پارس مکاترونیک

تامین تجهیزات، مشاوره و اجرا ، آموزش

سیستمهای اتوماسیون صنعتی و رباتیک

PM LOGIX

کاتالوگ محصولات

High-performance Automation Initiator

PM SERIES

Programmable Logic Controller

Product Catalog

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PM 200 series PLC

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PM PLC CPU 224/226

CPU224

Characteristic

- high-speed computering and data processing：
  ·Boolean execution speed: 0.08 μs per instruction
- Larger user storage:Program storage: 20K; User data storage: 10K
- Built-in PID, having no limitations on the number of the channels, making it more convenient for users to realize the PID control of more channels
- 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
- Communication ports: 2 RS-485, both support PPI protocol

CPU226

Characteristic

- high-speed computering and data processing：
  ·Boolean execution speed: 0.08 μs per instruction
- Larger user storage:Program storage: 24K; User data storage: 10K
- Built-in PID, having no limitations on the number of the channels, making it more convenient for users to realize the PID control of more channels
- 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
- Communication ports: 2 RS-485, both support PPI protocol

Specifications:

	Model	CPU224 DC/DC/DC	CPU224 AC/DC/RLY	CPU226 DC/DC/DC	CPU226 AC/DC/RLY
	Dimensions(W X H X D)	140 x 80 x 62 mm	140 x 80 x 62 mm	196 x 80 x 62 mm	196 x 80 x 62 mm
	Power consume	7 W	10 W	11 W	17 W
Memory	With run mode edit	20K		24K	
	Without run mode edit	20K		24K	
	Date memory	10K		10K	
I/O	Local digital inputs	14 inputs		24 inputs	
	Local digital outputs	10 outputs		16outputs	
	Digital I/O image size	256(128 inputs/128 outputs)		256 (128 inputs/128 outputs)	
	Analog I/O image size	64(32 inputs/32 outputs)		64(32 inputs/32 outputs)	
	Expansion modules allowed (Max)	7 modules		7 modules	
	Intelligent modules allowed (Max)	7 modules		7 modules	
	Pulse catch inputs	14		24	
	High-speed counters	6 counters total		6counters total	
	Single phase	6 at 30KHz		6 at 30KHz	
	Two phase	4 at 20KHz		4 at 20KHz	
	Pulse outputs	2 at 30KHz	–	2 at 30KHz	
General	Timer	Total number:256(1ms:4;10ms:16;100ms:236)		Total number:256(1ms:4;10ms:16;100ms:236)	
	Counters	256		256	
	Internal memory bits stored on power down	256		256	
	Time interrupts	2 with1ms resolution		2 with1ms resolution	
	Edge interrupts	4 up and/or 4 down		4 up and/or 4 down	
	Analog adjustment	2 with 8 bit resolution		2 with 8 bit resolution	
	Boolean execution speed	0.08 μ s per instruction		0.08 μ s per instruction	
	Real Time Clock	Built-in		Built-in	
Communi-cations Built-in	Ports	2 RS-485 ports, within1standard PPI port		2 RS-485 ports, within1standard PPI port	
	PPI Baud Rates	9.6,19.2 and 187.5K baud		9.6,19.2 and 187.5K baud	
	Freeport Baud Rates	1.2kbaud to 115.2K baud		1.2K baud to 115.2K baud	
	Max. cable length per segment	With isolated repeater:1000 m up to 187.5kbaud, 1200 m up to 38.4kbaud Without isolated repeater: 50 m			
	Max. number of stations	32 per segment, 126 per network		32 per segment, 126 per network	
	Max. number of masters	32		32	
	Peer to peer(PPI Master Mode)	No		No	

