

Limit Alarms (potentiometer adj.) A-UNIT

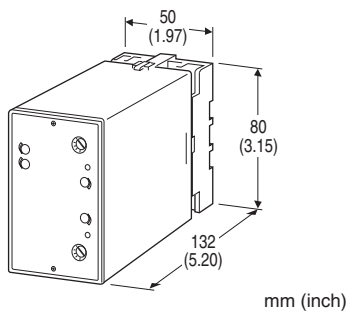
AC ALARM

Functions & Features

- Providing SPDT relay outputs at preset AC current/voltage levels
- True RMS sensing
- Dual (Hi/Lo) trip
- Energized or de-energized coil at a tripped condition selectable
- Hysteresis (deadband) adjustable
- Enclosed relays
- Relays can be powered 110 V DC
- High-density mounting

Typical Applications

- Annunciator
- Various alarm applications



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

ORDERING INFORMATION

- Code number: AAC-[1]1[2][3]-[4]
- Specify a code from below for each [1] through [4]. (e.g. AAC-AA111-B)
- Special input range (For codes AZ & A8)

[1] INPUT

Current

- AA:** 0 - 10 mA AC (Input resistance 100 Ω)
- AB:** 0 - 50 mA AC (Input resistance 20 Ω)
- AC:** 0 - 100 mA AC (Input resistance 10 Ω)
- AD:** 0 - 500 mA AC (Input resistance 1 Ω)
- AZ:** Specify current (See INPUT SPECIFICATIONS)
(0 % input must be 0 mA.)

Voltage

- A1:** 0 - 100 mV AC (Input resistance 100 kΩ min.)
- A2:** 0 - 500 mV AC (Input resistance 100 kΩ min.)
- A3:** 0 - 1 V AC (Input resistance 100 kΩ min.)

- A4:** 0 - 5 V AC (Input resistance 100 kΩ min.)
- A5:** 0 - 10 V AC (Input resistance 100 kΩ min.)
- A6:** 0 - 120 V AC (Input resistance 100 kΩ min.)
- A7:** 0 - 150 V AC (Input resistance 100 kΩ min.)
- A8:** Specify voltage (See INPUT SPECIFICATIONS)
(0 % input must be 0 V.)

[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

Zero adjustment: -5 to +5 % (front)

Span adjustment: 95 to 105 % (front)

Setpoint adjustments: 270°-turn screwdriver adjustments (front); 0 - 100 % independently

Hysteresis (deadband) adjustments: 1 - 100 % (front)

Front LEDs: Lights turn on at a tripped condition; red for output 1, green for output 2

Power ON timer: Relays de-energized for approx. 2 seconds after power is turned on.



INPUT SPECIFICATIONS

Frequency: 40 Hz min., 1 kHz max.

■ **AC Current:** 0 - 1 A AC; input resistor incorporated

Minimum span: 1 mA

Input resistance

Span 1 mA: 1 k Ω

Span \leq 2 mA: 500 Ω

Span \leq 5 mA: 200 Ω

Span \leq 10 mA: 100 Ω

Span \leq 20 mA: 50 Ω

Span \leq 50 mA: 20 Ω

Span \leq 100 mA: 10 Ω

Span \leq 500 mA: 1 Ω

Span \leq 1 A: 0.5 Ω

■ **AC Voltage:** 0 - 250 V AC

Minimum span: 50 mV

Input resistance: 100 k Ω min.

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

Mounting: Surface or DIN rail

Weight: 450 g (0.99 lbs)

PERFORMANCE in percentage of span

Trip point repeatability: ± 0.5 %

Temp. coefficient: ± 0.05 %/ $^{\circ}$ C (± 0.03 %/ $^{\circ}$ F)

Response time: ≤ 0.7 sec. (0 - 100 % at 90 % setpoint)

Line voltage effect: ± 0.1 % over voltage range

Insulation resistance: ≥ 100 M Ω with 500 V DC

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

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

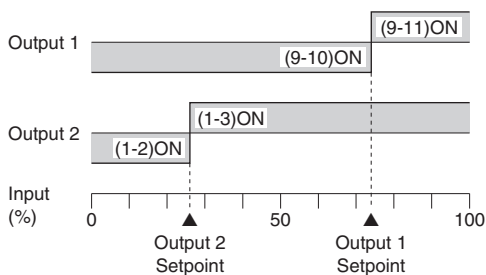
Maximum switching power: 120 VA or 30 W

Minimum load: 5 V DC @ 10 mA

Mechanical life: 5×10^7 cycles

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

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

INSTALLATION

Power input

• **AC:** Operational voltage range: rating ± 10 %, 50/60 ± 2 Hz, approx. 2 VA

• **DC:** Operational voltage range: rating ± 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 $^{\circ}$ C (23 to 140 $^{\circ}$ F)



