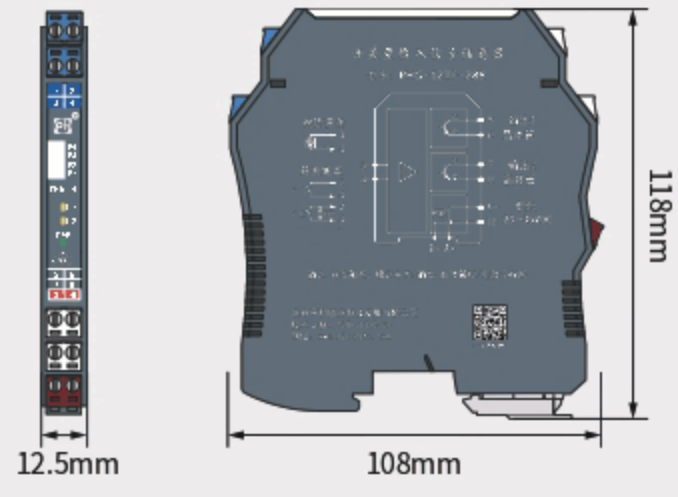
PHG-12TF-288 1 input and 2 outputs
PHG-22TF-2828 2 inputs and 2 outputs

Input: Switch contacts/proximity switches

Output: Transistor



Overview

The switching input transistor output signal isolator converts the input signal from the switch contact or proximity switch into a transistor output through isolation. The line fault detection function is displayed by the LED light on the top of the module. The switch of the module is used to select the phase of the channel and whether the line fault detection function is required.

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

Specifications

Input:

Input signal: Switch contacts/proximity switches

The supply voltage of the sensor: About 8V

Input frequency range: ≤5kHz

Input/output characteristics:

On site input current: >2.1mA, the output is closed, indicating ON

When<1.2mA, the output is open circuit, indicating OFF

Switched control between inverted phase and normal phase of outputs e-c: When the dial switch K1, K3 is at "ON", the transistor output e-c are in inverted phase

When the dial switch K1 K3 is at "OFF", the transistor output e-c are in normal phase

When the K2, K4 is at "ON", the circut will select the red light LFD indication alarm function

Output:

Output signal: Transistor

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

Drive capability: Output current ≤ 20mA (1.2k Ω), maximum internal current 100mA, equipped with short-circuit current protection

Basic parameters:

Supply voltage: 20~35V DC

Power consumption: 24V power supply, when the transistor is conducting

<1.2W (PHG-12TF-288)

<1.3W (PHG-22TF-2828)

LED indicator: Green: Power indicator

Yellow: Output relay in normal working state

Red: LFD indication, line fault alarm

Temperature parameters: Working temperature: -20℃ ~ +60℃,

Storage temperature: -40℃ ~ +80℃

Relative humidity: 10%~95% RH no condensation

Insulation strength: ≥2000VAC/min (between input/output/power supply)

Insulation resistance: 100MΩ (500 V DC) (between input/output/power supply)

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

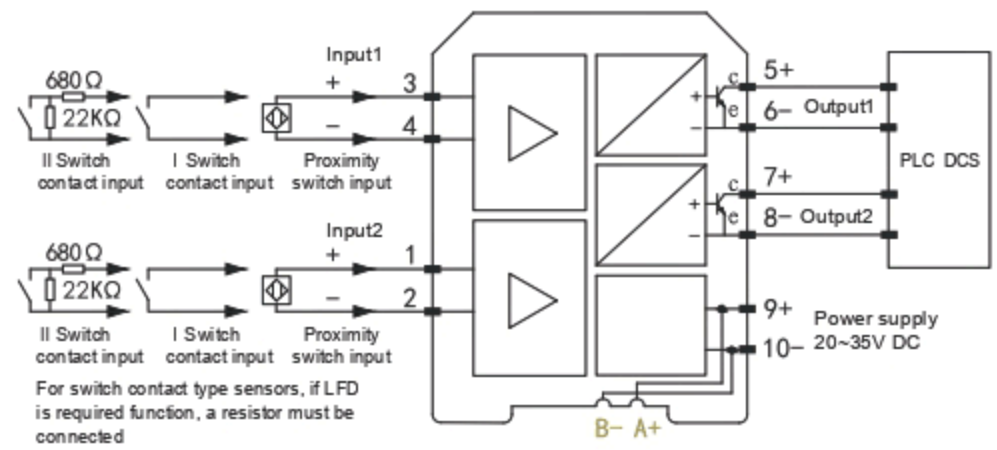
MTBF: 80000h

Wire requirements: Horizontal cutting surface ≥0.5mm²

Insulation strength ≥500V

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

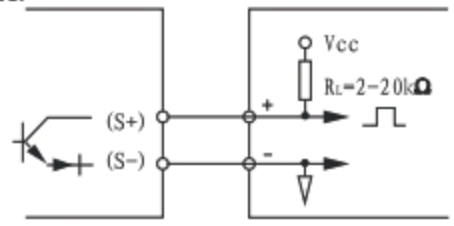
Connection wiring



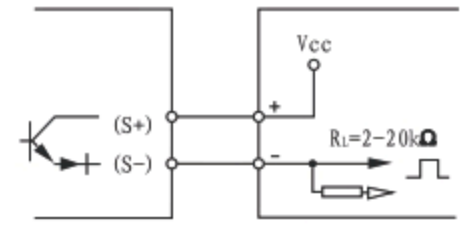
Note: 1. PHG-12TF-288 does not include input 2 part.

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.

Note:



Application 1: Transistor Collector Output



Application 2: Transistor Emitter Output

Line Fault Detection (LFD)

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 Ω resistor should be connected in parallel at both ends of the switch, and a 680 Ω resistor should be connected in series (as shown in the wiring diagram for switch contact II).