



H series

Backplane Mounting Isolated Safety Barriers



ABOUT BEIJING PINGHE

BeiJing Pinghe Chuangye Technology Development Co.Ltd, was founded in January 2004, is a national high-tech enterprise dedicated to R&D, production and sales of signal interface modules. Our products such as isolated safety barriers, signal isolators and safety relays etc. are widely used in military, nuclear power, aerospace, petrochemical, metallurgical, energy and environmental protection, shipbuilding, biomedicine industries; So far, more than 7 million pieces run stable in domestic and foreign markets out excellent quality and outstanding service have been highly recognized and praised by a vast number of partners.



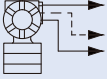
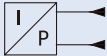
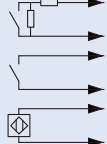
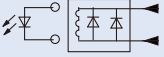
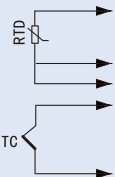
H Series Backplane mounting Isolated Safety Barriers

Beijing Pinghe H Series Backplane mounting Isolated Safety Barriers, each backplane can be connected to 8 or 16 channels through plug at the bottom and socket at the top of backplane, support hot swapping. Through customized backplane sockets and prefabricated cable connected with PLC and DCS; Backplane provides multi-sockets, suitable for different manufacturers of electrical cables, quick and convenient connection with control systems, compatible with domestic and overseas brands of PLC and DCS, like: Honeywell、Siemens、Emerson、Foxboro、Hima、Consen、Supcon、HollySys etc. Significantly reduces the wiring work required for safety barrier power distribution and signal output.

- Triple terminals isolation, input/output/power supply
- Redundant power supply
- Temperature signal input, can be intelligent configured
- High density, ultra-thin design, backplane type montage
- Screw or DIN-rail montage, stable and secure
- Prefabricated cable, convinient connection with control systems
- LED state indicator



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Overview

Backplane Mounting Isolated Safety Barriers: PHD-11HD-21. The safety barrier can enable the isolated transmission of 4~20mA signals generated by transmitters in hazardous area, or 4~20mA signals from current sources to outputs in safe area. Support HART signal bidirectional communication. The transformers can be: two- or three-wire systems, circuit providing power supply to the transmitters.

This product requires independent power supply, with isolated power supply, input, and output terminals.

Technical parameters

Number of channels: 1 input 1 output

Power supply:

Power voltage: 18~35V DC, power consumption 1.5W (when the supply voltage is 24V DC, and output 20mA)

Power protection: power reverse protection

Hazardous side input:

Input signal: two, three-wire or current source 4~20mA(HART)

Distribution voltage: open-circuit voltage≤28V, when circuit 20mA output voltage≥15.5V

Safety side output:

Output signal: 4~20mA(HART)

Allowable output load capacity: 0~500Ω(customizable)

Output accuracy: 0.1%F.S

Temperature drift: 0.005% F.S/°C

Temperature parameters: working temperature: -20°C~+60°C

storage temperature: -40°C~+80°C

Relative humidity: 10%~95% RH no condensation

LED indicator: green——power indicator

Response time: 2ms to reach the final value 90%

Insulation strength: between intrinsically safe side and non-intrinsically safe

side (≥3000VAC/min)

between power supply and non-intrinsically safe

side (≥1500VAC/min)

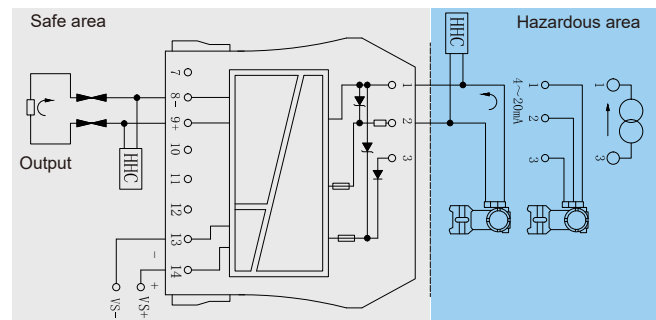
Insulation resistance: ≥100MΩ (between input/output/power supply)

EMC: according to IEC 61326-1(GB/T 18268), IEC 61326-3-1

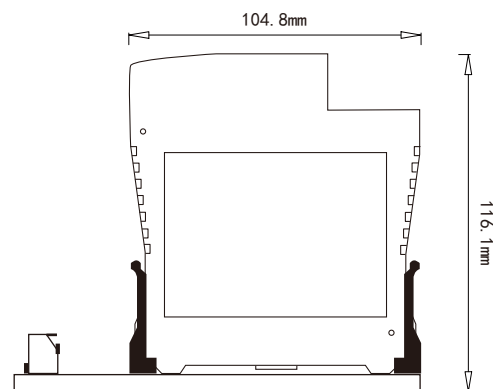
Applicable field equipments: two-wire transmitters, three-wire transmitters, current source signal

Installation place: installed in a safe zone, it can be connected to intrinsic safety instruments in hazardous areas up to Zone 0, IIC, Zone 20, and IIIC

Connection wiring



Dimensions



Safety certification

Certification body: CQST(China National Quality Supervision and Test Centre for Explosion Protected Electrical Products)

Explosion-proof standard: GB/ T 3836.1-2021 GB/T 3836.4-2021

Explosion-proof mark: [Ex ia Ga] IIC [Ex ia Da] III C

Certified parameters (between terminals 2-3、 2-1)

Um: 250V AC/DC Uo=28V DC Io=93mA Po=0.65W Co=0.083μF Lo=4.2mH.

Certified parameters (between terminals 3-1):

Um: 250V AC/DC Uo=7.2V DC Io=--- Po=--- Co=12μF Lo=---.



Overview

Backplane Mounting Isolated Safety Barriers: PHD-12HD-211. The safety barrier can enable the isolated transmission of 4~20mA signals generated by transmitters in hazardous area, or 4~20mA signals from current sources to outputs in safe area. Support HART signal bidirectional communication. The transformers can be: two- or three-wire systems, circuit providing power supply to the transmitters.

This product requires independent power supply, with isolated power supply, input, and output terminals.

Technical parameters

Number of channels: 1 input 2 output

Power supply:

Power voltage: 18~35V DC, power consumption 2W (when the supply voltage is 24V DC, and output 20mA)

Power protection: power reverse protection

Hazardous side input:

Input signal: two, three-wire or current source 4~20mA(HART)

Distribution voltage: open-circuit voltage $\leq$ 28V, when circuit 20mA output voltage $\geq$ 15.5V

Safety side output:

Output signal: 4~20mA(HART)

Allowable output load capacity: 0~500 Ω (customizable)

Output accuracy: 0.1%F.S

Temperature drift: 0.005% F.S/°C

Temperature parameters: working temperature: -20°C~+60°C

storage temperature: -40°C~+80°C

Relative humidity: 10%~95% RH no condensation

LED indicator: green—power indicator

Response time: 2ms to reach the final value 90%

Insulation strength: between intrinsically safe side and non-intrinsically safe

side ($\geq$ 3000VAC/min)

between power supply and non-intrinsically safe

side ($\geq$ 1500VAC/min)

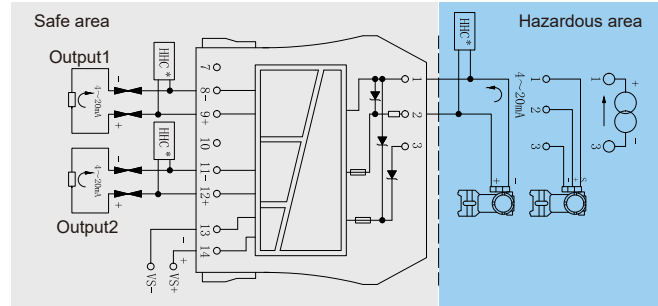
Insulation resistance: $\geq$ 100M Ω (between input/output/power supply)

EMC: according to IEC 61326-1(GB/T 18268), IEC 61326-3-1

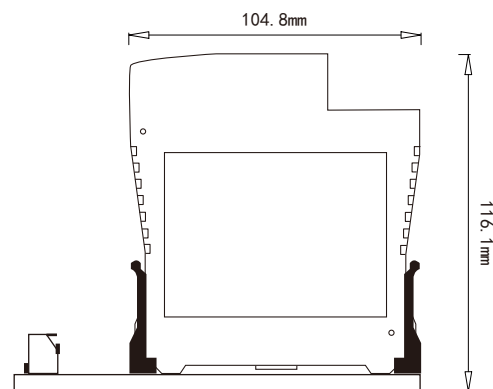
Applicable field equipments: two-wire transmitters, three-wire transmitters, current source signal

Installation place: installed in a safe zone, it can be connected to intrinsic safety instruments in hazardous areas up to Zone 0, IIC, Zone 20, and IIIC

Connection wiring



Dimensions



Safety certification

Certification body: CQST(China National Quality Supervision and Test Centre for Explosion Protected Electrical Products)

Explosion-proof standard: GB/ T 3836.1-2021 GB/T 3836.4-2021

Explosion-proof mark: [Ex ia Ga] IIC [Ex ia Da] III C

Certified parameters (between terminals 2-3、 2-1)

Um: 250V AC/DC Uo=28V DC Io=93mA Po=0.65W Co=0.083 μ F Lo=4.2mH.

Certified parameters (between terminals 3-1):

Um: 250V AC/DC Uo=7.2V DC Io=--- Po=--- Co=12 μ F Lo=---



Overview

Backplane Mounting Isolated Safety Barriers: PHD-22HD-2121. The safety barrier can enable the isolated transmission of 4~20mA signals generated by transmitters in hazardous area, or 4~20mA signals from current sources to outputs in safe area. Support HART signal bidirectional communication. The transformers can be two- or three-wire systems, circuit providing power supply to the transmitters.

This product requires independent power supply, with isolated power supply, input, and output terminals.

Technical parameters

Number of channels: 2 input 2 output

Power supply:

Power voltage: 18~35V DC, power consumption 2.8W (when the supply voltage is 24V DC, and output 20mA)

Power protection: power reverse protection

Hazardous side input:

Input signal: two, three-wire or current source 4~20mA(HART)

Distribution voltage: open-circuit voltage $\leq 28V$, when circuit 20mA output voltage $\geq 15.5V$

Safety side output:

Output signal: 4~20mA(HART)

Allowable output load capacity: 0~500 Ω (customizable)

Output accuracy: 0.1%F.S

Temperature drift: 0.005% F.S/°C

Temperature parameters: working temperature: -20°C~+60°C
storage temperature: -40°C~+80°C

Relative humidity: 10%~95% RH no condensation

LED indicator: green——power indicator

Response time: 2ms to reach the final value 90%

Insulation strength: between intrinsically safe side and non-intrinsically safe side ($\geq 3000VAC/min$)
between power supply and non-intrinsically safe side ($\geq 1500VAC/min$)

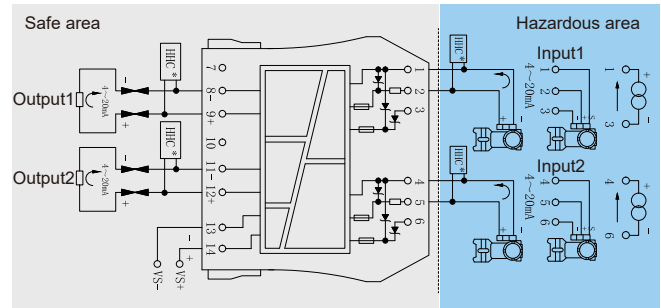
Insulation resistance: $\geq 100M\Omega$ (between input/output/power supply)

EMC: according to IEC 61326-1(GB/T 18268), IEC 61326-3-1

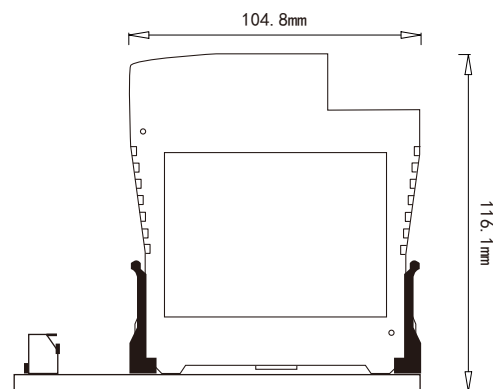
Applicable field equipments: two-wire transmitters, three-wire transmitters, current source signal

Installation place: installed in a safe zone, it can be connected to intrinsic safety instruments in hazardous areas up to Zone 0, IIC, Zone 20, and IIIC

Connection wiring



Dimensions



Safety certification

Certification body: CQST(China National Quality Supervision and Test Centre for Explosion Protected Electrical Products)

Explosion-proof standard: GB/ T 3836.1-2021 GB/T 3836.4-2021

Explosion-proof mark: [Ex ia Ga] IIC [Ex ia Da] IIIC

Certified parameters (between terminals 2-3、2-1、5-6、5-4)

Um: 250V AC/DC Uo=28V DC Io=93mA Po=0.65W Co=0.083 μF Lo=4.2mH.

Certified parameters (between terminals 3-1、6-4):

Um: 250V AC/DC Uo=7.2V DC Io=--- Po=--- Co=12 μF Lo=---



Overview

Backplane Mounting Isolated Safety Barriers PHD-11HD-22. The safety barrier can isolate and transmit the 4~20mA signal or current source 4~20 mA signal generated by the transmitter in the hazardous area to the safe area via two-wire isolated 4-20mA signal outputs. Support bidirectional communication of HART signals. When the transmitter is two-wire or three-wire system, the safety barrier provides power for the transmitter. This product requires independent power supply, with isolated power supply, input, and output terminals.

Technical parameters

Number of channels: 1 input 1 output

Power supply:

Power voltage: 18~35V DC, power consumption 1.5W (when the supply voltage is 24V DC, and output 20mA)

Power protection: power reverse protection

Hazardous side input:

Input signal: two, three-wire or current source 4~20mA(HART)

Distribution voltage: open-circuit voltage≤28V, when circuit 20mA output voltage≥15.5V

Safety side output:

Output signal: two-wire 4~20mA(HART)

Allowable output load capacity: 0~500Ω(customizable)

Output accuracy: 0.1%F.S

Temperature drift: 0.005% F.S/°C

Temperature parameters: working temperature: -20°C~+60°C

storage temperature: -40°C~+80°C

Relative humidity: 10%~95% RH no condensation

LED indicator: green——power indicator

Response time: 2ms to reach the final value 90%

Insulation strength: between intrinsically safe side and non-intrinsically safe side (≥3000VAC/min)
between power supply and non-intrinsically safe side (≥1500VAC/min)

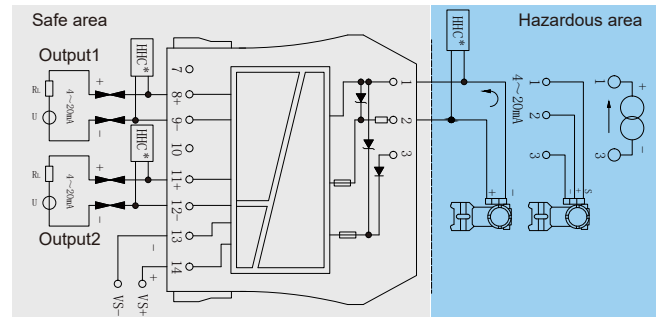
Insulation resistance: ≥100MΩ (between input/output/power supply)

EMC: According to IEC 61326-1(GB/T 18268), IEC 61326-3-1

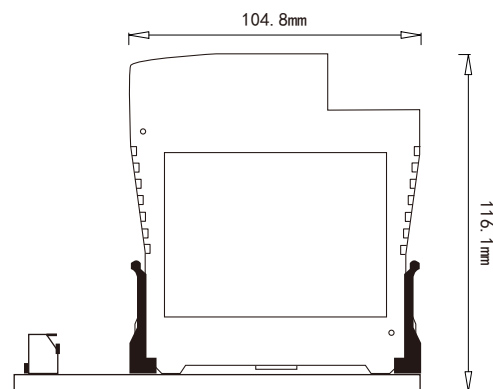
Applicable field equipments: two-wire transmitters, three-wire transmitters, current source signal

Installation place: installed in a safe zone, it can be connected to intrinsic safety instruments in hazardous areas up to Zone 0, IIC, Zone 20, and IIIC

Connection wiring



Dimensions



Safety certification

Certification body: CQST(China National Quality Supervision and Test Centre for Explosion Protected Electrical Products)

Explosion-proof standard: GB/ T 3836.1-2021 GB/T 3836.4-2021

Explosion-proof mark: [Ex ia Ga] IIC [Ex ia Da] IIIC

Certified parameters (between terminals 2-3、2-1)

Um: 250V AC/DC Uo=28V DC Io=93mA Po=0.65W Co=0.083μF Lo=4.2mH.

Certified parameters (between terminals 3-1):

Um: 250V AC/DC Uo=7.2V DC Io=--- Po=--- Co=12μF Lo=---.



Overview

Backplane Mounting Isolated Safety Barriers PHD-12HD-222. The safety barrier can isolate and transmit the 4~20mA signal or current source 4~20 mA signal generated by the transmitter in the hazardous area to the safe area via two-wire isolated 4-20mA signal outputs . Support bidirectional communication of HART signals. When the transmitter is two-wire or three-wire system, the safety barrier provides power for the transmitter. This product requires independent power supply, with isolated power supply, input, and output terminals.