Characteristics

项 目			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			
		Optical galvanic	500 V AC for 1minute			
		Isolation groups	Refer to Wiring diagram			
	High Speed Counter (HSC) input rate	Logic=15–30V DC	20K Hz (Single phase), 10K Hz (Two phase)			
		Logic1=15–26V DC	30K Hz (Single phase), 20K Hz (Two phase),			
	Inputs on simultaneously		All			
	Cable	Cable length Max	500m normal inputs			
		Shielded	50m HSC inputs			
		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	-
		Logic to contact	–	500 VAC for 1 minute	–	500V AC for 1 minute
		Resistance (logic to contact)	–	100 MΩ	–	100 MΩ
		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°C(horizontal) All at 50°C (Vertical)		All at 60°C(horizontal) All at 50°C (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			
		Unshielded	150 m			
Order number			PM 214-1AD23-0XB0	PM 214-1BD23-0XB0	PM 216-2AD23-0XB0	PM 216-2BD23-0XB0

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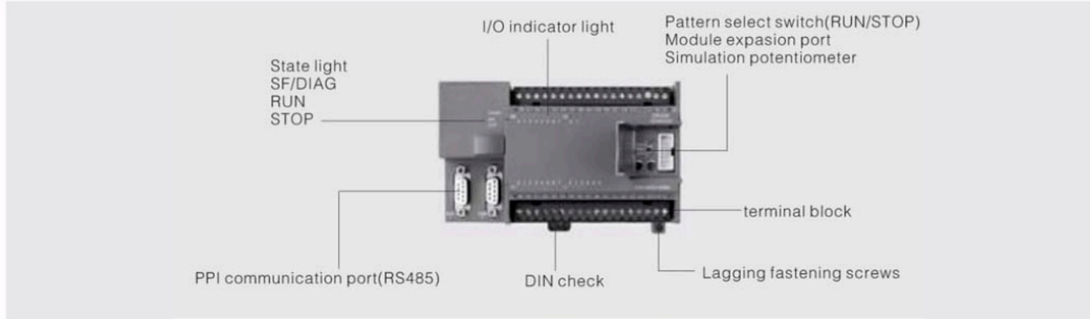
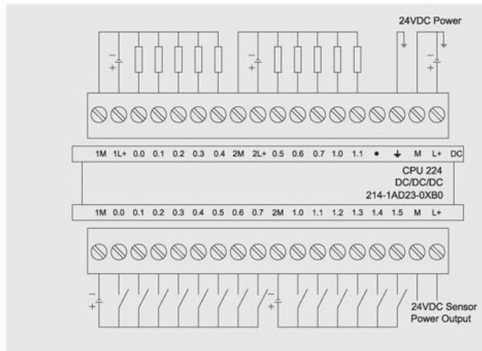
CPU224

CPU224 Structure

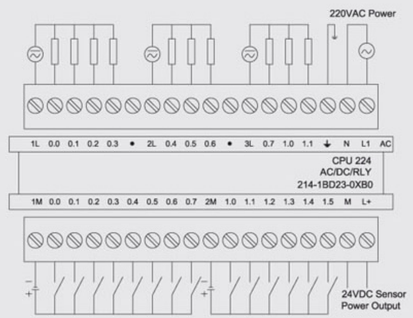


CPU224 structure (Picture:1)

CPU224 Wiring Diagram



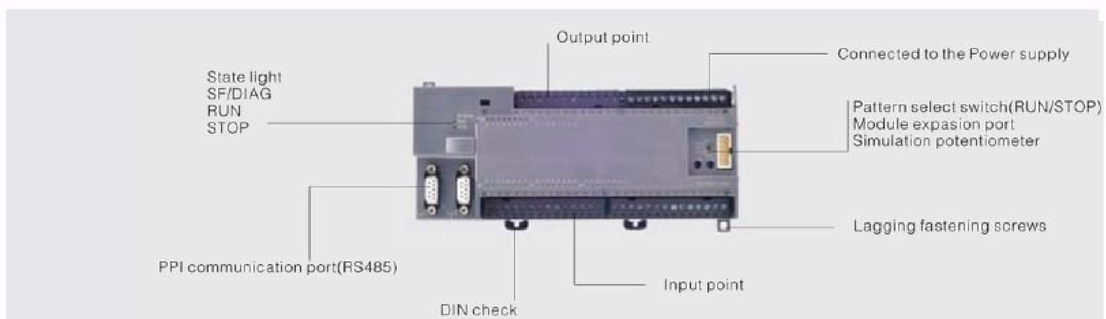
CPU224 DC/DC/DC(Picture:2)



