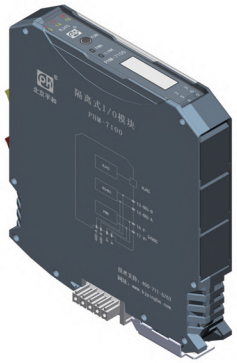
PHM-7100 Ethernet Gateway



PHM-7100

Product overview

It is a fully isolated communication controller with a compact DIN rail installation, it supports not only the current mainstream MODBUS RTU and MODBUS TCP protocols, but also can be used in combination with a variety of expansion I/O modules to flexibly form a high-security and high-reliability remote monitoring, distributed remote control and SCADA system.

Technical indicators

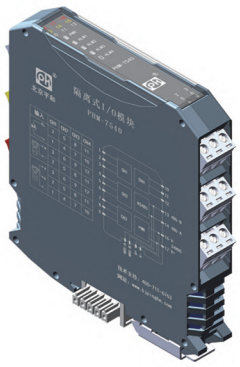
LAN port	MODBUS TCP TCP/IP MODBUS TCP it supports at the same time 5 clients terminal connection
Electromagnetic compatibility	IEC 61326
Isolation ability	1500VAC
Working temperature	-20°C~+60°C
Storage temperature	-40°C~+85°C
Ambient humidity	≤95%ARH Non-condensation
Protection level	IP20

RS485 serial communication master mode port MODBUS RTU protocol 1 start bit, 8 data bits, no parity bit, 1 stop bit Baud rate: 1200, 2400, 4800, 9600, 19200, 38400, 57600, 115200. Number of extended I/O: 1~31 devices and manually to set the number and type of to be connected devices.

Product characteristics

- Support standard MODBUS RTU and MODBUS TCP/IP protocol.
- It can be used in combination with a variety of expansion I/O modules to flexibly form a high-security and high-reliability remote monitoring, distributed remote control and SCADA system.
- The LAN terminal supports up to 5 links.
- Support power supply and communication in two ways: backplane rail and terminal.

PHM-7540 Four-channel analog input module



PHM-7540

Product overview

It can convert the four-channel current signals in industrial field into the digital signals. According to the MODBUS protocol, it can provide digital signals to PHM-7100, PLC or host computer system through RS485 communication.

Compared with the traditional PLC+signal isolator mode, it has avoided two conversion errors, so that the conversion accuracy is significantly improved, while the stability and anti-interference of the system are increased.

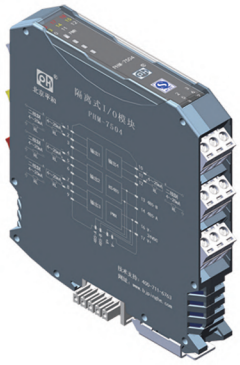
Technical indicators

Power supply	24VDC
Input signal	2-wire, 3-wire or 4~20mA
Input channel	4 channels
Communication interface	RS485
Accuracy	0.10%
Communication protocol	MODBUS
Response time	≤10ms
Temperature drift	0.005% F.S /°C
Configuration mode	PC programmable
Electromagnetic compatibility	IEC 61326
Isolation ability	1500VAC
Working temperature	-20°C~+60°C
Storage temperature	-40°C~+85°C
Ambient humidity	≤95%ARH Non-condensation
Protection level	IP20

Product characteristics

- Low power consumption design, low temperature drift, automatic zero calibration.
- Totally isolated between four channel input signals/communication/power supply.
- Support hot-plug.
- The MODBUS RTU communication protocol is supported, and the communication rate is as high as 115200bps.
- Support power supply and communication in two ways: backplane mounting rail and terminal.
- Combined used with PHM-7100 to support MODBUS TCP/IP, so that to simplify the installation and maintenance, and to improve the data transmission performance.

PHM-7504 Four-channel analog output module



PHM-7504

Product overview

The full isolation design between power supply, communication and input ensures the reliability of the product, the stability of signal acquisition, and anti-interference performance. The optimal isolation design concept is very suitable for the complex industrial working conditions and has good stability.

Compared with the traditional PLC+signal isolator mode, it has avoided the errors because of the two conversions.

Technical indicators

Power supply	24VDC
Output signal	4~20mA
Output channel	4 channels
Communication interface	RS485
Accuracy	0.10%
Communication protocol	MODBUS
Response time	≤10ms
Temperature drift	0.005% F.S /°C
Configuration mode	PC programmable
Electromagnetic compatibility	IEC 61326
Isolation ability	1500VAC
Working temperature	-20°C~+60°C
Storage temperature	-40°C~+85°C
Ambient humidity	≤95%ARH Non-condensation
Protection level	IP20

Product characteristics

- Low power consumption design, low temperature drift, automatic zero calibration.
- Totally isolated between four channel input signals/communication/power supply.
- Support hot-plug.
- The MODBUS RTU communication protocol is supported, and the communication rate is as high as 115200bps.
- Support power supply and communication in two ways: backplane mounting rail and terminal.
- Combined used with PHM-7100 to support MODBUS TCP/IP, so that to simplify the installation and maintenance, and to improve the data transmission performance.

