

Potentiometer input signal isolators

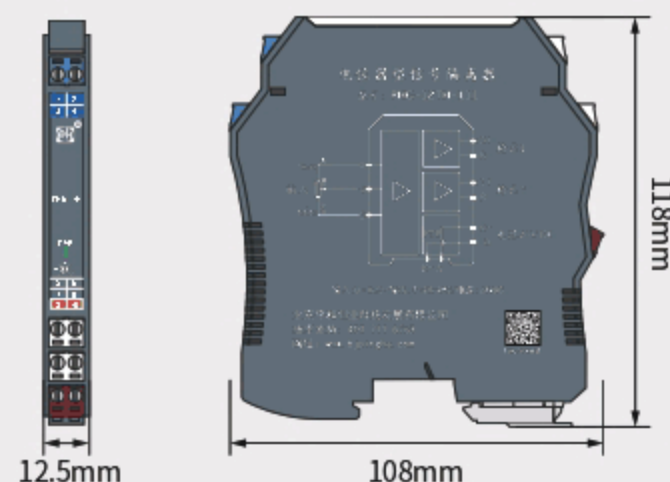
PHG-11TH series PHG-12TH series

1 input 1 output

1 input 2 outputs

Input: Potentiometer signal

Output: DC signal(current/voltage)



Overview

The potentiometer input signal isolator can isolate and convert the potentiometer signal into a DC signal output. The conversion circuit sends the 2.5V voltage to the input potentiometer, and the potentiometer then transmits the partial pressure back to the circuit.

This product needs to be powered independently, and the power supply, input and output terminals are isolated.

Specifications

Input:

Input signal: Three-wire potentiometer

Output:

Output signal: DC signal(current/voltage)

Load Resistance: Current load resistance $\leq 500\Omega$

Voltage load resistance $< 5\text{mA}$

Basic parameters:

Supply voltage: 20~35V DC

Power consumption: Current output $< 0.8\text{W}$, voltage output $< 0.5\text{W}$
(PHG-11TH series)

Current output $< 1.3\text{W}$, voltage output $< 0.5\text{W}$
(PHG-12TH series)

LED indicator: Green—Power indicator

Output accuracy: $\pm 0.1\% \text{F.S}$

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

Temperature drift: 0.01%F.S/ $^{\circ}\text{C}$

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: $\geq 2000\text{VAC/min}$ (between input/output/power supply)

Insulation resistance: $\geq 100\text{M}\Omega$ (500 V DC)

(between input/output/power supply)

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

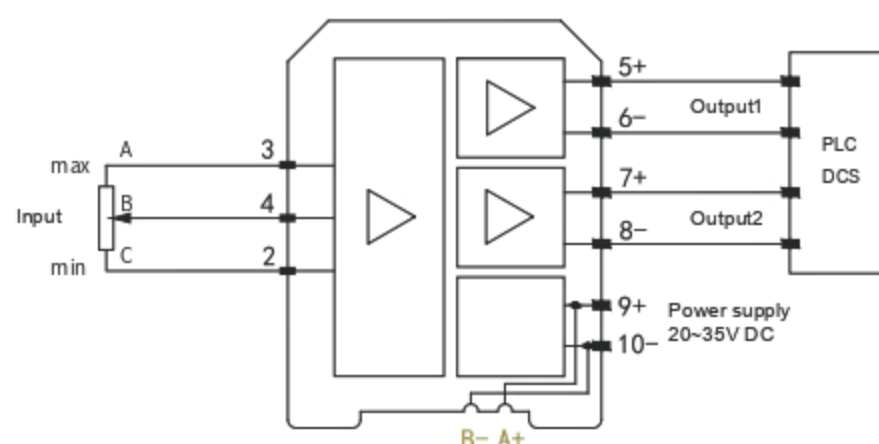
MTBF: 80000h

Wire requirements: Horizontal cutting surface $\geq 0.5\text{mm}^2$

Insulation strength $\geq 500\text{V}$

Applicable field equipments: Three-wire potentiometer

Connection wiring



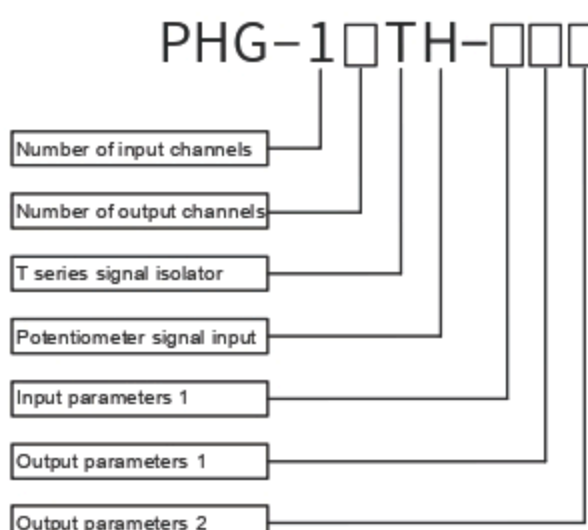
Note: 1. PHG-11TH series does not include the output 2 part

2. The power supply of the power rail is an optional function. Users need to specify the power supply mode when ordering. Please refer to attachment on page 89.

Specifications, models and codes

Input parameter definitions	
Code	Parameters
1	0~1k Ω
4	0~2k Ω
5	0~5k Ω
7	0~10k Ω
8	Customized parameters

Output parameter definitions	
Code	Parameters
1	4~20mA
2	0~20mA
3	0~5V
4	0~10V
5	1~5V
6	0~75mV
7	$\pm 10\text{V}$
8	Customized parameters



For example: one input and two outputs, potentiometer signal 0~5k Ω input, two 4~20mA outputs, 24V power supply, model: PHG-12TH-511