CPU224 AC/DC/RLY (Picture:3)

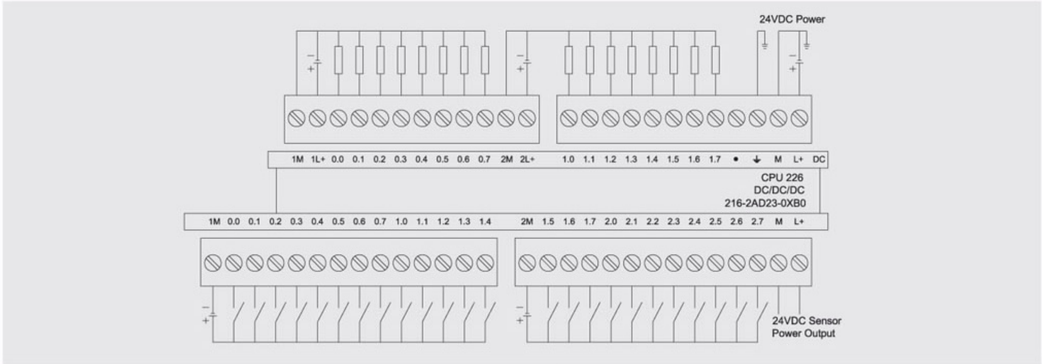
CPU226

CPU226 Structure

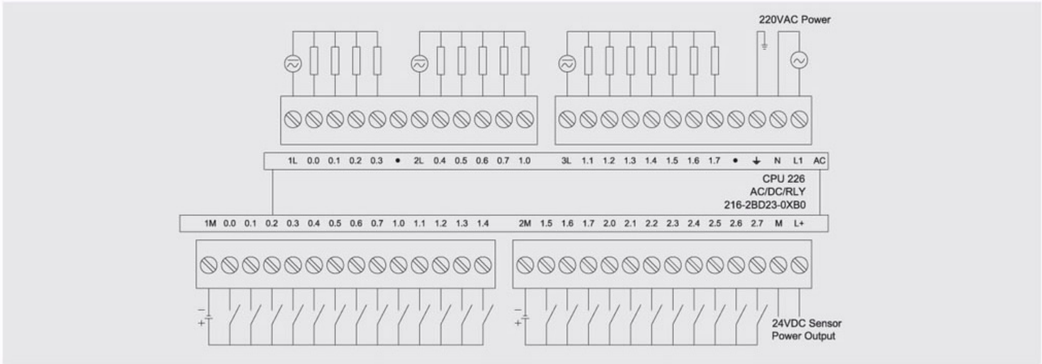


CPU226 structure (Picture:4)

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.

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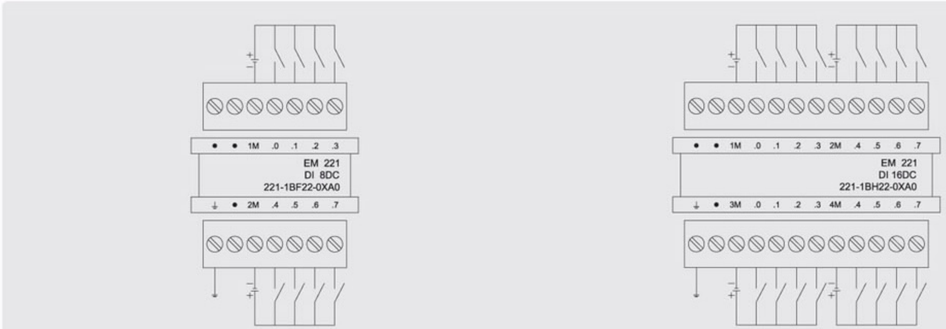
PM 200 DI Modules

