

H Serie Backplane Mounting Isolated Safety Barriers

PHD-12HT-*11



Overview

Isolated safety barrier at detection side: PHD-12HT-*11, thermocouple signal input, single input and dual output. The safety barrier can realize the conversion of thermocouple signal input in dangerous area into 4~20mA signal output and transmit it to safe area. The circuit has one thermocouple input and one DC signal 4~20mA output.

The output 4~20mA signal can be intelligently configured, and the actual measuring range can be set by computer.

PHD-12HT-*11, "*" indicates the input type of thermocouple, please use code to indicate it.

This product needs independent power supply.

Input signal types and measurement range				
Code	RTD model	Measurement range	Minimum range	Conversion accuracy
1	K	-200 ~ 1370℃	50℃	0.5℃/0.1%
2	S	-50 ~ 1760℃	500℃	1.5℃/0.1%
3	E	-140 ~ 1000℃	50℃	0.5℃/0.1%
4	J	-160 ~ 1200℃	50℃	0.5℃/0.1%
5	B	250 ~ 1800℃	500℃	1.5℃/0.1%
6	T	-200 ~ 400℃	50℃	0.5℃/0.1%
7	R	-50 ~ 1760℃	500℃	1.5℃/0.1%
8	N	-200 ~ 1300℃	50℃	0.5℃/0.1%

Example: when the input is with K-couple, temperature range is 0~1200℃, 2 outputs are 4~20mA, power supply 20~35VDC, then the model should be PHD-12HT-111 (0~1200℃). The measuring range can be set to the specified 0~1200℃ range by computer.

TC input/4~20mA output (configurable) 1 input 2 outputs

Specifications	
Supply voltage	20~35VDC, power consumption<1.8W (when power supply 24VDC, output 20mA)
Input signal	K, S, E, J, B, T, R, N, TC Signals
Output signal	4~20mA
Signal and measurement range	Signal range: corresponding to the measuring range of TC -10~100mV Measurement range: When make an order, the user shall make the configuration by himself, which shall be indicated in the tail number or extra explained
Allowable output load capacity	0~500Ω (customizable)
Alarm indication	L1 light is on at low-measurement range alarm; L2 light is on at high-measurement range alarm
Channel number of input and output	1 input 2 outputs
Applicable field devices	K, S, E, J, B, T, R, N TC sensors
Output accuracy	0.1%F.S (Typical value: 0.05%F.S)
Cold junction compensation	±1℃ (Compensation range -20℃~+60℃)
Temperature drift	0.005%F.S/℃
Temperature parameters	Working temperature: -20℃~+60℃, storage temperature: -40℃~+80℃
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)
External dimensions	Thickness 15.8mm * width 104.8mm * high 116.1mm
Electromagnetic compatibility	According to IEC 61326-1 (GB/T 18268), IEC 61326-3-1
Explosion-proof mark	[Exia Ga]IIC, [Exia Da]IIC
Functional safety certification	SIL2 according to IEC 61508 EN 61511 standards
Certification body	CQST (China National Quality Supervision and Test Centre for Explosion Protected Electrical Products)
Certified parameters (between terminals 3-1)	Um=250V Uo=8.4V Io=31mA Po=65.1mW Co=4.8μF Lo=20mH
Installation site requirements	It can be connected with instruments in 0 zone with II A, II B, II C dangerous gas
MTBF	≥100000h

