

XPB Series Analog Input Isolated Barrier Data Sheet

1. General

XPB Series Analog Input Isolated Barrier can cooperate with 2-wire transmitter, 3-wire transmitter and 2-wire current sources, provide isolated power supply for transmitter which located in hazardous area. The product transfers analog signal which generated by the transmitter from hazardous area to safe area separately. It restricts the energy from intrinsically safe port to hazardous area, insuring the system against explosion. It widely used in chemical industry, petroleum, natural gas, electricity, and other industrial fields. It is connected with all kinds of intrinsic safety instruments and used as the associated equipment of intrinsically safe explosion-proof system.



The product meets *GB3836.1-2010 Explosive atmospheres - Part 1: Equipment-General requirements* and *GB3836.4-2010 Explosive atmospheres - Part 4: Equipment protection by intrinsic safety "i"*. It has passed the test of China National Test Centre for Explosion Protect Electrical Products and obtained the Explosion-proof Certificate.

2. Features

- ◆ Input, output and power are completely isolated, with strong anti-interference ability
- ◆ High accuracy, high linearity, long - term running stability
- ◆ Modular design, small size, low power consumption, suitable for intensive installation
- ◆ Plug-in construction, easy installation, disassembly and maintenance

3. Safety Description

Approvals: [Exia Ga] II C

Product Type	Cooperate with 2/4-wire transmitter	Cooperate with 3-wire transmitter	
Equipment	Terminal 4 to 6 ,Terminal 1 to 3	Terminal 4 to 6	Terminal 6 to 3
Um	250V	250V	250V
Uo	28V	28V	1.2V
Io	93mA	93mA	100mA
Po	655mW	655mW	30mW
Co	50nF	50nF	70μF
Lo	2.4mH	2.4mH	2.2mH

4. Specifications

Power supply: DC24V±10%

Power consumption: ≤1.2W / channel

Supply output: available voltage: 16V@20mA

open circuit voltage: 28V

short circuit current: 40mA

Input: DC voltage, DC current, hazardous area

Input resistance: voltage input ≥500KΩ

current input ≤200Ω

Output: DC voltage, DC current, safe area

Load resistance: voltage output ≥5KΩ

current output ≤350Ω

Accuracy: ±0.1%F.S, ±0.2%F.S

Temp. coefficient: ≤±100PPM/°C

Insulation resistance: ≥100MΩ/500VDC

Dielectric strength: input/output ≥2000VAC (1min)

input/power ≥2000VAC (1min)

output/power ≥1000VAC (1min)

Operating temperature: 0~50°C

Storage temperature: -40~80°C

Operating humidity: 10~90%RH

Atmospheric pressure: 86~106kPa

Installation: DIN 35mm rail

Dimension: 122mm×18mm×96mm

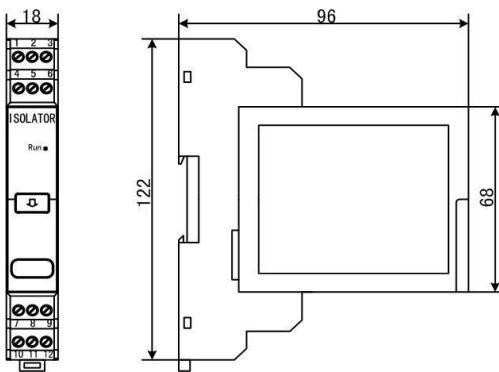
5. Ordering Information

XPB series code table :