PHM-7240 Four-channel digital input module

PHM-7240

Product overview

It can convert the four channel digital signal in the industrial field respectively isolated into the digital signals, and according to MODBUS protocol provide the digital signals to PHM7100, PLC or host computer controllers or data acquisition systems. The perfect isolation design concept is very suitable for complex working conditions in industrial field, with good stability. Each circuit provides isolated contact detection power supply, which increases the reliability and anti-interference performance.

Technical indicators

Power supply	24VDC
Input signal	Contact and proximity switch
Input channel	4 channels
Communication interface	RS485
Communication protocol	MODBUS
Response time	≤10ms
Configuration mode	PC programmable
Electromagnetic compatibility	IEC 61326
Isolation ability	1500VAC
Working temperature	-20°C~+60°C
Storage temperature	-40°C~+85°C
Ambient humidity	≤95%ARH Non-condensation
Protection level	IP20

Product characteristics

- Complete isolation between signals/communication/power supply.
- Each input provides isolated contact detection power supply.
- Support hot-plug.
- The MODBUS RTU communication protocol is supported, and the communication rate is as high as 115200bps.
- Support power supply and communication in two ways: backplane mounting rail and terminal.
- Combined used with PHM-7100 to support MODBUS TCP/IP, so that to simplify the installation and maintenance, and to improve the data transmission performance.

PHM-7204 Four-channel digital output module

PHM-7204

Product overview

The complete isolation design between power supply, communication and input ensures the reliability of products, stability of signal acquisition and anti-interference performance, etc. The optimal isolation design is very suitable for complex industrial working conditions, with good stability.

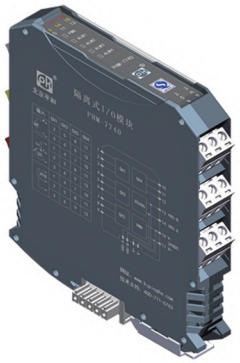
Technical indicators

Power supply	24VDC
Output signal	Relay contact
Output channel	4 channels
Communication interface	RS485
Communication protocol	MODBUS
Response time	≤10ms
Configuration mode	PC programmable
Electromagnetic compatibility	IEC 61326
Isolation ability	1500VAC
Working temperature	-20°C~+60°C
Storage temperature	-40°C~+85°C
Ambient humidity	≤95%ARH Non-condensation
Protection level	IP20

Product characteristics

- Complete isolation between the 4-channel output signals/communication/power supply.
- Optimal anti-interference performance.
- Support hot-plug.
- The MODBUS RTU communication protocol is supported, and the communication rate is as high as 115200bps.
- Support power supply and communication in two ways: backplane mounting rail and terminal.
- Combined used with PHM-7100 to support MODBUS TCP/IP, so that to simplify the installation and maintenance, and to improve the data transmission performance.

PHM-7740 Four-channel analog input module



PHM-7740

Product overview

It can convert the 4-channel RTD/TC/Resistor/mV signals from the industrial field to the digital signals, and according to the MODBUS protocol, through the RS 485 communication provide digital signals to PHM-7100, PLC or host computor controllers or data acquisition systems. Compare to the traditional PLC+ signal isolator output mode, it has avoided the errors through two conversions, it can significantly increase the conversion accuracy at the same time increase the stability and anti-interference ability.

Technical indicators

Power supply	24VDC
Input signal	RTD/TC/Resistor/mV signals
Input channel	4 channels
Communication interface	RS485
Communication protocol	MODBUS
Cold end accuracy	1℃
Temperature drift	0.005% F.S /℃
Configuration mode	PC programmable
Electromagnetic compatibility	IEC 61326
Isolation ability	1500VAC
Working temperature	-20°C~+60°C
Storage temperature	-40°C~+85°C
Ambient humidity	≤95%ARH Non-condensation
Protection level	IP20

Product characteristics

- Low power consumption design, low temperature drift, automatic zero calibration.
- Totally isolated between four channel input signals/communication/power supply.
- Support hot-plug.
- The MODBUS RTU communication protocol is supported, and the communication rate is as high as 115200bps.
- Support power supply and communication in two ways: backplane mounting rail and terminal.
- Combined used with PHM-7100 to support MODBUS TCP/IP, so that to simplify the installation and maintenance, and to improve the data transmission performance.
- Each input signal can be set through programming: RTD/TC/Resistor/mV signals.

PHM-7230 Ex. Three-channel digital input module

Product overview

It can convert the three channel switching signal in the dangerous area isolated into the digital signals, and according to MODBUS RTU protocol provide the digital signals to PHM7100, PLC or host computer systems.

