

Limit Alarms (rotary switch adj.) AL-UNIT

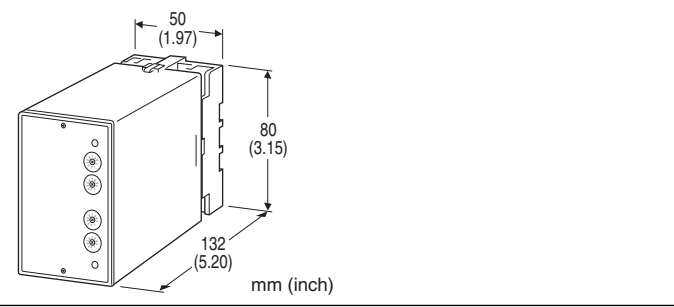
CT ALARM

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 110 V DC
- High-density mounting

Typical Applications

- Annunciator
- Various alarm applications



MODEL: ALCT-[1][2][3]-[4]

ORDERING INFORMATION

- Code number: ALCT-[1][2][3]-[4]
- Specify a code from below for each [1] through [4]. (e.g. ALCT-111-B)

[1] INPUT

Current

- 1: 0 - 1 A AC
- 5: 0 - 5 A AC

[2] SETPOINT 1 OUTPUT

- 1: Hi (coil energized at alarm)
- 2: Hi (coil de-energized at alarm)
- 3: Lo (coil energized at alarm)
- 4: Lo (coil de-energized at alarm)

[3] SETPOINT 2 OUTPUT

- 1: Hi (coil energized at alarm)
- 2: Hi (coil de-energized at alarm)
- 3: Lo (coil energized at alarm)
- 4: Lo (coil de-energized at alarm)

[4] POWER INPUT

- AC Power**
- B: 100 V AC
 - C: 110 V AC
 - D: 115 V AC
 - F: 120 V AC
 - G: 200 V AC
 - H: 220 V AC
 - J: 240 V AC
- DC Power**
- S: 12 V DC
 - R: 24 V DC
 - V: 48 V DC
 - P: 110 V DC

GENERAL SPECIFICATIONS

- Construction:** Plug-in
- Connection:** M3.5 screw terminals
- Housing material:** Flame-resistant resin (black)
- Isolation:** Input to output 1 to output 2 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 the coils are energized.
- Power ON timer:** Relays de-energized for approx. 2 seconds after power is turned on.

INPUT SPECIFICATIONS

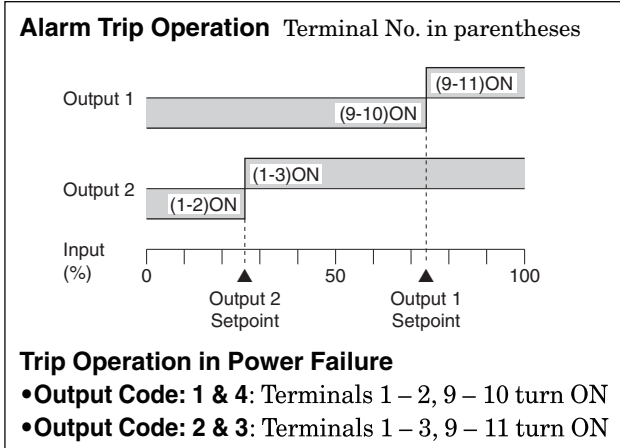
- Frequency:** 50 or 60 Hz
- Input burden:** 0.5 VA maximum
- Overload capacity:** 500 % of rating for 5 sec., 120 % continuous
- Operational range:** 0 - 100 % of rating

OUTPUT SPECIFICATIONS

- **Relay Contact:** 100 V AC @ 1 A ($\cos \phi = 1$)
120 V AC @ 1 A ($\cos \phi = 1$)
240 V AC @ 0.5 A ($\cos \phi = 1$)
30 V DC @ 1 A (resistive load)
- Maximum switching voltage:** 380 V AC or 125 V DC
- Maximum switching power:** 120 VA or 30 W
- Minimum load:** 5 V DC @ 10 mA
- Mechanical life:** 5×10^7 cycles



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



INSTALLATION

Power input

- **AC:** Operational voltage range: rating $\pm 10\%$, 50/60 ± 2 Hz, approx. 2 VA
- **DC:** Operational voltage range: rating $\pm 10\%$, or 85 – 150 V for 110 V rating (ripple 10 % p-p max.)
Approx. 2 W (80 mA at 24 V)

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

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

Mounting: Surface or DIN rail

Weight: 370 g (0.82 lbs)

