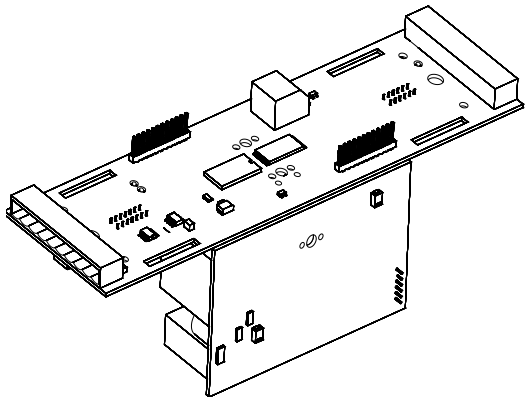
VM-SLCXB Signaling Line Loop Controller Expansion Card Installation Sheet



Description

The VM-SLCXB Signaling Line Loop Controller Expansion Card provides up to two Class B, Class A, or Class X data circuits for compatible detectors and modules. The VM-SLCXB includes one preinstalled VM-SLC signaling line circuit card. A second SLC card (separately purchased) can be added to provide an additional device loop.

The VM-SLCXB also provides resettable 24 VDC for powering conventional two-wire smoke detector circuits on compatible modules. The card supports all diagnostic features, including mapping.

The expansion card requires one space on the VM-ELEC electronics chassis and is secured to the rail assembly using four nylon standoffs.

Table 1: Packing list

Part number	Description
7160991	VM-SLCXB dual loop controller expansion card with one preinstalled VM-SLC card
7300308	Bag assembly consisting of 4 nylon standoffs (P/N 9100205)

Installation

Install and wire this module in accordance with applicable national and local codes, ordinances, and regulations.

WARNING: Electrocution hazard. To avoid personal injury or death from electrocution, remove all sources of power and allow stored energy to discharge before installing or removing equipment.

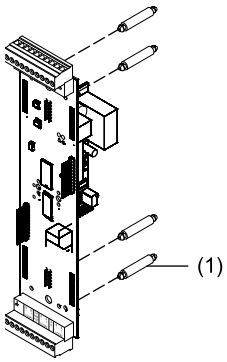
Caution: Circuit boards are sensitive to electrostatic discharge (ESD). To avoid damage, follow ESD handling procedures.

Note: If the VM-LCD User Interface and D12LS-VM Control-Indicating mounting frame are installed on the electronics chassis, remove them to access the chassis.

To install the VM-SLCXB:

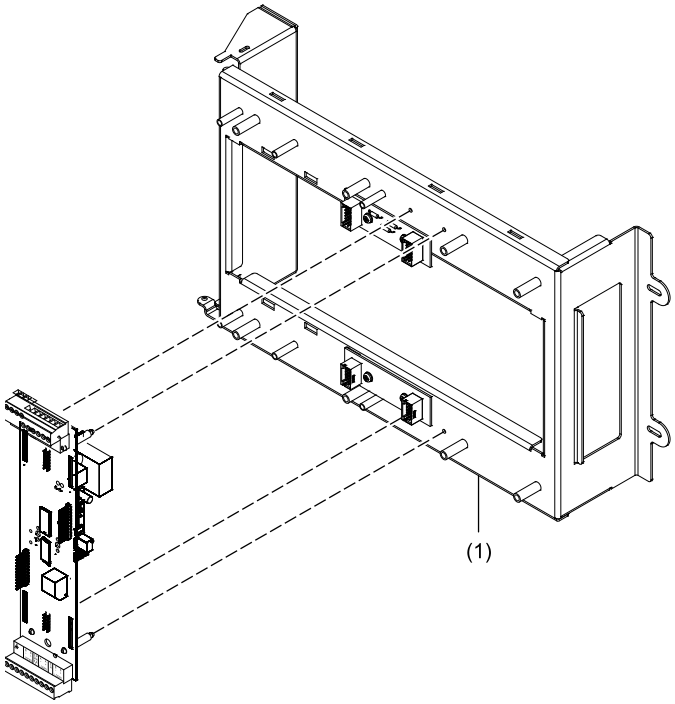
1. Snap the four standoffs provided into the VM-SLCXB card as shown in Figure 1. Make sure to insert the end that has two small flanges that lock into the card.
2. With LOOP1 at the top of the card, align the connectors on the card and the card-mounted standoffs with the connectors and mounting holes on the VM-ELEC electronics chassis. See Figure 2.
3. Snap the standoffs into place, and then gently push the card until it is firmly seated.

