R2 Series Extension Module

User Manual

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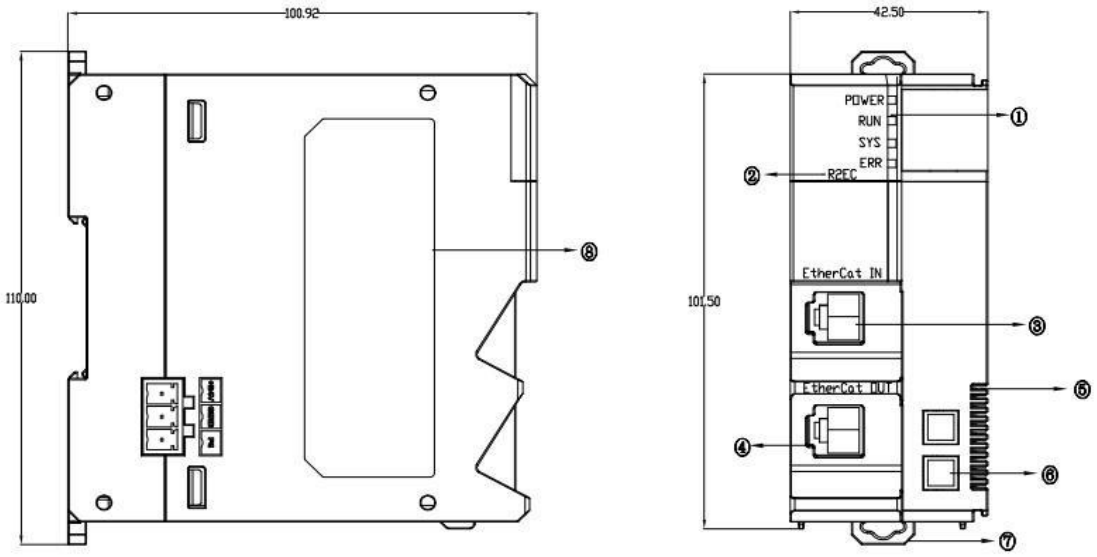
Content

1. Coupler

Product appearance show as follow diagram：

Coupler
R2EC


1.1 Dimension



Unit: mm

1.2 Object Dictionary

1.2.1Service Data Object (SDO)

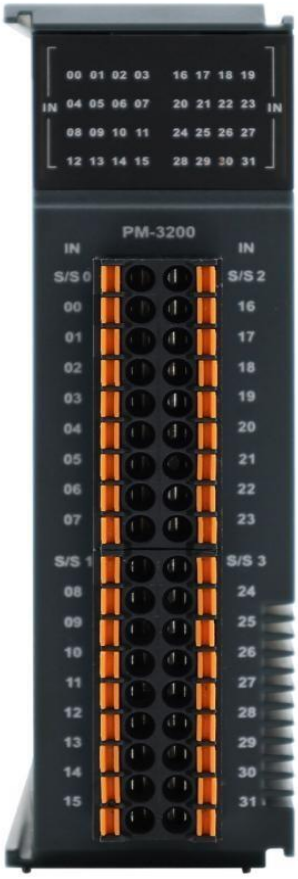
Index	Sub-index	Name	Data type	Access	Description
1000H	00H	Device type	Unsigned32	Ro	Device type and profile Initial value: 0x00001389
1008H	00H	Device name	Vis String8	Ro	Manufacturer's designation Initial value: R2EC
1009H	00H	Hardware version	Vis String8	Ro	Hardware version Initial value: $02
100AH	00H	Software version	Vis String8	Ro	Software version Initial value:$02
1018H	Identity			Ro	(device information)
	00H	Largest sub-index	Unsigned8	Ro	Largest sub-index supported>>04h
	01H	Vendor ID	Unsigned32	Ro	Vendor ID Initial value: 0x00004321
	02H	Product code	Unsigned32	Ro	Product code Initial value: 0x61400005
	03H	Revision	Unsigned32	Ro	Reversion number Initial value: 0x21031810
	04H	Serial number	Unsigned32	Ro	Serial number Initial value: 0x00000001
F030H	00H	Configured Module Idnet List Num	Unsigned 8	R/W	Number of configured modules
	01H	Module 1	Unsigned 8	R/W	First module ID
	……	……	Unsigned 8	R/W	Same as above
	32H	Module 32	Unsigned 8	R/W	Same as above
A000-A1F0	00H	Module diagnosis			Module error code: The object used by the module is 0xA000+(module sorting * 0x10)
	01H	Error code	Unsigned 8	Ro	0x0001: module disconnect

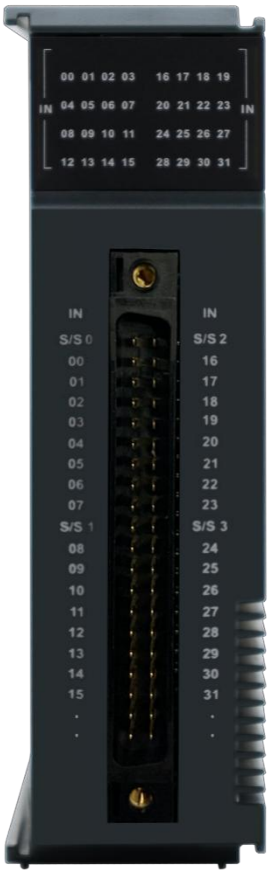
1.2.2Process Data Object (TxPDO)

Index	Sub-index	Name	Data type	Access	Description
F100H	00H	Device Status			Adapter status
	01H	Module status	Unsigned 32	Ro	Each bit represents the status of the mounting module. 1: The corresponding bit module reports an error. 0: The corresponding bit module is normal

2. Digital Input Module

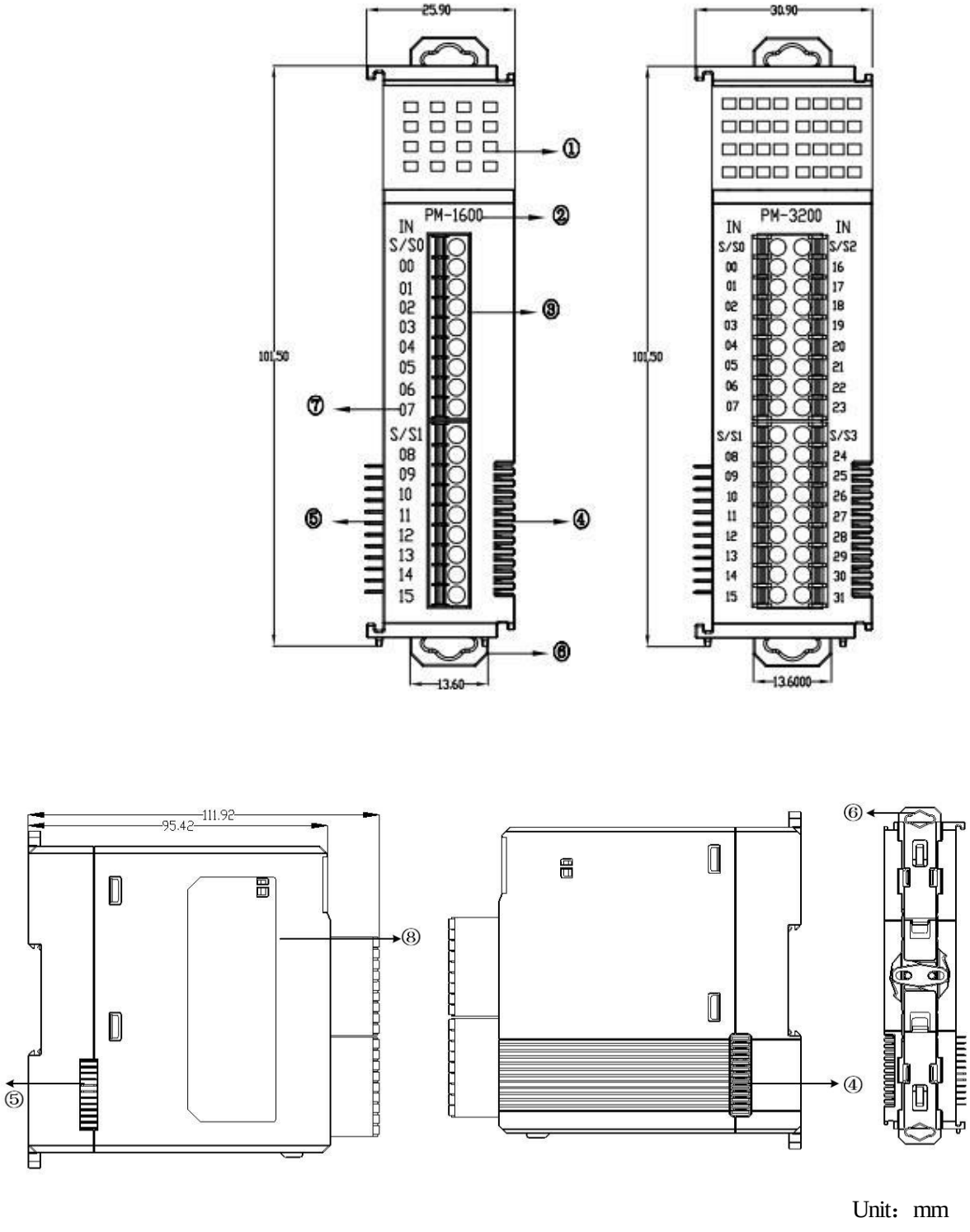
Product appearance show as follow diagram：

