Instruction Manual of GL-957E Short Circuit Isolator

I. Overview

GL-957E short circuit isolator is used for the short circuit fault protection of buses, it is just used in 9000 series fire alarm control system. When a bus circuit is operating normally, the GL-957E short circuit isolator will not act; when a short circuit fault occurs at a place at the output end of the short circuit isolator in the bus circuit (short circuit current ＞400mA), the short circuit isolator will act to cut off all equipments connected to the output end of it, thus ensuring the buses operate normally. Upon elimination of the short circuit fault, the short circuit isolator can automatically bring the equipments that are cut off into the system again. A short circuit isolator will make it convenient to confirm the location suffering a short circuit fault. The short circuit isolator does not need coding nor occupies the address in the bus circuit.

II. Main technical parameters

1. Operation mode: Non-polarity two-wire system
2. Static current: ＜1.0mA
3. Startup current: ＞400mA
4. Operation indicator: Red (It is out in the normal monitoring status or remains lit in the acting status)
5. Operating environment: Temperature: - 10℃～50℃; relative humidity: ≤95% (40℃±2℃, without condensation)
6. External dimensions: 86×86×40mm (with the base)
7. Weight: about 125g (with the base)

III. Instructions for use

1. Outside drawing (Fig.1)

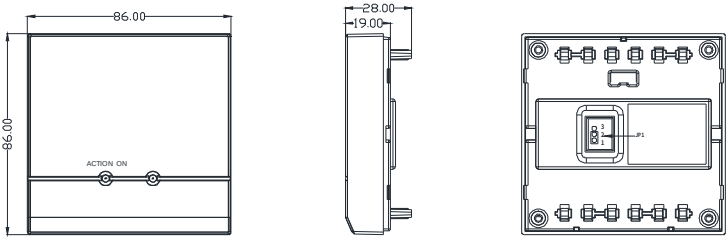


Fig.1 Main Body of a GL-957E Short Circuit Isolator

2. Schematic diagram of the terminals on the base of a short circuit isolator

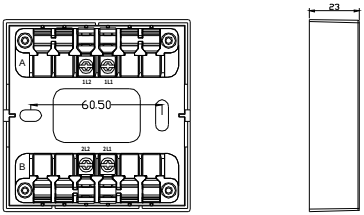


Fig.2 Base of a GL-957E Short Circuit Isolator

Terminal description:

Terminal No.	Function	Terminal No.	Function
1L1	Bus input	**2L1**	Bus output
1L2	Bus input	**2L2**	Bus output

Wire jumper description: JP1 can only be jumped on Pin 1 and 2. If jumped on Pin 2 and 3, short circuit isolator will have no isolation function.

3. Wiring method

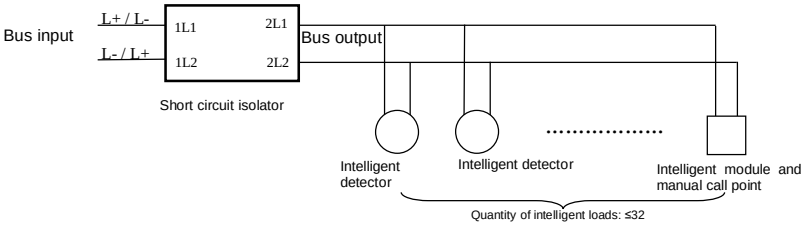


Fig.3

4. It is recommended to arrange 32 or less intelligent detectors (or intelligent modules) at the output end of a short circuit isolator.

IV. Installation and debugging

1、Make sure the type of the isolator matches the type given on the construction drawings.
2、Conduct correct wiring as instructed in Fig.2 or Fig.3.
3、Use two M4 screws to fix the isolator base via the two elliptic screw holes shown in Fig.2, and then insert the main body of the isolator into the isolator base and make sure they contact properly.
4、After the short circuit isolator is installed and checked, connect the power supply of the controller. Conduct automatic login to the intelligent terminal connected to the output end of the short circuit isolator. Upon successful login, the intelligent terminal's inspection indicator will blink once about every 12 seconds, which suggests that the short circuit isolator has begun to operate.
5、Conduct debugging after the installation is completed. Make the output end of the short circuit isolator short. After that, the short circuit isolator will start to act immediately, the red indicator will be lit, the intelligent terminal at the output end of the short circuit isolator will continually report loss and the circuit board will not report a short circuit fault. About 10 seconds after the elimination of the short circuit fault, the short circuit isolator should be able to restore its normal operation and the intelligent terminal at its output terminal should be able to restore its normal operation, too.

V. Precautions

1、The concatenation application of multiple short circuit isolators is not supported. If such concatenation is done, the shorting of the end of the post stage short circuit isolator will make the short circuit isolators keep acting and restoring and the bus operating abnormally.
2、If a short circuit occurs within 10 seconds after controller power up, or if the controller is reset after the output end of the short circuit isolator is shorted, the short circuit isolator may first restore for about one second after it starts to act and then maintain the operation status.
3、In case of a slight short circuit fault in the bus circuit, the short circuit isolator will not always start to act as it will start to act when the short-circuit current of the load is larger than the design value. So, if the short circuit isolator is not acting, it cannot be evidence that there is no slight short circuit fault in the bus circuit.