Technical indicators

Power supply				20~35VDC
Input signal				Switch contact and proximity switch
Supply voltage at sensor side				8.2VDC
Input characteristics of signal input	Onsite input current: when it is>2mA, it means logic 1			
	Onsite input current: when it is <1.2mA, it means logic 0, switching hysteresis:0.2mS			
The channel number				3 channels
Communication interface				RS485
Communication protocol				MODBUS RTU
Dielectric strength	≥2500VAC (intrinsically safe terminal and non-intrinsically safe terminal)			
Insulation resistance				≥100MΩ
Applicable field equipment	In accordance with DIN19234 and NAMUR proximity switch			
Temperature parameter	Continuous working temperature: -20°C~+60°C, storage temperature: -40°C~+85			
Relative air humidity				10%~95%RH without condensation
Explosion-proof sign				[Exia Ga] ⅡC
Authentication parameters		Um=250V	Uo=10.5V	Io=15mA
(between terminals 1-2, 4-5 and 7-8)		Co=1.7μF	Lo=100mH	Po=39.4mW
Installation place requirements	It can be connected with instruments in 0 zone with ⅡA, ⅡB, ⅡC dangerous gas			

Product characteristics

- Support hot-plug.
- The MODBUS RTU communication protocol is supported, and the communication rate is as high as 115200bps.
- Support power supply and communication in two ways: backplane mounting rail and terminal.
- Combined used with PHM-7100 to support MODBUS TCP/IP, so that to simplify the installation and maintenance, and to improve the data transmission performance.

PHM-7530 Ex. Three-channel analog input module

Product overview

It can convert the three channel current signal in the dangerous area isolated into the digital signals, and according to MODBUS RTU protocol provide the digital signals to PHM7100, PLC or host computer systems.

Technical indicators

Power supply				20~35VDC
Output power supply with provided power	When the circuit is with output 20mADC, the provided voltage is greater than16VDC			
Input				Two, three-wire system or DC 4~20mADC
Accuracy				0.1%
Response time				≤10ms
The channel number				3 channels
Communication interface				RS485
Communication protocol				MODBUS RTU
Dielectric strength	≥2500VAC (intrinsically safe terminal and non-intrinsically safe terminal)			
Insulation resistance				≥100MΩ
Applicable field equipment	Two or three-wire transmitters or DC signals, this product can be connected with products from multiple manufacturers (ABB, Fisher, Rosemount, Honewe11 and imported technology 1151, EJA, SMAR and other products)			
Temperature parameter	Continuous working temperature: -20°C~+60°C, storage temperature: -40°C~+85			
Relative air humidity				10%~95%RH without condensation
Explosion-proof sign				[Exia Ga] ⅡC
Authentication parameters		Um=250V	Uo=10.5V	Io=15mA
(between terminals 1-2, 4-5 and 7-8)		Co=1.7μF	Lo=100mH	Po=39.4mW
Authentication parameters		Um=250V	Uo=28V	Io=93mA
(between terminals 2-3, 5-6 and 8-9)		Co=0.05μF	Lo=2.4mH	Po=0.65mW
Installation place requirements	It can be connected with instruments in 0 zone with ⅡA, ⅡB, ⅡC dangerous gas			

Product characteristics

- Low power consumption, low temperature drift, automatic zero calibration.
- Support hot-plug.
- The MODBUS RTU communication protocol is supported, and the communication rate is as high as 115200bps.
- Support power supply and communication in two ways: backplane mounting rail and terminal.
- Combined used with PHM-7100 to support MODBUS TCP/IP, so that to simplify the installation and maintenance, and to improve the data transmission performance.

PHM-7730 Ex. Three-channel temperature quantity input module

Product overview

It can convert the three channel temperature signal in the dangerous area isolated into the digital signals, and according to MODBUS RTU protocol provide the digital signals to PHM7100, PLC or host computer systems.

Technical indicators

Power supply				20~35VDC
Input signal				RTD/TC/Resistor/mV signals
The channel number				3 channels
Communication interface				RS485
Communication protocol				MODBUS RTU
Cold end accuracy				1°C
Temperature drift				0.005% F.S/°C
Configuration mode				PC programmable
Dielectric strength	≥2500VAC (intrinsically safe terminal and non-intrinsically safe terminal)			
Insulation resistance				≥100MΩ
Applicable field equipment	B, E,J, K, N, R, S, T TC, or millivolt signal sensors two-wire or three-wire TC Cu50,Cu100,pt100,pt10			
Temperature parameter	Continuous working temperature: -20°C~+60°C, storage temperature: -40°C~+85			
Relative air humidity				10%~95%RH without condensation
Explosion-proof sign				[Exia Ga] ⅡC
Authentication parameters (between terminals 1-2-3, 4-5-6, 7-8-9)		Um=250V Co=4.8μF	Uo=8.4V Lo=20mH	Io=31mA Po=65mW
Installation place requirements	It can be connected with instruments in 0 zone with ⅡA, ⅡB, ⅡC dangerous gas			

Product characteristics

- Low power consumption, low temperature drift, automatic zero calibration.
- Support hot-plug.
- The MODBUS RTU communication protocol is supported, and the communication rate is as high as 115200bps.
- Support power supply and communication in two ways: backplane mounting rail and terminal.
- Combined used with PHM-7100 to support MODBUS TCP/IP, so that to simplify the installation and maintenance, and to improve the data transmission performance.
- The RTD/TC/Resistor/mV of each input signal can be set through programming.