

UPA VOLTAGE ALERTS

**Ideal for Lockout/Tagout
Indicating Zero Energy**



DIVERSIFIED ELECTRONICS



Enhances NFPA 70E

Reduces Arc Flash and Electrocutation Risk

The UPA Voltage Alert reduces the risk of electrical arc flash by pre-verifying the electrical isolation from outside of an electrical panel. Hard wired to the circuit breaker or main disconnect, the UPA LED's flash or illuminate (depending on model) to indicate the presence of hazardous conditions, 40-600 VAC & 30-1000 VDC, associated with stored energy.

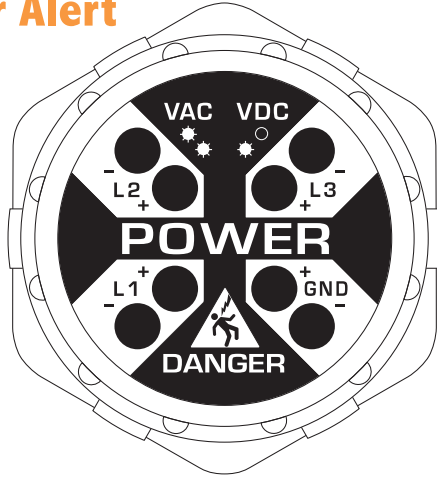
Engineered with fully encapsulated redundant circuitry, the Voltage Alert is powered by the same voltage that it indicates.

Available in 3 configurations, the easy to install UPAs fit through standard push-button and conduit knockouts.

UPA-100 Series

Universal Power Alert

- Detects Single or 3-Phase AC & DC Voltage or Stored Energy
- Redundant Circuitry
- Verification of Zero Energy in a Panel
- Fits 1-1/4" Conduit Knock-Out



The **UPA-100 Power Alert** reduces the risk of **electrical arc flash** by pre-verifying the electrical isolation from outside of a control panel. Hard wired to the circuit breaker or main disconnect, the UPA flashes whenever voltage is present. Engineered with **redundant circuitry**, the Power Alert is powered by the same voltage that it indicates.

OPERATIONS The eight detector UPA-100 visually alerts to the presence of dangerous AC or DC (Stored Energy) potentials occurring between any combination of the four monitored input lines (L1, L2, L3, GND). Two LED indicators are assigned to each input line and are designated "+" and "-". For each input line carrying an AC potential (bi-polar), both the "+" and "-" LEDs will be active. A DC or Stored Energy potential will illuminate the "+" LED for the positive line and the "-" LED for the negative line.



UPA-130 Series

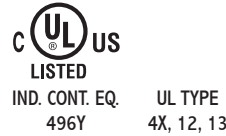
30mm Universal Power Alert

- Verification of Stored Energy Inside A Panel
- Fits 30mm Knockout
- Redundant Circuitry
- 40-750 VAC, 30-1000 VDC



The **UPA-130 Power Alert** reduces the risk of **electrical arc flash** by pre-verifying the electrical isolation from outside of a control panel. Hard wired to the circuit breaker or main disconnect, the UPA flashes whenever voltage is present. Engineered with redundant circuitry, the Power Alert is powered by the same voltage that it indicates.

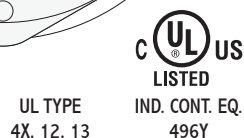
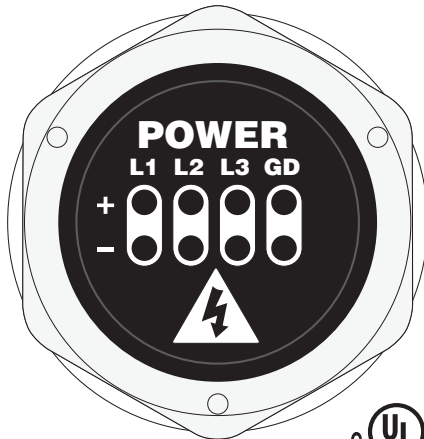
OPERATIONS The eight detector UPA-130 visually alerts to the presence of dangerous AC or DC (Stored Energy) potentials occurring between any combination of the four monitored input lines (L1, L2, L3, GND). Two LED indicators are assigned to each input line and are designated "+" and "-". For each input line carrying an AC potential (bi-polar), both the "+" and "-" LEDs will be active. A DC or Stored Energy potential will illuminate the "+" LED for the positive line and the "-" LED for the negative line.