Technical parameters

Number of channels: 1 input 2 output

Power supply:

Power voltage: 18~35V DC, power consumption 2W (when the supply voltage is 24V DC, and output 20mA)

Power protection: power reverse protection

Hazardous side input:

Input signal: two, three-wire or current source 4~20mA(HART)

Distribution voltage: open-circuit voltage≤28V, when circuit 20mA output voltage≥15.5V

Safety side output:

Output signal: two-wire 4~20mA(HART)

Allowable output load capacity: 0~500Ω(customizable)

Output accuracy: 0.1%F.S

Temperature drift: 0.005% F.S/℃

Temperature parameters: working temperature: -20℃~+60℃

storage temperature: -40℃~+80℃

Relative humidity: 10%~95% RH no condensation

LED indicator: green——power indicator

Response time: 2ms to reach the final value 90%

Insulation strength: between intrinsically safe side and non-intrinsically safe

side (≥3000VAC/min)

between power supply and non-intrinsically safe

side (≥1500VAC/min)

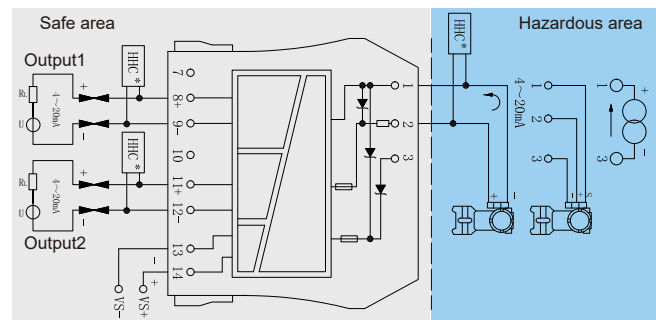
Insulation resistance: ≥100MΩ (between input/output/power supply)

EMC: According to IEC 61326-1(GB/T 18268), IEC 61326-3-1

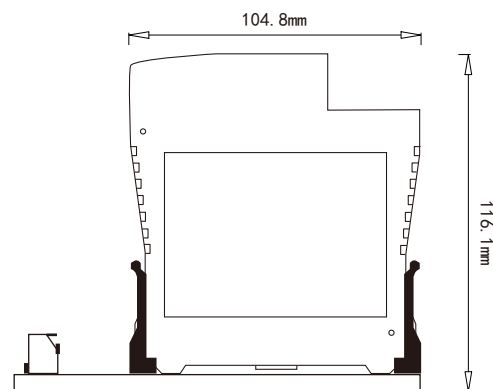
Applicable field equipments: two-wire transmitters, three-wire transmitters, current source signal

Installation place: installed in a safe zone, it can be connected to intrinsic safety instruments in hazardous areas up to Zone 0, IIC, Zone 20, and IIIC

Connection wiring



Dimensions



Safety certification

Certification body: CQST(China National Quality Supervision and Test Centre for Explosion Protected Electrical Products)

Explosion-proof standard: GB/ T 3836.1-2021 GB/T 3836.4-2021

Explosion-proof mark: [Ex ia Ga] IIC [Ex ia Da] IIIC

Certified parameters (between terminals 2-3、 2-1)

Um: 250V AC/DC Uo=28V DC Io=93mA Po=0.65W Co=0.083μF Lo=4.2mH.

Certified parameters (between terminals 3-1):

Um: 250V AC/DC Uo=7.2V DC Io=--- Po=--- Co=12μF Lo=---.



Overview

Backplane Mounting Isolated Safety Barriers PHD-22HD-2222. The safety barrier can isolate and transmit the 4~20mA signal or current source 4~20 mA signal generated by the transmitter in the hazardous area to the safe area via two-wire isolated 4~20mA signal outputs. Support bidirectional communication of HART signals. When the transmitter is two-wire or three-wire system, the safety barrier provides power for the transmitter. This product requires independent power supply, with isolated power supply, input, and output terminals.

Technical parameters

Number of channels: 2 input 2 output

Power supply:

Power voltage: 18~35V DC, power consumption 2.8W (when the supply voltage is 24V DC, and output 20mA)

Power protection: power reverse protection

Hazardous side input:

Input signal: two, three-wire or current source 4~20mA(HART)

Distribution voltage: open-circuit voltage $\leq$ 28V, when circuit 20mA output voltage $\geq$ 15.5V

Safety side output:

Output signal: two-wire 4~20mA(HART)

Allowable output load capacity: 0~500 Ω (customizable)

Output accuracy: 0.1%F.S

Temperature drift: 0.005% F.S/°C

Temperature parameters: working temperature: -20°C~+60°C
storage temperature: -40°C~+80°C

Relative humidity: 10%~95% RH no condensation

LED indicator: green——power indicator

Response time: 2ms to reach the final value 90%

Insulation strength: between intrinsically safe side and non-intrinsically safe side ($\geq$ 3000VAC/min)
between power supply and non-intrinsically safe side ($\geq$ 1500VAC/min)

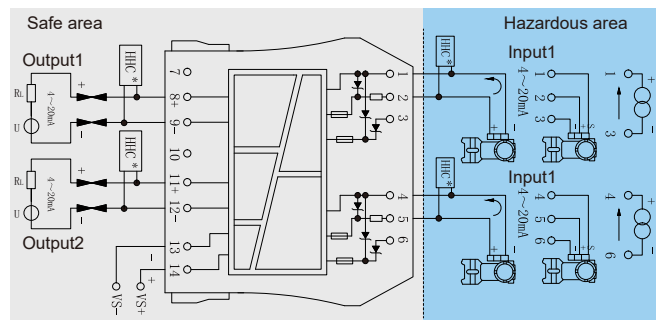
Insulation resistance: $\geq$ 100M Ω (between input/output/power supply)

EMC: According to IEC 61326-1(GB/T 18268), IEC 61326-3-1

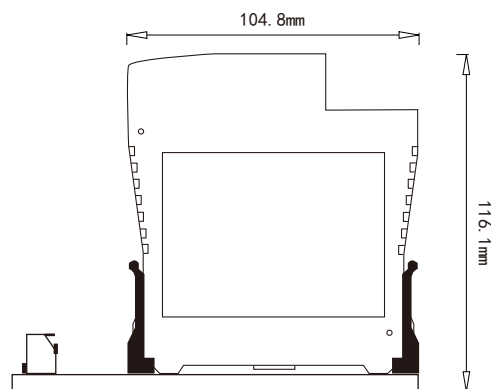
Applicable field equipments: two-wire transmitters, three-wire transmitters, current source signal

Installation place: installed in a safe zone, it can be connected to intrinsic safety instruments in hazardous areas up to Zone 0, IIC, Zone 20, and IIIC

Connection wiring



Dimensions



Safety certification

Certification body: CQST(China National Quality Supervision and Test Centre for Explosion Protected Electrical Products)

Explosion-proof standard: GB/ T 3836.1-2021 GB/T 3836.4-2021

Explosion-proof mark: [Ex ia Ga] IIC [Ex ia Da] IIIC

Certified parameters (between terminals 2-3、2-1、5-6、5-4)

Um: 250V AC/DC Uo=28V DC Io=93mA Po=0.65W Co=0.083 μ F Lo=4.2mH.

Certified parameters (between terminals 3-1、6-4):

Um: 250V AC/DC Uo=7.2V DC Io=--- Po=--- Co=12 μ F Lo=---



Overview

Backplane Mounting Isolated Safety Barriers PHC-11HD-11. The safety barrier can realize the isolated transmission of 4~20mA signals from the instruments in the safe area to the hazardous area, drive the valve positioner, electric/pneumatic converter and other equipment on site, and support the bidirectional transmission of HART digital signals. This product requires independent power supply, with isolated power supply, input, and output terminals.

Technical parameters

Number of channels: 1 input 1 output

Power supply:

Power voltage: 18~35V DC, power consumption about 1.2W(when the supply voltage is 24V DC, and output 20mA)

Power protection: power reverse protection

Safety side input:

Input signal: 4~20mA(HART)

Hazardous side output:

Output signal: 4~20mA(HART)

Allowable output load capacity: 0~500Ω(customizable)

Drive current: ≤15mA, load resistance≥1kΩ

LED light indicator: green - power

Output accuracy: 0.1%F.S (typical value: 0.05%F.S)

Response time: 2ms to reach the final value 90%

Temperature drift: 0.005%F.S/°C

Temperature parameters: working temperature: -20°C~+60°C

storage temperature: -40°C~ +80°C

Relative humidity: 10%~95%RH no condensation

Insulation strength: between intrinsically safe side and non-intrinsically

safe side (≥3000VAC/min);

between power supply and non-intrinsically

safe side (≥1500VAC/min)

Insulation resistance: ≥100MΩ (between input/output/power supply)

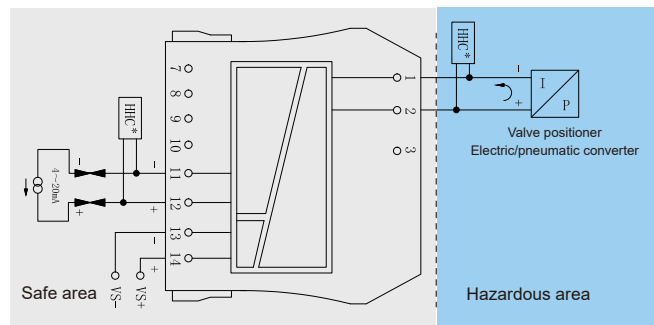
EMC: According to IEC 61326-1(GB/T 18268), IEC 61326-3-1

Wiring requirements: cross-section≥0.5mm²; insulation strength≥500V

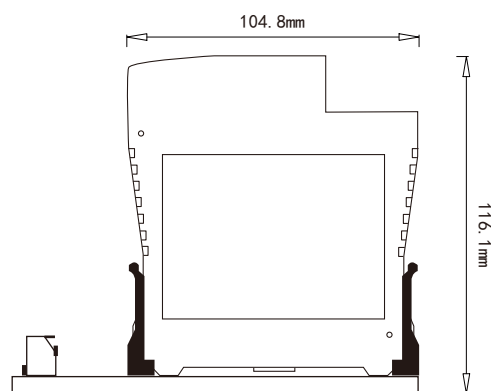
Applicable field equipments: valve positioner, electric/pneumatic converter

Installation place: installed in a safe zone, it can be connected to intrinsic safety instruments in hazardous areas up to Zone 0, IIC, Zone 20, and IIIC

Connection wiring



Dimensions



Safety certification

Certification body: CQST (China National Quality Supervision and Test Centre for Explosion Protected Electrical Products)

Certification standards: GB/T 3836.1-2021、GB/T 3836.4-2021

Explosion-proof mark: [Exia Ga] II C、[Exia Da] III C

Certified parameters (between terminals 1-2):

Um: 250V AC/DC, Uo=28V DC, Io=93mA, Po=0.65W, Co=0.083μF, Lo=4.2mH.



Overview

Backplane Mounting Isolated Safety Barriers PHC-22HD-1111. The safety barrier can realize the isolated transmission of 4~20mA signals from the instruments in the safe area to the hazardous area, drive the valve positioner, electric/pneumatic converter and other equipment on site, and support the bidirectional transmission of HART digital signals. This product requires independent power supply, with isolated power supply, input, and output terminals.

Technical parameters

Number of channels: 2 input 2 output

Power supply:

Power voltage: 18~35V DC, power consumption about 2W (when the supply voltage is 24V DC, and output 20mA)

Power protection: power reverse protection

Safety side input:

Input signal: 4~20mA(HART)

Hazardous side output:

Output signal: 4~20mA(HART)

Allowable output load capacity: 0~500Ω(customizable)

Drive current: ≤15mA, load resistance ≥ 1kΩ

LED light indicator: green-power

Output accuracy: 0.1%F.S (typical value: 0.05%F.S)

Response time: 2ms to reach the final value 90%

Temperature drift: 0.005%F.S/°C

Temperature parameters: working temperature: -20°C~+60°C

storage temperature: -40°C~ +80°C

Relative humidity: 10%~95%RH no condensation

Insulation strength: between intrinsically safe side and non-intrinsically

safe side (≥3000VAC/min);

between power supply and non-intrinsically

safe side (≥1500VAC/min)

Insulation resistance: ≥100MΩ (between input/output/power supply)

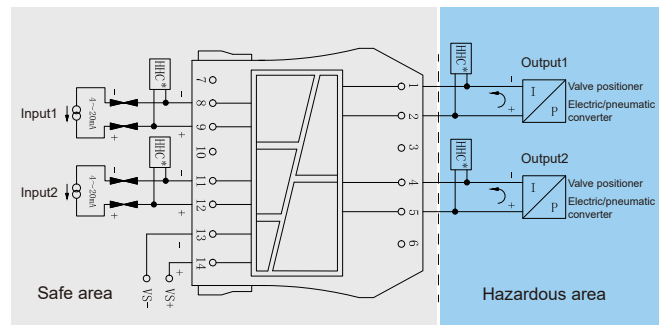
EMC: according to IEC 61326-1(GB/T 18268), IEC 61326-3-1

Wiring requirements: cross-section≥0.5mm²; insulation strength≥500V

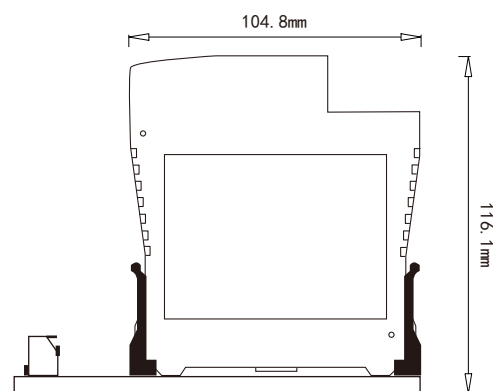
Applicable field equipments: valve positioner, electric/pneumatic converter

Installation place: installed in a safe zone, it can be connected to intrinsic safety instruments in hazardous areas up to Zone 0, IIC, Zone 20, and IIIC

Connection wiring



Dimensions



Safety certification

Certification body: CQST (China National Quality Supervision and Test Centre for Explosion Protected Electrical Products)

Certification standards: GB/T 3836.1-2021、GB/T 3836.4-2021

Explosion-proof mark: [Exia Ga] II C、[Exia Da] III C

Certified parameters (between terminals 1-2、4-5):

Um: 250V AC/DC, Uo=28V DC, Io=93mA, Po=0.65W, Co=0.083μF, Lo=4.2mH.



Overview

Backplane Mounting Isolated Safety Barriers PHD-11HF-27. The safety barrier which isolates and transmits input signals from switch contacts or proximity switches in hazardous areas to the safety zone with output relay through the safety barrier. Line fault detection is achieved through a separate relay output (optional), and displayed on the top LED of the module. The switch of the module is used to set input and output in-phase, as well as to enable or disable the line fault detection alarm indication function.

This product requires independent power supply, with isolated power supply, input, and output terminals.

Technical parameters

Number of channels: 1 input 1 output

Power supply:

Power voltage: 18~35V DC, power consumption about 1W (When the supply voltage is 24V DC and the relay contacts are closed)

Power protection: power reverse protection

Hazardous side input:

Input signal: switch contact/proximity switch

The supply voltage of the sensor: about 8V

Input/output characteristics:

On site input current: when $>2.1\text{mA}$, the output is closed, indicating ON
when $<1.2\text{mA}$, the output is open circuit, indicating OFF

Output normally "Open"/"Closed" contact conversion control:

When the dial switch K1 is at "ON" side, the relay output is "Normally closed"

When the dial switch K1 is at "OFF" side, the relay output is "Normally open"

When the dial switch K2 is at "ON" side, the circuit selects indicating red light LFD alarm function

Safety side output:

Output signal: relay, alarm relay(optional)

Drive capacity: 250V AC/2A, 30V DC/2A resistive load

Response time: 20ms

LED light indicator: green-power; yellow-output relay normal working state
red-LFD indication, line fault alarm

Temperature parameters: working temperature: $-20^{\circ}\text{C}\sim+60^{\circ}\text{C}$

storage temperature: $-40^{\circ}\text{C}\sim+80^{\circ}\text{C}$

Relative humidity: 10%~95% RH no condensation

Insulation strength: between intrinsically safe side and non-intrinsically

safe side ($\geq 3000\text{VAC/min}$);

between power supply and non-intrinsically

safe side ($\geq 1500\text{VAC/min}$)

Insulation resistance: $\geq 100\text{M}\Omega$ (between input/output/power supply)

EMC: according to IEC 61326-1(GB/T 18268), IEC 61326-3-1

Wire requirements: cross-section $\geq 0.5\text{mm}^2$; insulation strength $\geq 500\text{V}$

Applicable field equipments: field equipment such as dry contacts or NAMUR type proximity switch inputs that comply with DIN19234 standard

Installation place: installed in a safe zone, it can be connected to intrinsic safety instruments in hazardous areas up to Zone 0, IIC, Zone 20, and IIIC

Safety certification

Certification body: CQST (China National Quality Supervision and Test Centre for Explosion Protected Electrical Products)

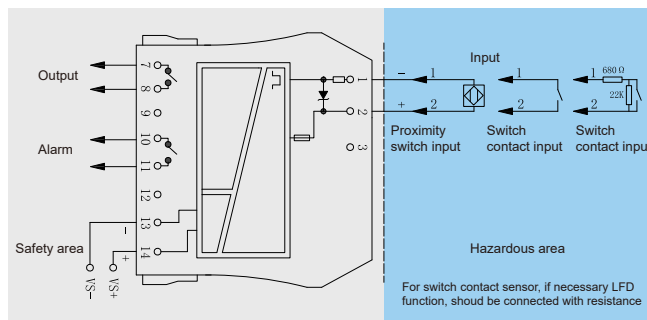
Certification standards: GB/T 3836.1-2021、GB/T 3836.4-2021

Explosion-proof mark: [Exia Ga] II C、[Exia Da] III C

Certified parameters (between terminals 1-2):

Um: 250V AC/DC, Uo=10.5V DC, Io=14mA, Po=37mW, Co=2.4 μF , Lo=165mH.

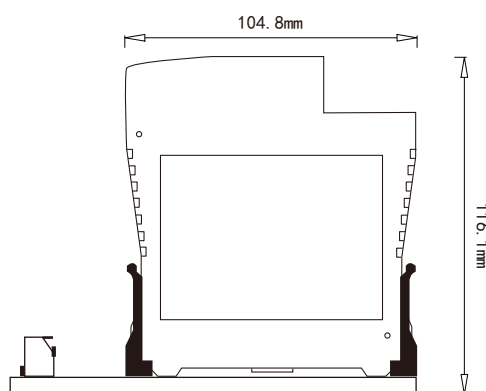
Connection wiring



Line Fault Detection

Users can select the fault detection function via the switch at the top of the module, with status indicated by an LED. If a line fault is detected, the line fault relay closes while the channel output relay opens. On site input current $>7\text{mA}$, short circuit alarm (SC); On site input current $<0.1\text{mA}$, open circuit alarm (LB). For switch contact inputs requiring fault detection function, a 22k Ω resistor should be connected in parallel at both ends of the switch (as shown in the wiring diagram for switch contact II).