Input Module	
PM-1600	PM-3200
	

Input Module	
PM-3200-1	PM-3200-2
	

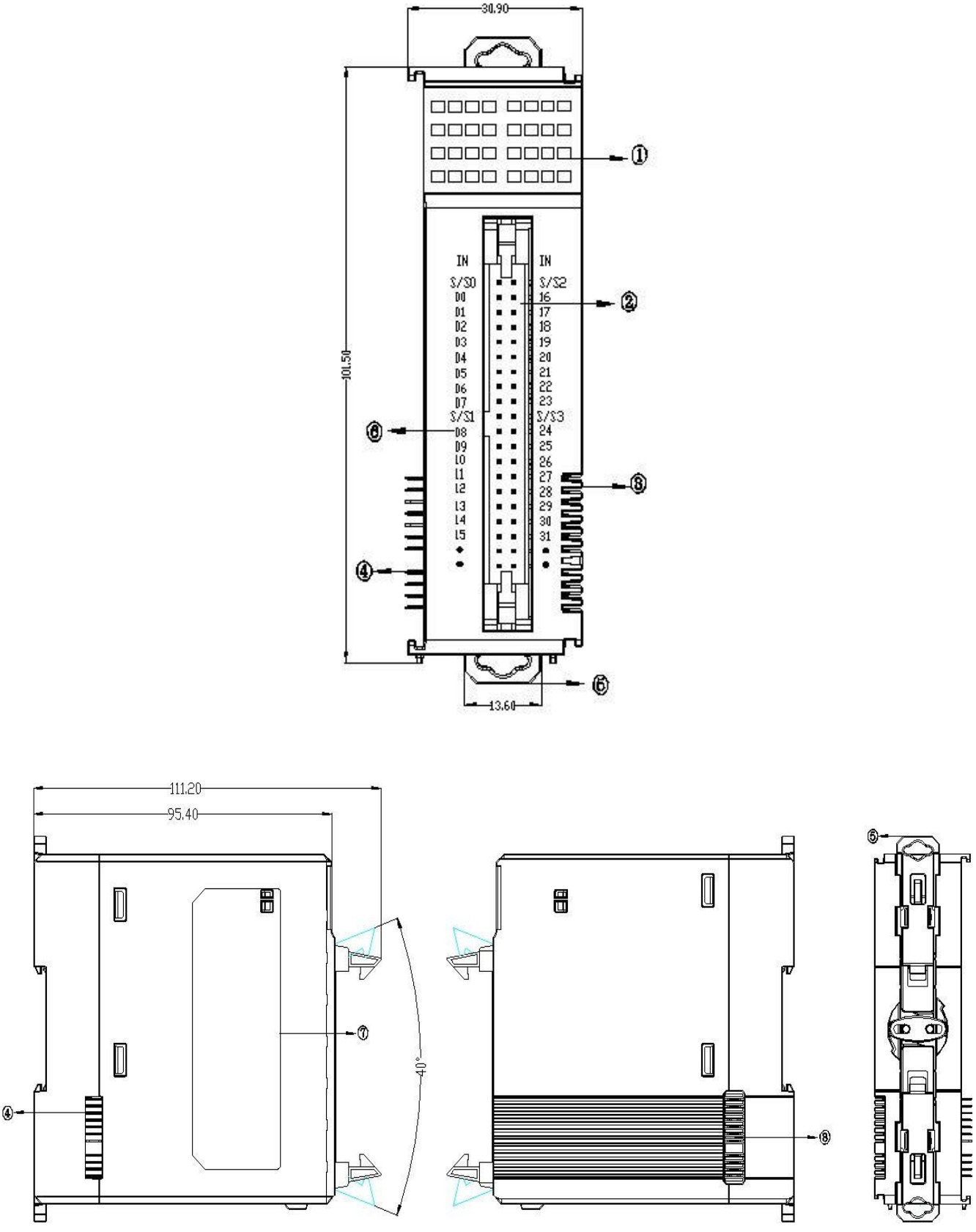
2.1 Dimension

PM-1600 and PM-3200



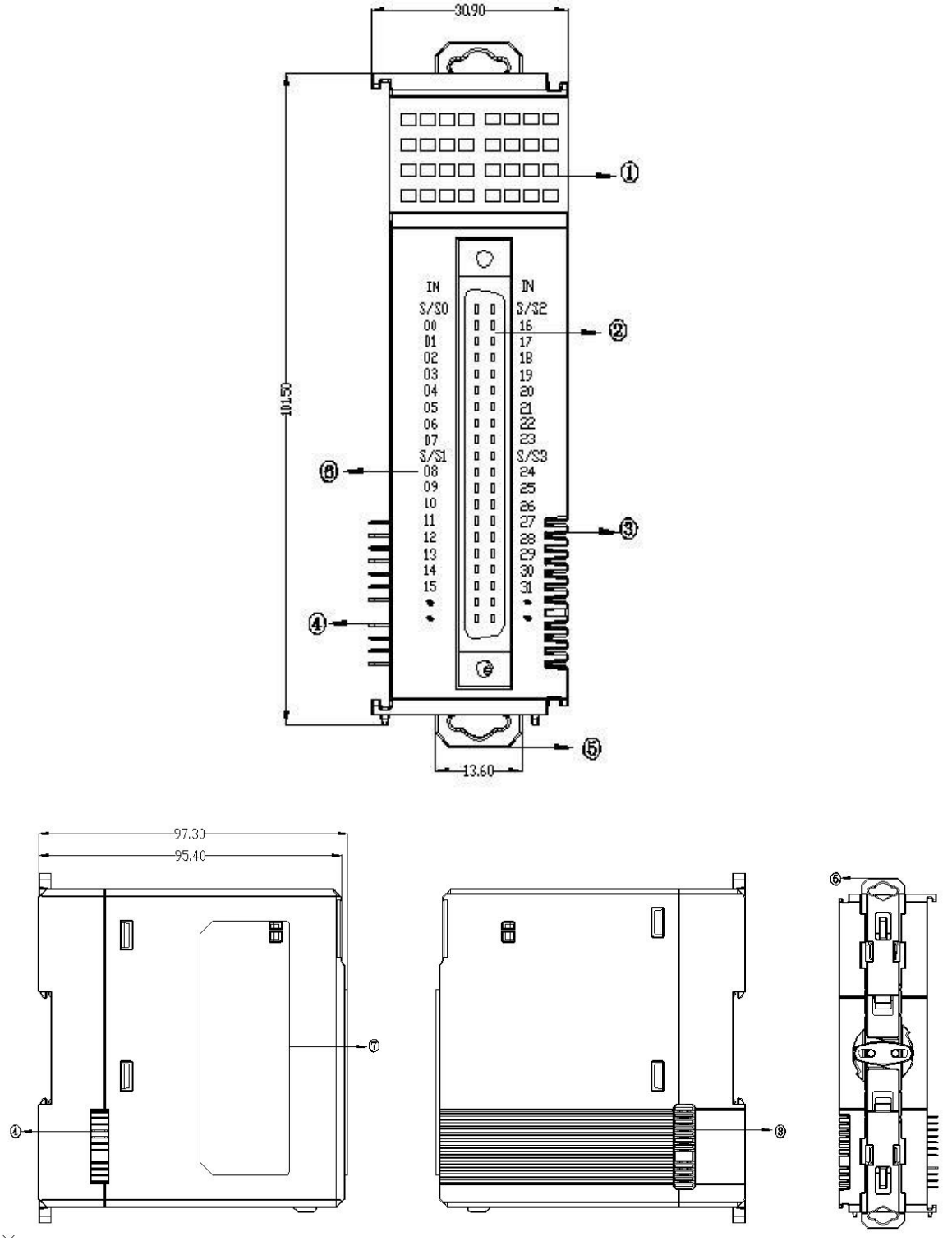
Unit：mm

PM-3200-1



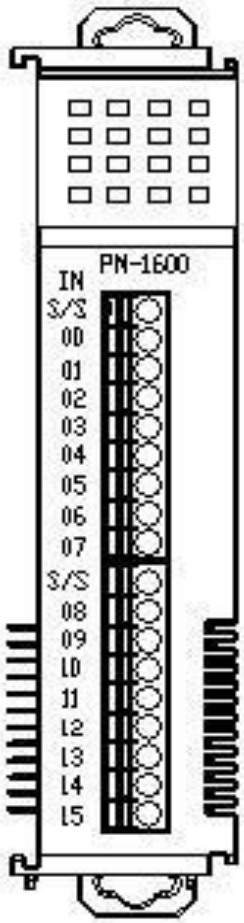
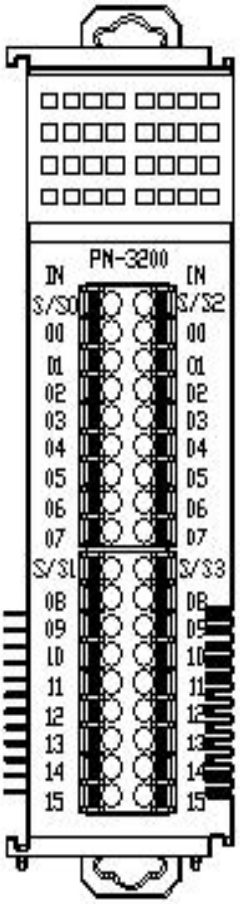
Unit：mm

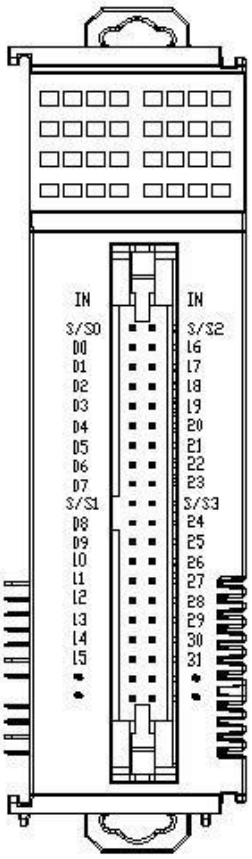
PM-3200-2

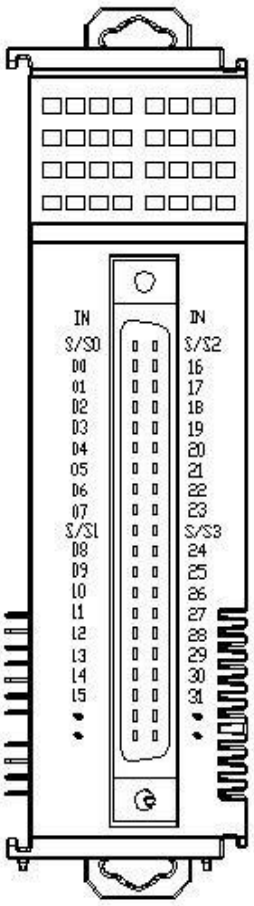


Unit：mm

2.2 Inputs Terminal Configuration

Module				
PM-1600	**IN**	**PM-3200**	**IN**	
	S/S0		S/S0	S/S2
	00		00	16
	01		01	17
	02		02	18
	03		03	19
	04		04	20
	05		05	21
	06		06	22
	07		07	23
	S/S1		S/S1	S/S3
	08		08	24
	09		09	25
	10		10	26
	11		11	27
	12		12	28
	13		13	29
	14		14	30
	15		15	31

Module		
PM-3200-1	**IN**	
	S/S0	S/S2
	00	16
	01	17
	02	18
	03	19
	04	20
	05	21
	06	22
	07	23
	S/S1	S/S3
	08	24
	09	25
	10	26
	11	27
	12	28
	13	29
	14	30
	15	31
	NC	NC
	NC	NC

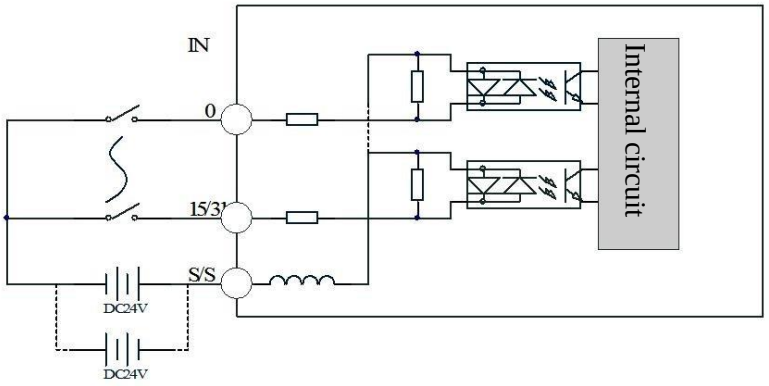
Module		
PM-3200-2	**IN**	
	S/S0	S/S2
	00	16
	01	17
	02	18
	03	19
	04	20
	05	21
	06	22
	07	23
	S/S1	S/S3
	08	24
	09	25
	10	26
	11	27
	12	28
	13	29
	14	30
	15	31
	NC	NC
	NC	NC

2.3 Input Internal Circuit And Wiring

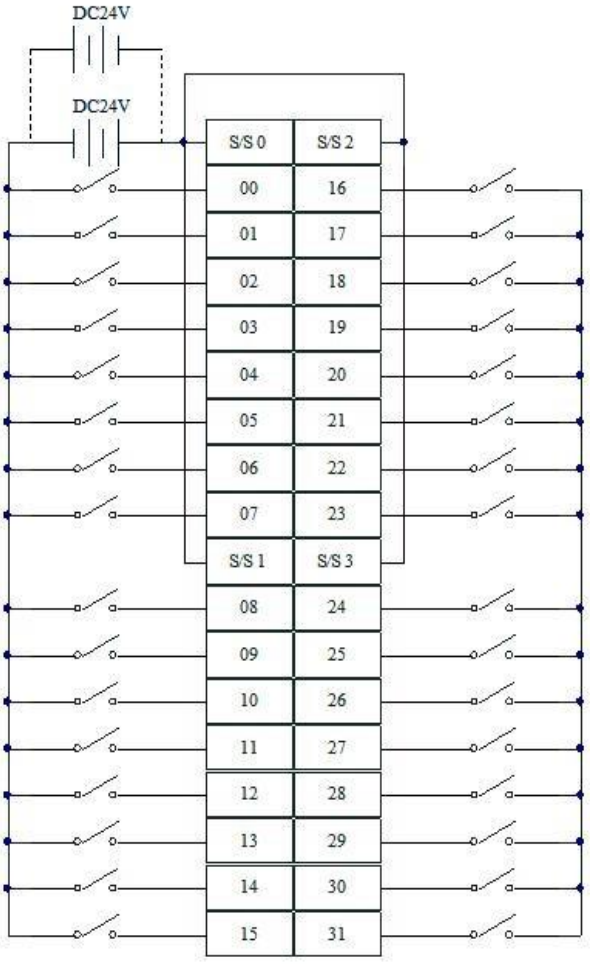
（1）Internal Circuit

PM-1600 and PM-3200 module provide 16 and 32 channels digital input interface, used for switch signal, sensor signal and other signal input. The interface circuit is equipped with photoelectric isolation components, which can effectively isolate external circuit interference and improve system reliability

R2 series digital input module support NPN or PNP input type, please refer to the follow internal circuit.



（2）Input Signal Wiring



2.4 Object Dictionary

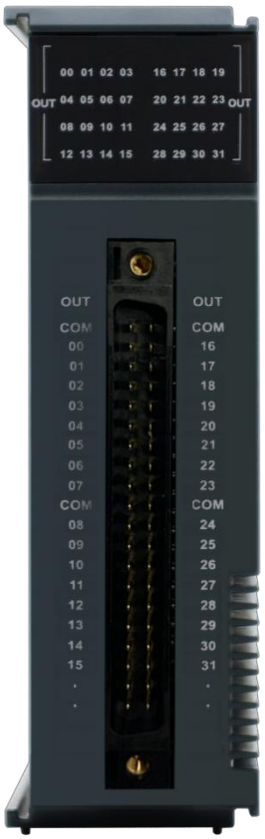
2.4.1Process Data Object (TxPDO)

Index	Sub-index	Name	Data type	Access	Description
6000-61F0H	00H	Input			The objects used by the module are 0x6000+(module sorting * 0x10) (note: starting from the first module after the coupler, starting from 0, 0, 1, 2... 1F (hexadecimal), and so on)
	01H	Input bit[1-16]	Unsigned16	Ro	
	02H	Input bit[17-32]	Unsigned16	Ro	

3. Digital Output Module

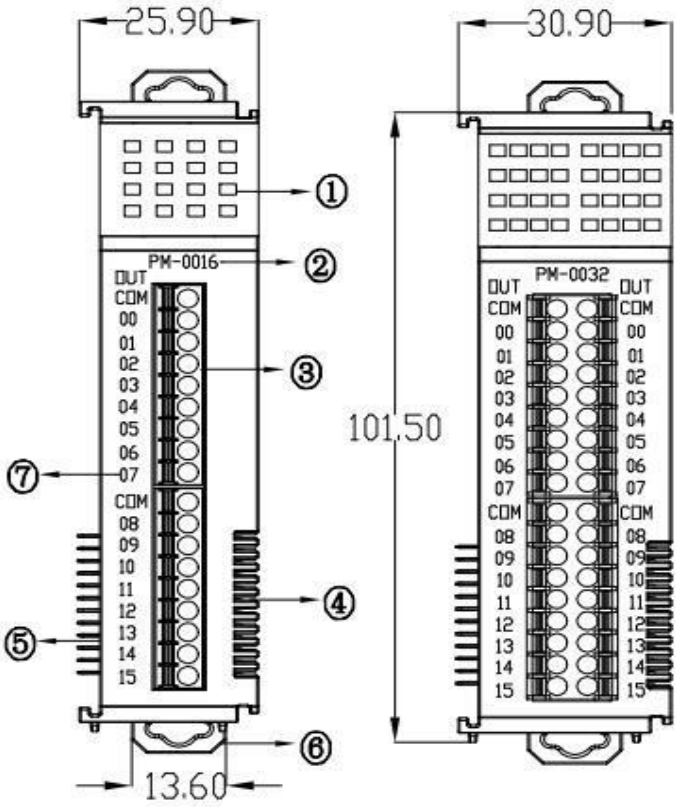
Product appearance show as follow diagram：

