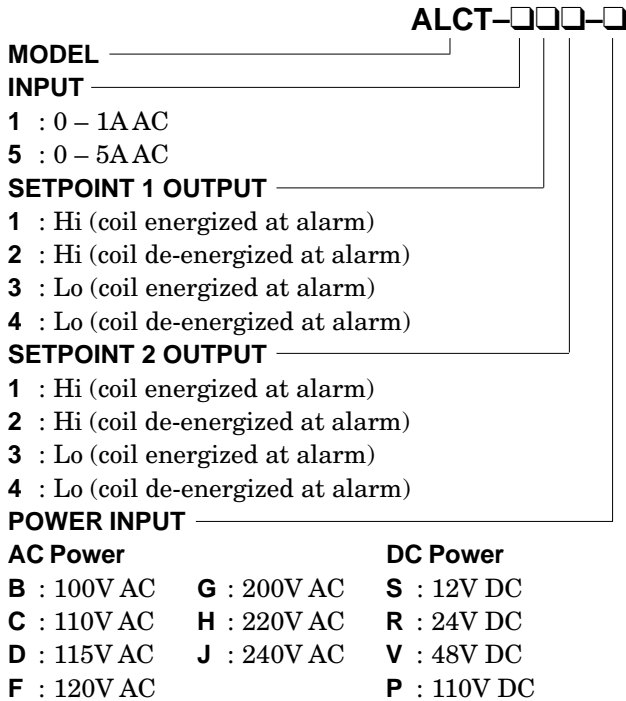


**Limit Alarms (rotary switch adj.) AL-UNIT**

**CT ALARM**

MODEL **ALCT**

**MODEL & SUFFIX CODE SELECTION**

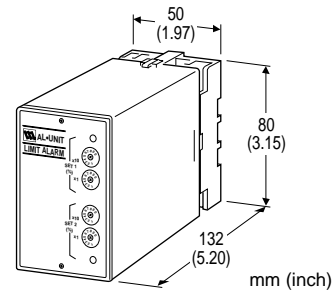


**ORDERING INFORMATION**

Specify code number. (e.g. ALCT-111-B)

**GENERAL SPECIFICATIONS**

- Construction:** plug-in
- Connection:** M3.5 screw terminals
- Housing material:** flame-resistant resin (black)
- Isolation:** input to output to power
- Input waveform:** up to 15% of 3rd harmonic content
- Setpoint adjustments:** 10-position rotary switches (front); 0 – 99% independently; 1% increments
- Hysteresis (deadband):** 0.7 – 2.5%
- Front LEDs:** red lights turn on when coils are energized.
- Power ON timer:** relays de-energized for approx. 2 seconds after power is turned on.



**Functions & Features**

- Providing SPDT relay outputs at preset AC current levels from a CT
- True RMS sensing
- Dual (Hi/Lo) trip
- CT Protector provided for open-circuit protection
- Energized or de-energized coil at a tripped condition selectable
- Rotary switch setpoint adjustments
- Enclosed relays
- Relays can be powered 110V DC
- High-density mounting

**Typical Applications**

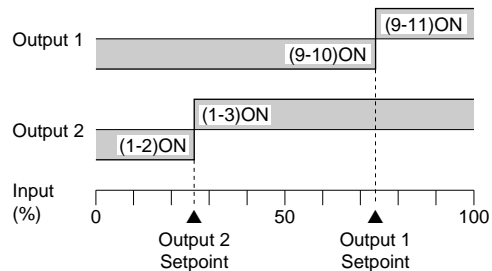
- Annunciator
- Various alarm applications

**INPUT & OUTPUT**

- **INPUT:** 0 – 1A AC or 0 – 5A AC
- Frequency:** 50 or 60 Hz
- Input burden:** 0.5VA maximum
- Overload capacity:** 500% of rating for 5 sec., 120% continuous
- Operational range:** 0 – 100% of rating

■ **OUTPUT**

**Alarm Trip Operation** Terminal No. in parentheses



**Trip Operation in Power Failure**

- **Output Code: 1 & 4:** Terminals 1 – 2, 9 – 10 turn ON
- **Output Code: 2 & 3:** Terminals 1 – 3, 9 – 11 turn ON

- Relay Contact:** 120V AC @1A ( $\cos\phi=1$ )  
240V AC @0.5A ( $\cos\phi=1$ )  
30V DC @1A (resistive load)  
electrical life  $5 \times 10^5$  cycles (rate 30/min.)