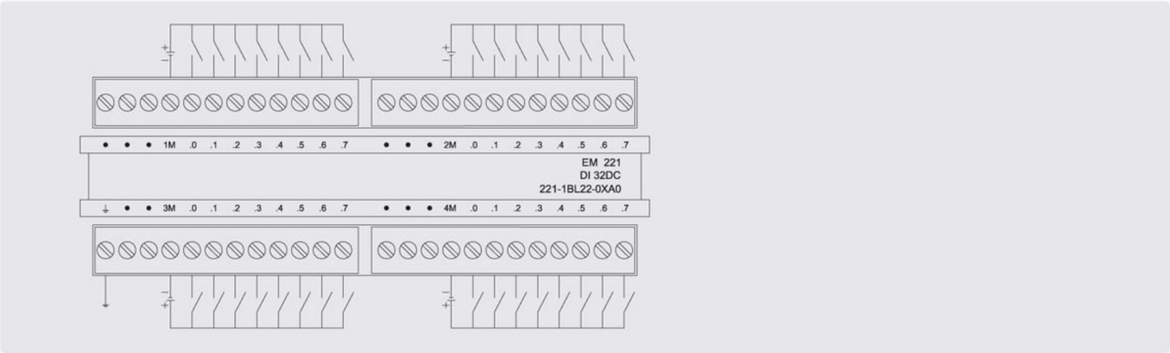
Specifications:

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		
	Unshielded	300M		
Dimensions(W x H x D)		46×80×62 mm	71.2×80×62 mm	137.5×80×62 mm
Order Number		PM 221-1BF22-0XA0	PM 221-1BH22-0XA0	PM 221-1BL22-0XA0

Wiring Diagram



PM 221-1BF22-0XA0 PM 221-1BH22-0XA0



PM 221-1BL22-0XA0

PM 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	PM 222-1BF22-0XA0	PM 222-1HF22-0XA0	PM 222-1BH220XA0	PM 222-1HH22-0XA0	PM 222-1BL22-0XA0

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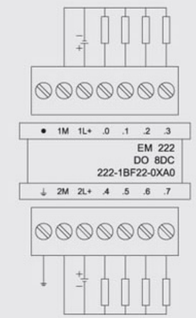
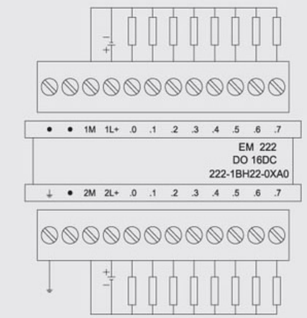
Wiring Diagram



PM 222-1BF22-0XA0



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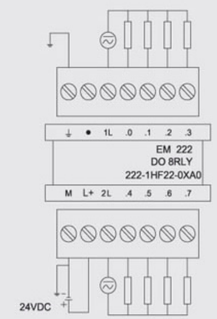

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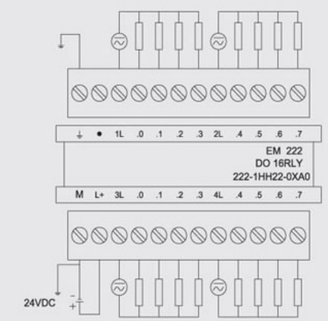

