



### **Features**

- Polarity-sensitive external connections. Input and output can be used inversely without direction.
- Delayed power-up to output end devices, avoids strong transient current when the load is heavy.
- Plug-in structure.
- ♦ Standards: UL864

NFPA [70,72]

## **Description**

In loop type fire alarm system, it often occurs that partial short circuit of loop affects the whole system. C-M9503 Loop Isolator can isolate the shorted circuit from the whole system to ensure normal operation of other parts and locate the isolated part.

The isolator is applicable to all kinds of loop fire alarm systems, suitable for Class A and Class B.

## **Connection and Cabling**

Fig. 1 shows terminals on the isolator.

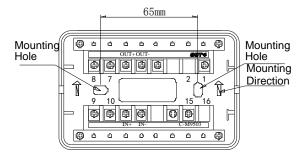


Fig. 1

IN+, IN-: Input cable, IN+ is positive, and IN- is negative.

OUT+, OUT-: Output cable. OUT+ is positive, and OUT- is negative.

### **Recommended Cabling**

17AWG~14AWG (maximum 14AWG) fire cable, subject to local codes.



#### Installation

The isolator is simply plugged onto the base after corresponding terminals are connected.

If the cable conduit is inside the wall, the base is installed onto the Back Box (Fig. 2). If the cable conduit is on the surface of the wall, B-9310 Back Box is available (Fig. 3).

Note the upward arrow for mounting direction (Fig.1).

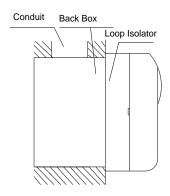
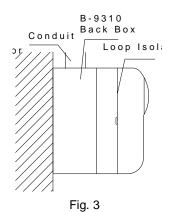


