

# DC-M9503 Loop Isolator Module



## Description

In fire alarm system, such condition often occurs that partial short circuit of loop affects the whole system. DC-M9503 Loop Isolator Module can isolate the shorted circuit from the whole system to ensure normal operation of other devices and locate the devices in fault. After the short circuit fault is cleared, those devices will be re-introduced into the system. The isolator is suitable for use in Signaling Line Circuit (SLC) of addressable fire alarm system, suitable for Class A and Class B.

## Features and Benefits

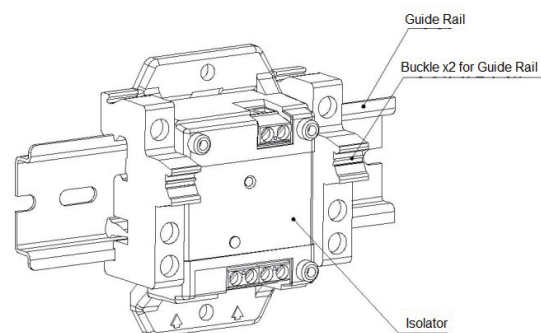
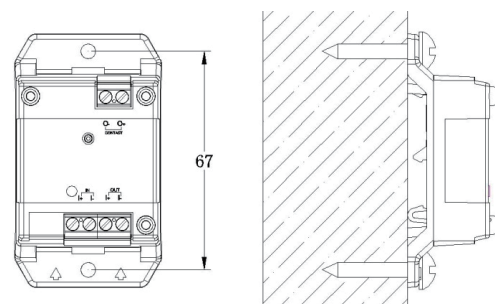
- Isolation of short circuit, automatic restore when short circuit is cleared.
- Support Class A SLC loop
- Rail mount or surface mount

## Certificates and Compliance

- Standards: UL864 / NFPA [70.72]
- Certifications: UL
- WEEE & RoHS Compliant

## Installation

The installation points of the module are shown below, Wall-mount and Rail-mount. DIN-35mm rail is applicable.

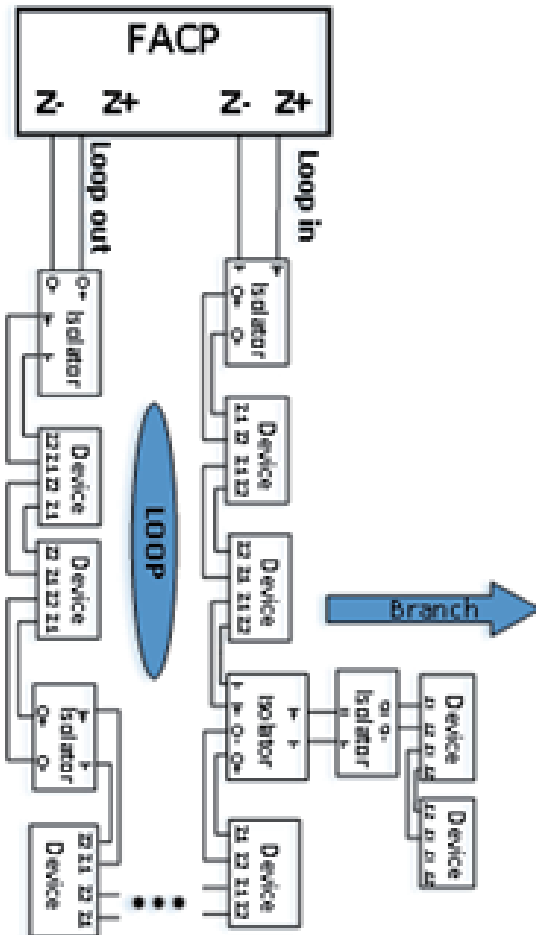


## Terminals and Recommended Cabling

(I+, I-) IN: Loop connection input, I+ is positive and I- is negative.  
 (I+, I-) OUT: Loop branch connection output, I+ is positive and I- is negative.  
 O+, O-: Loop connection output, O+ is positive and O- is negative.  
 Recommended Cabling: Minimum 17 AWG, Maximum 14AWG twisted pair cable, and subject to local codes

## Application

To ensure the operation of isolator, maximum 50 devices can be connected between each 2 isolators. The loop can be Class A or Class B mode. Branch connection is also acceptable. Below figures show the loop schematic.



UL listed GST-M200 / GST-IFP4M control panel can connect the longest loop and the maximum number of isolators as shown in the table below.

When the loop current is maximum 70mA

QTY of Isolators	2	50	50	50	50
Max. length of 17 AWG loop wire(ft)	4000	3200	2900	2400	2000

If 14AWG is used, up to 128 isolators are connected for 4000ft loop.

When the loop current is maximum 200mA

Quantity of Isolators	2
Max length of 17 AWG loop wire(ft)	1310

## Technical Specification

Operating Voltage	Loop 24VDC (16VDC - 28VDC) Power Limited
Standby Current	≤ 0.15mA
Action Current	≤ 1.5mA
Capacity	Maximum 128 isolators can be connected to each loop. Devices quantity between two isolators should follow local codes, but cannot exceed 50 devices between two isolators.
Max. closed impedance (Z <sub>CMAX</sub> )	0.15Ω
Operating Temperature	0°C ~ +49°C
Relative Humidity	≤ 93%, Non Condensing
Ingress Protection Rating	IP30 (not tested by UL)
Material and Color of Enclosure	ABS, white (RAL9016)
Dimension (L×W×H)	78mm×45.3mm×28.5mm
Weight	About 41.4g

## Ordering Information and Compatible Products

Part No.	DC-M9503
Device Name	Loop Isolator Module
Product No.	10105378
Compatible Panel	GST-M200 Intelligent Fire Panel GST-IFP4M Intelligent Fire Panel