Dimensions





Overview

Backplane Mounting Isolated Safety Barriers PHD-11HF-27B. The safety barrier which isolates and transmits input signals from switch contacts or proximity switches in hazardous areas to the safety zone with output relay through the safety barrier. Line fault detection is achieved through a separate relay output (optional), and displayed on the top LED of the module. The switch of the module is used to set input and output in-phase, as well as to enable or disable the line fault detection alarm indication function.

This product requires independent power supply, with isolated power supply, input, and output terminals.

Technical parameters

Number of channels: 1 input 1 output

Power supply:

Power voltage: 18~35V DC, power consumption about 1W(When the supply voltage is 24V DC and the relay contacts are closed)

Power protection: power reverse protection

Hazardous side input:

Input signal: switch contact/proximity switch

The supply voltage of the sensor: about 8V

Input/output characteristics:

On site input current: when $>2.1\text{mA}$, the output is closed, indicating ON
when $<1.2\text{mA}$, the output is open circuit, indicating OFF

Output normally "Open"/"Closed" contact conversion control:

When the dial switch K1 is at "ON" side, the relay output is "Normally closed"

When the dial switch K1 is at "OFF" side, the relay output is "Normally open"

When the dial switch K2 is at "ON" side, the circuit selects indicating red light LFD alarm function

Line fault detection alarm function:

When dial switch K2 is at "ON" side, the alarm relay output state is "Normally open"

Under normal conditions, the relay output is 'normally closed'; when the product is powered off, it is "normally open"

Safety side output:

Output signal: relay, alarm relay(optional)

Drive capacity: 250V AC/2A, 30V DC/2A resistive load

Response time: 20ms

LED light indicator: green-power; yellow - output relay normal working state
red-LFD indication, line fault alarm

Temperature parameters: working temperature: $-20^{\circ}\text{C}\sim+60^{\circ}\text{C}$

storage temperature: $-40^{\circ}\text{C}\sim+80^{\circ}\text{C}$

Relative humidity: 10%~95% RH no condensation

Insulation strength: between intrinsically safe side and non-intrinsically

safe side ($\geq 3000\text{VAC/min}$);

between power supply and non-intrinsically

safe side ($\geq 1500\text{VAC/min}$)

Insulation resistance: $\geq 100\text{M}\Omega$ (between input/output/power supply)

EMC: according to IEC 61326-1(GB/T 18268), IEC 61326-3-1

Wire requirements: cross-section $\geq 0.5\text{mm}^2$; insulation strength $\geq 500\text{V}$

Applicable field equipments: field equipment such as dry contacts or NAMUR

type proximity switch inputs that comply with DIN19234 standard

Installation place: installed in a safe zone, it can be connected to intrinsic safety instruments in hazardous areas up to Zone 0, IIC, Zone 20, and IIIC

Safety certification

Certification body: CQST (China National Quality Supervision and Test Centre for Explosion Protected Electrical Products)

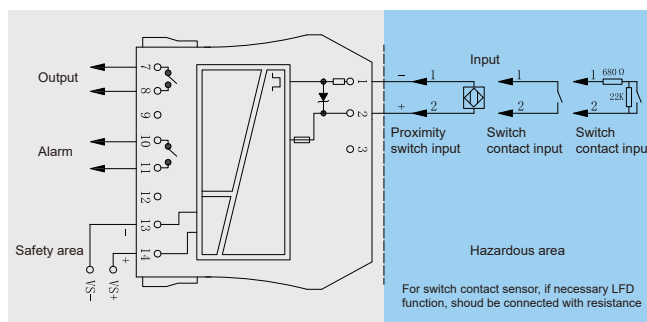
Certification standards: GB/T 3836.1-2021、GB/T 3836.4-2021

Explosion-proof mark: [Exia Ga] II C、[Exia Da] III C

Certified parameters (between terminals 1-2):

Um: 250V AC/DC, Uo=10.5V DC, Io=14mA, Po=37mW, Co=2.4 μF , Lo=165mH.

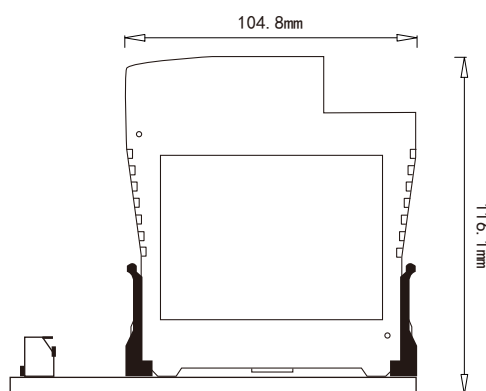
Connection wiring



Line Fault Detection

Users can select the fault detection function via the switch at the top of the module, with status indicated by an LED. If a line fault is detected, the line fault relay closes while the channel output relay opens. On site input current $>7\text{mA}$, short circuit alarm (SC); On site input current $<0.1\text{mA}$, open circuit alarm (LB). For switch contact inputs requiring fault detection function, a $22\text{k}\Omega$ resistor should be connected in parallel at both ends of the switch (as shown in the wiring diagram for switch contact II).

Dimensions





Overview

Backplane Mounting Isolated Safety Barriers PHD-12HF-277. The safety barrier which isolates and transmits input signals from switch contacts or proximity switches in hazardous areas to the safety zone with output relay through the safety barrier. Line fault detection is achieved through a separate relay output (optional), and displayed on the top LED of the module. The switch of the module is used to set input and output in-phase, as well as to enable or disable the line fault detection alarm indication function. This product requires independent power supply, with isolated power supply, input, and output terminals.

Technical parameters

Number of channels: 1 input 2 output

Power supply:

Power voltage: 18~35V DC, power consumption about 1.5W(When the supply voltage is 24V DC and the relay contacts are closed)

Power protection: power reverse protection

Hazardous side input:

Input signal: switch contact/proximity switch

The supply voltage of the sensor: about 8V

Input/output characteristics:

On site input current: when $>2.1\text{mA}$, the output is closed, indicating ON
when $<1.2\text{mA}$, the output is open circuit, indicating OFF

Output normally "Open"/"Closed" contact conversion control:

When the dial switch K1 K3 are at "ON" side, the relay output is "Normally closed"

When the dial switch K1 K3 are at "OFF" side, the relay output is "Normally open"

When the dial switch K2 K4 are at "ON" side, the circuit selects indicating red light LFD alarm function

Safety side output:

Output signal: relay, alarm relay(optional)

Drive capacity: 250V AC/2A, 30V DC/2A resistive load

Response time: 20ms

LED light indicator: green-power; yellow - output relay normal working state
red-LFD indication, line fault alarm

Temperature parameters: working temperature: $-20^{\circ}\text{C}\sim+60^{\circ}\text{C}$

storage temperature: $-40^{\circ}\text{C}\sim+80^{\circ}\text{C}$

Relative humidity: 10%~95% RH no condensation

Insulation strength: between intrinsically safe side and non-intrinsically

safe side ($\geq 3000\text{VAC/min}$);

between power supply and non-intrinsically

safe side ($\geq 1500\text{VAC/min}$)

Insulation resistance: $\geq 100\text{M}\Omega$ (between input/output/power supply)

EMC: according to IEC 61326-1(GB/T 18268), IEC 61326-3-1

Wire requirements: cross-section $\geq 0.5\text{mm}^2$; insulation strength $\geq 500\text{V}$

Applicable field equipments: field equipment such as dry contacts or NAMUR type proximity switch inputs that comply with DIN19234 standard

Installation place: installed in a safe zone, it can be connected to intrinsic safety instruments in hazardous areas up to Zone 0, IIC, Zone 20, and IIIC

Safety certification

Certification body: CQST (China National Quality Supervision and Test Centre for Explosion Protected Electrical Products)

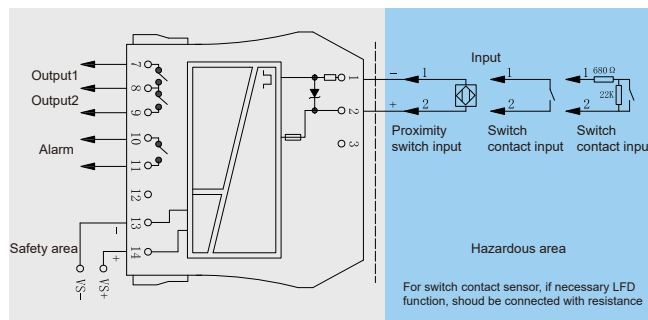
Certification standards: GB/T 3836.1-2021、GB/T 3836.4-2021

Explosion-proof mark: [Exia Ga] II C、[Exia Da] III C

Certified parameters (between terminals 1-2):

Um: 250V AC/DC, Uo=10.5V DC, Io=14mA, Po=37mW, Co=2.4 μF , Lo=165mH.

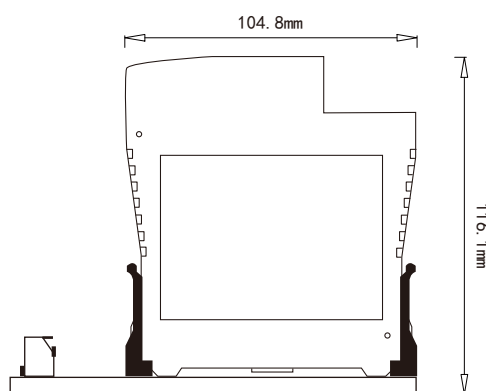
Connection wiring



Line Fault Detection

Users can select the fault detection function via the switch at the top of the module, with status indicated by an LED. If a line fault is detected, the line fault relay closes while the channel output relay opens. On site input current $>7\text{mA}$, short circuit alarm (SC); On site input current $<0.1\text{mA}$, open circuit alarm (LB). For switch contact inputs requiring fault detection function, a $22\text{k}\Omega$ resistor should be connected in parallel at both ends of the switch (as shown in the wiring diagram for switch contact II).

Dimensions





Overview

Backplane Mounting Isolated Safety Barriers PHD-22HF-2727. The safety barrier which isolates and transmits input signals from switch contacts or proximity switches in hazardous areas to the safety zone with output relay through the safety barrier. Line fault detection is achieved through a separate relay output (optional), and displayed on the top LED of the module. The switch of the module is used to set input and output in-phase, as well as to enable or disable the line fault detection alarm indication function. This product requires independent power supply, with isolated power supply, input, and output terminals.

Technical parameters

Number of channels: 2 input 2 output

Power supply:

Power voltage: 18~35V DC, power consumption about 1.5W(When the supply voltage is 24V DC and the relay contacts are closed)

Power protection: power reverse protection

Hazardous side input:

Input signal: switch contact/proximity switch

The supply voltage of the sensor: about 8V

Input/output characteristics:

On site input current: when $>2.1\text{mA}$, the output is closed, indicating ON
when $<1.2\text{mA}$, the output is open circuit, indicating OFF

Output normally "Open"/"Closed" contact conversion control:

When the dial switch K1 K3 are at "ON" side, the relay output is "Normally closed"

When the dial switch K1 K3 are at "OFF" side, the relay output is "Normally open"

When the dial switch K2 K4 are at "ON" side, the circuit selects indicating red light LFD alarm function

Safety side output:

Output signal: relay, alarm relay(optional)

Drive capacity: 250V AC/2A, 30V DC/2A resistive load

Response time: 20ms

LED light indicator: green-power; yellow - output relay normal working state
red-LFD indication, line fault alarm

Temperature parameters: working temperature: $-20^{\circ}\text{C}\sim+60^{\circ}\text{C}$

storage temperature: $-40^{\circ}\text{C}\sim+80^{\circ}\text{C}$

Relative humidity: 10%~95% RH no condensation

Insulation strength: between intrinsically safe side and non-intrinsically safe side ($\geq 3000\text{VAC/min}$);
between power supply and non-intrinsically safe side ($\geq 1500\text{VAC/min}$)

Insulation resistance: $\geq 100\text{M}\Omega$ (between input/output/power supply)

EMC: according to IEC 61326-1(GB/T 18268), IEC 61326-3-1

Wire requirements: cross-section $\geq 0.5\text{mm}^2$; insulation strength $\geq 500\text{V}$

Applicable field equipments: field equipment such as dry contacts or NAMUR type proximity switch inputs that comply with DIN19234 standard

Installation place: installed in a safe zone, it can be connected to intrinsic safety instruments in hazardous areas up to Zone 0, IIC, Zone 20, and IIIC

Safety certification

Certification body: CQST (China National Quality Supervision and Test Centre for Explosion Protected Electrical Products)

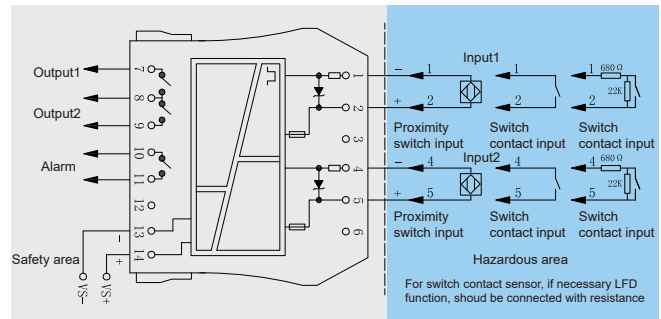
Certification standards: GB/T 3836.1-2021、GB/T 3836.4-2021

Explosion-proof mark: [Exia Ga] II C、[Exia Da] III C

Certified parameters (between terminals 1-2、4-5):

Um: 250V AC/DC, Uo=10.5V DC, Io=14mA, Po=37mW, Co=2.4 μF , Lo=165mH.

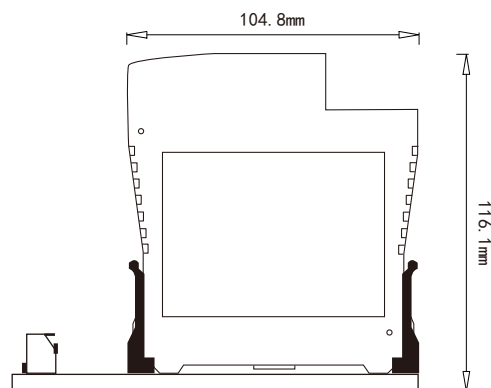
Connection wiring



Line Fault Detection

Users can select the fault detection function via the switch at the top of the module, with status indicated by an LED. If a line fault is detected, the line fault relay closes while the channel output relay opens. On site input current $>7\text{mA}$, short circuit alarm (SC); On site input current $<0.1\text{mA}$, open circuit alarm (LB). For switch contact inputs requiring fault detection function, a 22k Ω resistor should be connected in parallel at both ends of the switch (as shown in the wiring diagram for switch contact II).

Dimensions





Overview

Backplane Mounting Isolated Safety Barriers PHD-44HF-27. The isolated safety barrier which isolates and transmits input signals from switch contacts or proximity switches in hazardous areas to the safety zone with output relay through the safety barrier. Line fault detection is displayed on the top LED of the module. The switch of the module is used to set input and output in-phase, as well as to enable or disable the line fault detection alarm indication function.

Technical parameters

Number of channels: 4 input 4 output

Power supply:

Power voltage: 18~35V DC, power consumption about 2W(When the supply voltage is 24V DC and the relay contacts are closed)

Power protection: power reverse protection

Hazardous side input:

Input signal: switch contact/proximity switch

The supply voltage of the sensor: about 8V

Input/output characteristics:

On site input current: when $>2.1\text{mA}$, the output is closed, indicating ON
when $<1.2\text{mA}$, the output is open circuit, indicating OFF

Output normally "Open"/"Closed" contact conversion control:

When the dial switch K1 K2 K3 K4 are at "ON" side, the relay output is "Normally closed"

When the dial switch K1 K2 K3 K4 are at "OFF" side, the relay output is "Normally open"

Safety side output:

Output signal: relay

Drive capacity: 250V AC/2A, 30V DC/2A resistive load

Response time: 20ms

LED light indicator: green-power; yellow - output relay normal working state
red-LFD indication, line fault alarm

Temperature parameters: working temperature: $-20^{\circ}\text{C}\sim+60^{\circ}\text{C}$

storage temperature: $-40^{\circ}\text{C}\sim+80^{\circ}\text{C}$

Relative humidity: 10%~95% RH no condensation

Insulation strength: between intrinsically safe side and non-intrinsically

safe side ($\geq 3000\text{VAC/min}$);

between power supply and non-intrinsically

safe side ($\geq 1500\text{VAC/min}$)

Insulation resistance: $\geq 100\text{M}\Omega$ (between input/output/power supply)

EMC: according to IEC 61326-1(GB/T 18268), IEC 61326-3-1

Wire requirements: cross-section $\geq 0.5\text{mm}^2$; insulation strength $\geq 500\text{V}$

Applicable field equipments: field equipment such as dry contacts or NAMUR type proximity switch inputs that comply with DIN19234 standard

Installation place: installed in a safe zone, it can be connected to intrinsic safety instruments in hazardous areas up to Zone 0, IIC, Zone 20, and IIIC

Safety certification

Certification body: CQST (China National Quality Supervision and Test Centre for Explosion Protected Electrical Products)

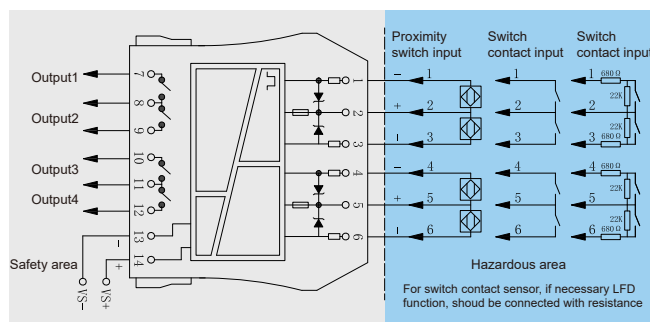
Certification standards: GB/T 3836.1-2021、GB/T 3836.4-2021

Explosion-proof mark: [Exia Ga] II C、[Exia Da] III C

Certified parameters (between terminals 1-2、2-3、4-5、5-6):

Um: 250V AC/DC, Uo=10.5V DC, Io=14mA, Po=37mW, Co=2.4μF, Lo=165mH.