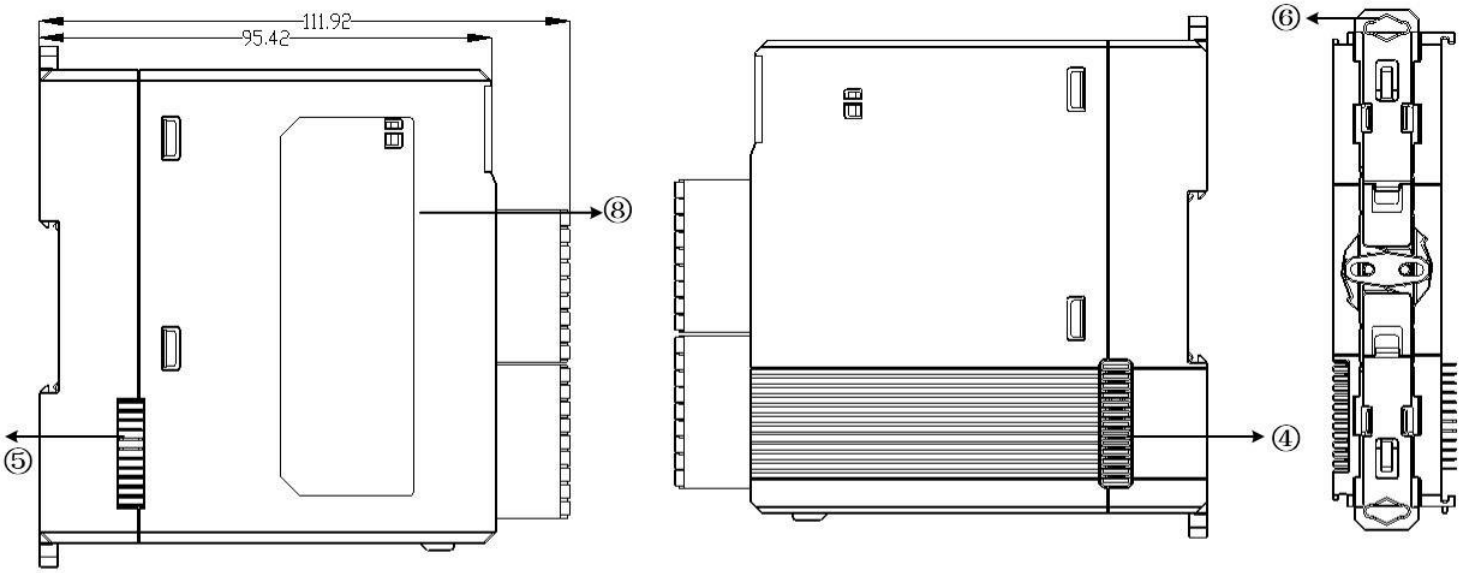
Output module		
PM-0016-N	**PM-0032-N**	**PM-0016-P**
		