PERFORMANCE in percentage of span

Setpoint accuracy: $\pm 0.9\%$

Trip point repeatability: $\pm 0.05\%$

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

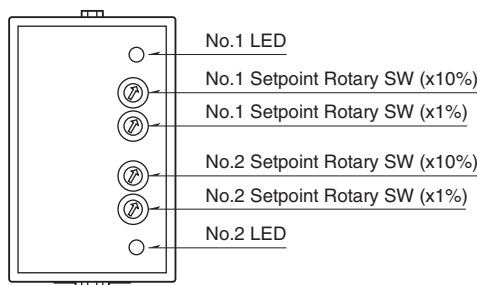
Response time: Approx. 0.7 sec. (0 – 100 % at 90 % setpoint)

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

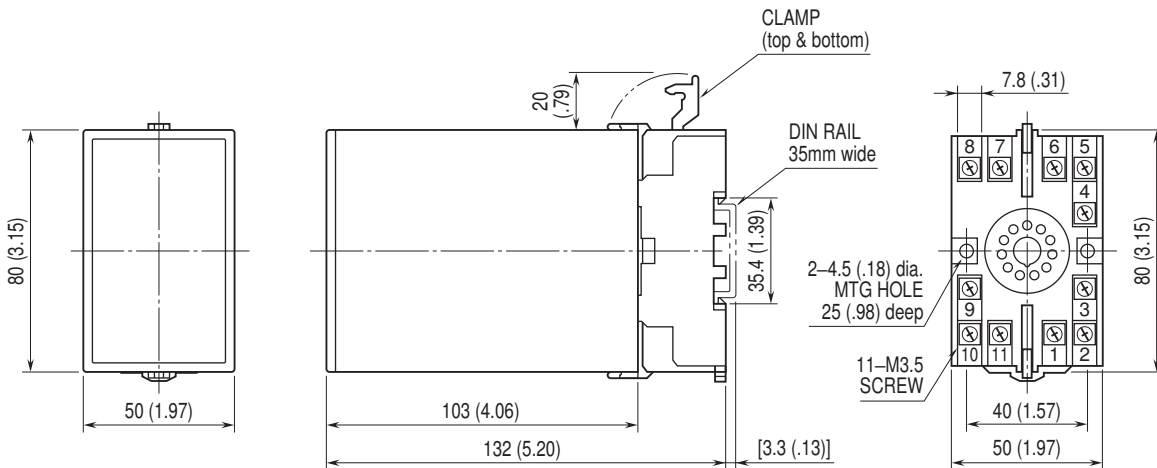
Insulation resistance: $\geq 100\text{ M}\Omega$ with 500 V DC

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

EXTERNAL VIEW

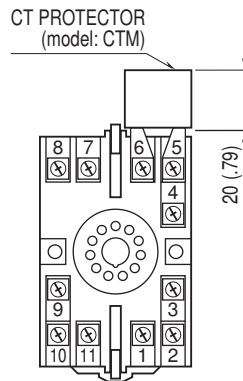


DIMENSIONS unit: mm (inch)

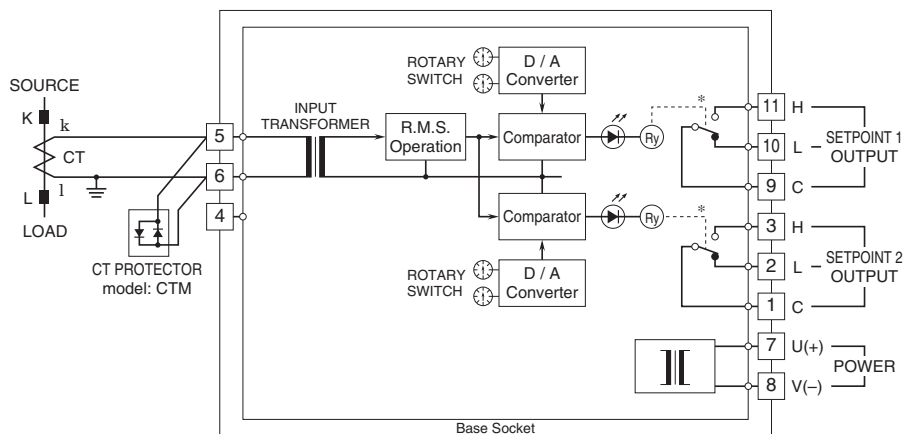


• When mounting, no extra space is needed between units.

TERMINAL ASSIGNMENTS unit: mm (inch)



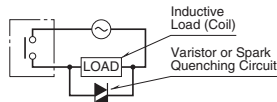
SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM



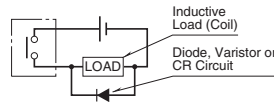
*Relay status for output codes "1" & "4", at power OFF.

Relay Protection

•AC Powered



•DC Powered





Specifications are subject to change without notice.