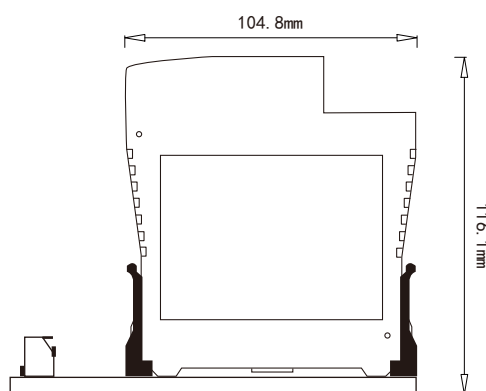
Connection wiring



Line Fault Detection

The fault alarm detection is enabled by default, and any alarm is indicated by the red LED light on the top. On site input current $>7\text{mA}$, short circuit alarm (SC); On site input current $<0.1\text{mA}$, open circuit alarm (LB). For switch contact inputs requiring fault detection function (wire breakage, short circuit), a $22\text{k}\Omega$ resistor should be connected in parallel at both ends of the switch, and a 680Ω resistor should be connected in series (as shown in the wiring diagram for switch contact II).

Dimensions





Overview

Backplane Mounting Isolated Safety Barriers PHD-11HF-28. The safety barrier which isolates and transmits input signals from switch contacts or proximity switches in hazardous areas to the safety zone with output relay through the safety barrier. Line fault detection is achieved through a separate relay output (optional), and displayed on the top LED of the module. The switch of the module is used to set input and output in-phase, as well as to enable or disable the line fault detection alarm indication function.

This product requires independent power supply, with isolated power supply, input, and output terminals.

Technical parameters

Number of channels: 1 input 1 output

Power supply:

Power voltage: 18~35V DC, power consumption about 1W(When the supply voltage is 24V DC and the transistor is conducting,)

Power protection: power reverse protection

Hazardous side input:

Input signal: switch contact/proximity switch

The supply voltage of the sensor: about 8V

Input/output characteristics:

On site input current: when $>2.1\text{mA}$, the output is closed, indicating ON
when $<1.2\text{mA}$, the output is open circuit, indicating OFF

Control the output transistor e-c breakdown/cut-off:

when the dial switch K1 is at "ON", the transistor e-c breakdown

when the dial switch K1 is at "OFF", the transistor e-c cut-off

when the dial switch K2 is at "ON", the circuit will select the red light indication LFD alarm function

Safety side output:

Output signal: transistor, alarm relay(optional)

Drive capacity: output current $\leq 20\text{mA}$ (1.2k Ω), maximum internal current 100mA, equipped with short-circuit current protection

Output characteristic: NPN type transistor emitter or collector open circuit output

LED indicator: green-power ; yellow-output transistor in normal working state
red-LFD indication, line fault alarm

Temperature parameters: working temperature: $-20^{\circ}\text{C}\sim+60^{\circ}\text{C}$

storage temperature: $-40^{\circ}\text{C}\sim+80^{\circ}\text{C}$

Relative humidity: 10%~95% RH no condensation

Insulation strength: between intrinsically safe side and non-intrinsically

safe side ($\geq 3000\text{VAC/min}$);

between power supply and non-intrinsically

safe side ($\geq 1500\text{VAC/min}$)

Insulation resistance: $\geq 100\text{M}\Omega$ (between input/output/power supply)

EMC: according to IEC 61326-1(GB/T 18268), IEC 61326-3-1

Wire requirements: cross-section $\geq 0.5\text{mm}^2$; insulation strength $\geq 500\text{V}$

Applicable field equipments: field equipment such as dry contacts or NAMUR type proximity switch inputs that comply with DIN19234 standard

Installation place: installed in a safe zone, it can be connected to intrinsic safety instruments in hazardous areas up to Zone 0, IIC, Zone 20, and IIIC

Safety certification

Certification body: CQST (China National Quality Supervision and Test Centre for Explosion Protected Electrical Products)

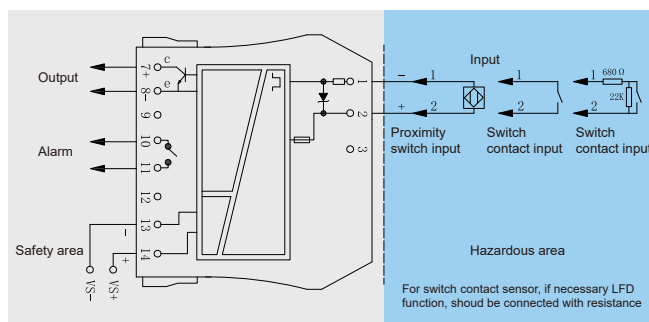
Certification standards: GB/T 3836.1-2021、GB/T 3836.4-2021

Explosion-proof mark: [Exia Ga] II C、[Exia Da] III C

Certified parameters (between terminals 1-2):

Um: 250V AC/DC, Uo=10.5V DC, Io=14mA, Po=37mW, Co=2.4 μF , Lo=165mH.

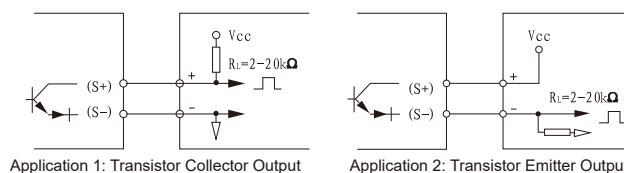
Connection wiring



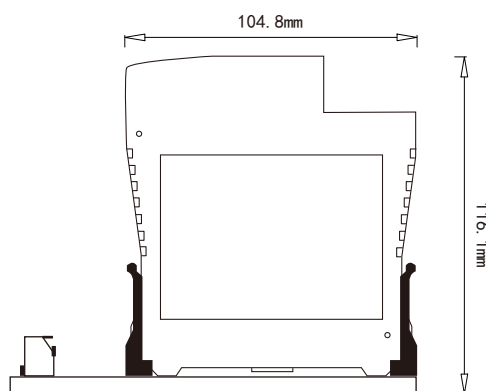
Line Fault Detection

Users can select the fault detection function via the switch at the top of the module, with status indicated by an LED. If a line fault is detected, the line fault relay closes while the channel output relay opens. On site input current $>7\text{mA}$, short circuit alarm (SC); On site input current $<0.1\text{mA}$, open circuit alarm (LB). For switch contact inputs requiring fault detection function, a 22k Ω resistor should be connected in parallel at both ends of the switch (as shown in the wiring diagram for switch contact II).

Notes:



Dimensions





Overview

Backplane Mounting Isolated Safety Barriers PHD-12HF-288. The safety barrier which isolates and transmits input signals from switch contacts or proximity switches in hazardous areas to the safety zone with output relay through the safety barrier. Line fault detection is achieved through a separate relay output (optional), and displayed on the top LED of the module. The switch of the module is used to set input and output in-phase, as well as to enable or disable the line fault detection alarm indication function. This product requires independent power supply, with isolated power supply, input, and output terminals.

Technical parameters

Number of channels: 1 input 2 output

Power supply:

Power voltage: 18~35V DC, power consumption about 1.3W(When the supply voltage is 24V DC and the transistor is conducting,)

Power protection: power reverse protection

Hazardous side input:

Input signal: switch contact/proximity switch

The supply voltage of the sensor: about 8V

Input/output characteristics:

On site input current: when $>2.1\text{mA}$, the output is closed, indicating ON
when $<1.2\text{mA}$, the output is open circuit, indicating OFF

Control the output transistor e-c breakdown/cut-off:

when the dial switch K1 K3 are at "ON", the transistor e-c breakdown

when the dial switch K1 K3 are at "OFF", the transistor e-c cut-off

when the dial switch K2 K4 are at "ON", the circuit will select the red light indication LFD alarm function

Safety side output:

Output signal: transistor, alarm relay(optional)

Drive capacity: output current $\leq 20\text{mA}$ (1.2k Ω), maximum internal current

100mA, equipped with short-circuit current protection

Output characteristic: NPN type transistor emitter or collector open circuit output

LED indicator: green-power ; yellow-output transistor in normal working state

red-LFD indication, line fault alarm

Temperature parameters: working temperature: $-20^{\circ}\text{C}\sim+60^{\circ}\text{C}$

storage temperature: $-40^{\circ}\text{C}\sim+80^{\circ}\text{C}$

Relative humidity: 10%~95% RH no condensation

Insulation strength: between intrinsically safe side and non-intrinsically

safe side ($\geq 3000\text{VAC/min}$);

between power supply and non-intrinsically

safe side ($\geq 1500\text{VAC/min}$)

Insulation resistance: $\geq 100\text{M}\Omega$ (between input/output/power supply)

EMC: according to IEC 61326-1(GB/T 18268), IEC 61326-3-1

Wire requirements: cross-section $\geq 0.5\text{mm}^2$; insulation strength $\geq 500\text{V}$

Applicable field equipments: field equipment such as dry contacts or NAMUR

type proximity switch inputs that comply with DIN19234 standard

Installation place: installed in a safe zone, it can be connected to intrinsic

safety instruments in hazardous areas up to Zone 0, IIC, Zone 20, and IIIC

Safety certification

Certification body: CQST (China National Quality Supervision and Test Centre for Explosion Protected Electrical Products)

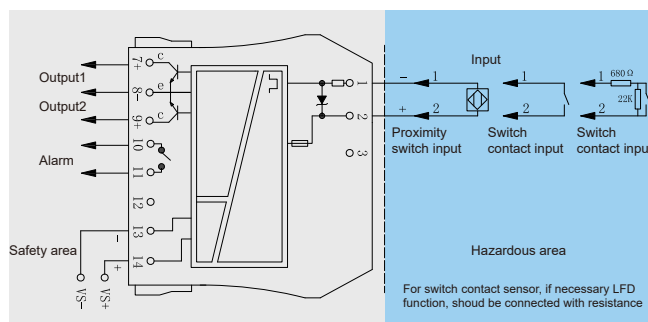
Certification standards: GB/T 3836.1-2021、GB/T 3836.4-2021

Explosion-proof mark: [Exia Ga] II C、[Exia Da] III C

Certified parameters (between terminals 1-2):

Um: 250V AC/DC, Uo=10.5V DC, Io=14mA, Po=37mW, Co=2.4 μF , Lo=165mH.

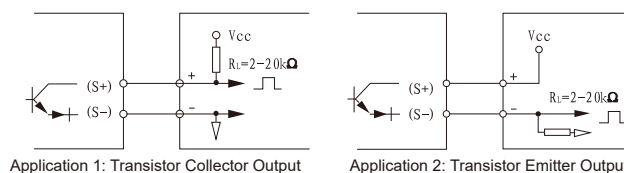
Connection wiring



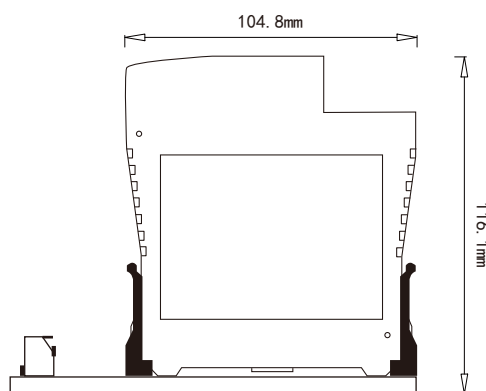
Line Fault Detection

Users can select the fault detection function via the switch at the top of the module, with status indicated by an LED. If a line fault is detected, the line fault relay closes while the channel output relay opens. On site input current $>7\text{mA}$, short circuit alarm (SC); On site input current $<0.1\text{mA}$, open circuit alarm (LB). For switch contact inputs requiring fault detection function, a 22k Ω resistor should be connected in parallel at both ends of the switch (as shown in the wiring diagram for switch contact II).

Notes:



Dimensions





Overview

Backplane Mounting Isolated Safety Barriers PHD-22HF-2828. The safety barrier which isolates and transmits input signals from switch contacts or proximity switches in hazardous areas to the safety zone with output relay through the safety barrier. Line fault detection is achieved through a separate relay output (optional), and displayed on the top LED of the module. The switch of the module is used to set input and output in-phase, as well as to enable or disable the line fault detection alarm indication function. This product requires independent power supply, with isolated power supply, input, and output terminals.

Technical parameters

Number of channels: 2 input 2 output

Power supply:

Power voltage: 18~35V DC, power consumption about 1.5W(When the supply voltage is 24V DC and the transistor is conducting,)

Power protection: power reverse protection

Hazardous side input:

Input signal: switch contact/proximity switch

The supply voltage of the sensor: about 8V

Input/output characteristics:

On site input current: when $>2.1\text{mA}$, the output is closed, indicating ON
when $<1.2\text{mA}$, the output is open circuit, indicating OFF

Control the output transistor e-c breakdown/cut-off:

when the dial switch K1 K3 are at "ON", the transistor e-c breakdown
when the dial switch K1 K3 are at "OFF", the transistor e-c cut-off
when the dial switch K2 K4 are at "ON", the circuit will select the red light indication LFD alarm function

Safety side output:

Output signal: transistor, alarm relay(optional)

Drive capacity: output current $\leq 20\text{mA}$ (1.2k Ω), maximum internal current 100mA, equipped with short-circuit current protection

Output characteristic: NPN type transistor emitter or collector open circuit output

LED indicator: green-power; yellow-output transistor in normal working state

red-LFD indication, line fault alarm

Temperature parameters: working temperature: $-20^{\circ}\text{C}\sim+60^{\circ}\text{C}$
storage temperature: $-40^{\circ}\text{C}\sim+80^{\circ}\text{C}$

Relative humidity: 10%~95% RH no condensation

Insulation strength: between intrinsically safe side and non-intrinsically safe side ($\geq 3000\text{VAC/min}$);
between power supply and non-intrinsically safe side ($\geq 1500\text{VAC/min}$)

Insulation resistance: $\geq 100\text{M}\Omega$ (between input/output/power supply)

EMC: according to IEC 61326-1(GB/T 18268), IEC 61326-3-1

Wire requirements: cross-section $\geq 0.5\text{mm}^2$; insulation strength $\geq 500\text{V}$

Applicable field equipments: field equipment such as dry contacts or NAMUR type proximity switch inputs that comply with DIN19234 standard

Installation place: installed in a safe zone, it can be connected to intrinsic safety instruments in hazardous areas up to Zone 0, IIC, Zone 20, and IIIC

Safety certification

Certification body: CQST (China National Quality Supervision and Test Centre for Explosion Protected Electrical Products)

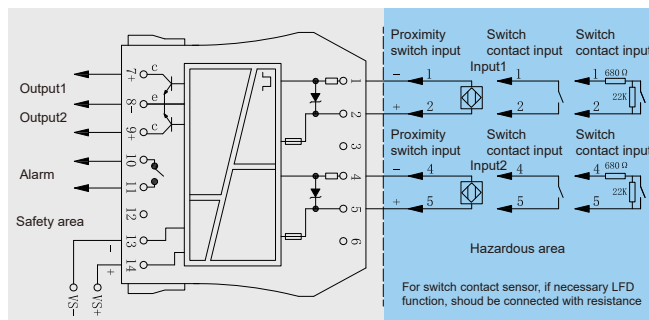
Certification standards: GB/T 3836.1-2021、GB/T 3836.4-2021

Explosion-proof mark: [Exia Ga] II C、[Exia Da] III C

Certified parameters (between terminals 1-2、4-5):

Um: 250V AC/DC, Uo=10.5V DC, Io=14mA, Po=37mW, Co=2.4 μF , Lo=165mH.

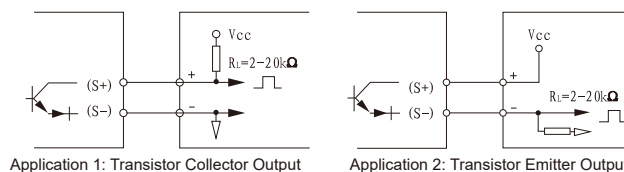
Connection wiring



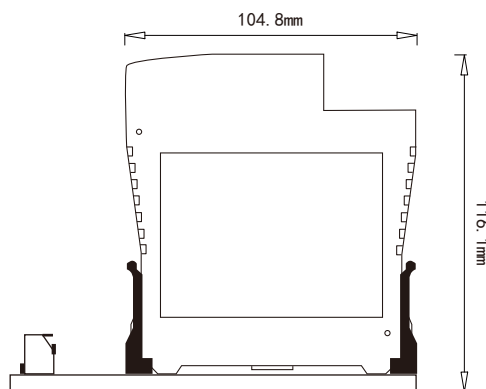
Line Fault Detection

Users can select the fault detection function via the switch at the top of the module, with status indicated by an LED. If a line fault is detected, the line fault relay closes while the channel output relay opens. On site input current $>7\text{mA}$, short circuit alarm (SC); On site input current $<0.1\text{mA}$, open circuit alarm (LB). For switch contact inputs requiring fault detection function, a 22k Ω resistor should be connected in parallel at both ends of the switch (as shown in the wiring diagram for switch contact II).

Notes:



Dimensions





Overview

Backplane Mounting Isolated Safety Barriers PHD-11HF-29. The safety barrier isolates and transmits input signals from switch contacts or proximity switches in hazardous areas to the safety zone with output transistor through the safety barrier. Input control of passive transistor output with resistive characteristics. There are four defined states for output: short-circuit alarm resistance $\leq 240\Omega$, 1-signal $1.4k\Omega \leq \text{resistance value} \leq 1.6k\Omega$, 0-signal $13k\Omega \leq \text{resistance value} \leq 14k\Omega$, circuit break alarm resistance $> 100k\Omega$. This output characteristic reflects the line status on the signal line. The module's DIP switch is used to set input/output in the same direction or reverse control, as well as to set the line fault alarm indication function.