Output module	
PM-0032-N-1	**PM-0032-N-2**
	

3.1 Dimension

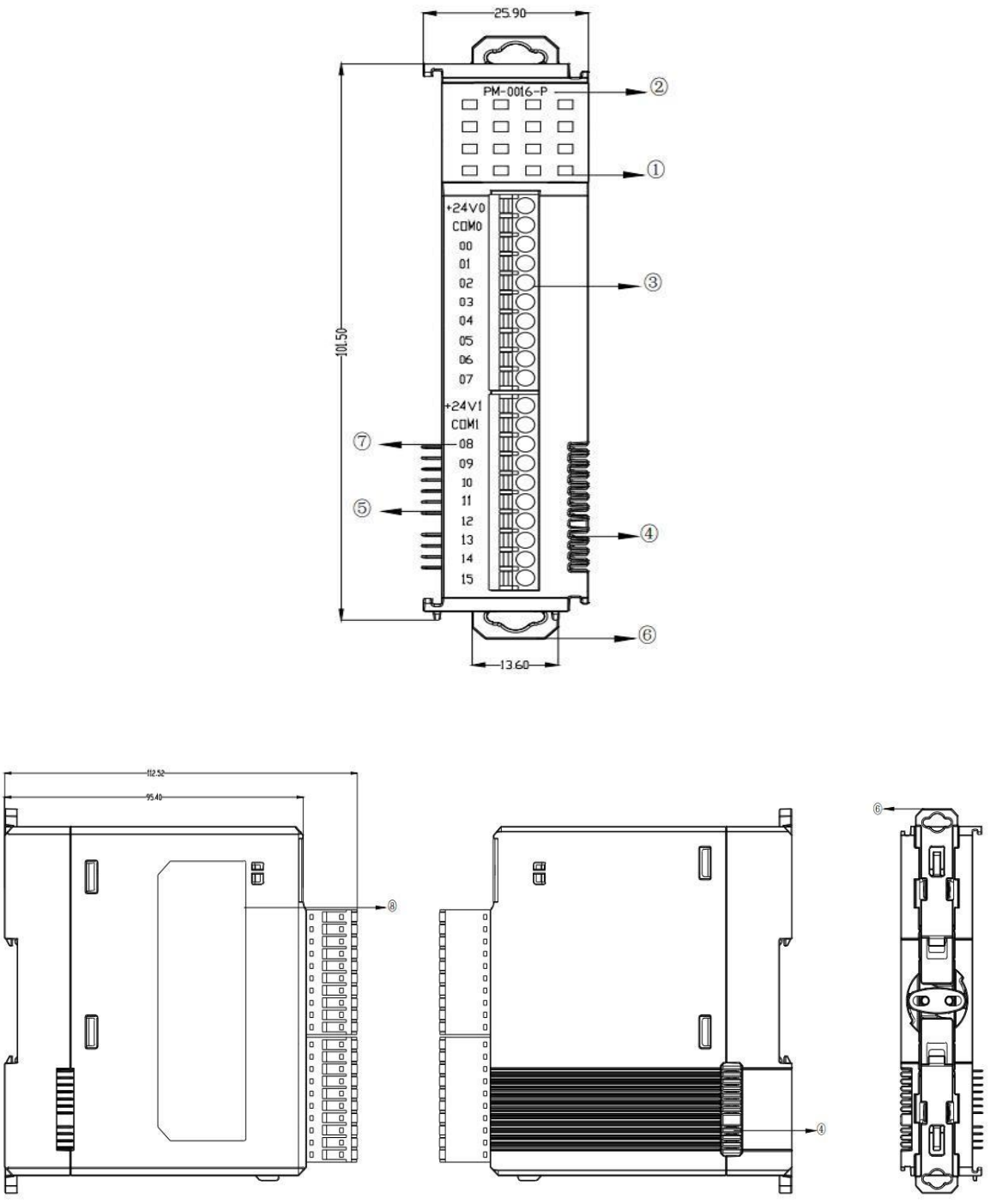
PM-0016-N and PM-0032-N





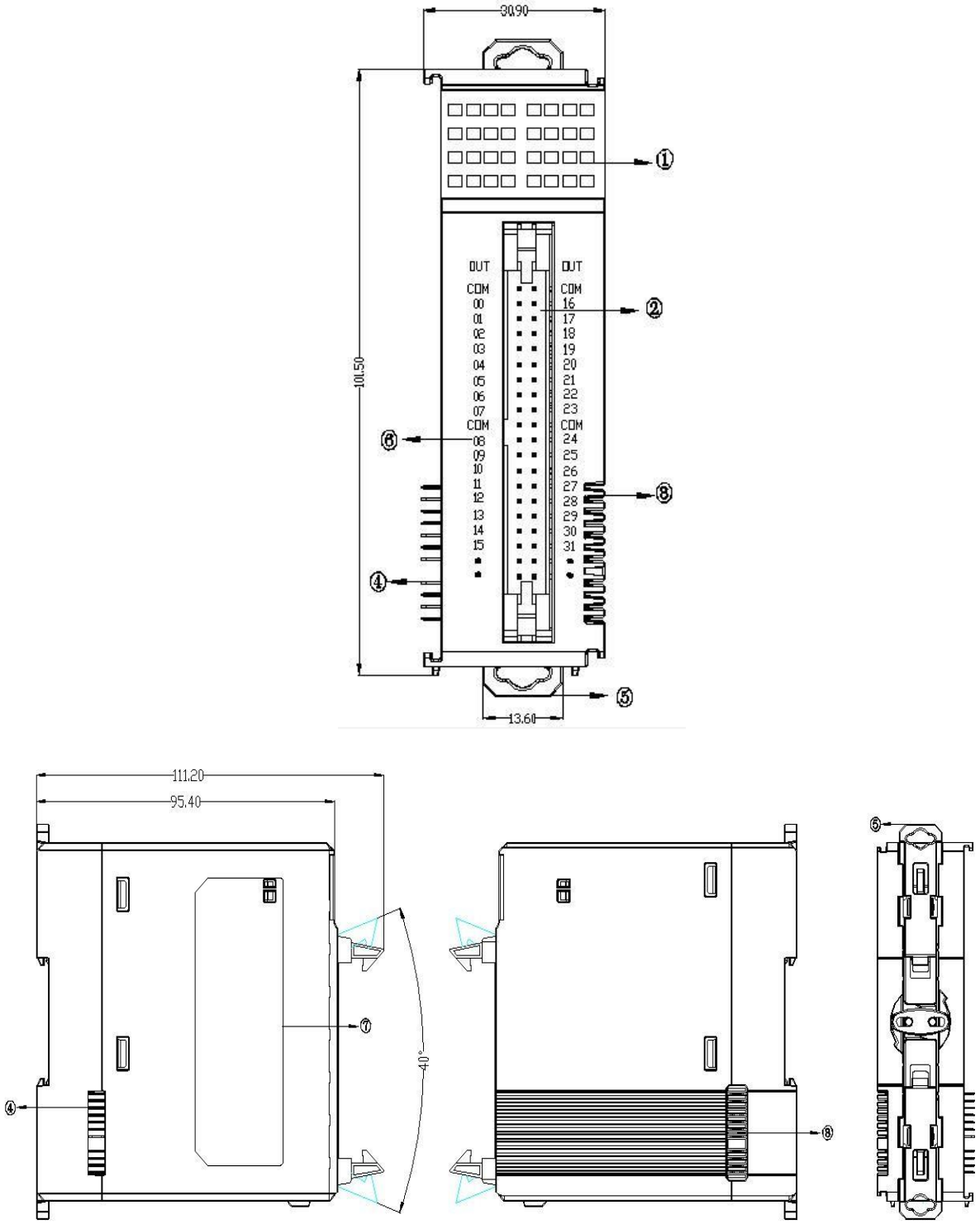
Unit：mm

PM-0016-P



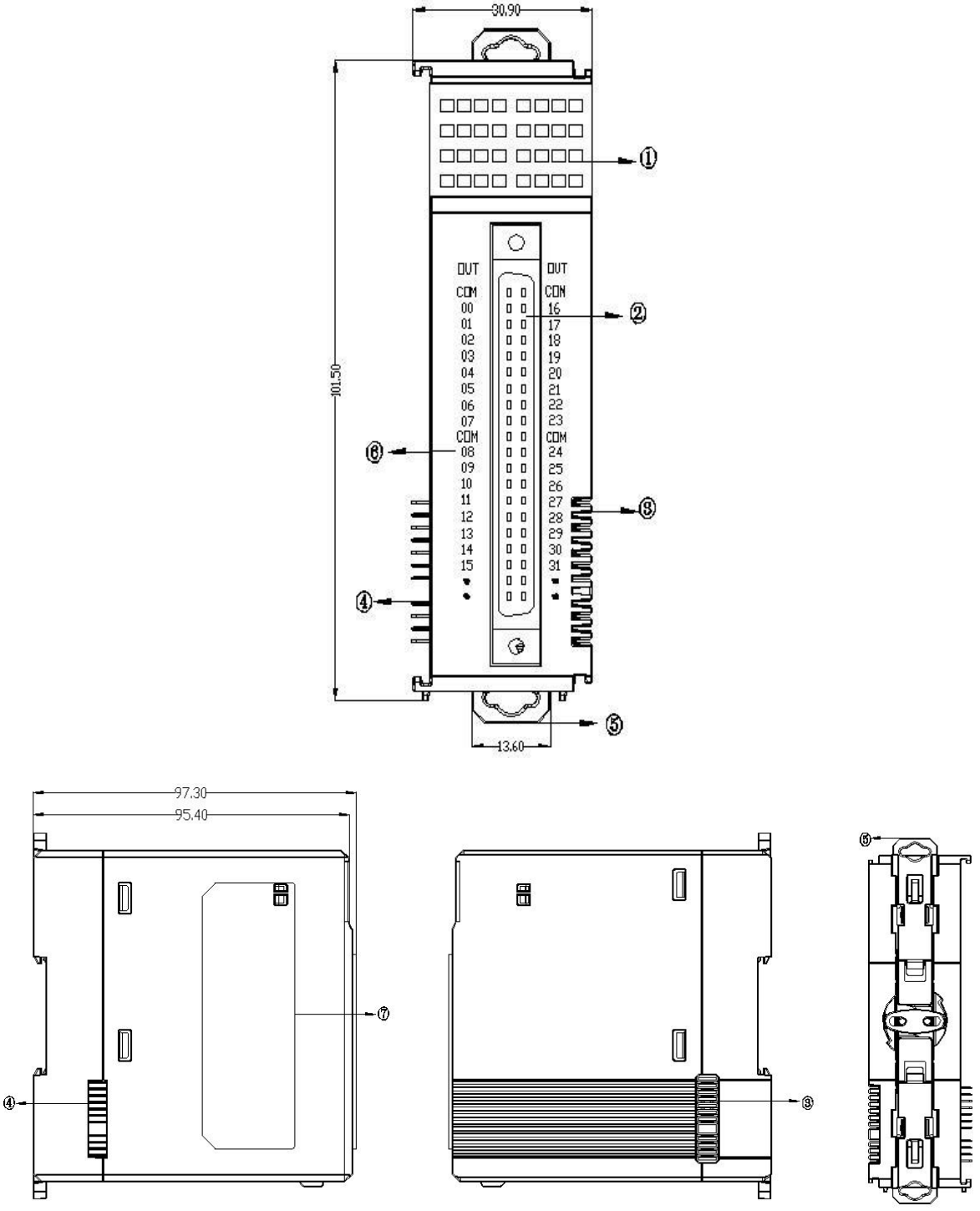
Unit：mm

PM-0032-N-1



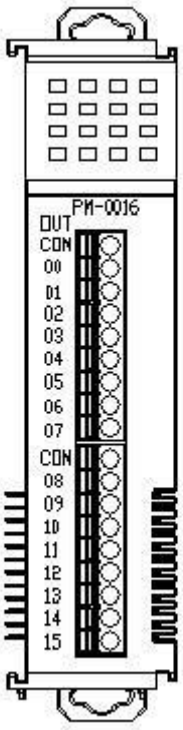
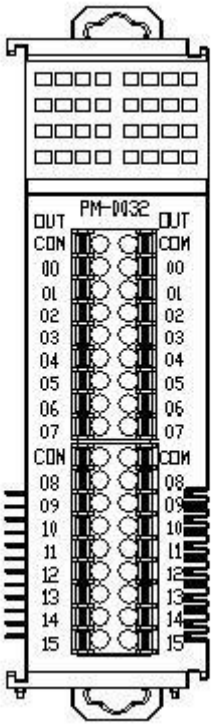
Unit：mm

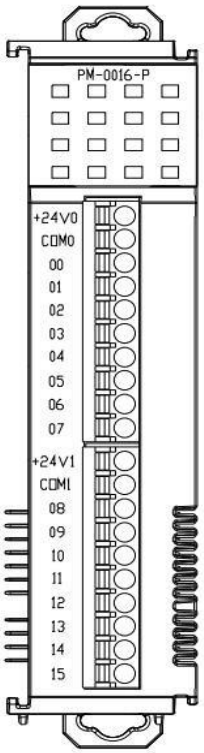
PM-0032-N-2

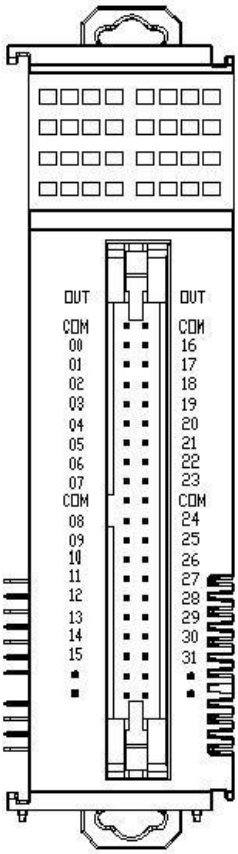


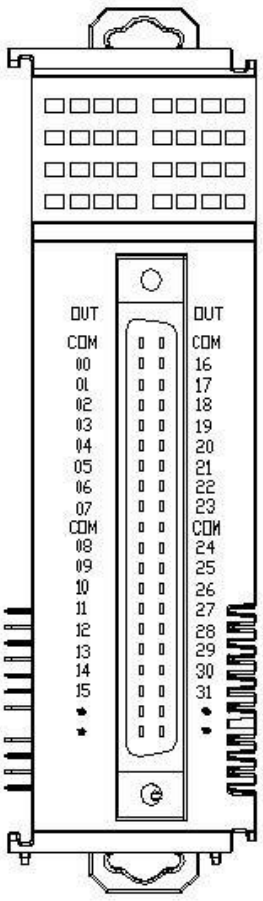
Unit：mm

3.2 Outputs Terminal Configuration

Module				
PM-0016-N	**OUT**	**PM-0032-N**	**OUT**	
	COM		COM	COM
	00		00	16
	01		01	17
	02		02	18
	03		03	19
	04		04	20
	05		05	21
	06		06	22
	07		07	23
	COM		COM	COM
	08		08	24
	09		09	25
	10		10	26
	11		11	27
	12		12	28
	13		13	29
	14		14	30
	15		15	31

Module	
PM-0016-P	**OUT**
	+24V0
	COM0
	00
	01
	02
	03
	04
	05
	06
	07
	+24V1
	COM1
	08
	09
	10
	11
	12
	13
	14
	15

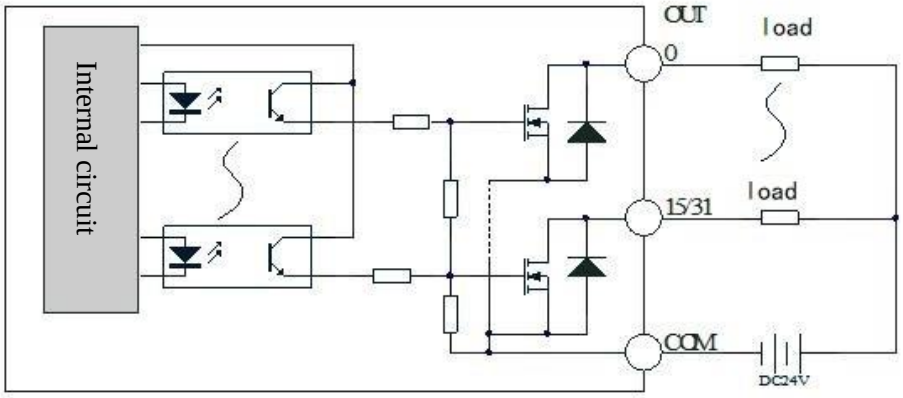
Module		
PM-0032-N-1	**OUT**	
	COM	COM
	00	16
	01	17
	02	18
	03	19
	04	20
	05	21
	06	22
	07	23
	COM	COM
	08	24
	09	25
	10	26
	11	27
	12	28
	13	29
	14	30
	15	31
	NC	NC
	NC	NC

Module		
PM-0032-N-2	**OUT**	
	COM	COM
	00	16
	01	17
	02	18
	03	19
	04	20
	05	21
	06	22
	07	23
	COM	COM
	08	24
	09	25
	10	26
	11	27
	12	28
	13	29
	14	30
	15	31
	NC	NC
	NC	NC

3.3 Output Internal Circuit and Wiring

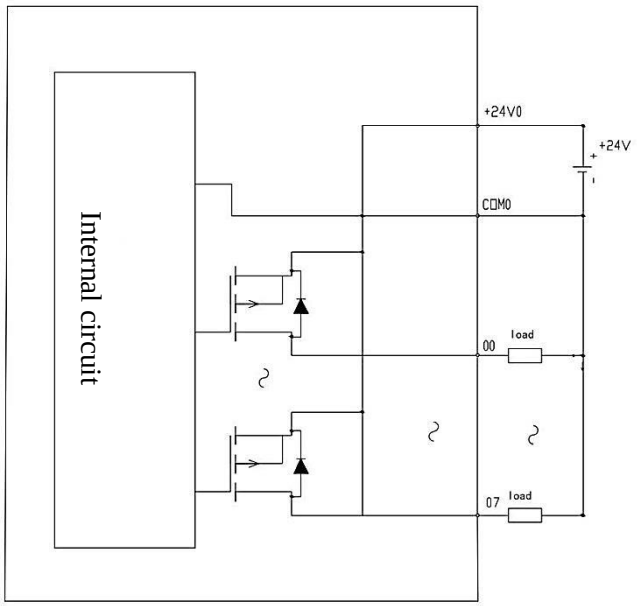
(1)Internal Circuit

PM-0016-N, PM-0032-N, PM-0032-N-1 and PM-0032-N-2 module provide 16 and 32 channels NPN type outputs. Single channel maximum output current is 0.5A,When configured multiple channels, the current of each channel maximum is 0.3A.Outputs can be used to control relay, solenoid valve, signal light or other equipment.The interface circuits are equipped with photoelectric isolation components, which can effectively isolate external circuit interference and improve the reliability of the system.

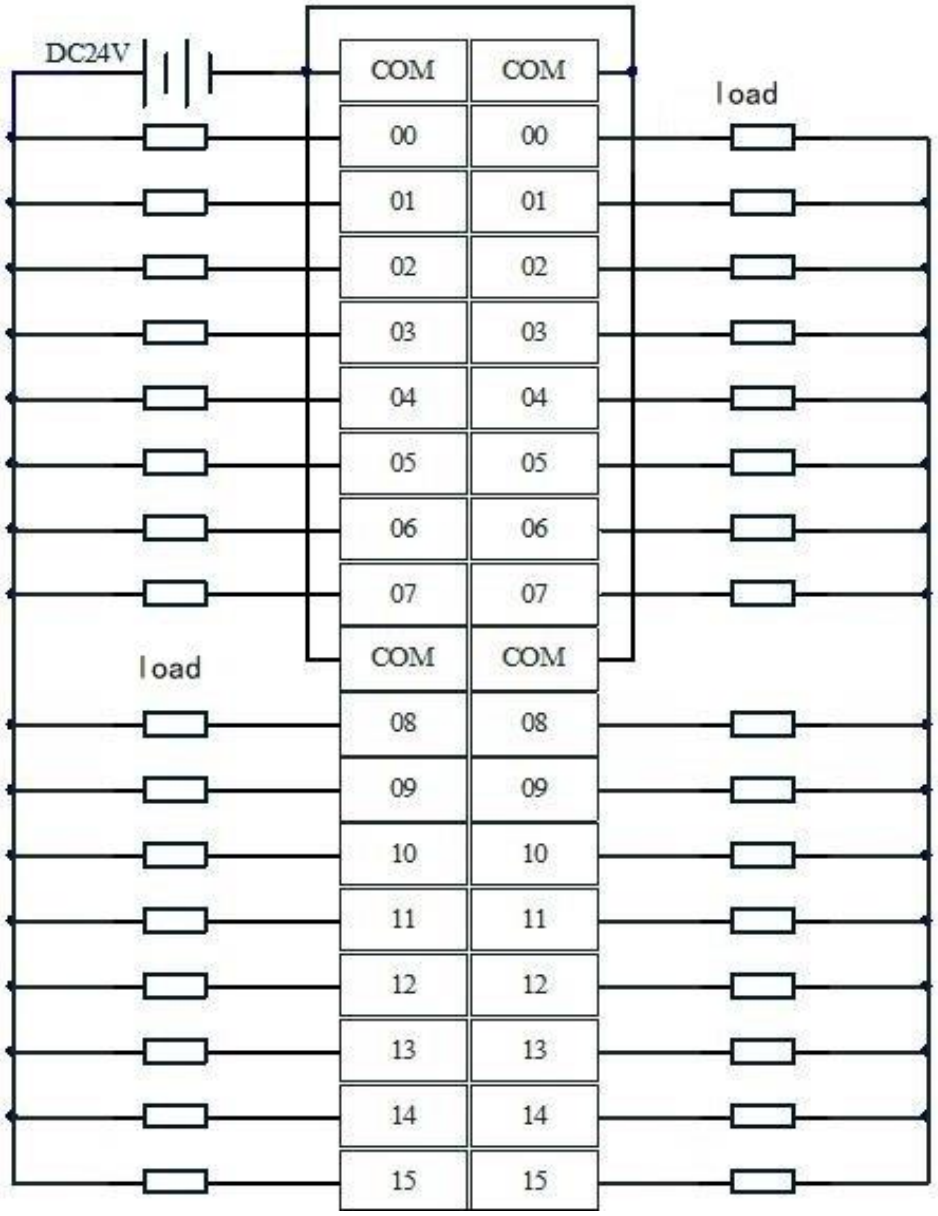


PM-0016-P module provide 16 PNP type outputs. Single channel maximum output current is 0.5A, When configured multiple channels, the current of each channel maximum is 0.3A.Outputs can be used to control relay, solenoid valve, signal light or other equipment.

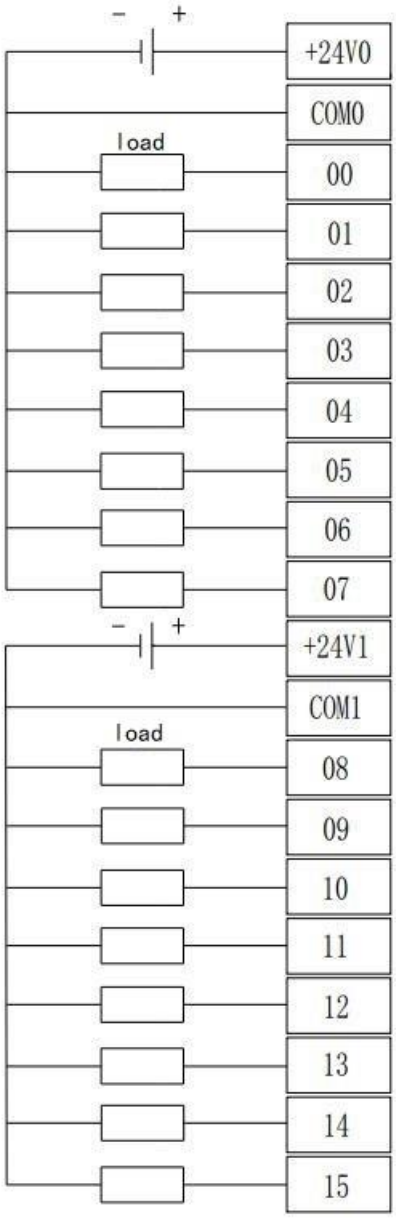
The interface circuits are equipped with photoelectric isolation components, which can effectively isolate external circuit interference and improve the reliability of the system.



