15% 6W)
Power (W)	<8
Weight (Kg)	1.7

Installation Size



VI10-070D HMI

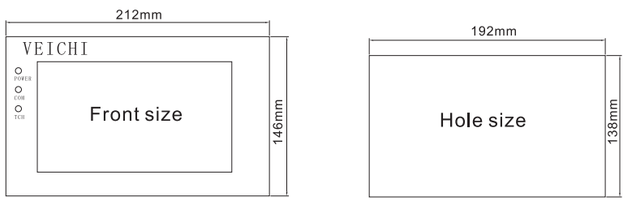
Overview

VEICHI VI10-070D series touch screen adopts imported TFT LCD panel, using the latest LED backlight technology, the screen resolution is as high as 480 * 800, there are a variety of communication methods and serial ports for matching, and in addition, VI10-070D series touch screen adopts high-efficiency Cortex A8. The high response speed exceeds other touch screens' on the market.

Specification

Model	VI10-070D-I3	VI10-070D-I8
Size (inch)	7.0	
Resolution	480*800	
Control panel	4 line precise resistor network (surface hardness 4H)	
Communication port	COM1: RS232/RS242/RS485 COM2: RS232/RS485	COM1: (RS232, RS485)/RS422 (RS232 and RS485 could be used at the same time. RS485 and RS422 are isolated serial ports) COM2: RS232, RS485 (RS232 and RS485 could be used at the same time) COM3: RS485 (The actual pins are 7 (RS485+) and 8 (RS485-) of COM2)
Configuration software	VI10IStudio	
Ethernet	Yes	
CAN	None	Yes
Brightness	300cd/m2	
Backlight	LED	
Contrast	500：1	
Print port	Serial print/USB printer	
SD card	Support 32G	
CPU	Cortex A8 600M Hz	
Memory	128M FLASH+128M DDRIII RAM	4G FLASH + 512M DDRIII RAM
Color	16-million color	
CE certificate	CE standard certificate FCC Class certificate	
Protection level	IP65	
Operating ambient Temp	–10~60℃	
Power supply	24V DC(12~28V DC)	
Power (W)	<10	
Weight (Kg)	0.6	
Remote control	Optional	

Installation Size



VI10-102D HMI

Overview

VEICHI VI10-102D series touch screen adopts imported TFT LCD panel, using the latest LED backlight technology, the screen resolution is as high as 480 * 800, there are a variety of communication methods and serial ports for matching, and in addition, VI10-102D series touch screen adopts high-efficiency Cortex A8.
The high response speed of the CPU exceeds other touch screens' on the market.

Specification

Model	VI10-102D-I3	VI10-102D-I8
Size (inch)	10.2	
Resolution	480*800	
Control panel	4 line precise resistor network (surface hardness 4H)	
Communication port	COM1: RS232/RS242/RS485 COM2: RS232/RS485	COM1: (RS232, RS485)/RS422 (RS232 and RS485 could be used at the same time. RS485 and RS422 are isolated serial ports) COM2: RS232, RS485 (RS232 and RS485 could be used at the same time) COM3: RS485 (The actual pins are 7 (RS485+) and 8 (RS485-) of COM2)
Configuration software	VI10IStudio	
Ethernet	Yes	
CAN	None	Yes
Brightness	300cd/m2	
Backlight	LED	
Contrast	500：1	
Print port	Serial print/USB printer	
SD card	Support 32G	
CPU	Cortex A8 600M Hz	
Memory	128M FLASH+128M DDRIII RAM	4G FLASH + 512M DDRIII RAM
Color	260-thousand color	
CE certificate	CE standard certificate FCC Class certificate	
Protection level	IP65	
Operating ambient Temp	–10～60℃	
Power supply	24V DC（12~28V DC）	
Power (W)	<10	
Weight (Kg)	1.2	
Remote control	Optional	

Installation Size