Technical parameters

Number of channels: 1 input 1 output

Power supply:

Power voltage: 18~35V DC, power consumption about 0.8W(When the supply voltage is 24V DC and the transistor is conducting,)

Power protection: power reverse protection

Hazardous side input:

Input signal: switch contact/proximity switch

The supply voltage of the sensor: about 8V

Switching frequency: $\leq 5kHz$

Input/output characteristics:

On site input current: when $> 2.1mA$, the output is closed, indicating ON
when $< 1.2mA$, the output is open circuit, indicating OFF

Input state transition and alarm switch:

when the dial switch K1 is at 'ON' side, the output state is opposite to the input state.

when the dial switch K1 is at 'OFF', the output state will be consistent with the input state.

when the dial switch K2 is at 'ON', the circuit selects the red indicator light LFD alarm function.

the dial switches K3 and K4 have no function

Safety side output:

Output signal: transistor (resistor), maximum withstand voltage $\leq 30VDC$

Output characteristics: external supply voltage 8V, short-circuit alarm resistance $\leq 240\Omega$.

1-signal $1.4k\Omega \leq \text{resistance value} \leq 1.6k\Omega$

0-signal $13k\Omega \leq \text{resistance value} \leq 14k\Omega$, circuit break alarm resistance $> 100k\Omega$

LED indicator: green-power; yellow-output transistor in normal working state
red-LFD indication, line fault alarm

Temperature parameters: working temperature: $-20^{\circ}C \sim +60^{\circ}C$

storage temperature: $-40^{\circ}C \sim +80^{\circ}C$

Relative humidity: 10%~95% RH no condensation

Insulation strength: between intrinsically safe side and non-intrinsically

safe side ($\geq 3000VAC/min$);

between power supply and non-intrinsically

safe side ($\geq 1500VAC/min$)

Insulation resistance: $\geq 100M\Omega$ (between input/output/power supply)

EMC: according to IEC 61326-1(GB/T 18268), IEC 61326-3-1

Wire requirements: cross-section $\geq 0.5mm^2$; insulation strength $\geq 500V$

Applicable field equipments: field equipment such as dry contacts or NAMUR type proximity switch inputs that comply with DIN19234 standard

Installation place: installed in a safe zone, it can be connected to intrinsic safety instruments in hazardous areas up to Zone 0, IIC, Zone 20, and IIIC

Safety certification

Certification body: CQST (China National Quality Supervision and

Test Centre for Explosion Protected Electrical Products)

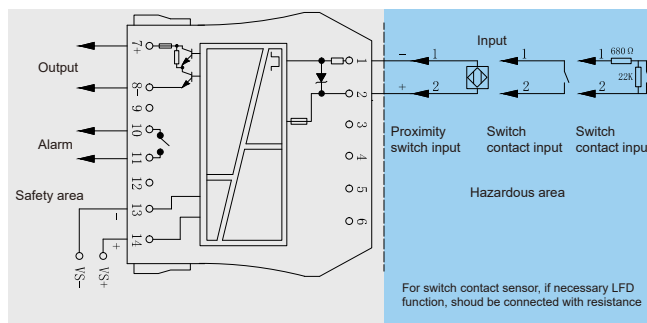
Certification standards: GB/T 3836.1-2021, GB/T 3836.4-2021

Explosion-proof mark: [Exia Ga] II C, [Exia Da] III C

Certified parameters (between terminals 1-2):

Um: 250V AC/DC, Uo=10.5V DC, Io=14mA, Po=37mW, Co=2.4μF, Lo=165mH.

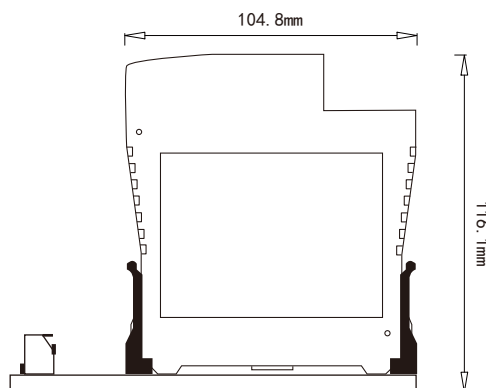
Connection wiring



Line Fault Detection

Users can select the "ON" side of the switch at the top of the module to enable fault detection function and indicate an alarm through the red LED light. On site input current $> 7mA$, short circuit alarm (SC); On site input current $< 0.1mA$, open circuit alarm (LB). If the switch contact input requires fault detection function (wire breakage, short circuit), a $22k\Omega$ resistor should be connected in parallel at both ends of the switch, and a 680Ω resistor should be connected in series (as shown in the wiring diagram for switch contact II).

Dimensions





Overview

Backplane Mounting Isolated Safety Barriers PHD-12HF-299. The safety barrier isolates and transmits input signals from switch contacts or proximity switches in hazardous areas to the safety zone with output transistor through the safety barrier. Input control of passive transistor output with resistive characteristics. There are four defined states for output: short-circuit alarm resistance $\leq 240\Omega$, 1-signal $1.4k\Omega \leq \text{resistance value} \leq 1.6k\Omega$, 0-signal $13k\Omega \leq \text{resistance value} \leq 14k\Omega$, circuit break alarm resistance $> 100k\Omega$. This output characteristic reflects the line status on the signal line. The module's DIP switch is used to set input/output in the same direction or reverse control, as well as to set the line fault alarm indication function.

Technical parameters

Number of channels: 1 input 2 output

Power supply:

Power voltage: 18~35V DC, power consumption about 1.2W(When the supply voltage is 24V DC and the transistor is conducting,)

Power protection: power reverse protection

Hazardous side input:

Input signal: switch contact/proximity switch

The supply voltage of the sensor: about 8V

Switching frequency: $\leq 5kHz$

Input/output characteristics:

On site input current: when $> 2.1mA$, the output is closed, indicating ON
when $< 1.2mA$, the output is open circuit, indicating OFF

Input state transition and alarm switch:

when the dial switch K1 K3 are at 'ON' side, the output state is opposite to the input state.

when the dial switch K1 K3 are at 'OFF', the output state will be consistent with the input state.

when the dial switch K2 K4 are at 'ON', the circuit selects the red indicator light LFD alarm function

Safety side output:

Output signal: transistor (resistor), maximum withstand voltage $\leq 30VDC$

Output characteristics: external supply voltage 8V, short-circuit alarm resistance $\leq 240\Omega$.

1-signal $1.4k\Omega \leq \text{resistance value} \leq 1.6k\Omega$

0-signal $13k\Omega \leq \text{resistance value} \leq 14k\Omega$, circuit break alarm resistance $> 100k\Omega$

LED indicator: green-power; yellow-output transistor in normal working state
red-LFD indication, line fault alarm

Temperature parameters: working temperature: $-20^{\circ}C \sim +60^{\circ}C$

storage temperature: $-40^{\circ}C \sim +80^{\circ}C$

Relative humidity: 10%~95% RH no condensation

Insulation strength: between intrinsically safe side and non-intrinsically safe side ($\geq 3000VAC/min$);

between power supply and non-intrinsically safe side ($\geq 1500VAC/min$)

Insulation resistance: $\geq 100M\Omega$ (between input/output/power supply)

EMC: according to IEC 61326-1(GB/T 18268), IEC 61326-3-1

Wire requirements: cross-section $\geq 0.5mm^2$; insulation strength $\geq 500V$

Applicable field equipments: field equipment such as dry contacts or NAMUR type proximity switch inputs that comply with DIN19234 standard

Installation place: installed in a safe zone, it can be connected to intrinsic safety instruments in hazardous areas up to Zone 0, IIC, Zone 20, and IIIC

Safety certification

Certification body: CQST (China National Quality Supervision and

Test Centre for Explosion Protected Electrical Products)

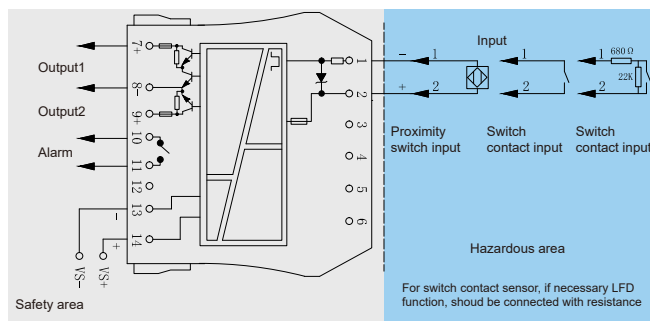
Certification standards: GB/T 3836.1-2021, GB/T 3836.4-2021

Explosion-proof mark: [Exia Ga] II C, [Exia Da] III C

Certified parameters (between terminals 1-2):

Um: 250V AC/DC, Uo=10.5V DC, Io=14mA, Po=37mW, Co=2.4μF, Lo=165mH.

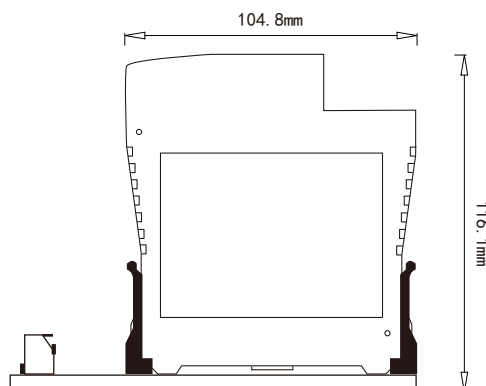
Connection wiring



Line Fault Detection

Users can select the fault detection function via the switch at the top of the module, with status indicated by an LED. If a line fault is detected, the line fault relay closes while the channel output relay opens. On site input current $> 7mA$, short circuit alarm (SC); On site input current $< 0.1mA$, open circuit alarm (LB). For switch contact inputs requiring fault detection function, a $22k\Omega$ resistor should be connected in parallel at both ends of the switch (as shown in the wiring diagram for switch contact II).

Dimensions





Overview

Backplane Mounting Isolated Safety Barriers PHD-22HF-2929. The safety barrier isolates and transmits input signals from switch contacts or proximity switches in hazardous areas to the safety zone with output transistor through the safety barrier. Input control of passive transistor output with resistive characteristics. There are four defined states for output: short-circuit alarm resistance $\leq 240\Omega$, 1-signal $1.4k\Omega \leq \text{resistance value} \leq 1.6k\Omega$, 0-signal $13k\Omega \leq \text{resistance value} \leq 14k\Omega$, circuit break alarm resistance $> 100k\Omega$. This output characteristic reflects the line status on the signal line. The module's DIP switch is used to set input/output in the same direction or reverse control, as well as to set the line fault alarm indication function.

Technical parameters

Number of channels: 2 input 2 output

Power supply:

Power voltage: 18~35V DC, power consumption about 1.4W(When the supply voltage is 24V DC and the transistor is conducting,)

Power protection: power reverse protection

Hazardous side input:

Input signal: switch contact/proximity switch

The supply voltage of the sensor: about 8V

Switching frequency: $\leq 5kHz$

Input/output characteristics:

On site input current: when $> 2.1mA$, the output is closed, indicating ON
when $< 1.2mA$, the output is open circuit, indicating OFF

Input state transition and alarm switch:

when the dial switch K1 K3 is at 'ON' side, the output state is opposite to the input state.

when the dial switch K1 K3 is at 'OFF', the output state will be consistent with the input state.

when the dial switch K2 K4 is at 'ON', the circuit selects the red indicator light LFD alarm function

Safety side output:

Output signal: transistor (resistor), maximum withstand voltage $\leq 30VDC$

Output characteristics: external supply voltage 8V, short-circuit alarm resistance $\leq 240\Omega$.

1-signal $1.4k\Omega \leq \text{resistance value} \leq 1.6k\Omega$

0-signal $13k\Omega \leq \text{resistance value} \leq 14k\Omega$, circuit break alarm resistance $> 100k\Omega$

LED indicator: green-power; yellow-output transistor in normal working state
red-LFD indication, line fault alarm

Temperature parameters: working temperature: $-20^{\circ}C \sim +60^{\circ}C$

storage temperature: $-40^{\circ}C \sim +80^{\circ}C$

Relative humidity: 10%~95% RH no condensation

Insulation strength: between intrinsically safe side and non-intrinsically safe side ($\geq 3000VAC/min$);

between power supply and non-intrinsically safe side ($\geq 1500VAC/min$)

Insulation resistance: $\geq 100M\Omega$ (between input/output/power supply)

EMC: according to IEC 61326-1(GB/T 18268), IEC 61326-3-1

Wire requirements: cross-section $\geq 0.5mm^2$; insulation strength $\geq 500V$

Applicable field equipments: field equipment such as dry contacts or NAMUR type proximity switch inputs that comply with DIN19234 standard

Installation place: installed in a safe zone, it can be connected to intrinsic safety instruments in hazardous areas up to Zone 0, IIC, Zone 20, and IIIC

Safety certification

Certification body: CQST (China National Quality Supervision and

Test Centre for Explosion Protected Electrical Products)

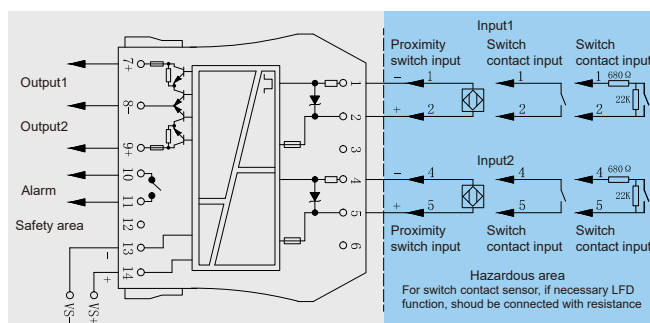
Certification standards: GB/T 3836.1-2021, GB/T 3836.4-2021

Explosion-proof mark: [Exia Ga] II C, [Exia Da] III C

Certified parameters (between terminals 3-4, 1-2):

Um: 250V AC/DC, Uo=10.5V DC, Io=14mA, Po=37mW, Co=2.4μF, Lo=165mH.

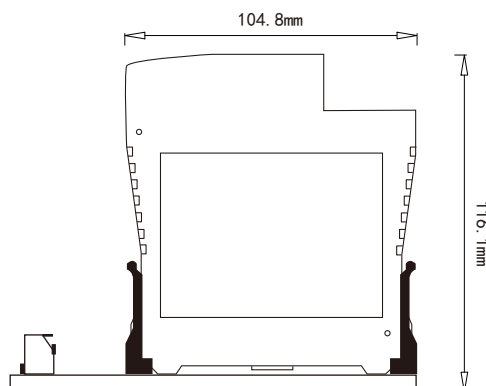
Connection wiring



Line Fault Detection

Users can select the fault detection function via the switch at the top of the module, with status indicated by an LED. If a line fault is detected, the line fault relay closes while the channel output relay opens. On site input current $> 7mA$, short circuit alarm (SC); On site input current $< 0.1mA$, open circuit alarm (LB). For switch contact inputs requiring fault detection function, a $22k\Omega$ resistor should be connected in parallel at both ends of the switch (as shown in the wiring diagram for switch contact II).

Dimensions





Overview

Backplane Mounting Isolated Safety Barriers PHC-11HF-14. The safety barrier can convert the contact switches and logic level inputs in the safe area into intrinsically safe equipment driving quantities and output them to the scene in the dangerous area, so as to control the solenoid valve, audible and visual alarm, etc. The signal status indicator light is set to red and yellow colors, the alarm is displayed in red, and the output solenoid valve and other working tasks are displayed in yellow.

This product requires independent power supply, with isolated power supply, input, and output terminals.

Technical parameters

Number of channels: 1 input 1 output

Power supply:

Power voltage: 20~35V DC, power consumption about 2.2W
(when output 48mA and the voltage is 12.8V)

Power protection: power reverse protection

Safety side input:

Open-circuit voltage: switch contact, logic level

Hazardous side output:

Output signal: 22V~24V DC, UE/IE=12.8V/48mA

Inversion function: K1 is set to the ON side, and the circuit output is inverted
LED light indicator: green - power

yellow - relay output normal working state

Alarm relay function: when dial switch K2 is at "ON" side,

circuit selection alarm function

load resistance < 50Ω, short-circuit alarm (SC)

load resistance > 10kΩ, open-circuit alarm (LB)

Alarm relay characteristic: response time: 20ms

driving capacity: 250V AC/2A, 30V DC/2A resistive load

load type: Resistive load

Output accuracy: 0.1%F.S (typical value: 0.05%F.S)

Response time: 20ms to reach 90% of final value

Temperature parameters: working temperature: -20°C~+60°C

storage temperature: -40°C~+80°C

Relative humidity: 10%~95% RH no condensation

Insulation strength: between intrinsically safe side and non-intrinsically

safe side (≥3000VAC/min);

between power supply and non-intrinsically

safe side (≥1500VAC/min)

Insulation resistance: ≥100MΩ (between input/output/power supply)

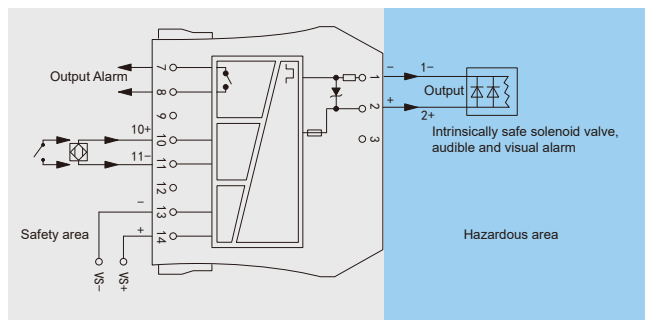
EMC: according to IEC 61326-1(GB/T 18268), IEC 61326-3-1

Wire requirements: cross-section ≥0.5mm²; insulation strength ≥500V

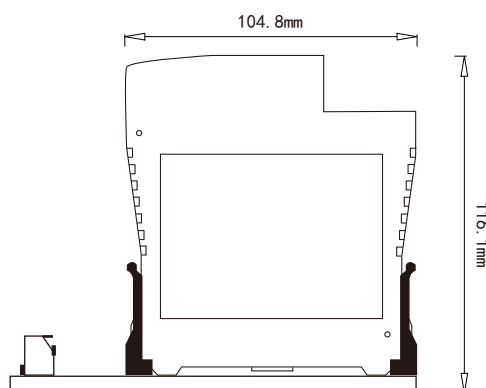
Applicable field equipments: audible and visual alarm, intrinsically safe solenoid valve

Installation place: installed in a safe zone, it can be connected to intrinsic safety instruments in hazardous areas up to Zone 0, IIC, Zone 20, and IIIC

Connection wiring



Dimensions



Safety certification

Certification body: CQST (China National Quality Supervision and Test Centre for Explosion Protected Electrical Products)

Certification standards: GB/T 3836.1-2021、GB/T 3836.4-2021

Explosion-proof mark: [Exia Ga] II C、[Exia Da] III C

Certified parameters (between terminals 1-2):

Um: 250V AC/DC, Uo=25.2V DC, Io=147mA, Po=0.92W, Co=0.107μF, Lo=1.5mH.