(2) NPN outputs wiring



(2) PNP outputs wiring



3.4 Object Dictionary

3.4.1Service Data Object (SDO)

Index	Sub-index	Name	Data type	Access	Description
8000-81F0	00H	Digital Out Configuration Data			The objects used by the module are 0x8000+(module sorting * 0x10) (note: starting from the first module after the coupler, starting from 0, 0, 1, 2... 1F (hexadecimal), and so on)
	01H	Out state when ECAT lost	Unsigned16	R/W	Out1-16 Control the status of the output port after a wire break, corresponding to bit: 1: Keep the output when the wire is broken; 0: Wire breakage reset (default) 0xff: Port 1-16 wire breakage hold output
	02H	Out state when ECAT lost	Unsigned16	R/W	Out17-32 Control the status of the output port after a wire break, corresponding to bit: 1: Keep the output when the wire is broken; 0: Wire breakage reset (default) 0xff: Port 17-32 wire breakage hold output

3.4.2Process Data Object (RxPDO)

Index	Sub-index	Name	Data type	Access	Description
7000-71F0H	00H	output			The objects used by the module are 0x7000+(module sorting * 0x10) (note: starting from the first module after the coupler, starting from 0, 0, 1, 2... 1F (hexadecimal), and so on)
	01H	output bit[1-16]	Unsigned16	R/W	
	02H	output bit[17-32]	Unsigned16	R/W	

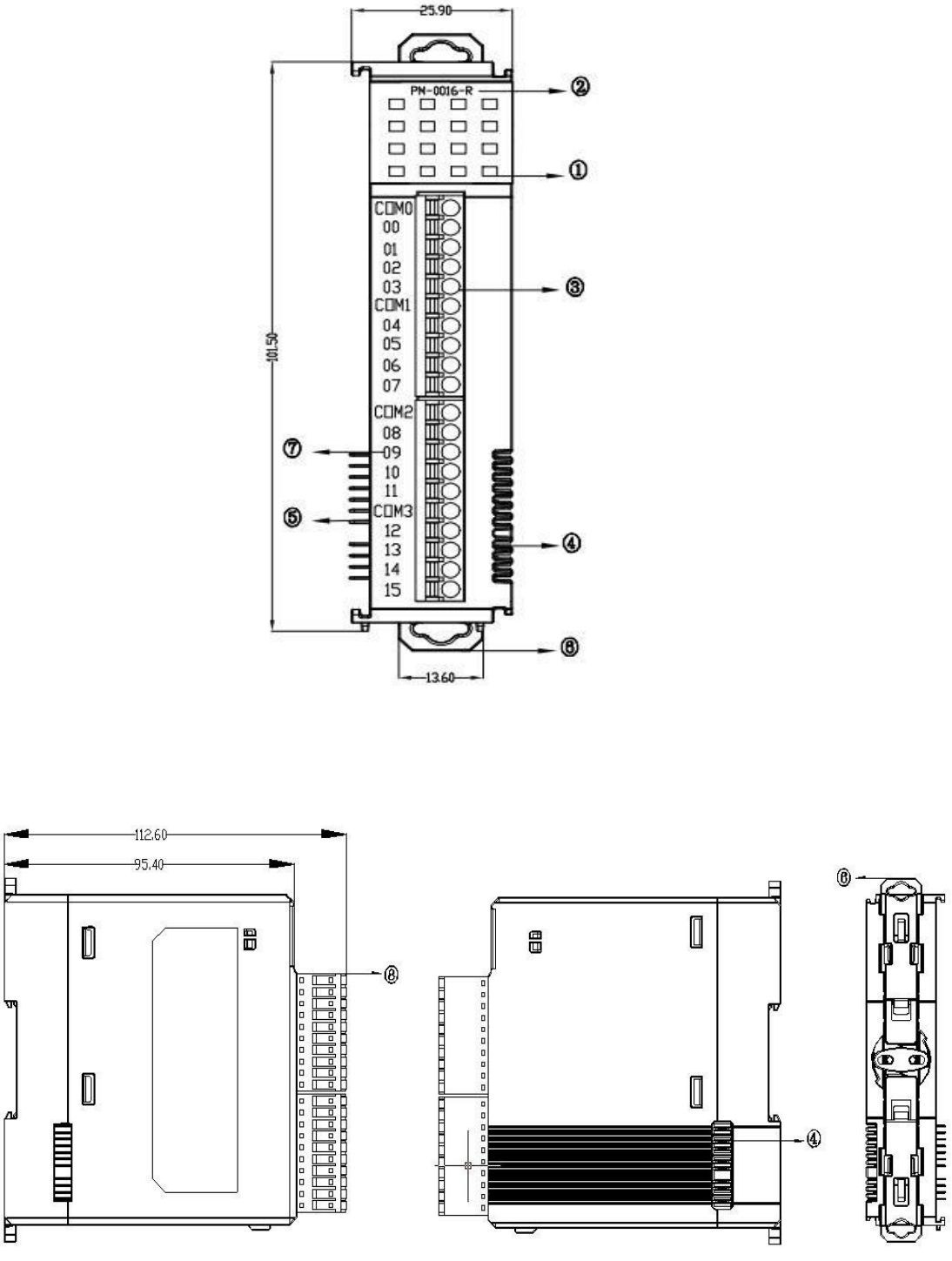
4. Relay Output Module

Product appearance show as follow diagram：

Relay Output Module
PM-0016-R

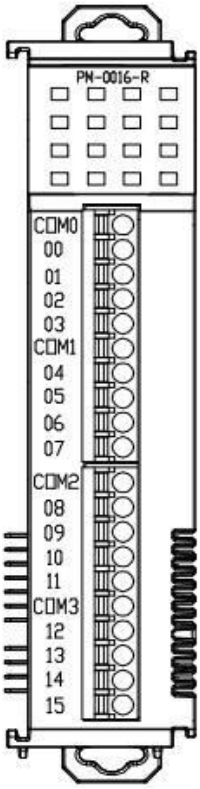

4.1 Dimension

PM-0016-R



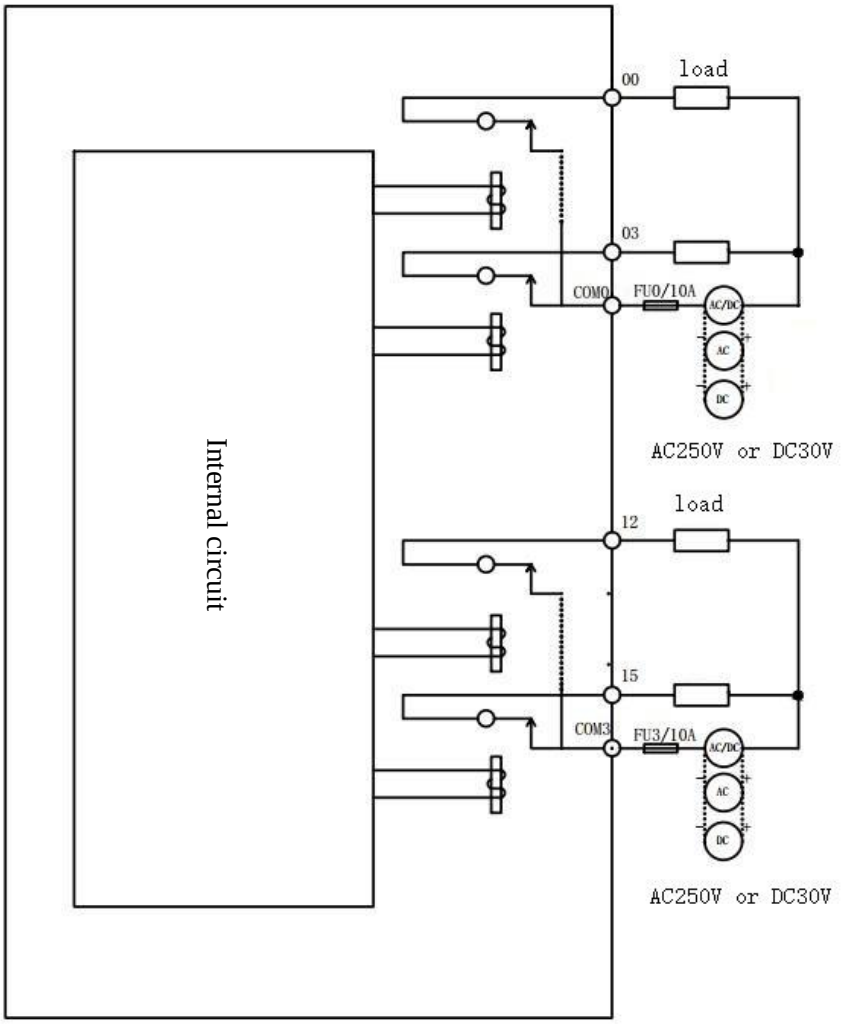
Unit：mm

4.2 Outputs Terminal Configuration

Module	
PM-0016-R	OUT
	COM0
	00
	01
	02
	03
	COM1
	04
	05
	06
	07
	COM2
	08
	09
	10
	11
	COM3
	12
	13
	14
	15

4.3 Output Internal Circuit And Wiring

The PM-0016-R module provides 16 channels digital outputs .The maximum current for single output is 2A. It can be used to control contactors, oil pumps, solenoid valves, or other equipment with large loads. The interface circuits are equipped with photoelectric isolation components, which can effectively isolate external circuit interference and improve the reliability of the system.



When using the module, the common COM should be connected to a fuse to ensure safety

4.4 Object Dictionary

4.4.1Service Data Object (SDO)

Index	Sub-index	Name	Data type	Access	Description
8000-81F0	00H	Digital Out Configuration Data			The objects used by the module are 0x8000+(module sorting * 0x10) (note: starting from the first module after the coupler, starting from 0, 0, 1, 2... 1F (hexadecimal), and so on)
	01H	Out state when ECAT lost	Unsigned16	R/W	Out1-16 Control the status of the output port after a wire break, corresponding to bit: 1: Keep the output when the wire is broken; 0: Wire breakage reset (default) 0xff: Port 1-16 wire breakage hold output

4.4.2Process Data Object (RxPDO)

Index	Sub-index	Name	Data type	Access	Description
7000-71F0H	00H	output			The objects used by the module are 0x7000+(module sorting * 0x10) (note: starting from the first module after the coupler, starting from 0, 0, 1, 2... 1F (hexadecimal), and so on)
	01H	output bit[1-16]	Unsigned16	R/W	

