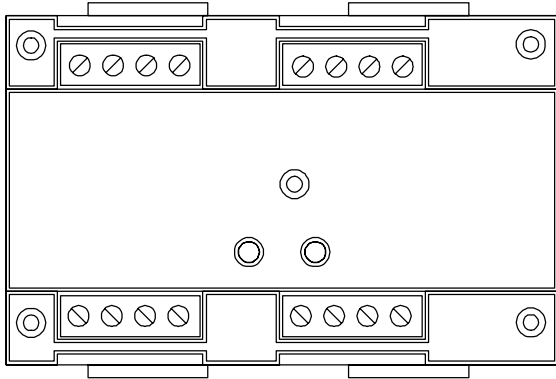


Product description

Note: When using the GFD with a FireWorks workstation, refer to “FireWorks application” later on this sheet.



The GFD Ground Fault Detector is used to detect ground faults on power-limited isolated circuits. The GFD provides ground fault monitoring for up to two isolated signals. A ground fault on any wire is detected within 20 seconds. Built-in relay contacts are available for indicating trouble and ground fault conditions, or the GFD can be configured to put a ground fault on the monitoring circuit.

The GFD is a stand-alone unit. Its dry contacts can be monitored by other system input devices. The GFD also has a watchdog circuit, which keeps the relay energized.

Specifications

Operating voltage range: 10 to 28 Vdc

Current draw: 110 mA

Trouble contact rating: 1 A @ 30 Vdc (resistive)

Ground fault detection: < 20 seconds (up to 10 kΩ)

Ground fault monitoring: 2 circuits, 2 wires (every 16 seconds)

Operating environment

Temperature: 32 to 120 °F (0 to 49 °C)

Humidity: 0 to 93% RH, noncondensing at 90 °F (32 °C)

Construction: High impact engineering polymer

Compatible electrical boxes

North American 2-1/2 in (64 mm) deep 2-gang box

Standard 4 in square box 1-1/2 in (38 mm) deep with 2-gang cover

LED outputs

The GFD has two yellow LEDs. The LEDs indicate which circuit pair and which conductor pair has a ground fault. The LEDs light to indicate which conductors have a ground fault.

- Ground fault on conductor 1: LED 1 ON steady
- Ground fault on conductor 3: LED 2 ON steady

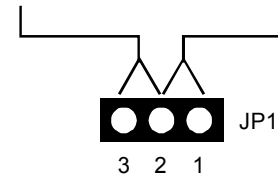
Note: When a 3-NSHM is used, the following takes place:

- Ground fault on conductor 1 or 2: LED 1 ON steady
- Ground fault on conductor 3 or 4: LED 2 ON steady

Jumper setup

A trouble is sent to a monitoring module or circuit (the relay contacts on the GFD change state)

A ground fault is placed on the monitoring circuit (i.e. fire alarm panel)



When JP1 is in the 1-2 position, the GFD connects the COM output (terminal 3 of the terminal block) to earth ground through a 1 kΩ resistor. The COM output can be connected to the minus side of the input power or supervisory module so that a ground fault can be transferred to the panel.

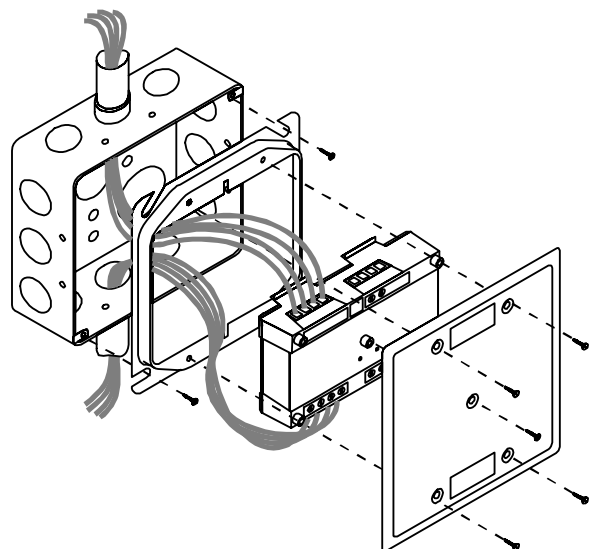
Installation instructions

Note: The GFD is shipped from the factory as an assembled unit; it contains no user-serviceable parts and should *not* be disassembled.