Overview

Backplane Mounting Isolated Safety Barriers PHC-11HF-34. Digital input/output, one input channel and one output channel. The safety barrier can convert the contact switches and logic level inputs in the safe area into intrinsically safe equipment driving quantities and output them to the scene in the dangerous area, so as to control the solenoid valve, audible and visual alarm, etc. The signal status indicator light is set to red and yellow colors, the alarm is displayed in red, and the output solenoid valve and other working tasks are displayed in yellow.

Technical parameters

Number of channels: 1 input 1 output

Safety side input:

Input signal: contact control DC voltage

Hazardous side output:

Output signal: 22V~24V DC, UE/IE=12.8V/48mA

Inversion function: K1 is set to the ON side, and the circuit output is inverted

LED light indicator: yellow - relay output normal working state

Alarm relay function: when dial switch K2 is at "ON" side,
circuit selection alarm function
load resistance < 50Ω, short-circuit alarm (SC)
load resistance > 10kΩ, open-circuit alarm (LB)

Alarm relay characteristic: response time: 20ms
driving capacity: 250V AC/2A, 30V DC/2A resistive load
load type: Resistive load

Output accuracy: 0.1%F.S (typical value: 0.05%F.S)

Response time: 20ms to reach 90% of final value

Temperature parameters: working temperature: -20°C~+60°C
storage temperature: -40°C~+80°C

Relative humidity: 10%~95% RH no condensation

Insulation strength: between intrinsically safe side and non-intrinsically safe side (≥3000VAC/min)

Insulation resistance: ≥100MΩ (between input/output/power supply)

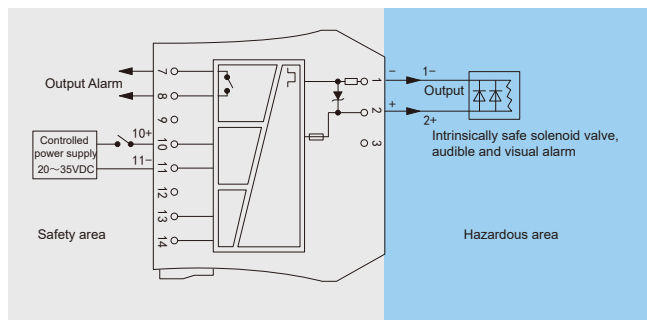
EMC: according to IEC 61326-1(GB/T 18268), IEC 61326-3-1

Wire requirements: cross-section ≥0.5mm²; insulation strength ≥500V

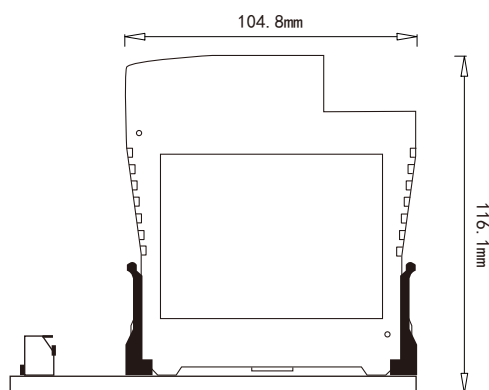
Applicable field equipments: audible and visual alarm, intrinsically safe solenoid valve

Installation place: installed in a safe zone, it can be connected to intrinsic safety instruments in hazardous areas up to Zone 0, IIC, Zone 20, and IIIC

Connection wiring



Dimensions



Safety certification

Certification body: CQST (China National Quality Supervision and Test Centre for Explosion Protected Electrical Products)

Certification standards: GB/T 3836.1-2021、GB/T 3836.4-2021

Explosion-proof mark: [Exia Ga] II C、[Exia Da] III C

Certified parameters (between terminals 1-2):

Um: 250V AC/DC, Uo=25.2V DC, Io=147mA, Po=0.92W, Co=0.107μF, Lo=1.5mH.



Overview

Backplane Mounting Isolated Safety Barriers PHC-11HF-36. Digital input/output, one input channel and one output channel. The safety barrier can convert the contact switches and logic level inputs in the safe area into intrinsically safe equipment driving quantities and output them to the scene in the dangerous area, so as to control the solenoid valve, audible and visual alarm, etc. The signal status indicator light is set to red and yellow colors, the alarm is displayed in red, and the output solenoid valve and other working tasks are displayed in yellow.

Technical parameters

Number of channels: 1 input 1 output

Safety side input:

Input signal: contact control DC voltage

Hazardous side output:

Output signal: 22V~24V DC, UE/IE=10.3V/48mA

Inversion function: K1 is set to the ON side, and the circuit output is inverted

LED light indicator: yellow - relay output normal working state

Alarm relay function: when dial switch K2 is at "ON" side,
circuit selection alarm function
load resistance < 50Ω, short-circuit alarm (SC)
load resistance > 10kΩ, open-circuit alarm (LB)

Alarm relay characteristic: response time: 20ms
driving capacity: 250V AC/2A, 30V DC/2A resistive load
load type: Resistive load

Output accuracy: 0.1%F.S (typical value: 0.05%F.S)

Response time: 20ms to reach 90% of final value

Temperature parameters: working temperature: -20°C~+60°C
storage temperature: -40°C~+80°C

Relative humidity: 10%~95% RH no condensation

Insulation strength: between intrinsically safe side and non-intrinsically safe side (≥3000VAC/min)

Insulation resistance: ≥100MΩ (between input/output/power supply)

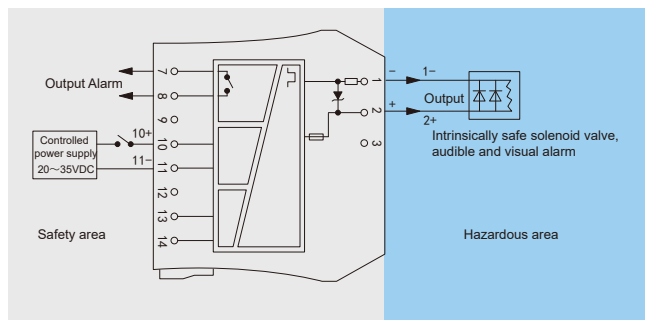
EMC: according to IEC 61326-1(GB/T 18268), IEC 61326-3-1

Wire requirements: cross-section ≥0.5mm²; insulation strength ≥500V

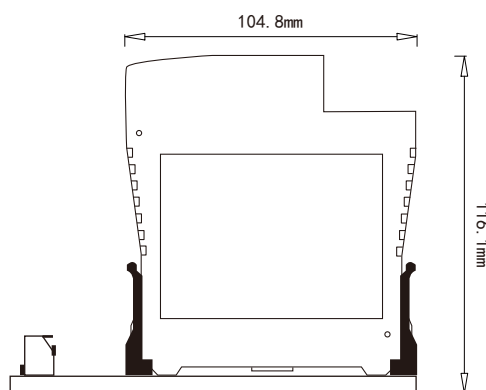
Applicable field equipments: audible and visual alarm, intrinsically safe solenoid valve

Installation place: installed in a safe zone, it can be connected to intrinsic safety instruments in hazardous areas up to Zone 0, IIC, Zone 20, and IIIC

Connection wiring



Dimensions



Safety certification

Certification body: CQST (China National Quality Supervision and Test Centre for Explosion Protected Electrical Products)

Certification standards: GB/T 3836.1-2021、GB/T 3836.4-2021

Explosion-proof mark: [Exia Ga] II C、[Exia Da] III C

Certified parameters (between terminals 1-2):

Um: 250V AC/DC, Uo=25.2V DC, Io=108mA, Po=0.68W, Co=0.107μF, Lo=2.8mH.



Overview

Backplane mounting isolated safety barrier: PHD-11HZ-*1. The safety barrier can convert the resistance temperature detector (RTD) signal in the hazardous area into a 4-20 mA current signal to drive loads in the safe area. It can be intelligently configured, and the actual range of the thermal resistance can be set through computer software. It has the functions of wire breakage alarm and out of range alarm.

This product requires independent power supply, with isolated power supply, input, and output terminals.

"*" represents the input type of the thermistor, and the specific model is represented by a code (see "Input Signal Type and Range Table" for details).

Technical parameters

Number of channels: 1 input 1 output

Power supply:

Power voltage: 18~35V DC, power consumption 1.2W (when the supply voltage is 24V DC, and output 20mA)

Power protection: power reverse protection

Hazardous side input:

Input signal: two-,three-wire RTD signal (see "Input Signal Type and Range Table" for details)

Signal range: corresponding measurement range of thermal resistance
Measurement range: users make their own configuration when ordering, and indicate it at the tail number or otherwise.

Safety side output:

Output signal: 4~20mA

Output load: 0~500Ω (customizable)

LED indicator: green—power

low range alarm yellow light on; high range alarm red light on
wire breakage alarm red light flashing

Output accuracy: see "Input Signal Type and Range Table" for details

Response time: reaching 90% of the final value within 300ms

Temperature drift: 0.005%F.S/°C

Temperature parameters: working temperature: -20°C~+60°C

storage temperature: -40°C~+80°C

Relative humidity: 10%~95% RH no condensation

Insulation strength: between intrinsically safe side and non-intrinsically safe side (≥3000VAC/min)

between power supply and non-intrinsically safe side (≥1500VAC/min)

Insulation resistance: ≥100MΩ (between input/output/power supply)

EMC: according to IEC 61326-1(GB/T 18268), IEC 61326-3-1

Wire requirements: cross-section ≥0.5mm²; insulation strength ≥500V

Applicable field equipments: two wire or three wire thermistors G53, Cu50, Pt100, Pt1000, Ni1000

Installation place: installed in a safe zone, it can be connected to intrinsic safety instruments in hazardous areas up to Zone 0, IIC, Zone 20, and IIIC

Safety certification

Certification body: CQST(China National Quality Supervision and Test Centre for Explosion Protected Electrical Products)

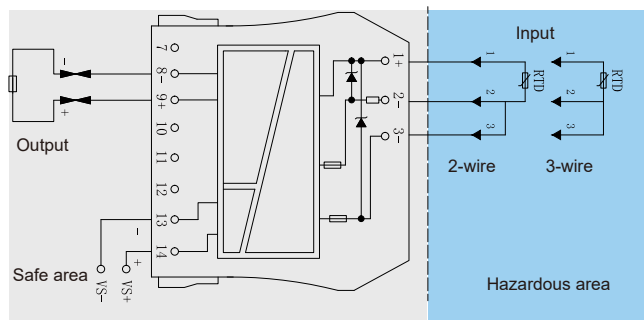
Explosion-proof standard: GB/ T 3836.1-2021 GB/T 3836.4-2021

Explosion-proof mark: [Ex ia Ga] IIC [Ex ia Da] IIIC

Certified parameters (between terminals 1-3、2-3):

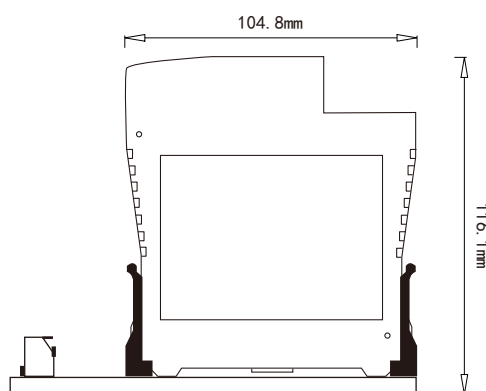
Um: 250V AC/DC Uo=8.4V DC Io=31mA Po=65.1mW Co=4.8μF Lo=20mH.

Connection wiring



Code	Model	Measurement range	Minimum range	Conversion accuracy
1	G53	-50~150°C	20°C	0.2°C/0.1%
2	Cu50	-50~150°C	20°C	0.2°C/0.1%
4	Pt100	-200~850°C	20°C	0.2°C/0.1%
6	Pt100	-200~850°C	20°C	0.2°C/0.1%
7	Ni1000	-60~250°C	20°C	0.2°C/0.1%

Dimensions





Overview

Backplane mounting isolated safety barrier: PHD-12HZ-*11. The safety barrier can convert the resistance temperature detector (RTD) signal in the hazardous area into a 4-20 mA current signal to drive loads in the safe area. It can be intelligently configured, and the actual range of the thermal resistance can be set through computer software. It has the functions of wire breakage alarm and out of range alarm.

This product requires independent power supply, with isolated power supply, input, and output terminals.

"**" represents the input type of the thermistor, and the specific model is represented by a code (see "Input Signal Type and Range Table" for details).

Technical parameters

Number of channels: 1 input 2 output

Power supply:

Power voltage: 18~35V DC, power consumption 1.8W (when the supply voltage is 24V DC, and output 20mA)

Power protection: power reverse protection

Hazardous side input:

Input signal: two-,three-wire RTD signal (see "Input Signal Type and Range Table" for details)

Signal range: corresponding measurement range of thermal resistance
Measurement range: users make their own configuration when ordering, and indicate it at the tail number or otherwise.

Safety side output:

Output signal: 4~20mA

Output load: 0~500Ω (customizable)

LED indicator: green——power

low range alarm yellow light on; high range alarm red light on
wire breakage alarm red light flashing

Output accuracy: see "Input Signal Type and Range Table" for details

Response time: reaching 90% of the final value within 300ms

Temperature drift: 0.005%F.S/°C

Temperature parameters: working temperature: -20°C~+60°C

storage temperature: -40°C~+80°C

Relative humidity: 10%~95% RH no condensation

Insulation strength: between intrinsically safe side and non-intrinsically safe side (≥3000VAC/min)

between power supply and non-intrinsically safe side (≥1500VAC/min)

Insulation resistance: ≥100MΩ (between input/output/power supply)

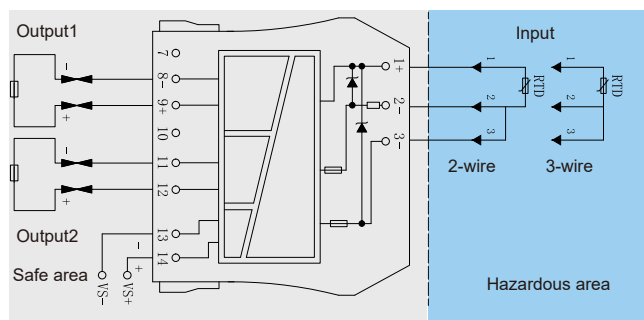
EMC: according to IEC 61326-1(GB/T 18268), IEC 61326-3-1

Wire requirements: cross-section ≥0.5mm²; insulation strength ≥500V

Applicable field equipments: two wire or three wire thermistors G53, Cu50, Pt100, Pt1000, Ni1000

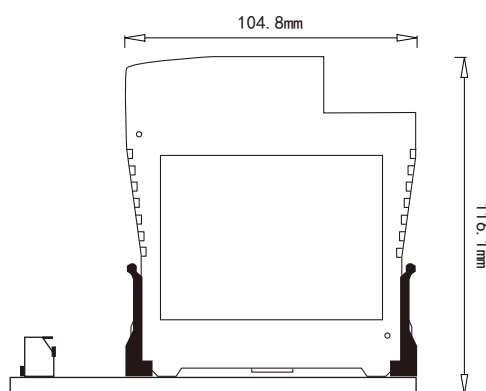
Installation place: installed in a safe zone, it can be connected to intrinsic safety instruments in hazardous areas up to Zone 0, IIC, Zone 20, and IIIC

Connection wiring



Code	Model	Measurement range	Minimum range	Conversion accuracy
1	G53	-50~150°C	20°C	0.2°C/0.1%
2	Cu50	-50~150°C	20°C	0.2°C/0.1%
4	Pt100	-200~850°C	20°C	0.2°C/0.1%
6	Pt100	-200~850°C	20°C	0.2°C/0.1%
7	Ni1000	-60~250°C	20°C	0.2°C/0.1%

Dimensions



Safety certification

Certification body: CQST(China National Quality Supervision and Test Centre for Explosion Protected Electrical Products)

Explosion-proof standard: GB/ T 3836.1-2021 GB/T 3836.4-2021

Explosion-proof mark: [Ex ia Ga] IIC [Ex ia Da] IIIC

Certified parameters (between terminals 1-3、 2-3):

Um: 250V AC/DC Uo=8.4V DC Io=31mA Po=65.1mW Co=4.8μF Lo=20mH.



Overview

Backplane mounting isolated safety barrier: PHD-22HZ-*1*1. The safety barrier can convert the resistance temperature detector (RTD) signal in the hazardous area into a 4-20 mA current signal to drive loads in the safe area. It can be intelligently configured, and the actual range of the thermal resistance can be set through computer software. It has the functions of wire breakage alarm and out of range alarm.

This product requires independent power supply, with isolated power supply, input, and output terminals.

"**" represents the input type of the thermistor, and the specific model is represented by a code (see "Input Signal Type and Range Table" for details).

Technical parameters

Number of channels: 2 input 2 output

Power supply:

Power voltage: 18~35V DC, power consumption 2W (when the supply voltage is 24V DC, and output 20mA)

Power protection: power reverse protection

Hazardous side input:

Input signal: two-,three-wire RTD signal (see "Input Signal Type and Range Table" for details)

Signal range: corresponding measurement range of thermal resistance

Measurement range: users make their own configuration when ordering, and indicate it at the tail number or otherwise.