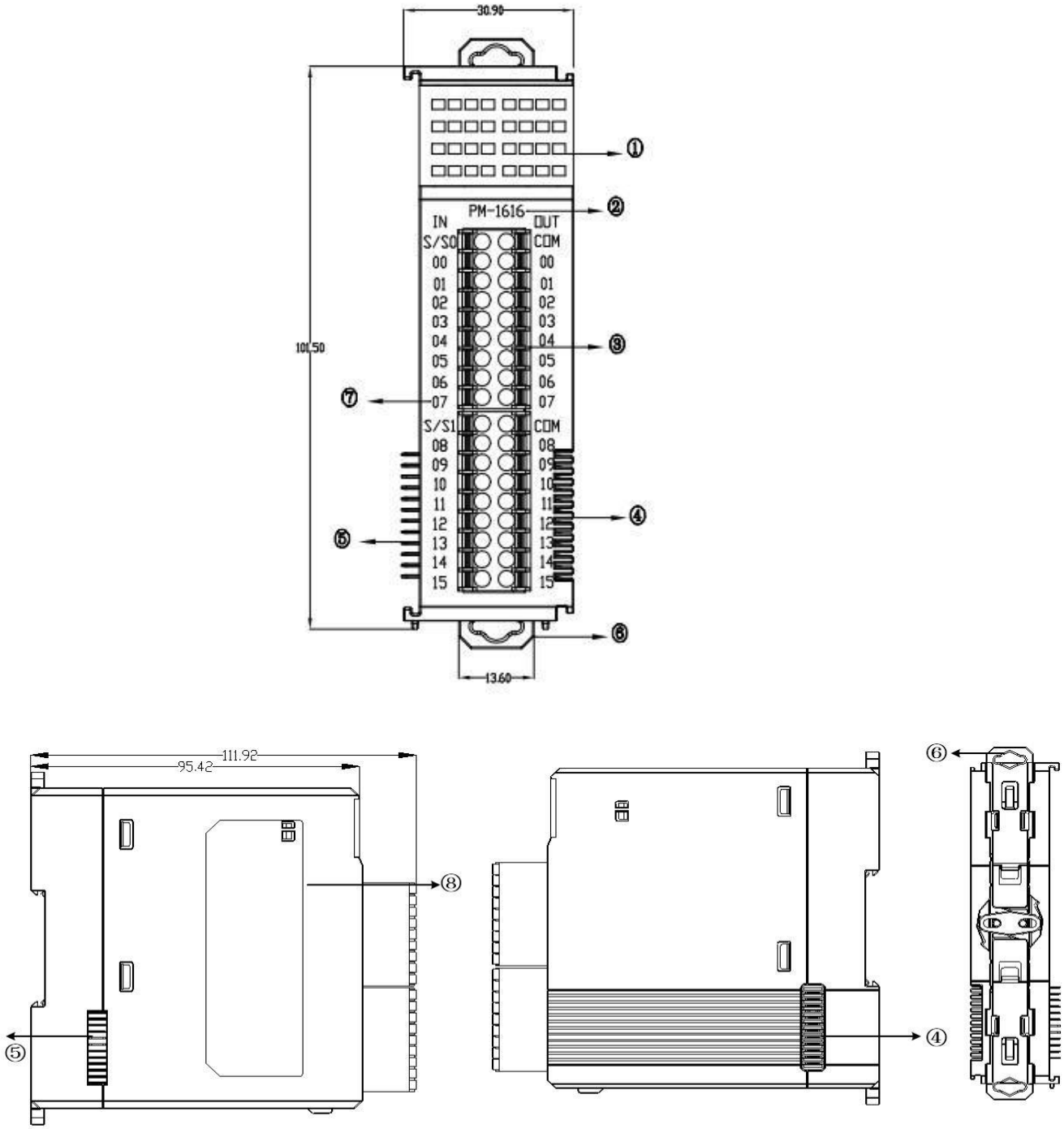
5. Digital I/O Module

Product appearance show as follow diagram：

Digital I/O module
PM-1616-N

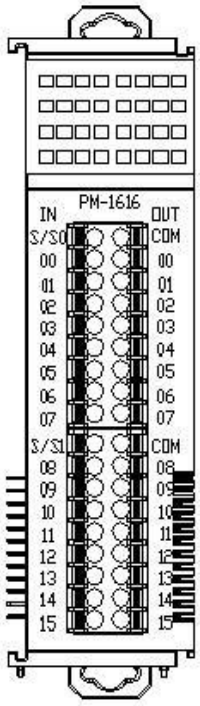

5.1 Dimension

PM-1616-N



Uint：mm

5.2 I/O Terminal Configuration

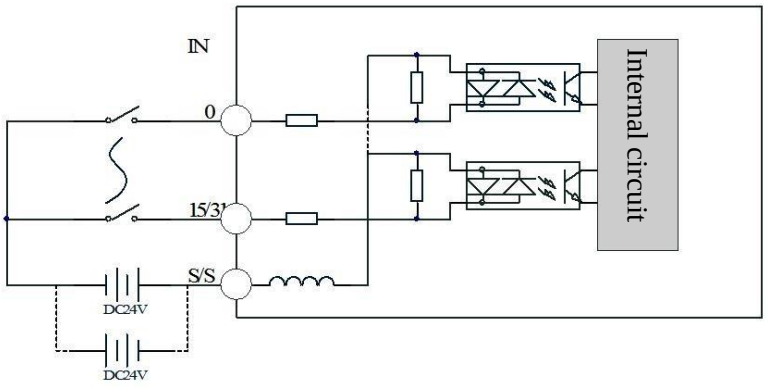
Module		
PM-1616-N	**IN**	**OUT**
	S/S0	COM
	00	00
	01	01
	02	02
	03	03
	04	04
	05	05
	06	06
	07	07
	S/S1	COM
	08	08
	09	09
	10	10
	11	11
	12	12
	13	13
	14	14
	15	15

5.3 Internal Circuit And Wiring

（1）input internal circuit

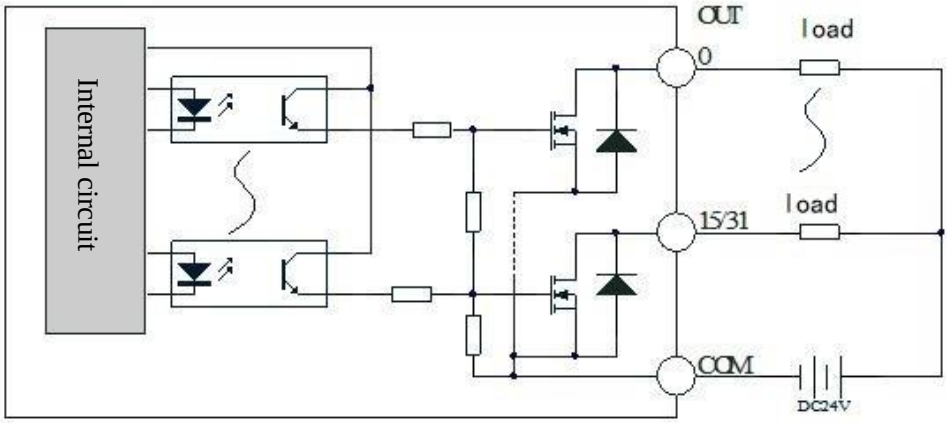
PM-1616-N module provide 16 digital input interface, used for switch signal, sensor signal and other signal input. The interface circuit is equipped with photoelectric isolation components, which can effectively isolate external circuit interference and improve system reliability

The digital input module support NPN or PNP input type, please refer to the follow picture.

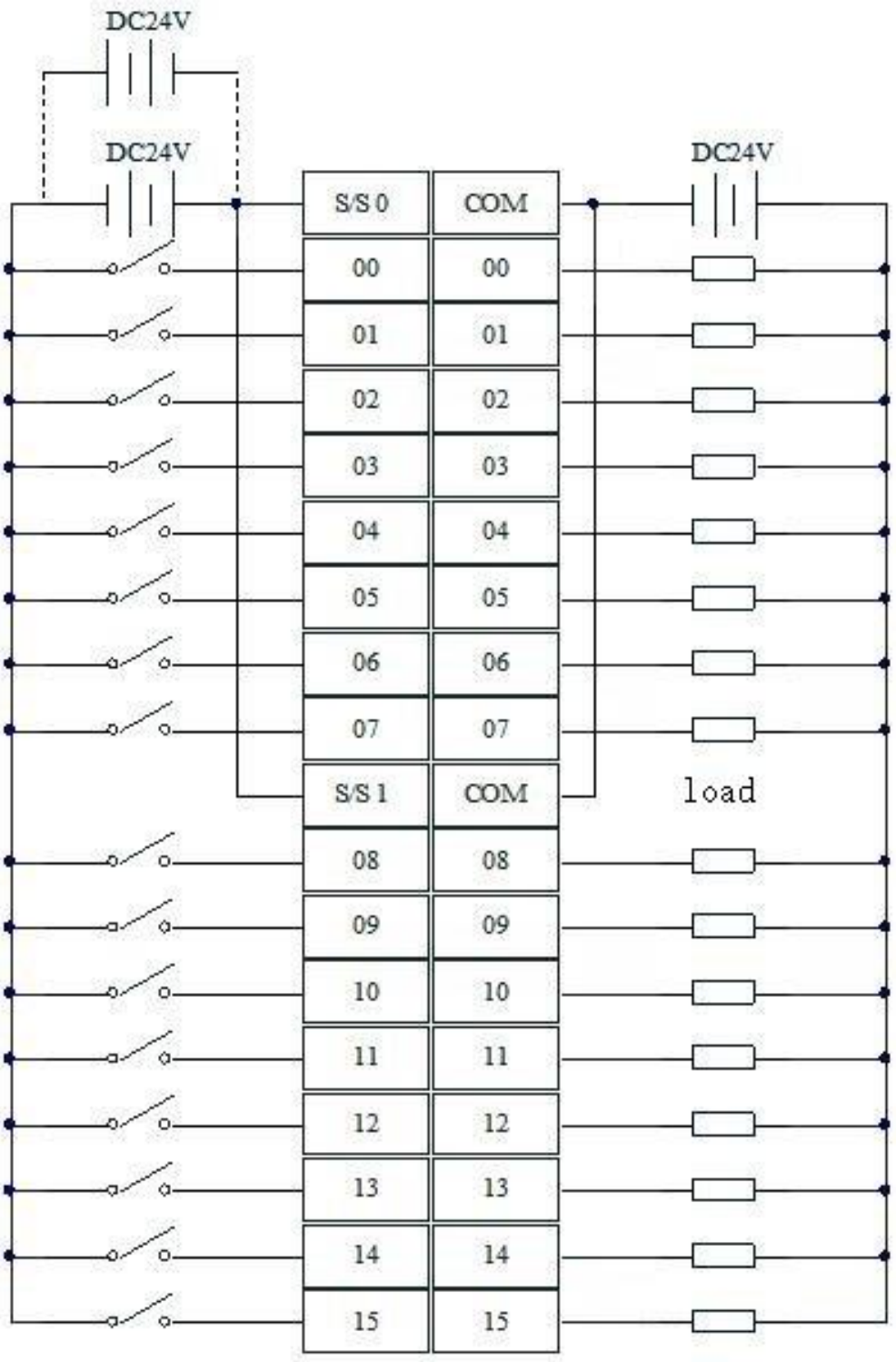


（2）output internal circuit

PM-1616-N module provide 16 channels NPN type outputs. Single channel maximum output current is 0.5A,when configured multiple channels, the current of each channel maximum is 0.3A.Outputs can be used to control relay, solenoid valve, signal light or other equipment.The interface circuits are equipped with photoelectric isolation components, which can effectively isolate external circuit interference and improve the reliability of the system.



（3）Wiring


DC24V
DC24V
DC24V
S/S 0
COM
00
00
01
01
02
02
03
03
04
04
05
05
06
06
07
07
S/S 1
COM
load
08
08
09
09
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5.4 Object Dictionary

5.4.1Service Data Object (SDO)

Index	Sub-index	Name	Data type	Access	Description
8000-81F0	00H	Digital Out Configuration Data			The objects used by the module are 0x8000+(module sorting * 0x10) (note: starting from the first module after the coupler, starting from 0, 0, 1, 2... 1F (hexadecimal), and so on)
	01H	Out state when ECAT lost	Unsigned16	R/W	Out1-16 Control the status of the output port after a wire break, corresponding to bit: 1: Keep the output when the wire is broken; 0: Wire breakage reset (default) 0xff: Port 1-16 wire breakage hold output
	02H	Out state when ECAT lost	Unsigned16	R/W	Out17-32 Control the status of the output port after a wire break, corresponding to bit: 1: Keep the output when the wire is broken; 0: Wire breakage reset (default) 0xff: Port 17-32 wire breakage hold output

5.4.1Process Data Object (TxPDO)

Index	Sub-index	Name	Data type	Access	Description
6000-61F0H	00H	input			The objects used by the module are 0x6000+(module sorting * 0x10) (note: starting from the first module after the coupler, starting from 0, 0, 1, 2... 1F (hexadecimal), and so on)
	01H	Input bit[1-16]	Unsigned16	Ro	
	02H	Input bit[17-32]	Unsigned16	Ro	

5.4.2Process Data Object (RxPDO)

Index	Sub-index	Name	Data type	Access	Description
7000-71F0H	00H	output			The objects used by the module are 0x7000+(module sorting * 0x10) (note: starting from the first module after the coupler, starting from 0, 0, 1, 2... 1F (hexadecimal), and so on)
	01H	output bit[1-16]	Unsigned16	R/W	
	02H	output bit[17-32]	Unsigned16	R/W	

