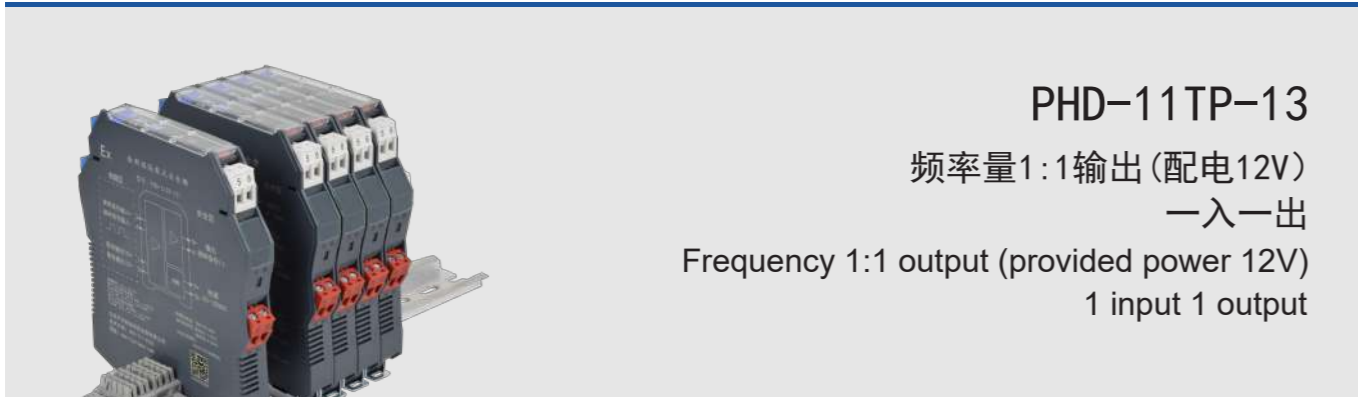


检测端安全栅 Isolated Safety Barrier at Detection Side

Frequency Input 频率量输入



PHD-11TP-13

频率量1:1输出(配电12V)

一入一出

Frequency 1:1 output (provided power 12V)

1 input 1 output

概述 Overview

隔离式检测端安全栅：PHD-11TP-13，频率量输入，一路输入一路输出。

安全栅可实现将危险区的频率信号传输到安全区，频率量1:1输出，具有较强的抗干扰能力。电路为现场仪表提供12VDC配电电压。本产品需要外接20~35VDC电源。

*总线端子供电，详见附录。

Isolated safety barrier at detection end: PHD-11TP-13, frequency input, single input and single output.

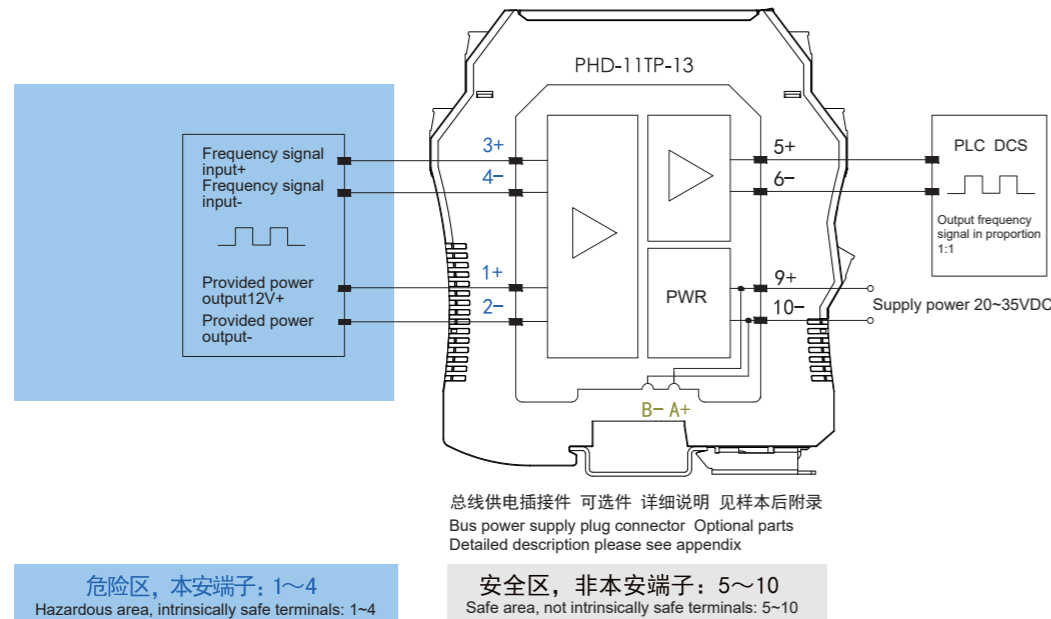
The safety barrier can transmit the frequency signal in dangerous area to safe area with in frequency output in proportion 1:1, has very strong an-interference ability.

