

PHD-11TD-21
二、三线制变送器或电流源输入/4~20mA输出
一入一出
Two or three-wire transmitter or current source input / 4~20mA output
1 input 1 output

概述 Overview

隔离式检测端安全栅：PHD-11TD-21，模拟量输入输出，一路输入一路输出。

安全栅可实现将危险区变送器产生的4~20mA信号或直流4~20mA信号，隔离传送到安全区。输出4~20mA信号，现场变送器为二、三线制时，安全栅为变送器提供配电电源。

本产品需外接20~35VDC电源。
本产品支持HART信号，支持断线报警。

*注：本产品如果需要其它参数请联系技术人员。若输出为其他参数，以数字9表示，并在型号后，注明具体参数。
例：输入二线制、三线制或4~20mA，输出2~10V。型号：PHD-11TD-29 (2~10V)

*总线端子供电，详见附录。

Isolated safety barrier at detection side: PHD-11TD-21, analog input and output, single input and single output.

The isolated barrier can isolate and transmit the 4~20mA signal or DC 4~20 mA signal generated by the transmitter in the dangerous area to the safe area. the output signal is 4~20mA. When the transmitter is two-wire or three-wire system, the safety barrier provides power for the transmitter.

This product needs an external 20~35VDC power supply. This product supports HART signal and disconnection alarm.

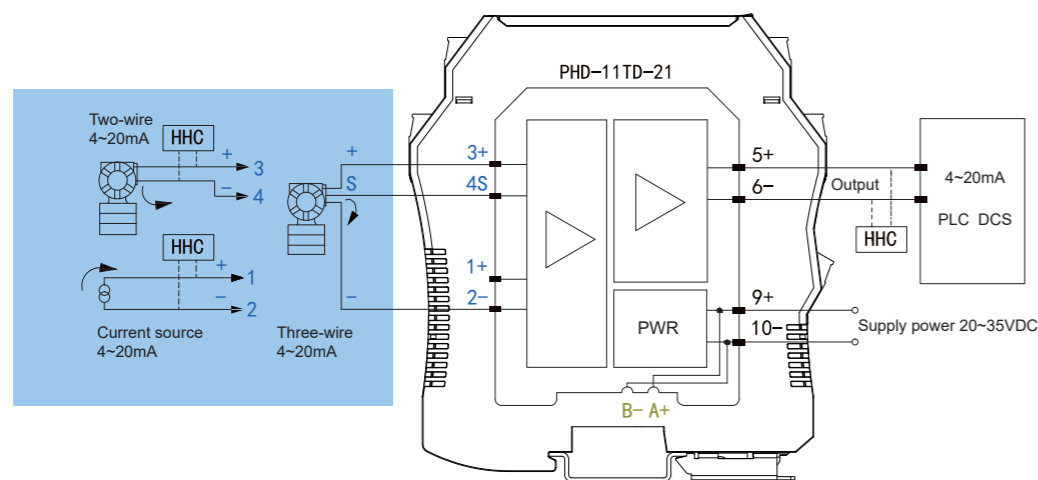
* Note: If you need other parameters of this product, please contact our technical support. If the output is other parameters, it is indicated by the number 9, and the specific parameters are indicated after the model number.

Example: input 2-wire, 3-wire or 4~20mA, output 2~10V.

Model: PHD-11TD-29 (2~10V)

* Bus power supply, please see appendix for details.

接线图 Wiring diagram



总线供电插接件 可选件 详细说明 见样本后附录
Bus power supply plug connector Optional parts Detailed description please see appendix

危险区，本安端子：1~4
Hazardous area, intrinsically safe terminals: 1~4

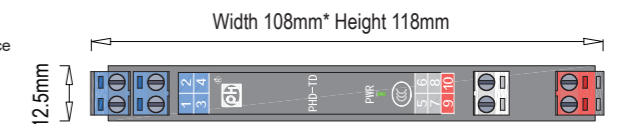
安全区，非本安端子：5~10
Safe area, not intrinsically safe terminals: 5~10

技术数据 Specifications

供电电压 Supply voltage	20~35VDC, 功耗<1.5W (24VDC, 变送器输入, 输出20mA时) 20~35VDC, power consumption<1.5W (when supply power 24VDC, transmitter input, output 20mA)
配电输出电源 Output power supply with provided power	电路输出20mA时, 配电电压≥16V When the circuit output is 20mA, the provided voltage is≥16V
输入信号 Input signal	二、三线制变送器或电流源信号 (HART) Two-wire or three-wire transmitter or current source signal (HART)
输出信号 Output signal	4~20mA (HART)
允许输出负载能力 Allowable output load capacity	0~500Ω (可定制) 0~500Ω (customizable)
输出精度 Output accuracy	0.1%F.S (典型值: 0.05%F.S) 0.1%FS (Typical value: 0.05% FS)
温度漂移 Temperature drift	0.005%F.S/°C
输入输出路数 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 equipments	二、三线制变送器、电流源信号, 本产品适用于 (ABB、Fisher、Rosemount、Honeywell, 以及以引进技术的3351、EJA、SIEMENS等产品) 2-wire, 3-wire transmitter and current source signal, this product is suitable for ABB, Fisher, Rosemount, Honeywell, as well as 3351, EJA, SIEMENS and other products with imported technology.
温度参数 Temperature parameters	工作温度: -20°C~+60°C, 存储温度: -40°C~+80°C Working temperature: -20°C~+60°C, storage temperature: -40°C~+80°C
空气相对湿度 Relative humidity	10%~95%RH无凝露 10%~95% RH no condensation
绝缘强度 Insulation 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 side (≥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
功能安全认证 Functional safety certification	SIL2 符合IEC 61508 EN 61511标准 SIL2 according to IEC 61508 and EN 61511 standards
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) Certified parameters (between terminals 1-2)	Um=250V Uo=3.5V Io=-mA Co=100 μF Lo=-mH Po=-W
认证参数 (端子3-4之间) Certified parameters (between terminals 3-4)	Um=250V Uo=28V Io=93mA Co=0.05 μF Lo=2.4mH Po=0.65W
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	≤100000小时 (h)

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	二线制 2-wire 输入+ Input+	电流源 Current source
2	二线制 2-wire 输入- Input-	
3	输入+ Input+ 配电电源+ Provided power supply+	4~20mA
4	输入- Input- 输入+ Input+	
5	输出+ Output+	4~20mA
6	输出- Output-	



厚12.5mm × 宽108mm × 高118mm
Thickness 12.5mm* width 108mm* height 118mm