Instruction Manual of ATL-957 Short Circuit Isolator

I. Overview

ATL-957 short circuit isolators are used for the short circuit fault protection of buses. When a bus circuit is operating normally, the GL-957 short circuit isolator will not operate; 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 ＞200mA), the section suffering the short circuit fault will be cut off from the bus, thus ensuring the normal communication of the other sections of the bus. Upon elimination of the short circuit fault, the short circuit isolator can automatically bring the isolated section 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. Mode of operation: Nonpolar two-wire system
2. Quiescent current: ＜5.0mA
3. Operative current: ＞200mA
4. Operation indicator: Red (It is out in the normal monitoring status or remains lit in the operation 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)

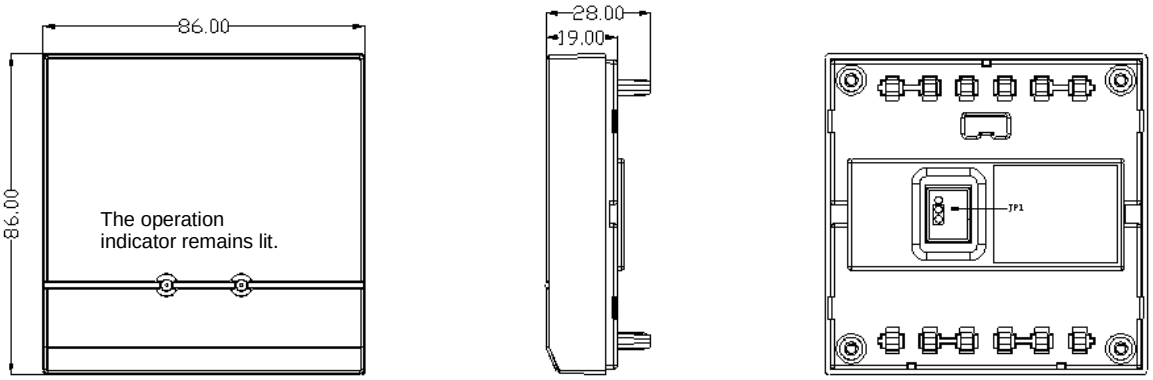

Fig.1 Main Body of a ATL-957 Short Circuit Isolator

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

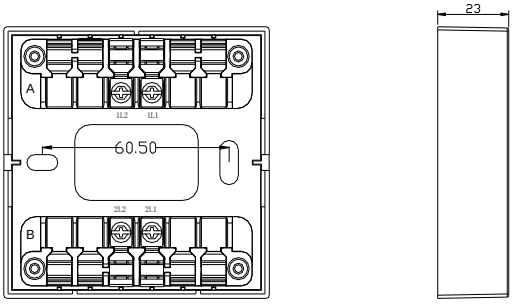

Fig.2 Base of a ATL-957 Short Circuit Isolator

Terminal description:

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

3. Wiring method

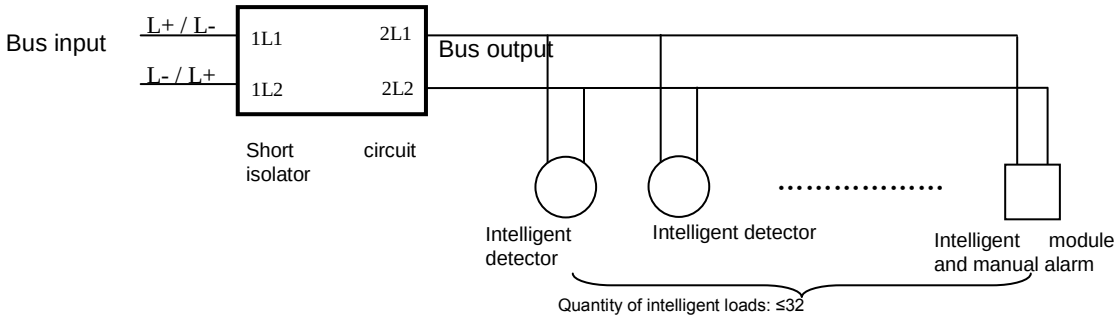

Fig.3

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 module 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 module base via the two elliptic screw holes shown in Fig.2, and then insert the main body of the module into the module 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 operate 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 operating and restoring and the bus operating abnormally.
2、 If the controller is reset after a short circuit occurs within 10 seconds or 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 operate 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 operate as it will start to operate when the short-circuit current of the load is larger than the design value. So, if the short circuit isolator is not operating, it cannot be evidence that there is no slight short circuit fault in the bus circuit.