The circuit provides for the field instrument 12 VDC provided power supply.

This product needs an external 20~35VDC power supply.

* Bus terminal power supply, please see appendix for details.

接线图 Wiring diagram



技术数据 Specifications

供电电压 Supply voltage	20~35VDC, 功耗约2.0W 20~35VDC, power consumption about 2.0W
配电电压 Provided voltage	开路电压≤13V, 带载25mA时配电电压≥8.5V Open circuit voltage≤13V, provided voltage≥8.5V when with load 25mA
输入信号 Input signal	频率≤100KHz, 幅值≤12V, 占空比≥20%, 高电平≥4V, 低电平≤1V Frequency ≤100KHz, amplitude ≤12V, duty cycle ≥20%, high level ≥4V, low level ≤1V
输出信号 Output signal	频率量1:1输出, 高电平≥10V, 低电平≤0.5V, 驱动电流≤15mA, 负载电阻≥1KΩ Frequency 1:1 output, high level ≥10V, low level ≤0.5V, driving current ≤15mA, load resistance ≥1KΩ
输入输出路数 Channel number of input and output	一路输入, 一路输出 1 input 1 output
适用的现场设备 Applicable field devices	频率量设备 Frequency equipment
温度参数 Temperature parameters	工作温度: -20℃~+60℃, 存储温度: -40℃~+80℃ Working temperature: -20℃~+60℃, storage temperature: -40℃~+80℃
空气相对湿度 Relative humidity	10%~95%RH无凝露 10%~95% RH no condensation
绝缘强度 Dielectric strength	本安端与非本安端 (≥3000VAC/min); 电源与非本安端之间 (≥1500VAC/min) Between intrinsically safe side and non-intrinsically safe side (≥3000VAC/min); between power supply and non-intrinsically safe terminal (≥1500VAC/min)
绝缘电阻 Insulation resistance	≥100MΩ (输入/输出/电源间) ≥100MΩ (between input/output/power supply)
电磁兼容性 Electromagnetic compatibility	符合IEC 61326-1 (GB/T 18268), IEC 61326-3-1 According to IEC 61326-1 (GB/T 18268), IEC 61326-3-1
防爆标志 Explosion-proof mark	[Exia Ga] IIC
认证机构 Certification Body	国家防爆电气产品质量监督检验中心CQST认证 CQST (China National Quality Supervision and Test Centre for Explosion Protected Electrical Products)
认证参数(端子1-2之间) Authentication parameters (between terminals 1-2)	Um=250V Uo=14.7V Io=207mA Co=0.5μF Lo=0.35mH Po=0.76mW
认证参数(端子3-4之间) Authentication parameters (between terminals 3-4)	Um=250V Uo=8V Io=2.5mA Co=3.5μF Lo=100mH Po=5mW
安装场所要求 Installation place requirements	可与具有IIA、IIB、IIC危险气体的0区本安仪表相连接 It can be connected with instruments in 0 zone with IIA, IIB, IIC dangerous gas
平均无故障时间 MTBF	约100000小时 About 100000h

端子定义及外形尺寸 Terminal assignments and dimensions

端子 Terminal	接线端子功能定义 Terminal assignments	
9	供电电源+ Power supply +	20~35VDC
10	供电电源- Power supply -	
1	配电电源12V+ Provided power supply 12V+	
2	配电电源- Provided power supply-	
3	输入+ Input+	频率量
4	输入- Input-	Frequency
5	输出+ Output+	频率量
6	输出- Output-	Frequency