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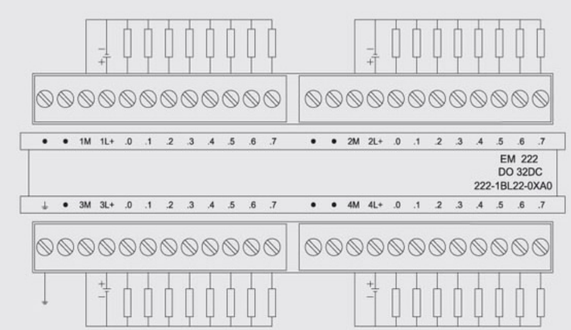


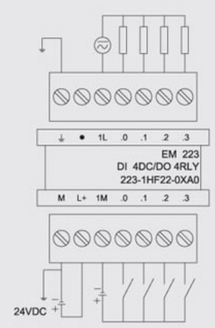
PM 222-1BL22-0XA0

PM 200 DI/DO Modules

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 250VAC	24V DC	24V DC or 250VAC
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	PM 223-1BF22-0XA0	PM 223-1HF22-0XA0	PM 223-1BH22-0XA0	PM 223-1PH22-0XA0

Wiring Diagram

PM 223-1BF22-0XA0



PM 223-1HF22-0XA0

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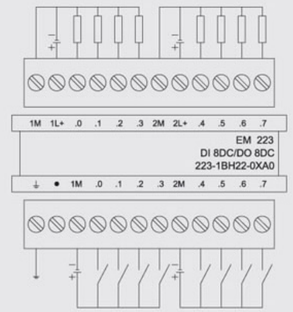
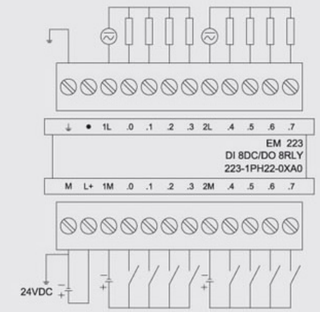


PM 223-1BH22-0XA0

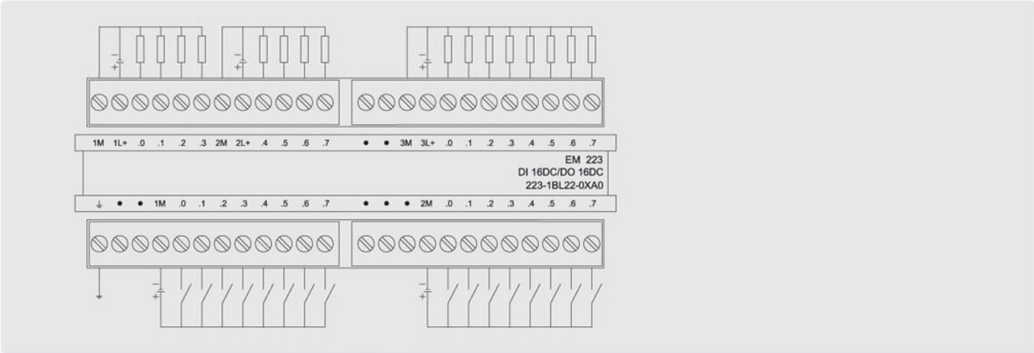


PM 223-1PH22-0XA0

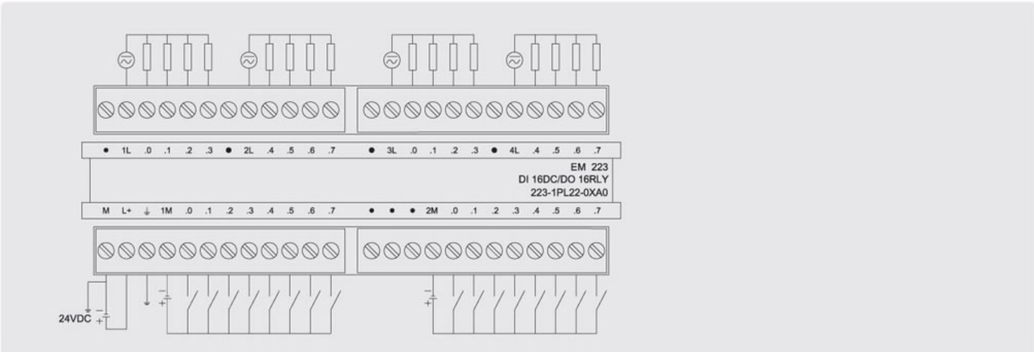
PM 200 DI/DO Modules

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 250VAC
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	PM 223-1BL22-0XA0	PM 223-1DL22-0XA0