**Maximum switching voltage:** 380V AC or 125V DC

**Maximum switching power:** 100VA or 30W

**Minimum load:** 5V DC @10mA

**Mechanical life:**  $5 \times 10^7$  cycles

For maximum relay life with inductive loads, external protection is recommended.

## INSTALLATION

### Power input

**AC:** rating  $\pm 10\%$ , 50/60  $\pm 2$  Hz, approx. 2VA

**DC:** rating  $\pm 10\%$ , or 85 – 150V for 110V rating  
(ripple 10% p-p max.)  
approx. 2W (80mA at 24V)

**Operating temperature:** -5 to +60°C (23 to 140°F)

**Operating humidity:** 30 to 90% RH (non-condensing)

**Mounting:** surface or DIN rail

**Dimensions:** W50×H80×D132 mm (1.97"×3.15"×5.20")

See General Spec. Sheet Figure A.

**Weight:** 370 g (0.82 lbs)

**Terminal assignment:** See General Spec. Sheet Figure B-4.

## PERFORMANCE in percentage of span

**Setpoint accuracy:**  $\pm 0.9\%$

**Trip point repeatability:**  $\pm 0.05\%$

**Temp. coefficient:**  $\pm 0.02\%/^{\circ}\text{C}$  ( $\pm 0.01\%/^{\circ}\text{F}$ )

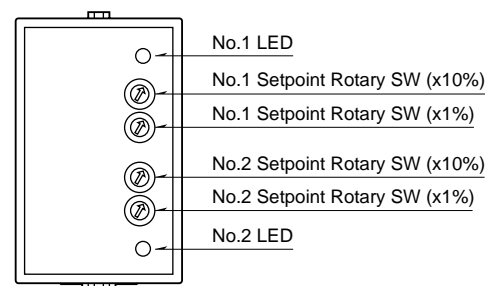
**Response time:** approx. 0.7 sec. (0 – 100% at 90% setpoint)

**Line voltage effect:**  $\pm 0.1\%$  over voltage range

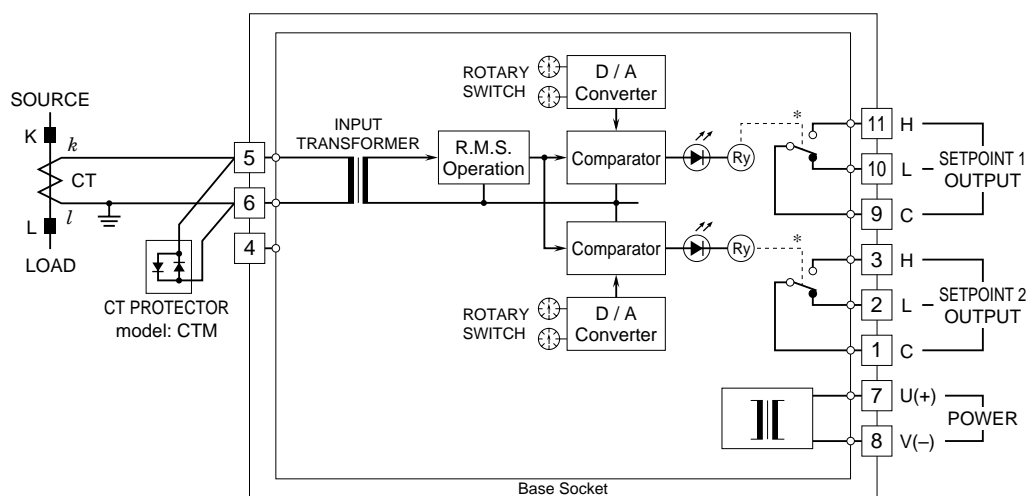
**Insulation resistance:**  $\geq 100\text{M}\Omega$  with 500V DC

**Dielectric strength:** 2000V AC @1 minute (input to output 1 to output 2 to power to ground)

## FRONT PANEL CONFIGURATION



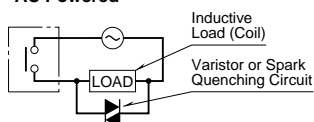
## SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM



\*Relay status for output codes "1" & "4", at power OFF.

### Relay Protection

#### AC Powered



#### DC Powered