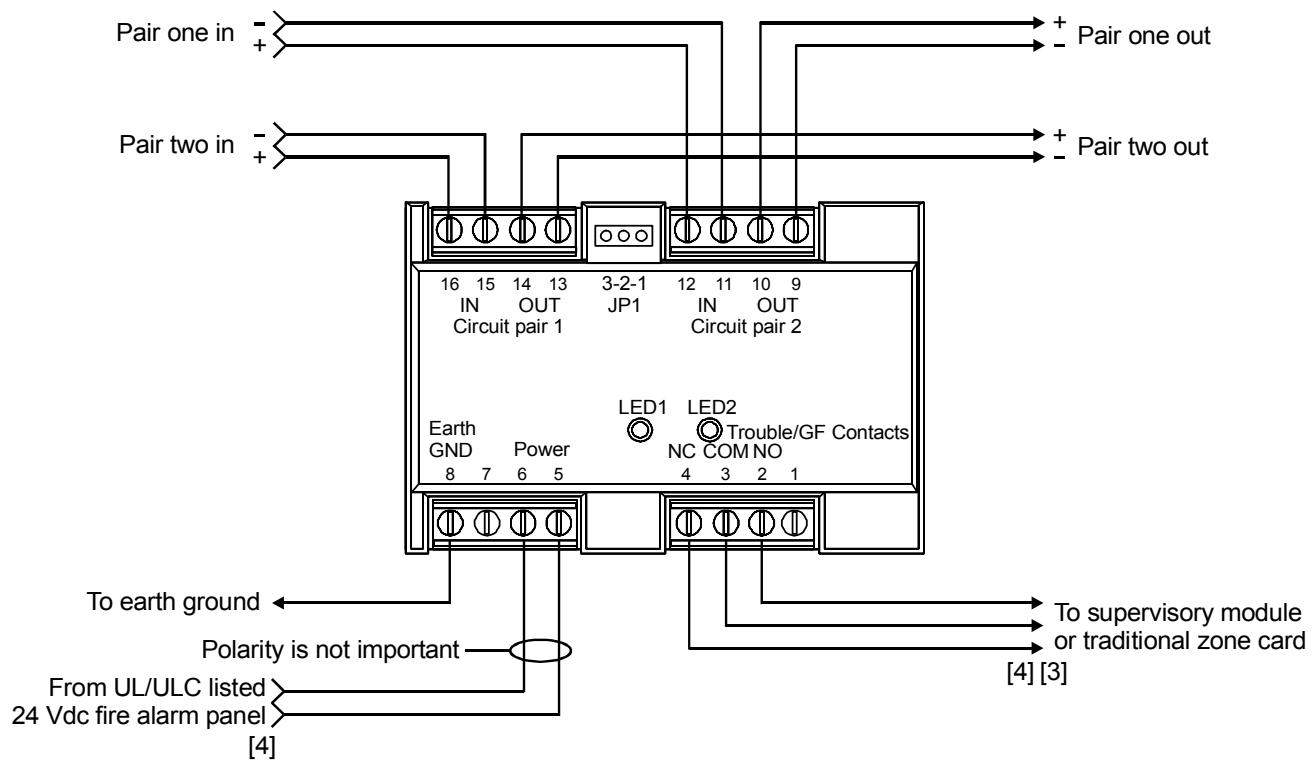
To install the module:

1. Verify that all field wiring is free of opens, shorts, and ground faults.
2. Make all wiring connections as shown in the wiring diagram.
3. Using the 4-24 x 5/16 in (8 mm) self-tapping screw provided, mount the wall plate to the module.
4. Using the four 6-32 x 1/2 in (13 mm) machine screws provided, mount the module to the electrical box.

Note: Wire in accordance with NFPA 70, *National Electrical Code*.



Wiring diagram



Notes

1. All circuits are power-limited and supervised. (See Note 4 below.)
2. Contacts 1 and 7 are not used
- [3] The functionality of the Trouble/GF circuit is dependent on the position of JP1. See "Jumper setup" for details.
- [4] Use a UL/ULC listed end-of-line device for complete supervision. Contacts cannot be used for nonpower-limited applications unless all wiring is type FPL, FPLR, or FPLP.

FireWorks application

The GFD is used with FireWorks to detect ground faults on the RS-232 communication line between a FireWorks workstation and a control panel.

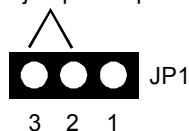
Mounting

The GFD can be mounted in a half-footprint space inside the cabinet on a SIGA-MP2L mounting plate (see installation sheet P/N 387162), in an electrical box next to the panel (see the installation instructions on this sheet), or in an MFCA cabinet next to the panel (see installation sheet P/N 387453).

Jumper setup

Place jumper JP1 on pins 2 and 3.

Place jumper on pins 2 and 3



Wiring