Wiring Diagram



PM 223-1BL22-0XA0



PM 223-1PL22-0XA0

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PM 200 AI Modules

Specifications:

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
Pow er 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	⩾10M Ω Voltage Input 250 Ω Current Input	⩾10M Ω Voltage Input 250 Ω Current Input	⩾10M Ω Voltage 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	PM 231-0HC22-0XA0	PM 231-0HF22-0XA0	PM 231-0HH32-0XA0

PM 200 analog input modules DIP switches configuring table

Modules model \ Switch Location	SW 1	SW 2	SW 3	SW 4	SW 5	SW 6	Full inputs
PM 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
PM 231-0HF22-0XA0	OFF	OFF	ON	OFF	OFF		0 ~ 10V
	OFF	OFF	ON	ON	OFF		0 ~ 5V
	ON	ON	ON	ON	ON		0 ~ 20mA
PM 231-0HH32-0XA0	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.

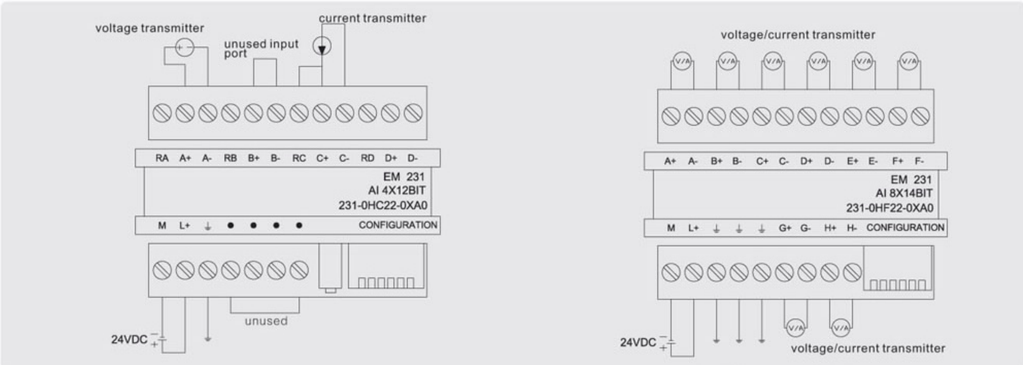
Address configuration of PM 200 analog expansion modules

For example, software address configuration of PM 231-0HH32-0XA0 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.

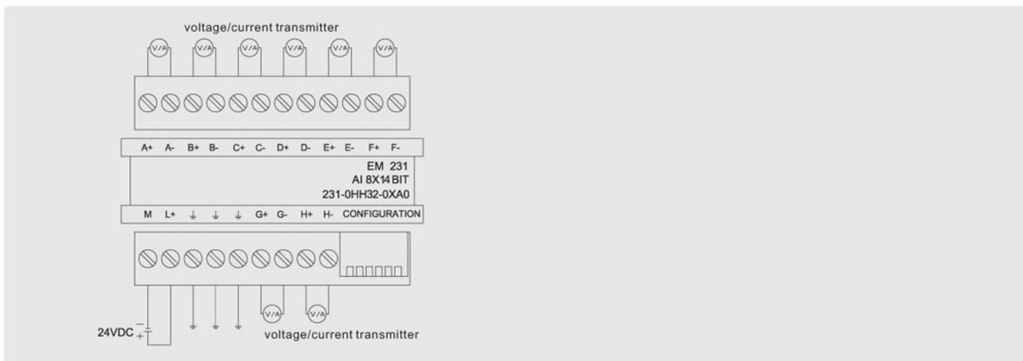
The table of PM 231-0HH32-0XA0 address configuration

