



Please read this Manual carefully before installing and using the product .

# GL-A59E Loop Isolator

## 1 Product overview

- 1.1** GL-A59E loop isolator is used for bus loop fault protection, suitable for fire alarm control systems. When the bus circuit is working normally, the loop isolator will not operate. When a loop fault occurs somewhere in the output end of the loop isolator on the circuit (the loop point is less than 10 ohms from the output end of the loop isolator), the loop isolator will cut off all the devices connected to the output end, so as to ensure that the other parts of the bus work normally. Once the fault has been repaired, the loop isolator can re-integrate all the devices at the output end into the system by itself. The loop isolator is used to determine the location of the bus loop. The loop isolator does not require coding and does not occupy the address in the loop.

## 2 Technical parameters

2.1	Items	Parameters
	Working mode	non-polar two-wire system
	Static current	< 0.5mA
	Operating current	< 9mA
	loop detection maximum resistance	10Ω
	Trigger action voltage	>2A
	Trigger action voltage	<16V(DC)
	Working instruction	yellow (normal monitoring state is not bright, the action is often bright)
	Operating environment	Temperature: -10°C ~ 55°C; Relative humidity: ≤95% (40°C±2°C no condensation)
	Size	86*86*35mm (with base)
	Weight	About 125 g (with base)

## 3 Usage Instructions

- 3.1** The outline diagram of GL-A59E is shown in Figure 1:

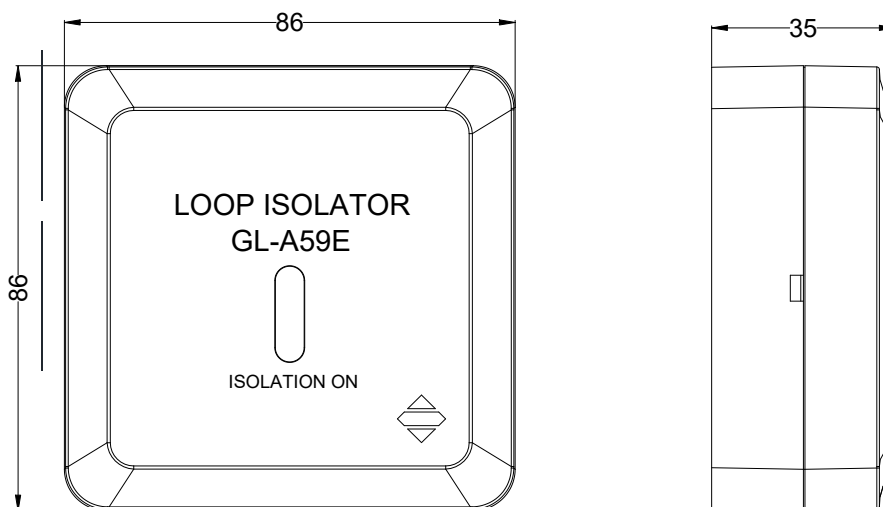


Figure 1 GL-A59E loop isolator (unit: mm)



### 3.2 loop isolator base terminal diagram:

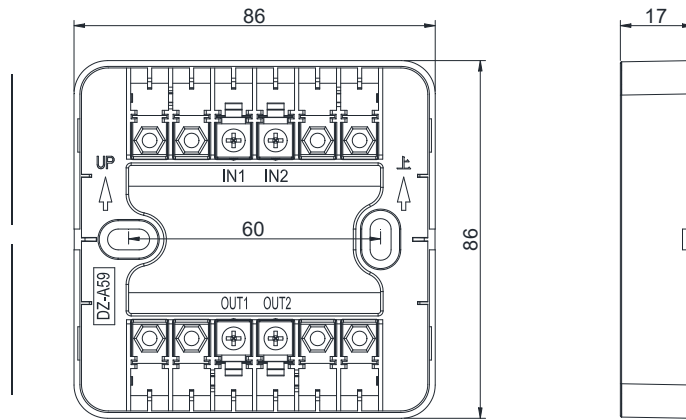


Figure 2 GL-A59E loop isolator base (DZ-A59)

Terminal specification:

Terminal label	Function description	Terminal label	Function description
IN1	Loop input (non-polar)	OUT1	Loop output (positive)
IN2	Loop input (non-polar)	OUT2	Loop output (negative)

**Note:** The input and output lines can not be used in reverse connection, which will cause the isolator to not work properly.

### 3.3 Wiring method :

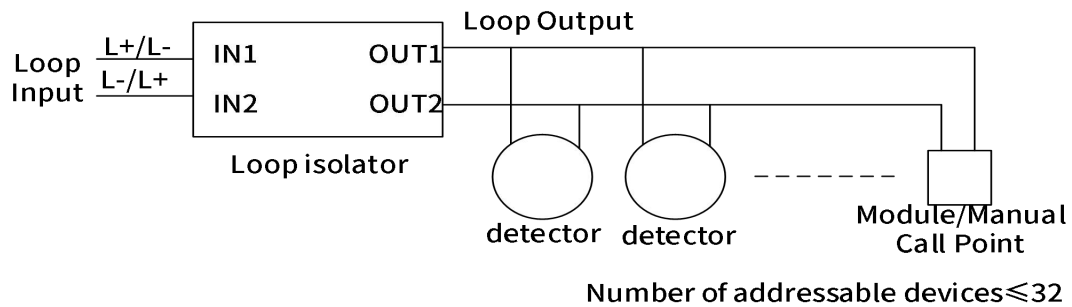


Figure 3 Schematic diagram of wiring

It is recommended that the number of detectors (or modules) at the output end of the loop isolator  $\leq 32$ .

## 4 Installation and commissioning (⚠ Warning: Do not install the module in the power distribution (control) cabinet.

- ### 4.1
- Confirm that the type of loop isolator matches the type indicated on the construction drawings;
  - Connect the cables correctly as shown in Figure 2 or Figure 3;
  - According to the construction drawings, fix the base of the loop isolator with two M4 screws through the two oval screw holes shown in Figure 2, and then insert the main body of the loop isolator into the base of the loop isolator, ensuring that the two are in good contact;
  - After all loop isolators has been installed and confirmed, power on the controller. Automatically log in to the intelligent terminal connected to the output end of the loop isolator. After the automatic login is successful, the inspection indicator of the intelligent terminal blinks once every 12 seconds, indicating that the loop isolator is working.
  - After the installation is completed, the output end of the loop isolator should be debugged, so that the output end of the loop isolator should be looped, the loop isolator should immediately act, and the yellow indicator light will light. The intelligent terminal of the output end of the loop isolator will be reported as lost one after another, and the circuit board should not report the loop fault. After the loop is removed, the loop isolator should be able to return to normal work within about 10 seconds, and the intelligent terminal at the output end of the loop isolator should also return to normal work.



## 5 Precautions

### 5.1 Supports cascading up to three loop isolators.

The terminal resistance of the wire connected to the output end of the isolator must be less than 10 ohms.



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