Fig. 2



30305618 Issue 1.01

## **Specification**

$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$			
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Operating Voltage	24VDC	
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Standby Current:	≤0.15mA	
$\begin{array}{c ccccc} Voltage & (V_{MAX}) \\ \hline Minimum & Line \\ Voltage & (V_{MIN}) \\ \hline Maximum & Continuous \\ Current & (I_{CMAX}) \\ \hline Maximum & Transient \\ Output & Current & I_{SMAX}) \\ \hline Maximum & Open \\ Voltage & (V_{SOMAX}) \\ \hline Minimum & Open \\ Voltage & (V_{SOMAX}) \\ \hline Maximum & Close \\ Voltage & (V_{SCMIN}) \\ \hline Maximum & Close \\ Voltage & (V_{SCMAX}) \\ \hline Minimum & Close \\ Current & (V_{SCMIN}) \\ \hline Maximum & Leakage \\ Current & (I_{LMAX}) \\ \hline Max & closed & impedance \\ & (Z_{CMAX}) \\ \hline Devices & quantity \\ connected to each loop \\ \hline \end{array}$		Maximum 70 devices	
$\begin{array}{c ccccc} Voltage (\ V_{MIN}) & & & & \\ Maximum & Continuous & 1A & & \\ Current(\ I_{C MAX}) & & & & \\ Maximum & Transient & 5A & & \\ Output Current(\ I_{S MAX}) & & & \\ Maximum & Open & 11V & & \\ Voltage & (\ V_{SO MAX}) & & & \\ Minimum & Open & 8V & & \\ Voltage (\ V_{SO MIN}) & & & & \\ Maximum & Close & 4V & & \\ Voltage (\ V_{SC MAX}) & & & \\ Minimum & Close & 1.4V & & \\ Current(\ V_{SC MIN}) & & & \\ Maximum & Leakage & 7.5mA & \\ Current(\ I_{L MAX}) & & & \\ Max & closed & impedance & \\ (\ Z_{C MAX}) & & & \\ Devices & quantity & \leq 128 & \\ connected & to each loop & & \\ \end{array}$	Maximum Line	28V	
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Voltage (V <sub>MAX</sub> )		
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Minimum Line	16V	
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Voltage (V <sub>MIN</sub> )		
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Maximum Continuous	1A	
$\begin{array}{c cccc} Output Current(\ I_{SMAX}) \\ Maximum & Open \\ Voltage & (V_{SOMAX}) \\ Minimum & Open \\ Voltage(\ V_{SOMIN}) \\ Maximum & Close \\ Voltage(\ V_{SCMAX}) \\ Minimum & Close \\ Current(\ V_{SCMIN}) \\ Maximum & Leakage \\ Current(\ I_{LMAX}) \\ Max & closed & impedance \\ (\ Z_{CMAX}) \\ Devices & quantity \\ connected to each loop \\ \end{array}$	Current( I <sub>C MAX</sub> )		
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Maximum Transient	5A	
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Output Current( I <sub>S MAX</sub> )		
$\begin{array}{c cccc} Minimum & Open \\ Voltage(\ V_{SO\ MIN}) & & & & & & \\ Maximum & Close & 4V \\ Voltage(\ V_{SC\ MAX}) & & & & & \\ Minimum & Close & 1.4V \\ Current(\ V_{SC\ MIN}) & & & & \\ Maximum & Leakage & 7.5mA \\ Current(\ I_{LMAX}) & & & & \\ Max\ closed\ impedance & 0.15\Omega \\ (\ Z_{C\ MAX}) & & & & \\ Devices & quantity & & & \\ connected\ to\ each\ loop & & & \\ \end{array}$		11V	
$\begin{array}{c cccc} Minimum & Open \\ Voltage(\ V_{SO\ MIN}) & & & & & & \\ Maximum & Close & 4V \\ Voltage(\ V_{SC\ MAX}) & & & & & \\ Minimum & Close & 1.4V \\ Current(\ V_{SC\ MIN}) & & & & \\ Maximum & Leakage & 7.5mA \\ Current(\ I_{LMAX}) & & & & \\ Max\ closed\ impedance & 0.15\Omega \\ (\ Z_{C\ MAX}) & & & & \\ Devices & quantity & & & \\ connected\ to\ each\ loop & & & \\ \end{array}$	Voltage (V <sub>SO MAX</sub> )		
$\begin{array}{c cccc} \text{Maximum} & \text{Close} & 4V \\ \text{Voltage}(V_{\text{SC MAX}}) & & & & \\ \text{Minimum} & \text{Close} & 1.4V \\ \text{Current}(V_{\text{SC MIN}}) & & & \\ \text{Maximum} & \text{Leakage} & 7.5\text{mA} \\ \text{Current}(I_{\text{LMAX}}) & & & \\ \text{Max closed impedance} & 0.15\Omega \\ (Z_{\text{C MAX}}) & & & \\ \text{Devices} & \text{quantity} & \leq 128 \\ \text{connected to each loop} & & & \\ \end{array}$		8V	
$\begin{array}{c cccc} \text{Maximum} & \text{Close} & 4V \\ \text{Voltage}(V_{\text{SC MAX}}) & & & & \\ \text{Minimum} & \text{Close} & 1.4V \\ \text{Current}(V_{\text{SC MIN}}) & & & \\ \text{Maximum} & \text{Leakage} & 7.5\text{mA} \\ \text{Current}(I_{\text{LMAX}}) & & & \\ \text{Max closed impedance} & 0.15\Omega \\ (Z_{\text{C MAX}}) & & & \\ \text{Devices} & \text{quantity} & \leq 128 \\ \text{connected to each loop} & & & \\ \end{array}$	Voltage( V <sub>SO MIN</sub> )		
$\begin{array}{c cccc} Minimum & Close \\ Current(\ V_{SC\ MIN}) & & & & \\ Maximum & Leakage & 7.5mA \\ Current(\ I_{L\ MAX}) & & & \\ Max\ closed\ impedance & 0.15\Omega \\ (\ Z_{C\ MAX}) & & & \\ Devices & quantity \\ connected\ to\ each\ loop & & & \\ \end{array}$	Maximum Close	4V	
$\begin{array}{c cccc} Minimum & Close \\ Current(\ V_{SC\ MIN}) & & & & \\ Maximum & Leakage & 7.5mA \\ Current(\ I_{L\ MAX}) & & & \\ Max\ closed\ impedance & 0.15\Omega \\ (\ Z_{C\ MAX}) & & & \\ Devices & quantity \\ connected\ to\ each\ loop & & & \\ \end{array}$	Voltage( V <sub>SC MAX</sub> )		
$\begin{tabular}{lllllllllllllllllllllllllllllllllll$	Minimum Close	1.4V	
$\begin{array}{c c} \text{Current(}  I_{\text{LMAX}}) & \\ \text{Max closed impedance} & 0.15\Omega \\ \text{(}  Z_{\text{CMAX}}) & \\ \text{Devices} & \text{quantity} \\ \text{connected to each loop} & \leq 128 \end{array}$	Current( V <sub>SC MIN</sub> )		
	Maximum Leakage	7.5mA	
$(Z_{C \text{ MAX}})$ Devices quantity connected to each loop	Current( I <sub>L MAX</sub> )		
Devices quantity <128 connected to each loop	Max closed impedance	0.15Ω	
connected to each loop	$(Z_{CMAX})$		
*		≤128	
Ambient Temperature $-10^{\circ}\text{C} \sim +50^{\circ}\text{C}$	connected to each loop		
	Ambient Temperature	-10°C∼+50°C	
Ingress Protection IP30	Ingress Protection	IP30	
Rating	Rating		
Relative Humidity ≤95%, non condensing	Relative Humidity	≤95%, non condensing	
Material of Enclosure Flame –retardant ABS	Material of Enclosure	Flame –retardant ABS	
and Color (PA-765A), white	and Color	(PA-765A), white	
Dimension (L×W×H) 120mm×80mm×39mm	Dimension (L×W×H)		
(with base)		(with base)	
Spacing Distance 65mm	Spacing Distance	,	
Weight About 175g (with base)	Weight	About 175g (with base)	

### **Accessories and Tools**

Model	Name	Remark
B-9310	Back Box	Order separately

# **Limited Warranty**

GST warrants that the product will be free of charge for repairing or replacing from defects in design, materials and workmanship during the warranty period. This warranty does not cover any product that is found to have been improperly installed or used in any way not in accordance with the instructions supplied with the product. Anybody, including the agents, distributors or employees, is not in the position to amend the contents of this warranty. Please contact your local distributor for products not covered by this warranty.

This Data Sheet is subject to change without notice. Please contact GST for more information or questions.

## **Gulf Security Technology Co., Ltd.**

No. 80, Changjiang East Road, QETDZ, Qinhuangdao, Hebei, P. R. China 066004 Tel: +86 (0) 335 8502434 Fax: +86 (0) 335 8502532

service.gst@fs.utc.com www.gst.com.cn