UPA-200

Universal Power Alert Zero Energy

- Ideal for use in Lockout/Tagout Procedure
- Enhances NFPA 70E & OSHA Compliance
- Reduces Arc Flash & Electrocutation Risk
- Detects Stored Energy
- Detects Ground Fault Problems
- No Voltage Present on Enclosure Door Panels
- DIN Rail or Surface Mounted Base



The **UPA-200 Power Alert** reduces the **risk of electrical arc flash** by pre-verifying the electrical isolation from outside of an electrical panel. Hard wired to the circuit breaker or main disconnect, the UPA LED's flash to indicate the presence of hazardous conditions (20-600 VAC & 20-1000 VDC) associated with stored energy. Engineered with redundant circuitry, the power alert is powered by the same voltage that it indicates. The unit is easily installed into the panels through a standard push-button 30mm knockouts.

OPERATIONS The UPA-200 is ideal for mounting on the front controller door panel. The use of fiber-optics on this unit to transmit the LED lights to the enclosure door allows the unit to be mounted on an ungrounded door panel due to no voltage present on panel.

The eight detector UPA-200 visually alerts to the presence of dangerous AC or DC (Stored Energy) potentials occurring between any combination of the four monitored input lines (L1, L2, L3, GND). Two LED indicators are assigned to each input line are designate "+" and "-". For each input line carrying an AC potential (bi-polar), both the "+" and "-" LEDs will be active. A DC or Stored Energy potential will illuminate the "+" LED for the positive line and the "-" LED for the negative line.

INDICATOR FLASH RATES (L1, L2, L3, GND)

| | | | | | | | |
|-----------------------------|-----|-----|-----|-----|-----|-----|------|
| 3- Phase Line-To-Line (VAC) | <29 | 30 | 120 | 240 | 480 | 600 | 750 |
| Flashes/Sec (Typical) | 0 | 1.3 | 4.2 | 5.8 | 7.3 | 8.0 | 8.8 |
| DC or Stored Energy (VDC) | <27 | 30 | 48 | 110 | 300 | 600 | 1000 |
| Flashes/Sec (Typical) | 0 | 1.6 | 2.5 | 4.5 | 6.9 | 8.8 | 9.1 |

GND DETECTOR THRESHOLDS (LEAKAGE ANY PHASE-TO-GROUND)

| | | | | | |
|---|----|-----|-----|-----|-----|
| 3- Phase Line-To-Line (VAC) | 30 | 120 | 240 | 480 | 750 |
| L1, L2, or L3 To Ground Continuity (OHMS) | 2M | 2M | 3M | 5M | 7M |
| Detector Included Fault Current (µA) | 7 | 26 | 38 | 60 | 67 |

DETECTOR INCLUDED FAULT CURRENT (PHASE-TO-GROUND SHORT)

| | | | | | |
|------------------------------------|----|-----|-----|-----|-----|
| 3- Phase Line-To-Line (VAC) | 30 | 120 | 240 | 480 | 750 |
| 0 OHM Phase-To-Ground Current (µA) | 28 | 108 | 219 | 455 | 730 |

OPERATIONAL RANGE

AC SINGLE
40 to 600 VAC,
50/60/400 Hz, or
3-Phase (LINE-TO-
LINE or LINE-TO-
GND)

DC OR STORED
ENERGY
30 to 1000 VDC,
(LINE-TO-LINE or
LINE-TO-GND)

