

## Spark/Arc Detection System from Scanning Devices, Inc.

**Simple But Effective** - Our arc detection system consists of one or two photoelectric sensors mounted within equipment to view the energy delivery region. These are wired to a plug-in photoelectric amplifier consisting of a power source for the photo sensors, adjustable gain amplifier stage, and output switch. The amplifier's output changes when infrared energy impinges on the photo sensors. The output is wired to industrial oven controls to take appropriate action.

**Installation Flexibility** - Separate sensor and amplifier allow separation of the components by cable and installation of the amplifier away from the energy delivery area in a convenient location with other control equipment.

**Numerous Models and Setup Options** - Variations in input power, output switch type, fail-safe configuration. Amplifiers are available powered by 120 VAC or 24 VDC. Outputs include mechanical relays and optically coupled isolators suitable for PLC connection as well as high-speed solid-state switches. Amplifiers can be setup to energize output on spark or no spark.



### 110 Series Plug In Amplifiers

- Supports multiple photosensors
- Adjustable set point and sensitivity
- Light and Dark operation selected by wiring
- Red LED indicator shows output state
- Enclosure: Styrene with 11-pin base, requires 11-pin socket
- Dimensions: 3.25" x 2" x 2"
- Response: 20 Ms (mech. relay output).
- Solid-state high speed output switches available

<u>Part Number</u>	<u>Description</u>
110B-A	Photoelectric Amplifier, 110 VAC Input, SPDT Relay Output
110B-R	Photoelectric Amplifier, 24 VDC Input, SPDT Relay Output
110B-K	Photoelectric Amplifier, 110 VAC Input, Opto-Isolator Output
110B-J	Photoelectric Amplifier, 24 VDC Input, Opto-Isolator Output
110B-D	Photoelectric Amplifier, 24 VDC Input, High Speed NPN Transistor Output (Special Order)
110B-T	Photoelectric Amplifier, 24 VDC Input, High Speed Sink/Source NPN/PNP Transistor Output (Special Order)



### Cable Mounted Photo Sensors

- Peak Sensitivity: 875 nanometers (near infrared)
- Package 3/8-24 threaded barrel .5" long
- Mounted and sealed on shielded twisted pair cable
- Temperature Range:
  - Glass: -65 C to + 125 C
  - Plastic: -20 C to + 70 C
- Sensors per Amplifier: 2

<u>Part Number</u>	<u>Description</u>
P-4-1-6	Photodarlington Sensor, plastic lens, 6 foot cable
P-4-1-20	Photodarlington Sensor, plastic lens, 20 foot cable
P-4-DARL-6	Photodarlington Sensor, glass lens, 6 foot cable
P-4-DARL-20	Photodarlington Sensor, glass lens, 20 foot cable