幸託有限公司
XIN TOP CORPORATION

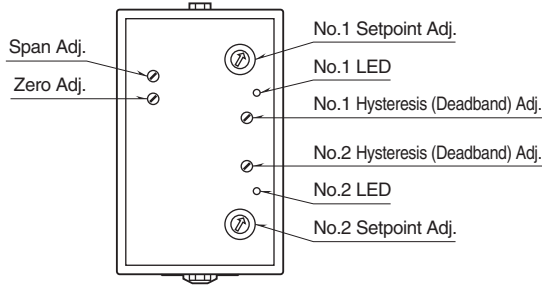
TEL : (02)2598-1199

FAX : (02)2596-2331

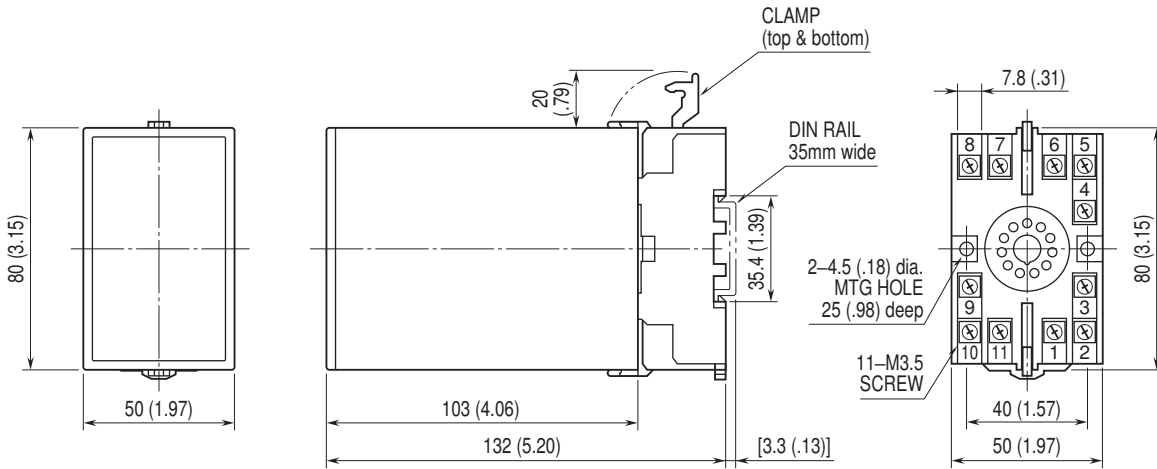
E-mail : info@xintop.com

Website : www.xintop.com

EXTERNAL VIEW

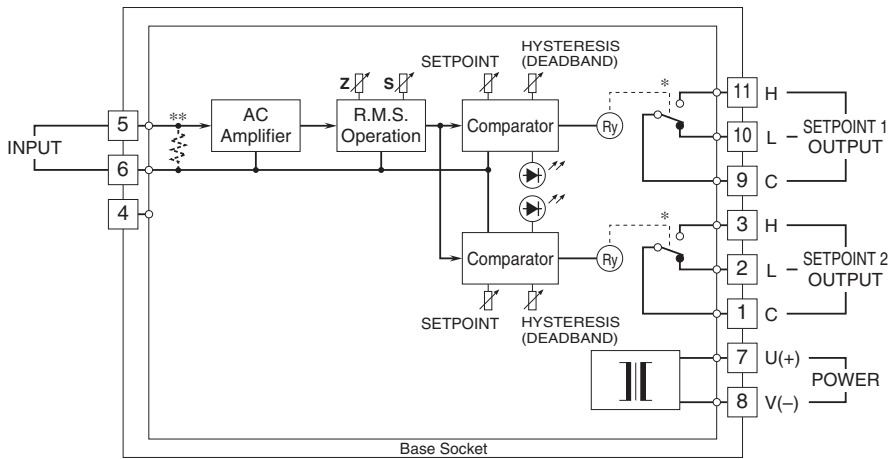


EXTERNAL DIMENSIONS & TERMINAL ASSIGNMENTS unit: mm (inch)



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

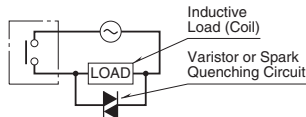
SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM



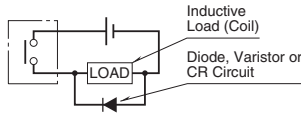
* Relay status for output codes "1" & "4", at power OFF.
 **Input resistor incorporated for current input.

■ Relay Protection

• AC Powered



• DC Powered





Specifications are subject to change without notice.