MAXIMUM RATED VOLTAGE

750 VAC/1000 VDC
(LINE-TO-LINE or
LINE-TO-GND)

DETECTION THRESHOLDS

29 VAC 3-Phase,
40 VAC SINGLE-
Phase, 27 VDC
(TYP Cutoff)

POWER CONSUMPTION

1.2 Watts @
750 VAC
(Approximately)

TEMPERATURE RATING

Operate:
-4° to 131°F
(-20° to +55°C)

Storage:
-40° to 185°F
(-40° to +85°C)

ENCLOSURE

NEMA 4X 105°C
PVC, Totally
Encapsulated for
Environment
Protection

TERMINATIONS

(4) 8 ft, 18 AWG
1000V, UL-1452

INDICATOR FLASH RATES (L1, L2, L3, GND)

| | | | | | | | |
|-----------------------------|-----|-----|-----|-----|-----|-----|------|
| 3- Phase Line-To-Line (VAC) | <29 | 30 | 120 | 240 | 480 | 600 | 750 |
| Flashes/Sec (Typical) | 0 | 1.3 | 4.2 | 5.8 | 7.3 | 8.0 | 8.8 |
| DC or Stored Energy (VDC) | <27 | 30 | 48 | 110 | 300 | 600 | 1000 |
| Flashes/Sec (Typical) | 0 | 1.6 | 2.5 | 4.5 | 6.9 | 8.8 | 9.1 |

GND DETECTOR THRESHOLDS (LEAKAGE ANY PHASE-TO-GROUND)

| | | | | | |
|---|----|-----|-----|-----|-----|
| 3- Phase Line-To-Line (VAC) | 30 | 120 | 240 | 480 | 750 |
| L1, L2, or L3 To Ground Continuity (OHMS) | 2M | 2M | 3M | 5M | 7M |
| Detector Included Fault Current (µA) | 7 | 26 | 38 | 60 | 67 |

DETECTOR INCLUDED FAULT CURRENT (PHASE-TO-GROUND SHORT)

| | | | | | |
|------------------------------------|----|-----|-----|-----|-----|
| 3- Phase Line-To-Line (VAC) | 30 | 120 | 240 | 480 | 750 |
| 0 OHM Phase-To-Ground Current (µA) | 28 | 108 | 219 | 455 | 730 |

OPERATIONAL RANGE

AC SINGLE OR
3-PHASE
40 to 600 VAC,
50/60/400 Hz,
(LINE-TO-LINE or
LINE-TO-GND)

DC OR STORED
ENERGY
30 to 1000 VDC,
(LINE-TO-LINE or
LINE-TO-GND)

MAXIMUM RATED VOLTAGE

750 VAC/1000 VDC
(LINE-TO-LINE or
LINE-TO-GND)

DETECTION THRESHOLDS

29 VAC 3-Phase,
40 VAC SINGLE-
Phase, 27 VDC
(TYP CUTOFF)

POWER CONSUMPTION

1.2 Watts @
750 VAC
(Approximately)

TEMPERATURE RATING

Operate
-4° to 131°F
(-20° to +55°C)

Storage
-40° to 185°F
(-40° to +85°C)

ENCLOSURE

Totally
Encapsulated for
Environment
Protection

TERMINATIONS

(4) 8 ft, 18 AWG
1000V, UL-1452

RED: L1

YEL: L2

BLU: L3

GRN/YEL: GRD

INDICATOR FLASH RATES (L1, L2, L3, GND)

| | | | | | | | |
|-----------------------------|-----|-----|-----|-----|-----|-----|------|
| 3- Phase Line-To-Line (VAC) | <14 | 20 | 120 | 240 | 480 | 600 | 750 |
| Flashes/Sec (Typical) | 0 | 0.9 | 2.6 | 3.3 | 3.7 | 3.8 | 3.9 |
| DC or Stored Energy (VDC) | <15 | 20 | 48 | 110 | 300 | 600 | 1000 |
| Flashes/Sec (Typical) | 0 | 0.9 | 1.9 | 3.2 | 3.7 | 4.0 | 4.0 |