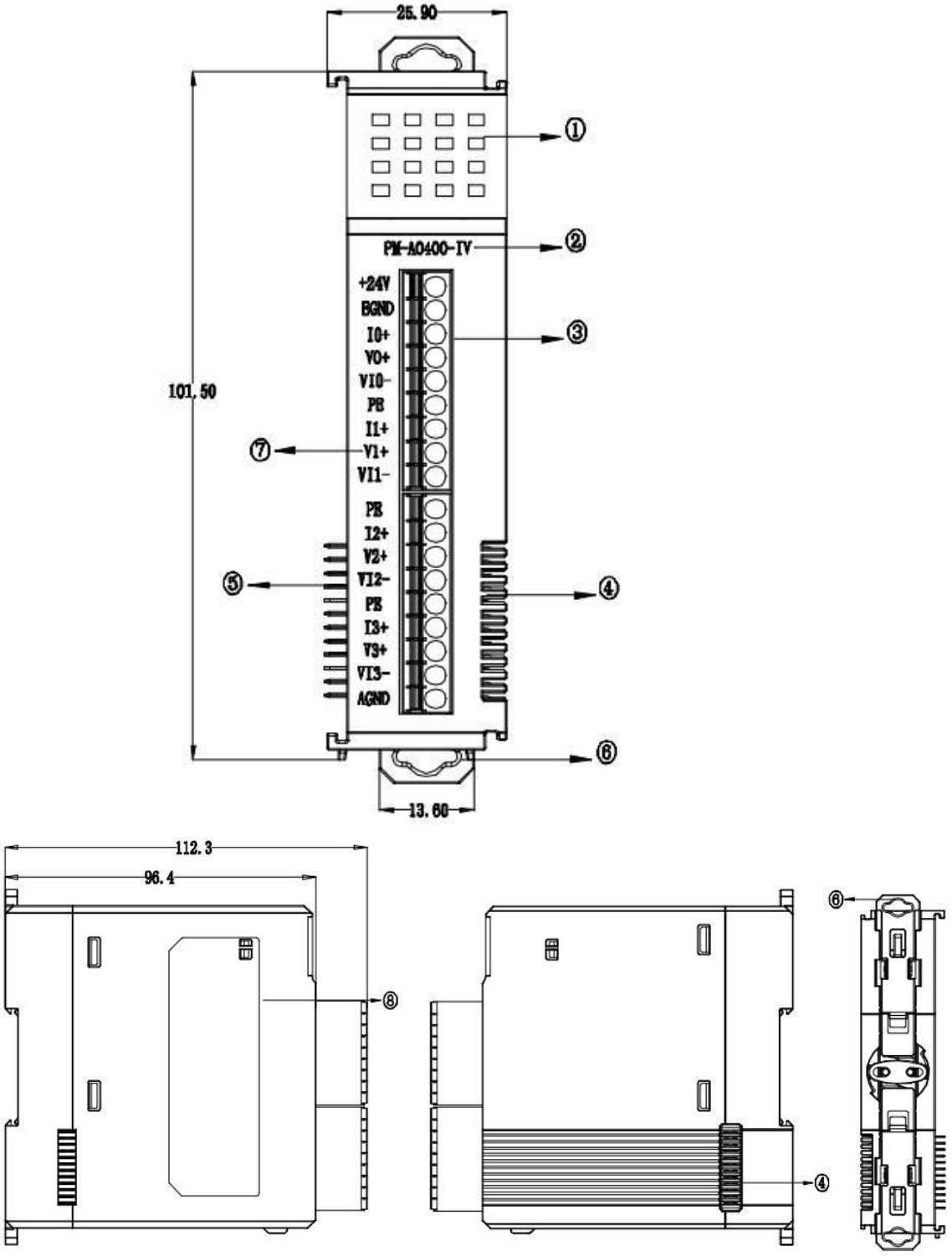
6. Analog Input Module

Product appearance show as follow diagram：

Analog input module
PM-A0400-IV

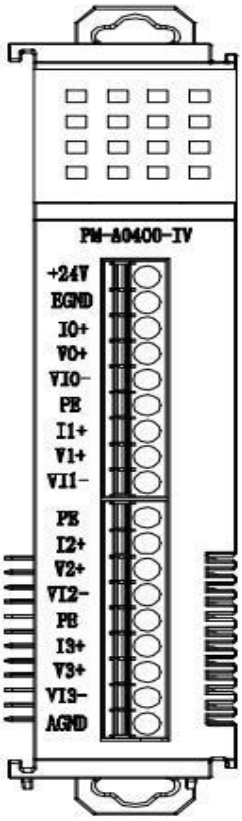

6.1 Dimension

PM-A0400-IV



Unit：mm

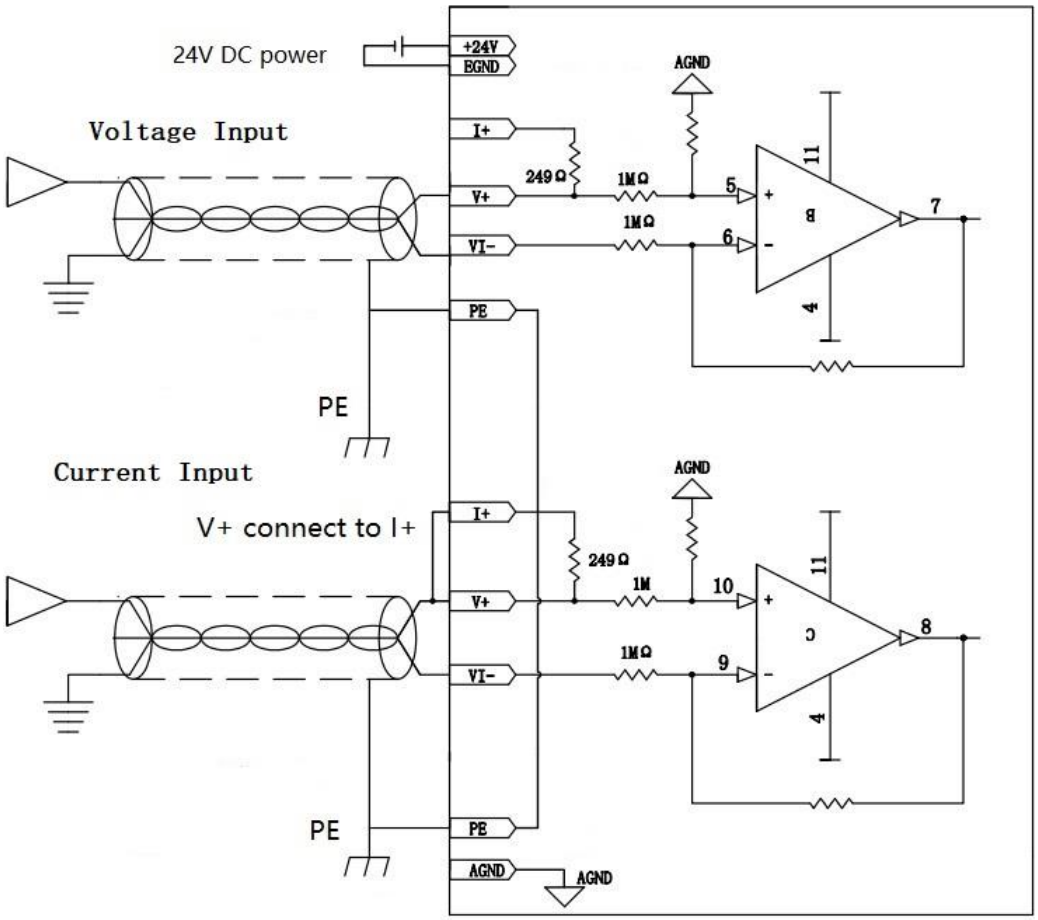
6.2 Input Terminal Configuration

Module	
PM-A0400-IV	**IN**
	+24V EGND I0+ V0+ VI0- PE I1+ V1+ VI1- PE I2+ V2+ VI2- PE I3+ V3+ VI3- AGND

6.3 Input Internal Circuit And Wiring

PM-A0400-IV provide 4 channels analog inputs, used for sensor signals or other signals. The power circuit is equipped with isolation components, which can effectively isolate external circuit interference and improve system reliability.

Internal circuit show as below：



*1 The analog signal line adopts two core twisted pair shielded wire；
*2.When use current input, the V+ and I+ terminals must be connected;
*3.When the input signal is a differential signal, "AGND" can be connected to the analog ground of compatible devices to eliminate common mode differences between devices and ensure the accuracy of module sampling;
*4.The module needs to be installed on a well grounded metal bracket and ensure good contact between the metal at the bottom of the module and the bracket
*5. External 24V DC power supply.

6.4 Object Dictionary

6.4.1Service Data Object (SDO)

Index	Sub-index	Name	Data type	Access	Description
9000H -91F0H	00H				The objects used by the module are 0x9000+(module sorting * 0x10) (note: starting from the first module after the coupler, starting from 0, 0, 1, 2... 1F (hexadecimal), and so on)
	01H	reserve	Unsigned 32	Ro	Reserve
	02H	reserve	Unsigned 32	Ro	Reserve
	03H	reserve	Unsigned 32	Ro	Reserve
	04H	reserve	Unsigned 32	Ro	Reserve
	05H	UnVendor ID	Unsigned 32	Ro	Vendor ID
	06H	UnProduc tCode	Unsigned 32	Ro	Product Code
	07H	Un Revision Number	Unsigned 32	Ro	Revision Number
	08H	Serial Number	Unsigned 32	Ro	Serial Number
	09H	Fpga Revison	Unsigned 32	Ro	FPGA version
8000-81F0	00H				The objects used by the module are 0x8000+(module sorting * 0x10) (note: starting from the first module after the coupler, starting from 0, 0, 1, 2... 1F (hexadecimal), and so on)
	01H	AD0 Configure	Unsigned8	R/W	Bit2-Bit0: 000: Voltage Input±5V 001：Voltage Input 1-5V 010：Voltage Input±10V 011：Voltage Input 0-10V 100：Current Input 0-20mA 101：Current Input 4-20mA 110：Current Input 0-5V 111：Current Input±20mA
	02H	AD1 Configure	Unsigned8	R/W	Bit2-Bit0: 000: Voltage Input±5V 001：Voltage Input 1-5V 010：Voltage Input±10V 011：Voltage Input 0-10V 100：Current Input 0-20mA 101：Current Input 4-20mA 110：Current Input 0-5V 111：Current Input±20mA
	03H	AD2 Configure	Unsigned8	R/W	Bit2-Bit0: 000: Voltage Input±5V 001：Voltage Input 1-5V 010：Voltage Input±10V 011：Voltage Input 0-10V 100：Current Input 0-20mA 101：Current Input 4-20mA 110：Current Input 0-5V 111：Current Input±20mA
	04H	AD3 Configure	Unsigned8	R/W	Bit2-Bit0: 000: Voltage Input±5V 001：Voltage Input 1-5V 010：Voltage Input±10V 011：Voltage Input 0-10V 100：Current Input 0-20mA 101：Current Input 4-20mA 110：Current Input 0-5V 111：Current Input±20mA
8001-81F1	00H	Filter			The objects used by the module are 0x8001+(module sorting * 0x10) (note: starting from the first module after the coupler, starting from 0, 0, 1, 2... 1F (hexadecimal), and so on)
	01H	AD0	Unsigned8	R/W	1-255ms
	02H	AD1	Unsigned8	R/W	1-255ms
	03H	AD2	Unsigned8	R/W	1-255ms
	04H	AD3	Unsigned8	R/W	1-255ms
8002-81F2	00H	AD Save and Reset			The objects used by the module are

		Parameters			0x8002+(module sorting * 0x10) (note: starting from the first module after the coupler, starting from 0, 0, 1, 2... 1F (hexadecimal), and so on)
	01H	AD Save Parameters	Unsigned8	R/W	Write 1 to save the current parameters (excluding calibration parameters)
	02H	AD Reset Parameters	Unsigned8	R/W	Write 1 to reset the current parameters (excluding calibration parameters)
8003-81F3	00H	Channel enabale	Unsigned8	R/W	The objects used by the module are 0x8003+(module sorting * 0x10) (note: starting from the first module after the coupler, starting from 0, 0, 1, 2... 1F (hexadecimal), and so on)
	01H	AD0 EN	Unsigned8	R/W	AD0 enable
	02H	AD1 EN	Unsigned8	R/W	AD1 enable
	03H	AD2 EN	Unsigned8	R/W	AD2 enable
	04H	AD3 EN	Unsigned8	R/W	AD3 enable

6.4.2Process Data Object (TxPDO)

Index	Sub-index	Name	Data type	Access	Description
TxPDO0 1A00H					
6000-61F0	00H				The objects used by the module are 0x6000+(module sorting * 0x10) (note: starting from the first module after the coupler, starting from 0, 0, 1, 2... 1F (hexadecimal), and so on)
	01H	Sample AD0 Code	Unsigned 16	Ro	AD0 sampling value
	02H	Sample AD1 Code	Unsigned 16	Ro	AD1 sampling value
	03H	Sample AD2 Code	Unsigned 16	Ro	AD2 sampling value
	04H	Sample AD3 Code	Unsigned 16	Ro	AD3 sampling value
TxPDO1 1A01H					
A000~A1F0	00H	AD_State			The objects used by the module are 0xA000+(module sorting * 0x10) (note: starting from the first module after the coupler, starting from 0, 0, 1, 2... 1F (hexadecimal), and so on)
	01H	AD0 State	Unsigned 8	Ro	Bit: 0-3 Reserved Bit: 4 1: Input exceeding limit 0: Input normal
	02H	AD1 State	Unsigned 8	Ro	Bit: 0-3Reserved Bit: 4 1: Input exceeding limit 0: Input normal
	03H	AD2 State	Unsigned 8	Ro	Bit: 0-3Reserved Bit: 4 1: Input exceeding limit 0: Input normal
	4H	AD3 State	Unsigned 8	Ro	Bit: 0-3Reserved Bit: 4 1: Input exceeding limit 0: Input normal

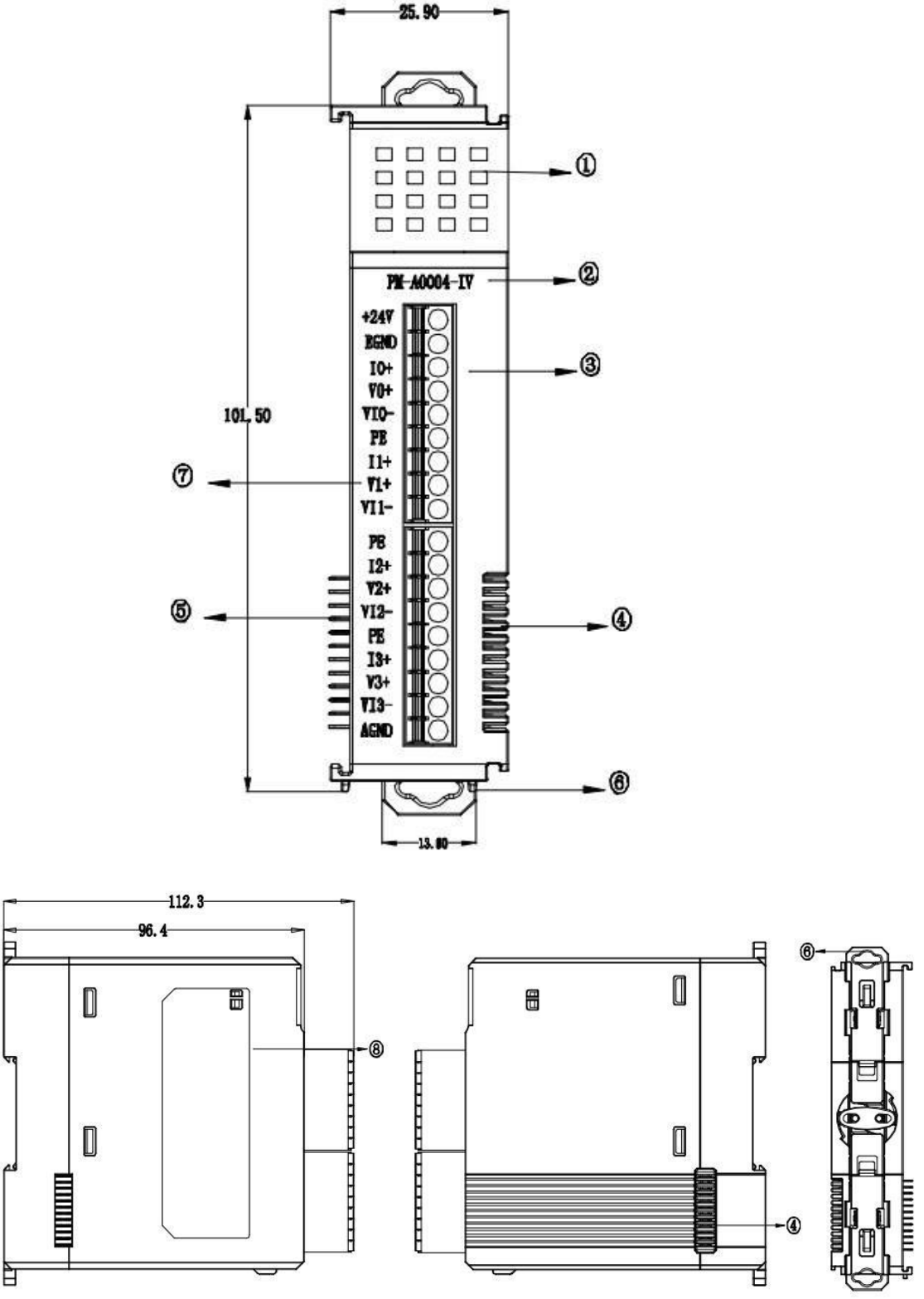
7. Analog Output Module

Product appearance show as follow diagram:

