D9051 RS-485 Bus Module

The D9051 is an RS-485 network expander that provides an isolated data interface between a control module of the control panel and peripheral devices. It is powered by a control module of the D8024 or D10024A fire alarm control panels (FACPs). It has two connection points for two-wire RS485 peripheral communication circuits.

**Functions**

**Port Assignments**

The output the D9051 can support depends on the port to which it is connected:

**Port B (D10024A only)**
When connected to Port B of the D10024A FACP, it supports an RS-485 output to networked control panels.

**Port C (D8024 and D10024A)**
When connected to Port C of either FACP, it supports an RS-485 data link between the FACP and a master control panel or a graphics driver.

**Port D (D8024 and D10024A)**
When connected to Port D of either FACP, it supports a peripheral circuit for D9069B Fire System Annunciators, D9070B Analog Fire System Controllers, four-way notification appliances such as synchronized notification appliances, and other serial peripherals.

**Certifications and Approvals**

<table>
<thead>
<tr>
<th>Region</th>
<th>Certification</th>
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<tr>
<td>USA</td>
<td>FM</td>
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<td>CSFM 7165-1615: 138 and 7170-1615: 146</td>
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**Installation/Configuration Notes**

**Compatibility Information**

The following products are compatible with the D9051 RS-485 Bus Module:
Mounting Considerations

D8024

There are two connection ports on the D8024 FACP. The D9051 ribbon cable connects to the eight-wire ribbon socket.

D10024A

There are three connection ports on the D10024A FACP. Depending on the circuit configurations, the D9051 can be mounted over a D9067 Circuit Module using stand-offs at the four attachment points. The D9051 ribbon cable connects to the eight-wire ribbon socket, and the D9067 to the ten-wire ribbon socket.

Wiring Considerations

To FACP

Plug the eight-wire ribbon connector into the eight-wire socket to connect the D9051 and the FACP control module.

Network Circuit Wiring

Serial network data communications occur using D9051 RS-485 Bus Modules attached to Serial Port C on the FACP. The FACPs are wired in series to an NFPA Class B, Style 3.5 Signaling Line Circuit (SLC) on the appropriate RS-485 bus. The RS-485 terminals on the D9051 are polarity sensitive. The channels are marked A and B. Connect the data wires A to A and B to B. Cross-wiring between channels results in corrupted data, but does not damage equipment. To avoid data corruption, route cables so they do not run next to other cables.

Use shielded, 18 AWG (1.2 mm) twisted pair wire. The total length of the data cables between the two end control panels must not exceed 3935 ft (1200 m) per channel.

For more information about control panel networking, consult the control panel’s installation guide and the D8024/D9024/D10024 Networking Guide (P/N: 34377).

RS-485 Circuit Wiring

The two-wire RS-485 peripheral connects to the D9051 through the terminal block at the top of the module. Terminals are provided for two circuit connections. The circuit can be up to 4920 ft (1500 m) in length. Circuit wiring is 1.2 mm (18 AWG) shielded twisted pair cable.

Technical Specifications

Environmental Considerations

Relative Humidity

Up to 85% at +104°F (+40°C), non-condensing

Temperature (operating):

+32°F to +120°F (0°C to +49°C)

Mechanical Properties

Dimensions (H x W)

3.1 in. x 2 in. (8 cm x 5 cm)

Power Requirements

Current Draw:

59 mA per module

Voltage:

Nominal : 24 VDC Range: 17 VDC to 39.5 VDC

Ordering Information

D9051 RS-485 Bus Module

Provides an isolated data interface between a control module of the control panel and peripheral devices

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