Epileptic Photosensitivity Compliance: Below 5-30 Flashes/Sec

GND DETECTOR THRESHOLDS (LEAKAGE ANY PHASE-TO-GROUND)

| | | | | | |
|---|----|-----|------|-----|-----|
| 3- Phase Line-To-Line (VAC) | 20 | 120 | 240 | 480 | 750 |
| L1, L2, or L3 To Ground Continuity (OHMS) | 2M | 5M | 7.5M | 13M | 20M |
| Detector Included Fault Current (µA) | 4 | 12 | 17 | 20 | 21 |

DETECTOR INCLUDED FAULT CURRENT (PHASE-TO-GROUND SHORT)

| | | | | | |
|------------------------------------|----|-----|-----|-----|-----|
| 3- Phase Line-To-Line (VAC) | 20 | 120 | 240 | 480 | 750 |
| 0 OHM Phase-To-Ground Current (µA) | 15 | 105 | 216 | 435 | 684 |

OPERATIONAL RANGE

AC 20-600
VAC/20-1000 VDC

MAXIMUM RATED VOLTAGE

750 VAC/1000 VDC
(LINE-TO-LINE)

DETECTION THRESHOLDS

14 VAC 3-Phase/
18.5 VAC SINGLE-
Phase, 15 VDC
Stored Energy

POWER CONSUMPTION

1.2 Watts @
750 VAC

TEMPERATURE RATING

-4° to 131°F
(-20° to +55°C)

ENCLOSURE

Totally
Encapsulated

TERMINATIONS

(4) 6 ft, 18 AWG
1000V, UL-1452



OSHA 1910.147 THE CONTROL OF HAZARDOUS ENERGY (LOCKOUT/TAGOUT)

Following the application of lockout or tagout devices to energy isolating devices, all potentially hazardous stored or residual energy shall be relieved, disconnected, restrained, and otherwise rendered safe. (d)(5)(ii)

If there is a possibility of reaccumulation of stored energy to a hazardous level, verification of isolation shall be continued until the servicing or maintenance is completed, or until the possibility of such accumulation no longer exists. (d)(6)

“Verification of Isolation.” Prior to starting work on machines or equipment that have been locked out or tagged out, the authorized employee shall verify that isolation and de-energization of the machine or equipment have been accomplished.



AUTHORIZED DISTRIBUTOR



ORDERING INFORMATION

| MODEL NUMBER | DESCRIPTION |
|--------------|---------------------------------------|
| UPA-100 | Universal Power Alert |
| UPA-100S | Universal Power Alert Solid-ON Red |
| Accessories | |
| UPA-WP100 | ANSI Warning Plate |

| MODEL NUMBER | DESCRIPTION |
|---------------|---|
| UPA-130 | 30mm Universal Power Alert |
| UPA-130-DIV 2 | Class I, Div 2, CAT III, CAT IV |
| UPA-130S | Solid ON |
| UPA-130-GOV | Amber LED |
| Accessories | |
| UPA-WP130 | ANSI Warning Plate |
| UPA-BZL-130 | Flush Mounting Kit for 1-1/4" for UPA 130 Conduit Knockout |
| UPA-BZL-DIV2 | Bezel Kit for UPA-130 Div 2 |
| UPA-BZL-GOV | Bezel Kit for UPA-130 Gov |
| UPA-BZL-130S | Bezel Kit for UPA-130S |

| MODEL NUMBER | DESCRIPTION |
|--------------|--|
| UPA-200-12 | 30mm Universal Power Fiber Optic Alert 12" Fiber Optic |
| UPA-200-24 | 24" Fiber Optic |
| UPA-200-48 | 48" Fiber Optic |
| Accessories | |
| UPA-WP130 | ANSI Warning Plate |

*Consult Factory for Other Length Fiber Optic

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