

XPB Series ON-OFF Signal Output Isolated Barrier Data Sheet

1. General

XPB Series ON-OFF Signal Output Isolated Barrier receives ON-OFF signal from the safe area, drives the equipment on the dangerous area after isolation, such as solenoid valve or alarm. 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

Equipment	Terminal 4 to 6, 1 to 3	Equipment	Terminal 4 to 6, 1 to 3
Um	250V	Po	655mW
Uo	28V	Co	50nF
Io	93mA	Lo	2.4mH

4. Specifications

Power supply: DC24V±10%

Power consumption: ≤3W

Input (safe area) :

dry contact:

short circuit current 8mA

open circuit voltage 8V

wet contact:

≤1V means "close"

≥4V means "open"

Output (hazardous area) :

Relay output: contact type: normal open

contact capacity:60mA/30VDC

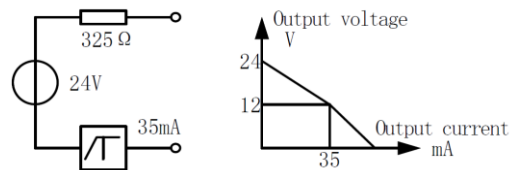
Open collector: exterior power supply:≤30VDC

load current : ≤60mA

Collector with voltage: open circuit voltage 24V

short circuit current 35mA

Equivalent Output Circuit:



Frequency: ≤ 5kHz(Collector output), ≤ 20Hz(Relay output)

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: -40~85°C

Operating humidity: 10~90%RH

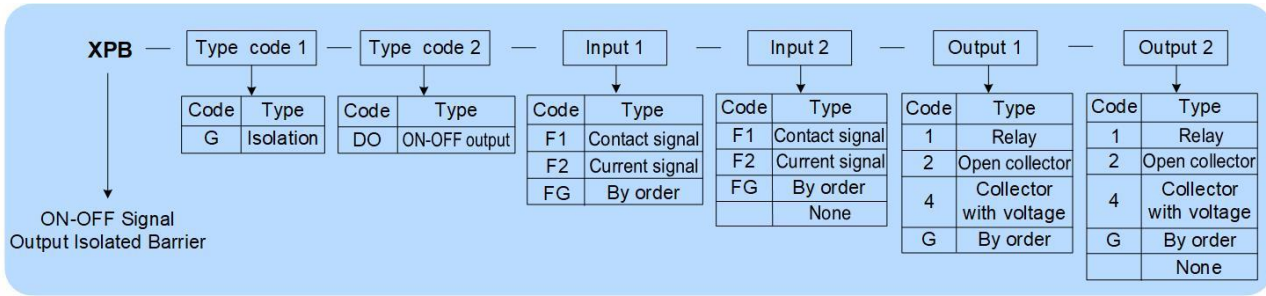
Atmospheric pressure: 86~106kPa

Installation: DIN 35mm rail

Dimension: 122mm×18mm×96mm

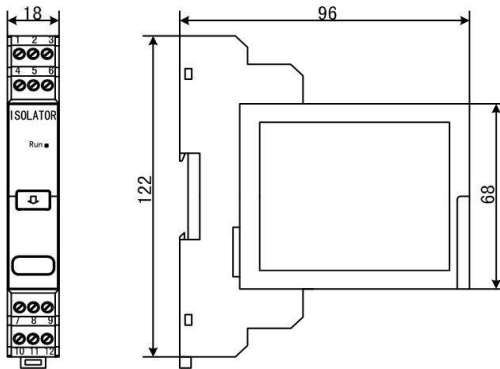
5. Ordering Information

XPB series code table :

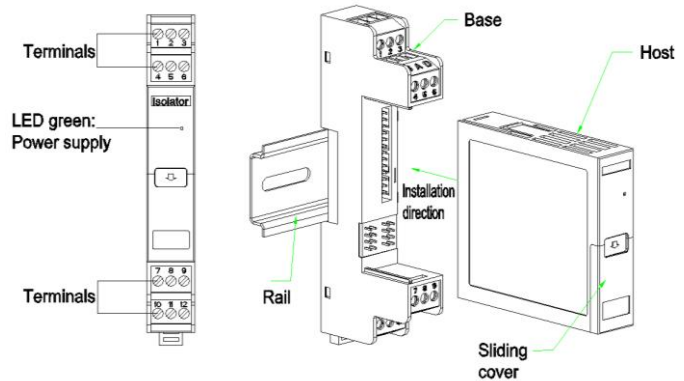


6. Dimension & Installation

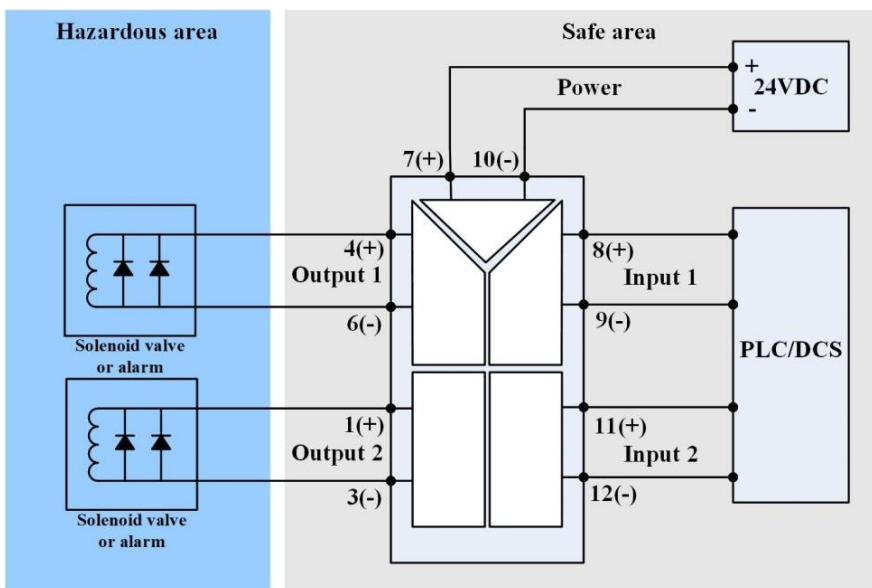
Dimension (122mm×18mm×96mm)



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: safe area, one channel dry contact, output: hazardous area, one channel relay signal,

power supply: 24VDC

order model: XPB-G-DO-F1-1

Example 2 input: safe area, one channel collector with 24VDC signal, output: hazardous area, one channel collector with 24VDC signal, power supply: 24VDC

order model: XPB-G-DO-F2-4

Example 3 input: safe area, one channel dry contact, output: hazardous area, two channels collector with 24VDC signal, power supply: 24VDC

order model: XPB-G-DO-F1-4-4

9. Explosion-proof Certificate



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