Safety side output:

Output signal: 4~20mA

Output load: 0~500Ω (customizable)

LED indicator: green—power

low range alarm yellow light on; high range alarm red light on
wire breakage alarm red light flashing

Output accuracy: see "Input Signal Type and Range Table" for details

Response time: reaching 90% of the final value within 300ms

Temperature drift: 0.005%F.S/°C

Temperature parameters: working temperature: -20°C~+60°C

storage temperature: -40°C~+80°C

Relative humidity: 10%~95% RH no condensation

Insulation strength: between intrinsically safe side and non-intrinsically safe side (≥3000VAC/min)

between power supply and non-intrinsically safe side (≥1500VAC/min)

Insulation resistance: ≥100MΩ (between input/output/power supply)

EMC: according to IEC 61326-1(GB/T 18268), IEC 61326-3-1

Wire requirements: cross-section ≥0.5mm²; insulation strength ≥500V

Applicable field equipments: two wire or three wire thermistors G53, Cu50, Pt100, Pt1000, Ni1000

Installation place: installed in a safe zone, it can be connected to intrinsic safety instruments in hazardous areas up to Zone 0, IIC, Zone 20, and IIIC

Safety certification

Certification body: CQST(China National Quality Supervision and Test Centre for Explosion Protected Electrical Products)

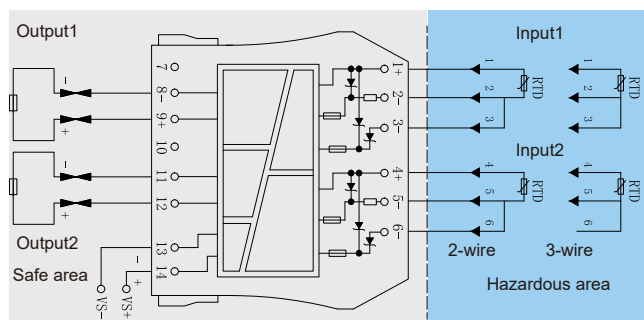
Explosion-proof standard: GB/ T 3836.1-2021 GB/T 3836.4-2021

Explosion-proof mark: [Ex ia Ga] IIC [Ex ia Da] IIIC

Certified parameters (between terminals 1-3、 2-3、 4-6、 5-6):

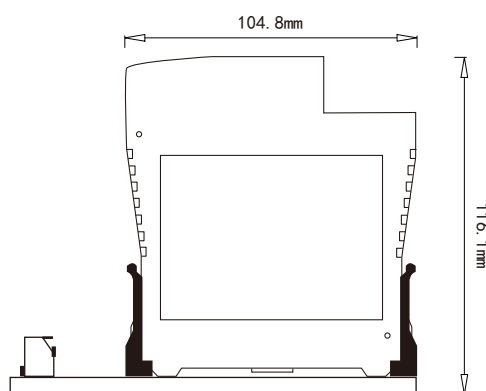
Um: 250V AC/DC Uo=8.4V DC Io=31mA Po=65.1mW Co=4.8μF Lo=20mH.

Connection wiring



Code	Model	Measurement range	Minimum range	Conversion accuracy
1	G53	-50~150°C	20°C	0.2°C/0.1%
2	Cu50	-50~150°C	20°C	0.2°C/0.1%
4	Pt100	-200~850°C	20°C	0.2°C/0.1%
6	Pt100	-200~850°C	20°C	0.2°C/0.1%
7	Ni1000	-60~250°C	20°C	0.2°C/0.1%

Dimensions





Overview

Backplane mounting isolated safety barrier: PHD-11HT-*1. The safety barrier can convert the low-level DC signal (TC) sent by the temperature sensor in the hazardous area into a 4-20 mA current signal to drive loads in the safe area. This safety barrier has built-in cold junction compensation and can be intelligently configured. The actual range of the thermocouple can be set through computer software. It has the functions of wire breakage alarm and out of range alarm. This product requires independent power supply, with isolated power supply, input, and output terminals.

"**" represents the input type of the thermocouple, and the specific model is represented by a code (see "Input Signal Type and Range Table" for details).

Technical parameters

Number of channels: 1 input 1 output

Power supply:

Power voltage: 18~35V DC, power consumption 1.2W (when the supply voltage is 24V DC, and output 20mA)

Power protection: power reverse protection

Hazardous side input:

Input signal: K, S, E, J, B, T, R, N TC signals (see "input signal type and range table" for details)

Signal range: the measuring range of the corresponding thermocouple is -10~100mV

Measurement range: users make their own configuration when ordering, and indicate it at the tail number or otherwise.

Safety side output:

Output signal: 4~20mA

Output load: 0~500Ω (customizable)

LED indicator: green—power

low range alarm yellow light on; high range alarm red light on
wire breakage alarm red light flashing

Output accuracy: see "Input Signal Type and Range Table" for details

Response time: reaching 90% of the final value within 500ms

Temperature drift: 0.005%F.S/°C

Temperature parameters: working temperature: -20°C~+60°C

storage temperature: -40°C~+80°C

Relative humidity: 10%~95% RH no condensation

Insulation strength: between intrinsically safe side and non-intrinsically safe side (≥3000VAC/min)

between power supply and non-intrinsically safe side (≥1500VAC/min)

Insulation resistance: ≥100MΩ (between input/output/power supply)

EMC: according to IEC 61326-1(GB/T 18268), IEC 61326-3-1

Wire requirements: cross-section ≥0.5mm²; insulation strength ≥500V

Applicable field equipments: K, S, E, J, B, T, R, N TC sensors

Installation place: installed in a safe zone, it can be connected to intrinsic safety instruments in hazardous areas up to Zone 0, IIC, Zone 20, and IIIC

Safety certification

Certification body: CQST(China National Quality Supervision and Test Centre for Explosion Protected Electrical Products)

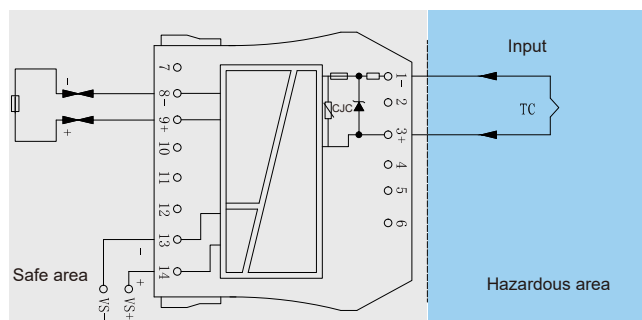
Explosion-proof standard: GB/T 3836.1-2021 GB/T 3836.4-2021

Explosion-proof mark: [Ex ia Ga] IIC [Ex ia Da] IIIC

Certified parameters (between terminals 3-1):

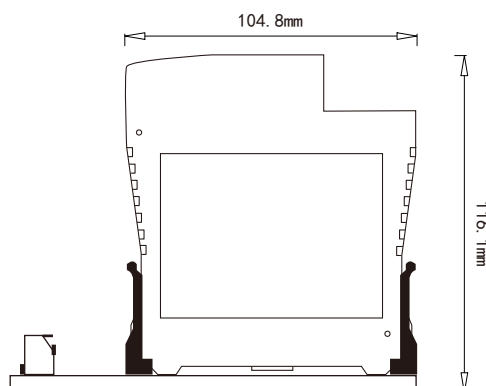
Um: 250V AC/DC Uo=8.4V DC Io=31mA Po=65.1mW Co=4.8μF Lo=20mH.

Connection wiring



Code	Model	Measurement range	Minimum range	Conversion accuracy
1	K	-200~1370°C	50°C	0.5°C/0.1%
2	S	-50~1760°C	500°C	1.5°C/0.1%
3	E	-140~1000°C	50°C	0.5°C/0.1%
4	J	-160~1200°C	50°C	0.5°C/0.1%
5	B	250~1800°C	500°C	1.5°C/0.1%
6	T	-200~400°C	50°C	0.5°C/0.1%
7	R	-50~1760°C	500°C	1.5°C/0.1%
8	N	-200~1300°C	50°C	0.5°C/0.1%

Dimensions





Overview

Backplane mounting isolated safety barrier: PHD-12HT-*11. The safety barrier can convert the low-level DC signal (TC) sent by the temperature sensor in the hazardous area into a 4-20 mA current signal to drive loads in the safe area. This safety barrier has built-in cold junction compensation and can be intelligently configured. The actual range of the thermocouple can be set through computer software. It has the functions of wire breakage alarm and out of range alarm. This product requires independent power supply, with isolated power supply, input, and output terminals.

"**" represents the input type of the thermocouple, and the specific model is represented by a code (see "Input Signal Type and Range Table" for details).

Technical parameters

Number of channels: 1 input 2 output

Power supply:

Power voltage: 18~35V DC, power consumption 1.8W (when the supply voltage is 24V DC, and output 20mA)

Power protection: power reverse protection

Hazardous side input:

Input signal: K, S, E, J, B, T, R, N TC signals (see "input signal type and range table" for details)

Signal range: the measuring range of the corresponding thermocouple is -10~100mV

Measurement range: users make their own configuration when ordering, and indicate it at the tail number or otherwise.

Safety side output:

Output signal: 4~20mA

Output load: 0~500Ω (customizable)

LED indicator: green—power

low range alarm yellow light on; high range alarm red light on
wire breakage alarm red light flashing

Output accuracy: see "Input Signal Type and Range Table" for details

Response time: reaching 90% of the final value within 500ms

Temperature drift: 0.005%F.S/°C

Temperature parameters: working temperature: -20°C~+60°C

storage temperature: -40°C~+80°C

Relative humidity: 10%~95% RH no condensation

Insulation strength: between intrinsically safe side and non-intrinsically safe side (≥3000VAC/min)

between power supply and non-intrinsically safe side (≥1500VAC/min)

Insulation resistance: ≥100MΩ (between input/output/power supply)

EMC: according to IEC 61326-1(GB/T 18268), IEC 61326-3-1

Wire requirements: cross-section ≥0.5mm²; insulation strength ≥500V

Applicable field equipments: K, S, E, J, B, T, R, N TC sensors

Installation place: installed in a safe zone, it can be connected to intrinsic safety instruments in hazardous areas up to Zone 0, IIC, Zone 20, and IIIC

Safety certification

Certification body: CQST(China National Quality Supervision and Test Centre for Explosion Protected Electrical Products)

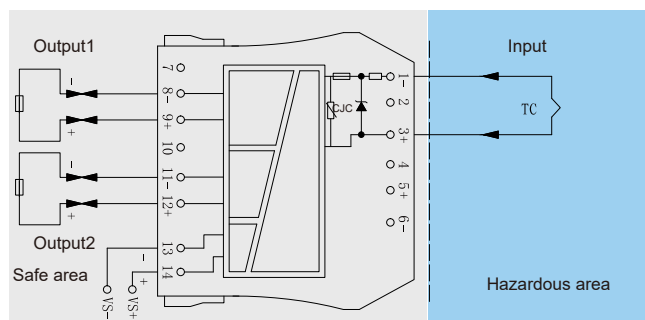
Explosion-proof standard: GB/T 3836.1-2021 GB/T 3836.4-2021

Explosion-proof mark: [Ex ia Ga] IIC [Ex ia Da] IIIC

Certified parameters (between terminals 3-1):

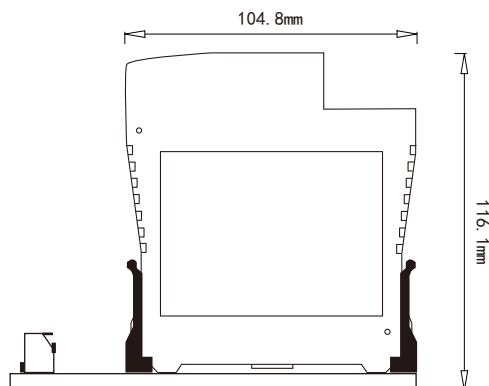
Um: 250V AC/DC Uo=8.4V DC Io=31mA Po=65.1mW Co=4.8μF Lo=20mH.

Connection wiring



Code	Model	Measurement range	Minimum range	Conversion accuracy
1	K	-200~1370°C	50°C	0.5°C/0.1%
2	S	-50~1760°C	500°C	1.5°C/0.1%
3	E	-140~1000°C	50°C	0.5°C/0.1%
4	J	-160~1200°C	50°C	0.5°C/0.1%
5	B	250~1800°C	500°C	1.5°C/0.1%
6	T	-200~400°C	50°C	0.5°C/0.1%
7	R	-50~1760°C	500°C	1.5°C/0.1%
8	N	-200~1300°C	50°C	0.5°C/0.1%

Dimensions





Overview

Backplane mounting isolated safety barrier: PHD-22HT-*1*1. The safety barrier can convert the low-level DC signal (TC) sent by the temperature sensor in the hazardous area into a 4-20 mA current signal to drive loads in the safe area. This safety barrier has built-in cold junction compensation and can be intelligently configured. The actual range of the thermocouple can be set through computer software. It has the functions of wire breakage alarm and out of range alarm. This product requires independent power supply, with isolated power supply, input, and output terminals.

"**" represents the input type of the thermocouple, and the specific model is represented by a code (see "Input Signal Type and Range Table" for details).

Technical parameters

Number of channels: 2 input 2 output

Power supply:

Power voltage: 18~35V DC, power consumption 2W (when the supply voltage is 24V DC, and output 20mA)

Power protection: power reverse protection

Hazardous side input:

Input signal: K, S, E, J, B, T, R, N TC signals (see "input signal type and range table" for details)

Signal range: the measuring range of the corresponding thermocouple is -10~100mV

Measurement range: users make their own configuration when ordering, and indicate it at the tail number or otherwise.

Safety side output:

Output signal: 4~20mA

Output load: 0~500Ω (customizable)

LED indicator: green—power

low range alarm yellow light on; high range alarm red light on
wire breakage alarm red light flashing

Output accuracy: see "Input Signal Type and Range Table" for details

Response time: reaching 90% of the final value within 500ms

Temperature drift: 0.005%F.S/C

Temperature parameters: working temperature: -20°C~+60°C

storage temperature: -40°C~+80°C

Relative humidity: 10%~95% RH no condensation

Insulation strength: between intrinsically safe side and non-intrinsically safe side (≥3000VAC/min)

between power supply and non-intrinsically safe side (≥1500VAC/min)

Insulation resistance: ≥100MΩ (between input/output/power supply)

EMC: according to IEC 61326-1(GB/T 18268), IEC 61326-3-1

Wire requirements: cross-section ≥0.5mm²; insulation strength ≥500V

Applicable field equipments: K, S, E, J, B, T, R, N TC sensors

Installation place: installed in a safe zone, it can be connected to intrinsic safety instruments in hazardous areas up to Zone 0, IIC, Zone 20, and IIIC

Safety certification

Certification body: CQST(China National Quality Supervision and Test Centre for Explosion Protected Electrical Products)

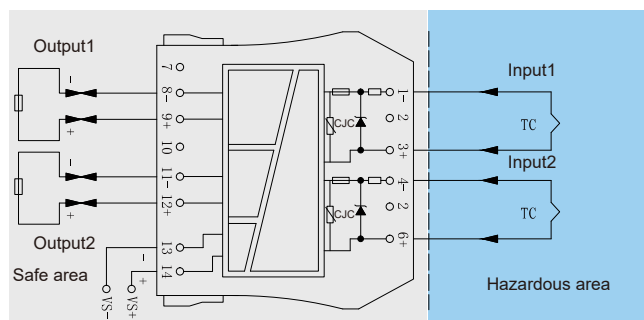
Explosion-proof standard: GB/T 3836.1-2021 GB/T 3836.4-2021

Explosion-proof mark: [Ex ia Ga] IIC [Ex ia Da] IIIC

Certified parameters (between terminals 3-1, 6-4):

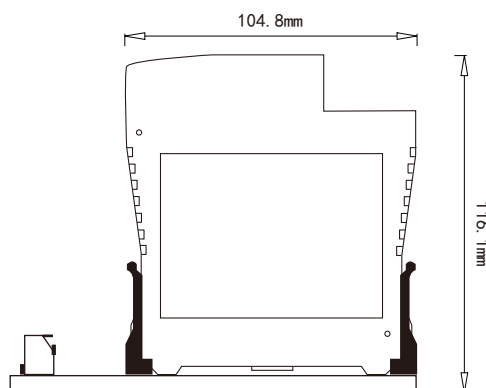
Um: 250V AC/DC Uo=8.4V DC Io=31mA Po=65.1mW Co=4.8μF Lo=20mH.

Connection wiring



Code	Model	Measurement range	Minimum range	Conversion accuracy
1	K	-200~1370°C	50°C	0.5°C/0.1%
2	S	-50~1760°C	500°C	1.5°C/0.1%
3	E	-140~1000°C	50°C	0.5°C/0.1%
4	J	-160~1200°C	50°C	0.5°C/0.1%
5	B	250~1800°C	500°C	1.5°C/0.1%
6	T	-200~400°C	50°C	0.5°C/0.1%
7	R	-50~1760°C	500°C	1.5°C/0.1%
8	N	-200~1300°C	50°C	0.5°C/0.1%

Dimensions





Overview

Backplane mounting isolated safety barrier: PHD-11HT-*1. According to the range line set by user, frequency signal from hazardous area converts to DC signal and output to safety area, also has one relay alarm output.

This product requires independent power supply, with isolated power supply, input, and output terminals.

