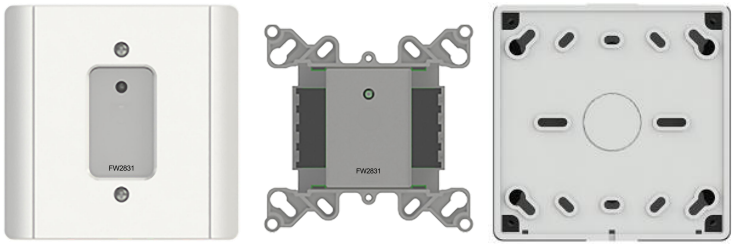
FW2831 RELAY MODULE



DESCRIPTION

The FW2831 relay module provides two control relay outputs which will be activated simultaneously. When the outputs are activated, the device LED will indicate the event condition by red steady on. A return to normal condition will cause the event to disappear and the device LED indicator will return to red every 4 seconds. The FW2831 is an intelligent addressable module and takes one address on the Signaling Line Circuit (SLC) or Data Communication Link (DCL) of the fire alarm control panel. It is a UL listed product according to UL864 and ULC-S527 for Fire Protective Signaling Systems for indoor use.

ATTENTION

The products must be installed in accordance with the NFPA 72, the CAN/ULC-S524, and the Canadian Electrical Code depending on the country of installation. Check information of equipment used in the system by other manufacturers for any guidelines or restrictions.

NOTE

Do not paint this device.

Any material extrapolated from this document or from Maple Armor's instructions or other documents describing the product for use in promotional or advertising claims, or for any other use, including a description of the product's application, operation, installation, and testing is the sole responsibility of the user. Maple Armor will not assume any liability for such use. In no case will Maple Armor's liability exceed the purchase price paid for a product.

SPECIFICATION

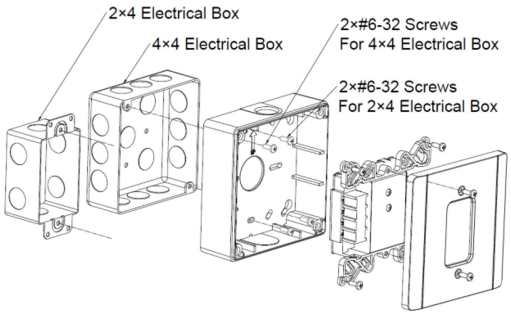
Nominal Voltage	24V DC
Compatibility Voltage Range	13 to 28V DC
Standby Current	≤0.15mA
Active Current	≤0.25mA
Contact Rating	30VDC 2A, 0.35 pf or 125VAC 0.5A, 0.35 pf
Operating Temperature	32 - 120°F (0 - 49°C)
Operating Humidity	0% to 93% RH Non-condensing
Dimension	120 mm (L) x 120 mm (W) x 45 mm (H)
Weight (with backbox)	9.0 oz (255 g)
Mounting	FW800/FW801 or separately provided Listed electrical box
Wiring Gauge	12 to 18 AWG

INSTALLATION

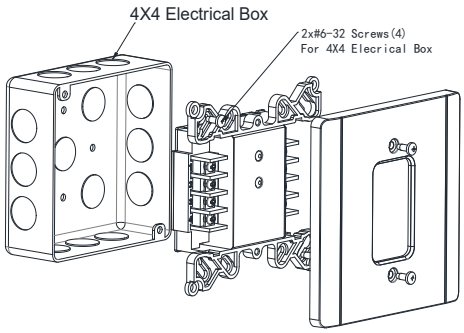
1. Mount the module onto a 2X4 or 4x4 electrical box using the screws provided, as illustrated in Figure 1.
   Note:.

NOTE

FW801/FW800 could also be used when relay supply voltage is < 30Vac or 42.4Vpeak or DC.See Figure 1.



a) Low voltage application



b) High voltage application

Figure 1. Installation Diagram

2. Connect the wires, see Figure 2. Terminal 1 and 2 are non-polarity. An external power source is needed since the relay outputs are dry contacts. External power source shall be UL 864 Listed.
   When dry contacts are used for high voltage application, tie up the wires to separate them from low voltage wires by at least 1/4 inch. Use different knockouts for low voltage wires and high voltage wires.