Analog output module
PM-A0004-IV

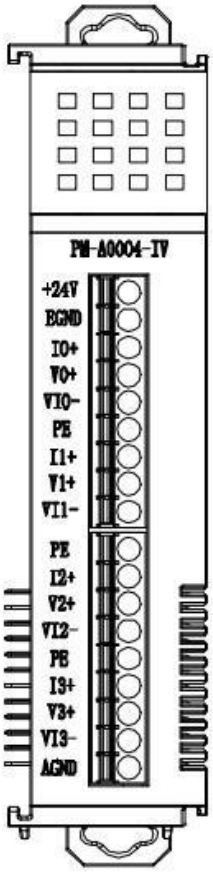

7.1 Dimension

PM-A0004-IV



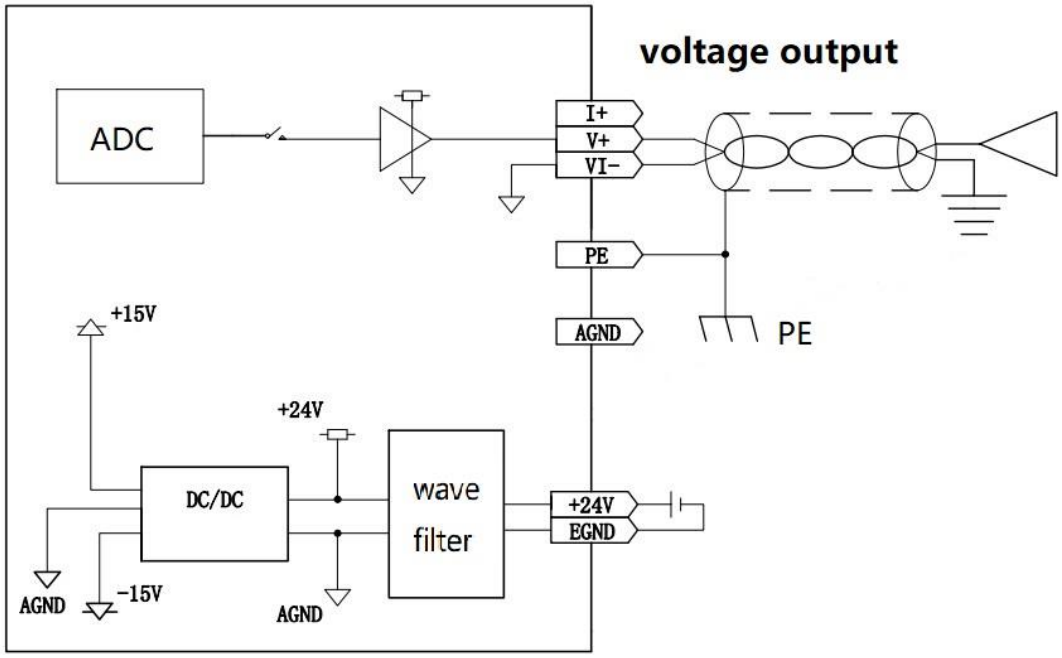
Unit：mm

7.2 Output Terminal Configuration

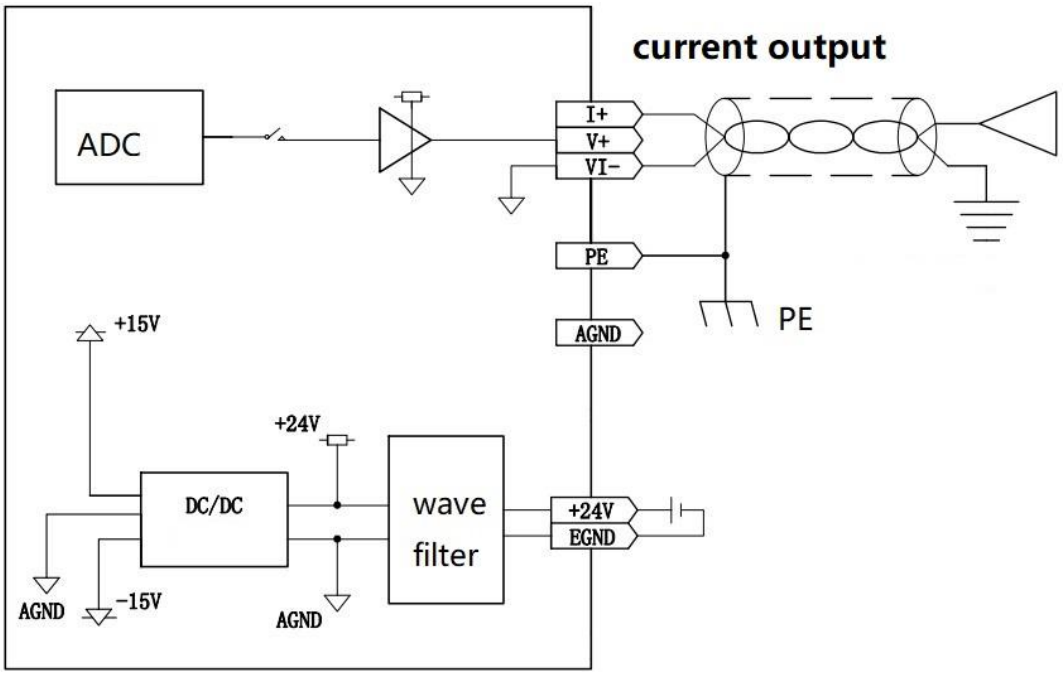
Module	
PM-A0004-IV	**IN**
	+24V
	EGND
	I0+
	V0+
	VI0-
	PE
	I1+
	V1+
	VI1-
	PE
	I2+
	V2+
	VI2-
	PE
	I3+
	V3+
	VI3-
	AGND

7.3 Output Internal Circuit And Wiring

(1)Voltage output



(2)Current output



*1 The analog signal line adopts two core twisted pair shielded wire；
*2.When the input signal is a differential signal, "AGND" can be connected to the analog ground of compatible devices to eliminate common mode differences between devices and ensure the accuracy of module sampling;
*3. External 24V DC power supply.

7.4 Object Dictionary

7.4.1Service Data Object (SDO)

Index	Sub-index	Name	Data type	Access	Description
9000H-91F0H	00H				The objects used by the module are 0x9000+(module sorting * 0x10) (note: starting from the first module after the coupler, starting from 0, 0, 1, 2... 1F (hexadecimal), and so on)
	01H	reserve	Unsigned 32	Ro	Reserve
	02H	reserve	Unsigned 32	Ro	Reserve
	03H	reserve	Unsigned 32	Ro	Reserve
	04H	reserve	Unsigned 32	Ro	Reserve
	05H	UnVendor ID	Unsigned 32	Ro	Vendor ID
	06H	UnProductCode	Unsigned 32	Ro	Product Code
	07H	UnRevisionNumber	Unsigned 32	Ro	Revision Number
	08H	SerialNumber	Unsigned 32	Ro	Serial Number
	09H	FpgaRevison	Unsigned 32	Ro	FPGA version
8000-81F0	00H				The objects used by the module are 0x8000+(module sorting * 0x10) (note: starting from the first module after the coupler, starting from 0, 0, 1, 2... 1F (hexadecimal), and so on)
	01H	DA0 Configure	Unsigned8	R/W	Bit2 Bit0: 000: Voltage output 0-5V 001: Voltage output 1-5V 010: Voltage output ±5V 011: Voltage output 0-10V 100: Voltage output ±10V 101: Current output 0-20mA 110: Current output 4-20mA
	02H	DA1 Configure	Unsigned8	R/W	Bit2 Bit0: 000: Voltage output 0-5V 001: Voltage output 1-5V 010: Voltage output ±5V 011: Voltage output 0-10V 100: Voltage output ±10V 101: Current output 0-20mA 110: Current output 4-20mA
	03H	DA2 Configure	Unsigned8	R/W	Bit2 Bit0: 000: Voltage output 0-5V 001: Voltage output 1-5V 010: Voltage output ±5V 011: Voltage output 0-10V 100: Voltage output ±10V 101: Current output 0-20mA 110: Current output 4-20mA
	04H	DA3 Configure	Unsigned8	R/W	Bit2 Bit0: 000: Voltage output 0-5V 001: Voltage output 1-5V 010: Voltage output ±5V 011: Voltage output 0-10V 100: Voltage output ±10V 101: Current output 0-20mA 110: Current output 4-20mA
8001-81F1	00H				The objects used by the module are 0x8001+(module sorting * 0x10) (note: starting from the first module after the coupler, starting from 0, 0, 1, 2... 1F (hexadecimal), and so on)
	01H	DA0 Control	Unsigned8	R/W	DA0 output enable 0: disable DA0 output 1: output enable

	02H	DA1 Control	Unsigned8	R/W	DA1 output enable 0: disable DA1 output 1: output enable
	03H	DA2 Control	Unsigned8	R/W	DA2 output enable 0: disable DA2 output 1: output enable
	04H	DA3 Control	Unsigned8	R/W	DA3 output enable 0: disable DA3 output 1: output enable
8002-81F2	00H	State when link lost			The objects used by the module are 0x8002+(module sorting * 0x10) (note: starting from the first module after the coupler, starting from 0, 0, 1, 2... 1F (hexadecimal), and so on)
	01H	DA0	Unsigned8	R/W	0: Output hold; 1: Output reset; 2: Output preset values
	02H	DA1	Unsigned8	R/W	0: Output hold; 1: Output reset; 2: Output preset values
	03H	DA2	Unsigned8	R/W	0: Output hold; 1: Output reset; 2: Output preset values
	04H	DA3	Unsigned8	R/W	0: Output hold; 1: Output reset; 2: Output preset values
8003-81F3	00H	DA value when link lost			The objects used by the module are 0x8003+(module sorting * 0x10) (note: starting from the first module after the coupler, starting from 0, 0, 1, 2... 1F (hexadecimal), and so on)
	01H	DA0	Unsigned16	R/W	Output preset values when disconnected -32000-32000
	02H	DA1	Unsigned16	R/W	Output preset values when disconnected -32000-32000
	03H	DA2	Unsigned16	R/W	Output preset values when disconnected -32000-32000
	04H	DA3	Unsigned16	R/W	Output preset values when disconnected -32000-32000
8004-81F4	00H	DA Save and Reset parameters			The objects used by the module are 0x8004+(module sorting * 0x10) (note: starting from the first module after the coupler, starting from 0, 0, 1, 2... 1F (hexadecimal), and so on)
	01H	DA Save parameters	Unsigned8	R/W	Write 1 to save the current parameters (excluding calibration parameters)
	02H	DA Reset parameters	Unsigned8	R/W	Write 1 to reset the current parameters (excluding calibration parameters)

7.4.2Process Data Object (TxPDO)

Index	Sub-index	Name	Data type	Access	Description
A000~A1F0	00H	DA State			The objects used by the module are 0x7000+(module sorting * 0x10) (note: starting from the first module after the coupler, starting from 0, 0, 1, 2... 1F (hexadecimal), and so on)
	01H	DA0 State	Unsigned8	Ro	Bit: 0-3 Reserved Bit: 4 1: Output exceeding limit 0: Output normal
	02H	DA1 State	Unsigned8	Ro	Bit: 0-3 Reserved Bit: 4 1: Output exceeding limit 0: Output normal
	03H	DA2 State	Unsigned8	Ro	Bit: 0-3 Reserved Bit: 4 1: Output exceeding limit 0: Output normal
	04H	DA3 State	Unsigned8	Ro	Bit: 0-3 Reserved Bit: 4 1: Output exceeding limit 0: Output normal

7.4.3Process Data Object (RxPDO)

Index	Sub-index	Name	Data type	Access	Description
7000-71F0H	00H	DA_Channel			The objects used by the module are 0x7000+(module sorting * 0x10) (note: starting from the first module after the coupler, starting from 0, 0, 1, 2... 1F (hexadecimal), and so on)
	01H	DA0code	Unsigned16	R/W	DA0 output value
	02H	DA1code	Unsigned16	R/W	DA1 output value
	03H	DA2code	Unsigned16	R/W	DA2 output value
	04H	DA3code	Unsigned16	R/W	DA3 output value