Figure 1: Attaching the standoffs



(1) 0.875 × 0.125 nylon standoff (4X)

Figure 2: Installing the VM-SLCXB



(1) VM-ELEC electronics chassis

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Wiring

Connect VM-SLCXB field wiring as shown in Figure 3 through Figure 5.

Notes

- Maintain 0.25 in. (6 mm) separation between power-limited and nonpower-limited wiring at all times. Keep nonpower-limited wiring in the shaded area shown in Figure 6. Secure the wiring to the cabinet using nylon cable ties.
- Wiring is supervised and power-limited.
- SLC pathways that provide signaling outputs to more than one fire notification zone must prevent a single break, single ground, or wire-to-wire fault from adversely affecting more than one zone.

  Exception: SLC pathways installed for survivability from attack by fire in accordance with NFPA 72.
- If shielding is used it must be continuous, free from earth ground, terminated at the shield terminal only, and taped throughout the entire circuit.
- If notification appliances are controlled through the data line for more than one zone, each zone must have isolation so that a break, ground, or wire-to-wire fault does not affect more than one zone.

Figure 3: Class B wiring

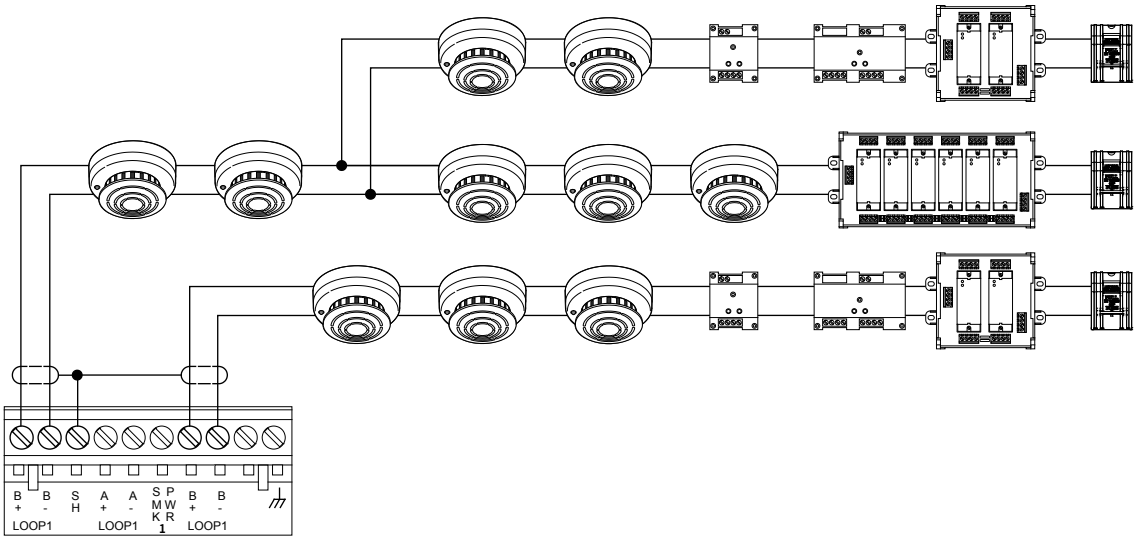
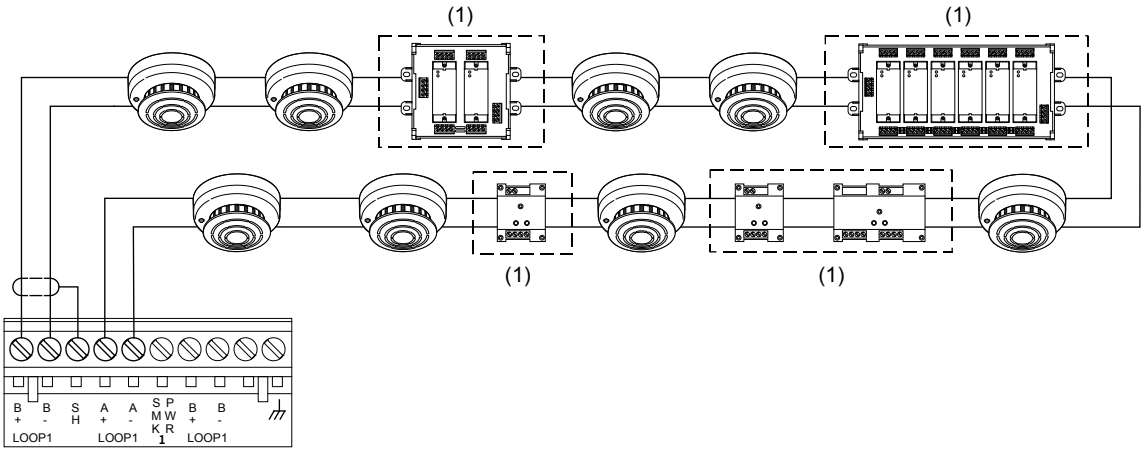