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



PM 231-0HC22-0XA0 PM 231-0HF22-0XA0



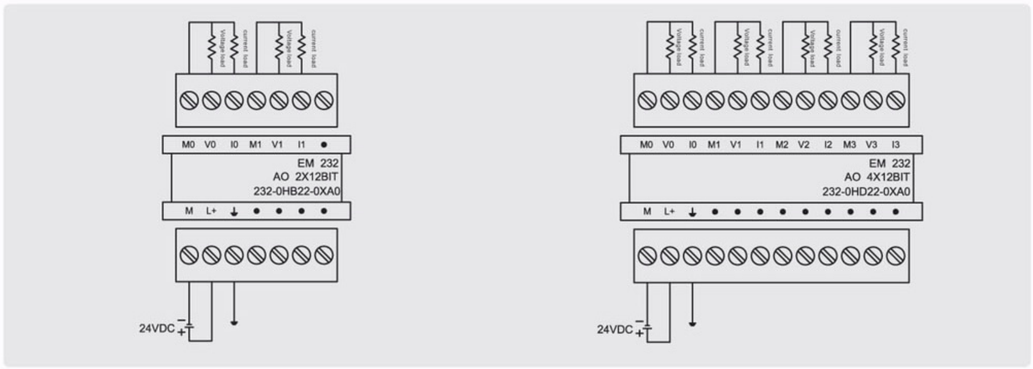
PM 231-0HH32-0XA0

PM 200 AO Modules

Specifications:

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
Pow er 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 w ord 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	PM 232-0HB22-0XA0	PM 232-0HD22-0XA0

Wiring Diagram



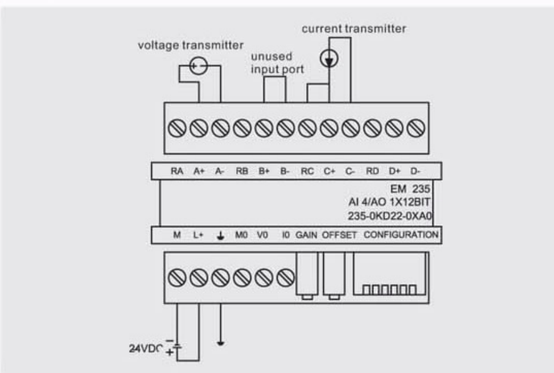
PM 232-0HB22-0XA0 PM 232-0HD22-0XA0

PM 200 AI/AO Modules

Specifications:

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	PM 235-0KD22-0XA0

Wiring Diagram



PM 235-0KD22-0XA0

DIP switches configuring table

Switch Location / Modules model	SW 1	SW 2	SW 3	SW 4	SW 5	SW 6	Full inputs
PM 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 PM 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".

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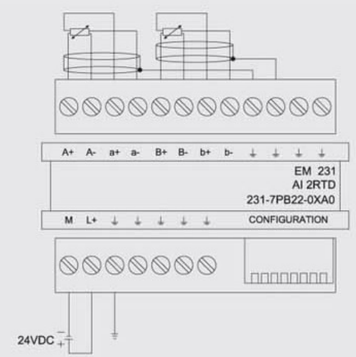
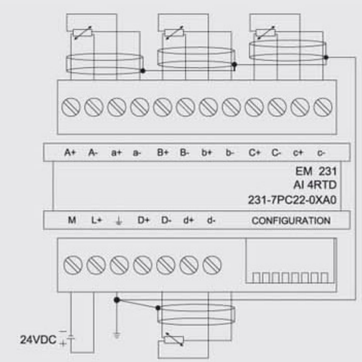
Specifications:

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

Wiring Diagram



231-7PB22-0XA0



231-7PC22-0XA0