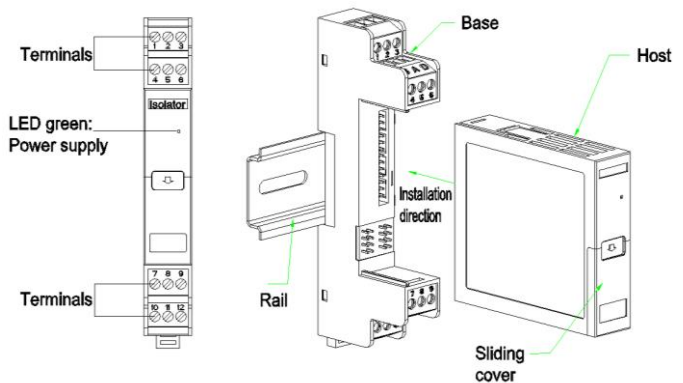
XPB	Type		Input 1		Input 2		Output 1		Output 2	
	Code	Type	Code	Rang	Code	Rang	Code	Rang	Code	Rang
Analog Input Isolated Barrier	G	Isolation	A420	4-20mA	A420	4-20mA	A420	4-20mA	A420	4-20mA
	P	Current Loop Supply	A020	0-20mA	A020	0-20mA	A020	0-20mA	A020	0-20mA
			A010	0-10mA	A010	0-10mA	A010	0-10mA	A010	0-10mA
			H420	4-20mA+Hart	H420	4-20mA+Hart	H420	4-20mA+Hart	H420	4-20mA+Hart
			V010	0-10V	V010	0-10V	V010	0-10V	V010	0-10V
			V15	1-5V	V15	1-5V	V15	1-5V	V15	1-5V
			V05	0-5V	V05	0-5V	V05	0-5V	V05	0-5V
			V075	0-75mV	V075	0-75mV	V075	0-75mV	V075	0-75mV
			Y	Option	Y	Option	Y	Option	Y	Option
						None				None
							Y	Option		
									Y	Option
										None

6. Dimension & Installation

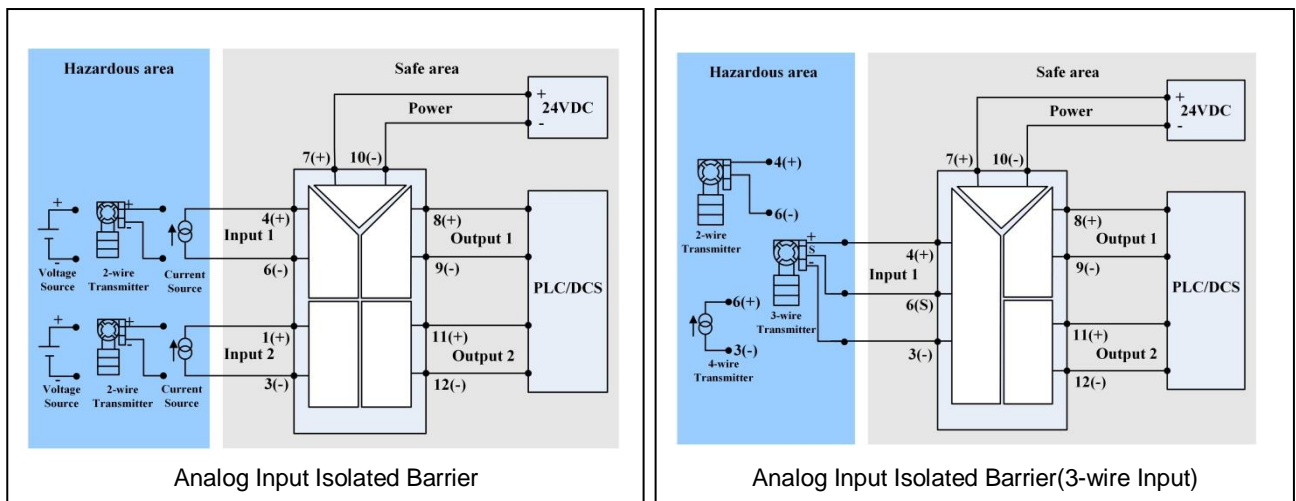
Dimension (122mm×18mm×96mm)



Installation



7. Typical Connection



Note: The connection diagrams given in this manual are typical. When installing, please refer to the connection diagram on the product.

8. Examples of ordering

Refer to the code table above and provide the model number correctly.

Example 1 input: hazardous area, one channel 4-20mA, output: safe area, two channels 4-20mA, power supply: 24VDC
order model: XPB-G-A420-A420-A420 (abbreviated as: XPB-G-A420-2A420)

Example 2 input: hazardous area, one channel 2-wire 4-20mA, output: safe area, one channel 4-20mA,
power supply: 24VDC
order model: XPB-P-A420-A420

Example 3 input: hazardous area, one channel 0-10V, output: safe area, two channels 0-10V, power supply: 24VDC
order model: XPB-G-V010-V010-V010 (abbreviated as: XPB-G-V010-2V010)

9. Explosion-proof Certificate



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