Protection Relays and Controls Arc-Flash Monitoring

Arc-riash wontoring

AF0100 SERIES

Arc-Flash Relay



Littelfuse

Expertise Applied Answers Delivered



Simplified Circuit Diagram



Ordering Information

ORDERING NUMBER	DESCRIPTION
AF0100-00	Arc-Flash Relay, Universal Supply
AF0100-10	Arc-Flash Relay, 24-48 VDC

Specifications

Input Voltage AF0100-00 100-240 VAC/VDC, 24-48 VDC AF0100-10 24-48 VDC Dimensions **H** 90 mm (3.5"); **W** 128 mm (5.0"); **D** 60 mm (2.4") **Trip, Error Relays** Form C, 250 VAC/30 VDC, 6 A resistive Trip Time 5 ms (typical) Sensitivity 10-25 klux programmable Mounting Surface, DIN rail **Operating Temperature** -40°C to +70°C (-40°F to 158°F) **Shipping Weight** 1.0 kg (2.2 lb) Certifications UL Listed (UL 508), CE, RCM, FCC Warranty 5 years

Description

The AF0100 Series arc-flash relay is a cost-effective solution that reduces arc-fault damage by detecting the light from an arc flash and rapidly tripping. Two remote light sensors can be connected to one relay and multiple AF0100 and/or AF0500 relays can be connected to monitor additional sensors, providing complete coverage for a wide range of applications. The compact, DIN-rail or surface-mountable body makes this an ideal solution for equipment manufacturers.

Two isolated Form-C contacts are provided for applications with multiple devices that must be tripped. This is especially useful for generator applications where the generator and breaker need to be tripped in case of an arc flash.

The AF0100 accepts PGA-LS10 point sensors and PGA-LS20/ PGA-LS30 fiber-optic sensors in any combination. Sensor health is continuously monitored to ensure fail-safe operation. A solid-state redundant trip circuit provides an internal fail-safe mechanism and fast arc-flash response during power up.

Front-panel and sensor LEDs indicate sensor health and fault location.

Features & Benefits

FEATURES	BENEFITS
Compact	Fits into a wide range of arc-flash applications
Two optical sensor types	Point sensors or fiber-optic sensors can be used in any combination for coverage flexibility
Dual sensor inputs	One relay can monitor two arc-flash sensors
Adjustable light sensitivity	Allows for operation in bright environments and maximum sensitivity in dark environments
Discrete wire networking	Multiple AF0100 or AF0500 units can be interconnected to form a system
Fail-safe system	Continuous monitoring of optical sensors and inputs ensures protection
USB interface	Configuration software is easy to use with no drivers or software installation
Unit health	Ensures continuous protection with self diagnostic and remote unit-healthy indication
LED Indication	Trip and sensor status indication both on relay and sensors

Accessories



PGA-LS10 Point Sensor

Line-of-sight light sensor detects an arc as small as 3 kA within a 2-m half-sphere. Includes sensor health and trip indication.

B

PGA-LS20/PGA-LS30 Fiber-Optic Sensor

360° light sensor to run along bus bars. Includes sensor health and trip indication.