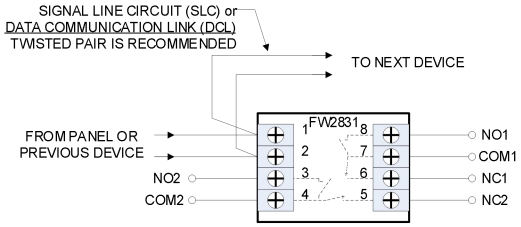
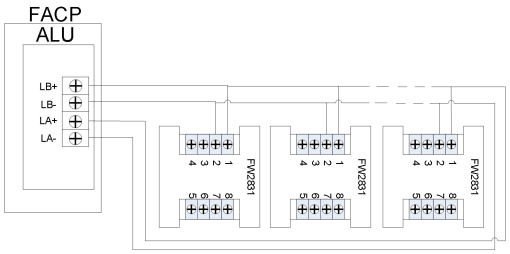
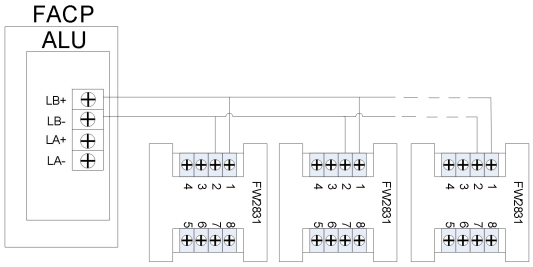


Figure 2. Module Wiring Diagram

3. Wire the SLC/DCL to the module, as illustrated in Figure 3.



(a) Class A or DCLA Circuit



(b) Class B or DCLB Circuit

Figure 3. SLC/DCL Wiring Diagram

4. Combine the assembled unit to the base using the screws provided.
5. Install the provided Faceplate using the screws provided. Use of another Faceplate is not permitted.
6. Apply power to FACP.

PROGRAMMING

CAUTION The module must be programmed to a valid address before use. A valid must be in 1~252 and cannot be duplicated with other devices in the same loop. Refer to the manual of hand-held programmer FW2411 and panel FW2105 to set the device address. Disconnect wire at terminal 1 and 2 before programming.

NOTICE TO USERS, INSTALLERS, AUTHORITIES HAVING JURISDICTION, AND OTHER INVOLVED PARTIES				
This product incorporates field-programmable software. In order for the product to comply with the requirements in the Standard for Control Units and Accessories for Fire Alarm Systems, UL 864, certain programming features or options must be limited to specific values or not used at all as indicated below.				
Program feature or option	Permitted in UL864 (Y/N)	Possible settings	Permitted in UL 864 (Y/N)	Note
Sig. Shape	Y	Steady	Y	Output continuous
		1s Pulse	N	Output 1s then stop
		2s Pulse	N	Output 2s then stop

		3s Pulse	N	Output 3s then stop
		5s Pulse	N	Output 5s then stop
		10s Pulse	N	Output 10s then stop
		15s Pulse	N	Output 15s then stop
		20s Pulse	N	Output 20s then stop

NOTICE TO USERS, INSTALLERS, AUTHORITIES HAVING JURISDICTION, AND OTHER INVOLVED PARTIES				
This product incorporates field-programmable software. In order for the product to comply with the requirements in CAN/ULC-S527, Standard for Control Units for Fire Alarm Systems, certain programming features or options must be limited to specific values or not used at all as indicated below.				
Program feature or option	Permitted in CAN/ULC-S527 (Y/N)	Possible settings	Permitted in CAN/ULC-S527 (Y/N)	Note
Sig. Shape	Y	Steady	Y	Output continuous
		1s Pulse	N	Output 1s then stop
		2s Pulse	N	Output 2s then stop
		3s Pulse	N	Output 3s then stop
		5s Pulse	N	Output 5s then stop
		10s Pulse	N	Output 10s then stop
		15s Pulse	N	Output 15s then stop
		20s Pulse	N	Output 20s then stop

TESTING

1. Before testing, inform the proper authorities that the system is undergoing maintenance and will temporarily be put out of service. Disable the system to prevent unwanted alarms.
2. Make sure the indicator LED on the module's surface is flashing every 4 seconds. Failure to flash indicates a non-functioning module. Check the wiring and remount the module.
3. Check the relay contacts status to make sure they are in normal position.
4. Activate the output (you may need to first make a related control logic on the control panel). The LED should turn to red steady on.
5. Deactivate the output. The LED should return to red every 4 seconds.
6. Once the testing is completed, set the system back to normal operation and inform proper authorities.

MAINTENANCE

Return the module for repair if it fails to flash or alarm during testing. Do not disassemble the module without permission.