Technical parameters

Number of channels: 1 input 1 output

Power supply:

18~35V DC, power consumption≤85mA (when the supply voltage is 24V DC and output 20mA)

Power protection: power reverse protection

Hazardous side input:

Type of signal

1) three-wire PNP/NPN sensor input:

sensor distribution (2+, 1S, 3-): 14V, current<20mA

frequency input: 0.1Hz~100kHz

2) Frequency signal input:

frequency input: 0.1Hz~100kHz

maximum allowable input voltage:30Vp-p

minimum input level : $\sqrt{}$ 2V, (2Hz~100kHz)

$\sqrt{}$ 2V, (0.1Hz~100kHz)

3) Proximity switch, dry contact switch input:

distribution voltage(4+, 5-)≈8V, short-circuit current(4+, 5-)>7mA

frequency input: 0.1Hz~100kHz

Safety side output:

Signal output: 0~20mA, 4~20mA, 0~5V, 0~10V

Current output load resistance≤350Ω

Voltage output load resistance≥300Ω

Impulse duration≥2μs

Output accuracy: 0.1% F.S

Temperature drift: 0.01% F.S/ °C

For details on the input signal fault detection function, please refer to the user manual

Relay response time: 20ms

Temperature parameters: working temperature: -20°C~+60°C

storage temperature: -40°C~+80°C

Relative humidity: 10%~95% RH no condensation

EMC: according to IEC 61326-1(GB/T 18268)

Insulation strength: between intrinsically safe side and non-intrinsically safe

side (≥2500VAC/min)

between power supply and non-intrinsically safe

side (≥1500VAC/min)

Insulation resistance: ≥100MΩ (between input/output/power supply)

Wire requirements: cross-section ≥0.5mm²; Insulation strength ≥500V

Installation place: Installed in a safe zone, it can be connected to intrinsic safety instruments in hazardous areas up to Zone 0, IIC, Zone 20, and IIIC

Applicable field equipments:

According to DIN19234 - NAMUR proximity switch, dry contact switch etc.

field equipment's (including: intrinsically safe pressure switch, temperature

switch and liquid level switch etc.), level impulse signal, three-wire PNP/NPN

sensor output, and incremental encoder)

Safety certification

Certification body: CQST(China National Quality Supervision and

Test Centre for Explosion Protected Electrical Products)

Explosion-proof standard: GB/ T 3836.1-2021 GB/T 3836.4-2021

Explosion-proof mark: [Ex ia Ga] IIC [Ex ia Da] III C

Certified parameters (between terminals 4-5):

Um: 250V AC/DC Uo=10.5V DC Io=14mA Po=37mW Co=2.4μF Lo=165mH.

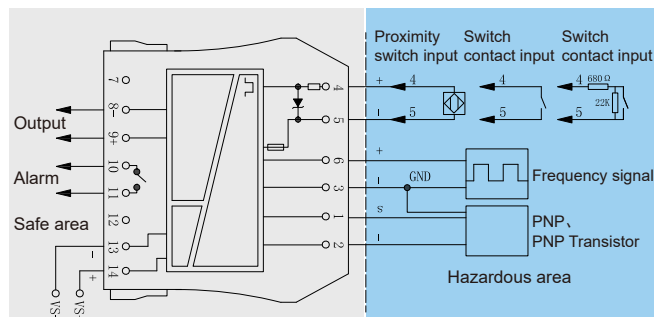
Certified parameters (between terminals 3-6):

Um: 250V AC/DC Uo=14V DC Io=8mA Po=28mW Co=0.73μF Lo=150mH.

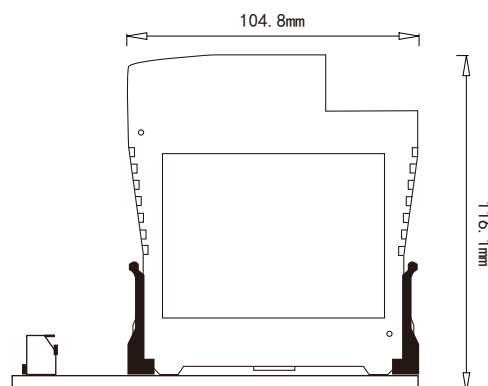
Certified parameters (between terminals 1-2-3):

Um: 250V AC/DC Uo=17.5V DC Io=330mA Po=1.4W Co=0.375μF Lo=0.22mH.

Connection wiring



Dimensions





Overview

Backplane mounting isolated safety barrier: PHD-11HP-13. The safety barrier can realize the 1:1 transmission of the frequency signal of the instrument in the hazardous area to the safe area, and provide the isolated power supply (12V) for the field instrument in the hazardous area.

This product requires independent power supply, with isolated power supply, input, and output terminals.

Technical parameters

Number of channels: 1 input 1 output

Power supply:

Power voltage: 18~35V DC, power consumption $\leq 50\text{mA}$ (when the supply voltage is 24V DC and 12V level output)

Power protection: power reverse protection

Hazardous side input:

Input signal: frequency $\leq 100\text{kHz}$, amplitude $\leq 12\text{V}$, duty cycle $\geq 20\%$, high-level ≥ 4 , low-level $\leq 1\text{V}$

Distribution voltage $\geq 8.5\text{V}$, open-circuit voltage $\leq 13\text{V}$, when load 25mA

Safety side output:

Signal output: frequency 1:1 output

Signal range: signal low level $\leq 0.5\text{V}$; signal high level $\geq 10\text{V}$

Drive current: $\leq 15\text{mA}$, load resistance $\geq 1\text{k}\Omega$

LED light indicator: green - power

Receiving and transmitting switching time: $\geq 20\text{ms}$

Temperature parameters: working temperature: $-20^\circ\text{C} \sim +60^\circ\text{C}$

storage temperature: $-40^\circ\text{C} \sim +80^\circ\text{C}$

Relative humidity: 10%~95% RH no condensation

Insulation strength: between intrinsically safe side and non-intrinsically safe side ($\geq 3000\text{VAC/min}$)

between power supply and non-intrinsically safe side ($\geq 1500\text{VAC/min}$)

Insulation resistance: $\geq 100\text{M}\Omega$ (between input/output/power supply)

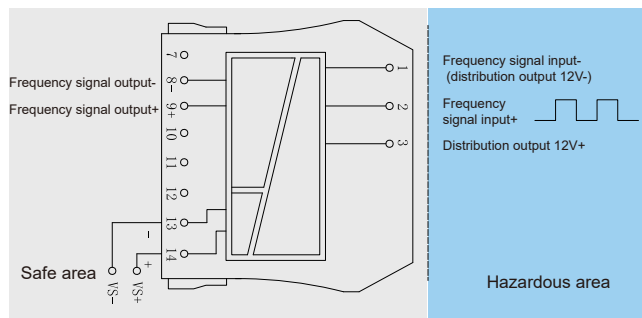
EMC: according to IEC 61326-1(GB/T 18268), IEC 61326-3-1

Wire requirements: cross-section $\geq 0.5\text{mm}^2$; Insulation strength $\geq 500\text{V}$

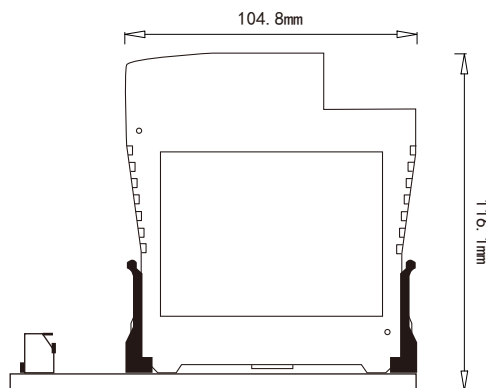
Applicable field equipments: frequency equipments

Installation place: installed in a safe zone, it can be connected to intrinsic safety instruments in hazardous areas up to Zone 0, IIC, Zone 20, and IIIC

Connection wiring



Dimensions



Safety certification

Certification body: CQST(China National Quality Supervision and Test Centre for Explosion Protected Electrical Products)

Explosion-proof standard: GB/ T 3836.1-2021 GB/T 3836.4-2021

Explosion-proof mark: [Ex ia Ga] IIC [Ex ia Da] III C

Certified parameters (between terminals 1-2):

Um: 250V AC/DC Uo=14.7V DC Io=207mA Po=0.76W Co=0.5 μF Lo=0.56mH.

Certified parameters (between terminals 3-4):

Um: 250V AC/DC Uo=8V DC Io=2.5mA Po=5mW Co=5.9 μF Lo=100mH.



Overview

Backplane mounting isolated safety barrier: PHD-11HP-23. The safety barrier can realize the 1:1 transmission of the frequency signal of the instrument in the hazardous area to the safe area, and provide the isolated power supply (24V) for the field instrument in the hazardous area.

This product requires independent power supply, with isolated power supply, input, and output terminals.

Technical parameters

Number of channels: 1 input 1 output

Power supply:

Power voltage: 18~35V DC, power consumption $\leq 70\text{mA}$ (when the supply voltage is 24V DC and 24V level output)

Power protection: power reverse protection

Hazardous side input:

Input signal: frequency $\leq 100\text{kHz}$, amplitudes $\leq 24\text{V}$, duty cycle $\geq 20\%$, high-level ≥ 4 , vlow-level $\leq 1\text{V}$

Distribution voltage $\geq 16\text{V}$, open-circuit voltage $\leq 25\text{V}$, when load 25mA

Safety side output:

Signal output: frequency 1:1 output

Signal range: signal low level $\leq 0.5\text{V}$; signal high level $\geq 10\text{V}$

Drive current: $\leq 15\text{mA}$, load resistance $\geq 1\text{k}\Omega$

LED light indicator: green - power

Receiving and transmitting switching time: $\geq 20\text{ms}$

Temperature parameters: working temperature: $-20^\circ\text{C} \sim +60^\circ\text{C}$

storage temperature: $-40^\circ\text{C} \sim +80^\circ\text{C}$

Relative humidity: 10%~95% RH no condensation

Insulation strength: between intrinsically safe side and non-intrinsically safe side ($\geq 3000\text{VAC/min}$)

between power supply and non-intrinsically safe side ($\geq 1500\text{VAC/min}$)

Insulation resistance: $\geq 100\text{M}\Omega$ (between input/output/power supply)

EMC: according to IEC 61326-1(GB/T 18268), IEC 61326-3-1

Wire requirements: cross-section $\geq 0.5\text{mm}^2$; Insulation strength $\geq 500\text{V}$

Applicable field equipments: frequency equipments

Installation place: installed in a safe zone, it can be connected to intrinsic safety instruments in hazardous areas up to Zone 0, IIC, Zone 20, and IIIC

Safety certification

Certification body: CQST(China National Quality Supervision and Test Centre for Explosion Protected Electrical Products)

Explosion-proof standard: GB/ T 3836.1-2021 GB/T 3836.4-2021

Explosion-proof mark: [Ex ia Ga] IIC [Ex ia Da] III C

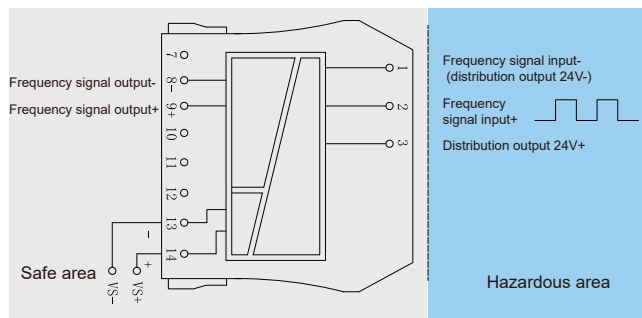
Certified parameters (between terminals 1-2):

Um: 250V AC/DC Uo=28V DC Io=93mA Po=0.65W Co=0.05 μF Lo=2.4mH.

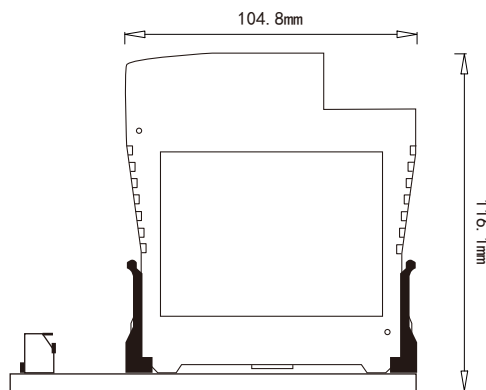
Certified parameters (between terminals 3-4):

Um: 250V AC/DC Uo=8V DC Io=2.5mA Po=5mW Co=5.9 μF Lo=100mH.

Connection wiring



Dimensions



PH-H Series Motherboard

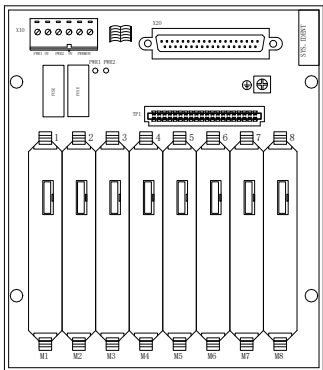
Overview

PH-H series motherboard is suitable for Beijing Pinghe H series isolated safety barriers or signal isolators. It has many types and is suitable for all kinds of DCS I/O cards. Fast wiring design supports multi-channel signal transmission at the same time, and the motherboard integrates redundant power supply and fault alarm output function.

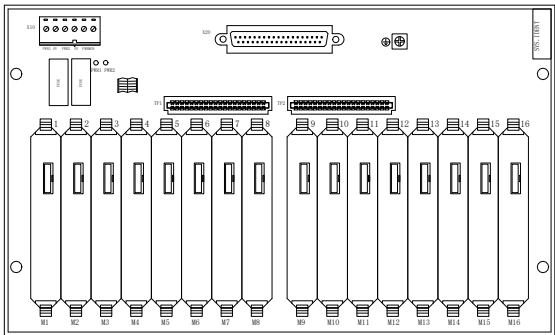
Technical parameters

- Number of channels: 8 or 16
- Power supply voltage: 22~30V DC
- Power supply mode: dual redundancy
- Rated current: 2A
- Power fuse: 2A×2
- Power indicator: yellow LED indicator.
- Power failure output: relay output
- Output connector: depending on different models
- Working temperature: -20℃~+60℃
- Storage temperature: -40℃~+80℃
- Installation method: DIN rail or screw mounting

Dimensions



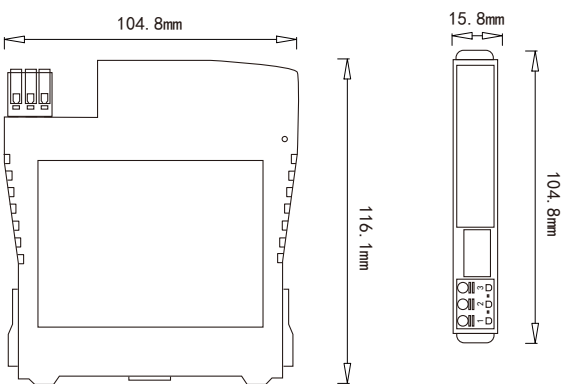
Dimensions (L×W×H): 152×174×60mm



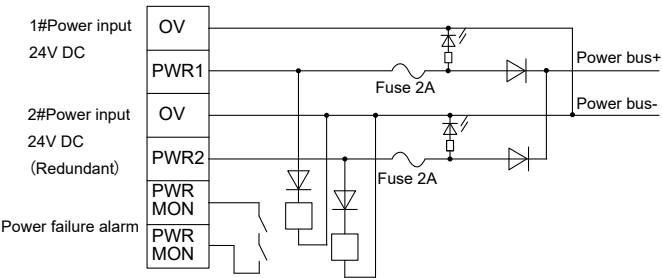
Dimensions (L×W×H): 292×86×50mm



Dummy module



Redundant power supply schematic diagram



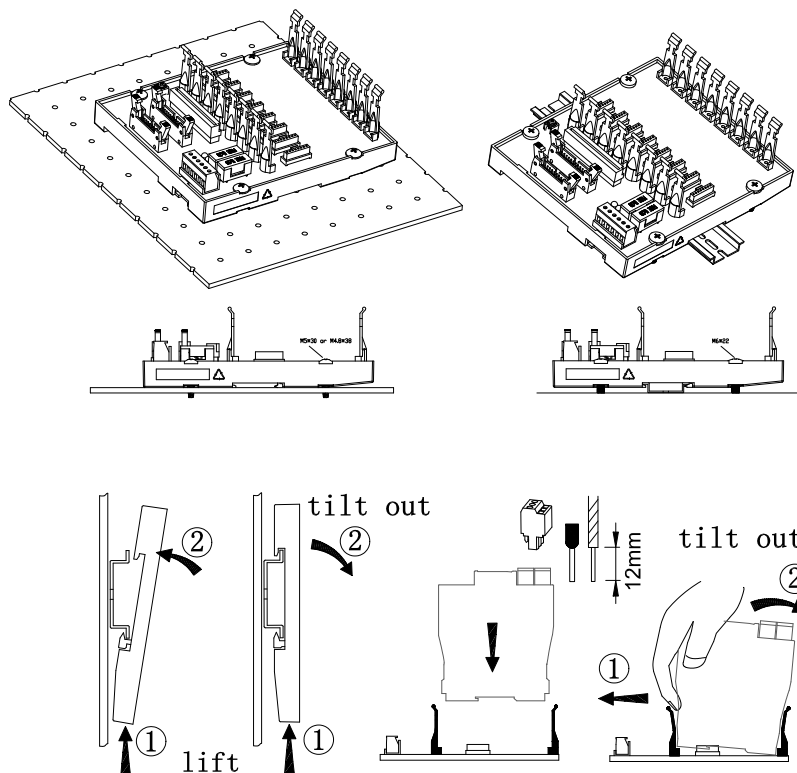
Sign	Function description	Note
PWR1	24V(1) Power supply input	1st channel power supply+
0V	24V(1) Power supply input -	1st channel power supply-
PWR2	24V(2) Power supply input	2nd channel power supply+
0V	24V(2) Power supply input -	2nd channel power supply-
PMRMON	2-channel power supply monitoring, relay output	Output dry contact, closed when power supply is normal.

Note

The motherboard offers multiple socket options compatible with pre-assembled cables from various manufacturers, supporting PLC and DCS cards from domestic and international brands such as: Honeywell, Siemens, Emerson, Foxboro, Hima, Consen, Supcon, HollySys, etc. The system brand must be specified when placing an order.

Installation method

35mm DIN rail mounting or M5 screw mounting. When installed with screw, it is recommended to use a standard modular hole mounting board, which can be installed in a standard cabinet with a width of 600~800mm, either horizontally or vertically is ok. It is recommended to install vertically to facilitate the separation of internal and external wiring.





Beijing Pinghe official website



Beijing Pinghe official wechat



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