Figure 4: Class A [1] and Class X [2] wiring [1]



Legend

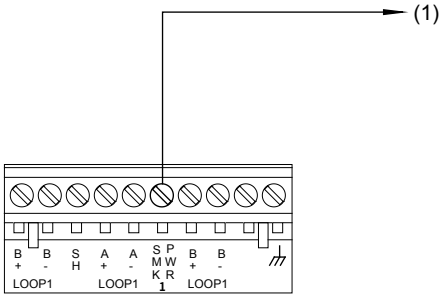
(1) For Class X wiring, un-isolated devices must be mounted in a cabinet with isolators on the incoming and outgoing wiring.

Notes

[1] For Class A wiring, isolator modules and isolator detector bases are required to prevent wire-to-wire shorts on the signaling line circuit wiring from adversely affecting other segments of the loop. Do not install more than 50 addressable devices between isolators, per NFPA 72.

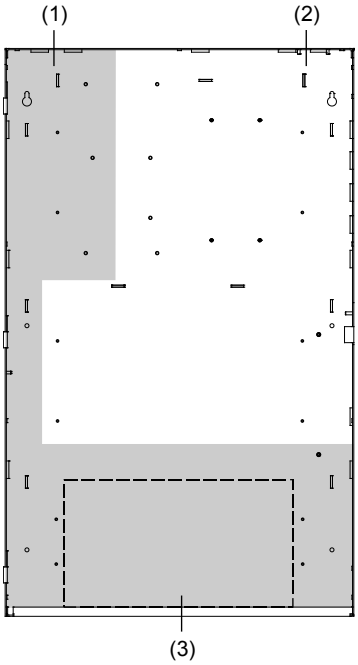
[2] For Class X wiring, isolator modules and isolator detector bases are required to prevent wire-to-wire shorts on the signaling line circuit wiring from adversely affecting any devices of the loop.

Figure 5: Smoke power wiring



(1) Smoke power to GSA-UM or GSA-MAB for a two-wire smoke detector

Figure 6: Power-limited and nonpower-limited wiring



(1) Nonpower-limited wiring area
(2) Power-limited wiring area
(3) Battery area

Specifications

Voltage	19.0 VDC nom., 24 VDC max.
Current with full loop of devices for one circuit	
Standby	144 mA at 24 VDC
Alarm	204 mA at 24 VDC
Current with full loop of devices for two circuits	
Standby	264 mA at 24 VDC
Alarm	336 mA at 24 VDC
Smoke power	
Voltage	24 VDC max.
Current	19.95 mA
Circuit	
Designation	Class B, Class A, Class X
Capacity	125 detector and 125 module addresses per circuit
Resistance	100 Ω max.
Capacitance	0.5 µF max.
Wire size	12 to 18 AWG (1.0 to 4.0 mm²) max.
Compatible devices	Refer to the fire alarm control unit's compatibility list
Operating environment	
Temperature	32 to 120°F (0 to 49°C)
Relative humidity	0 to 93% noncondensing

Regulatory information

FCC compliance	This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.
Environmental class	Indoor dry

Contact information

For contact information, see www.kiddelifesafety.com.