

Limit Alarms (potentiometer adj.) A-UNIT

TWO-WIRE TRANSMITTER ALARM

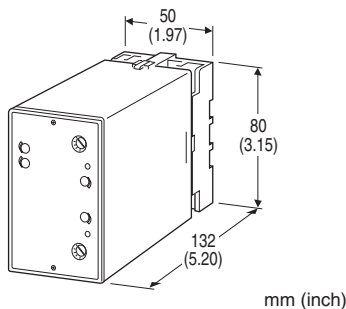
(with square root extractor)

Functions & Features

- Powering a 4 – 20 mA DC current loop
- Providing SPDT relay outputs at preset current levels
- Shortcircuit protection
- Square root extraction
- Applicable to smart transmitters
- 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: ADN-1[1][2]-[3]

ORDERING INFORMATION

- Code number: ADN-1[1][2]-[3]

Specify a code from below for each [1] through [3].
(e.g. ADN-111-B)

INPUT

Current

4 – 20 mA DC (Input resistance 250 Ω)

[1] 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)

[2] 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)

[3] 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

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

Span adjustment: 95 to 105 % (front)

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

Low-end cutout function: Below 1 % input. A setpoint below 10 % output equals 0 %.

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.

SUPPLY OUTPUT

Output voltage: 24 – 28 V DC with no load

Current rating: ≤ 22 mA DC

- Shortcircuit Protection

Current limited: 35 mA max.

Protected time duration: No limit

INPUT SPECIFICATIONS

- DC Current: Input resistor incorporated



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)

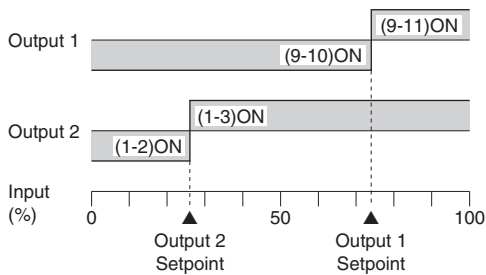
Maximum switching voltage: 380 V AC or 125 V DC

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 $\pm 10\%$,

50/60 ± 2 Hz, approx. 2.5 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: 380 g (0.84 lbs)

PERFORMANCE in percentage of span

Trip point repeatability: $\pm 0.5\%$ with input 1 – 100 %

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

Response time: ≤ 1 sec. (0 – 100 % at 90 % setpoint)

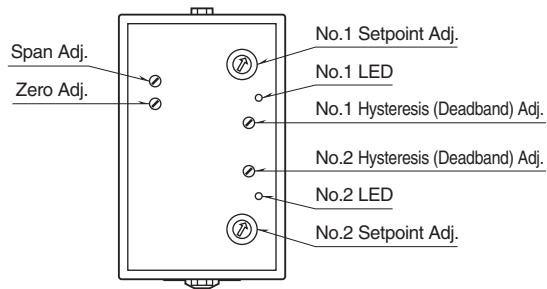
Line voltage effect: $\pm 0.1\%$ over voltage range

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

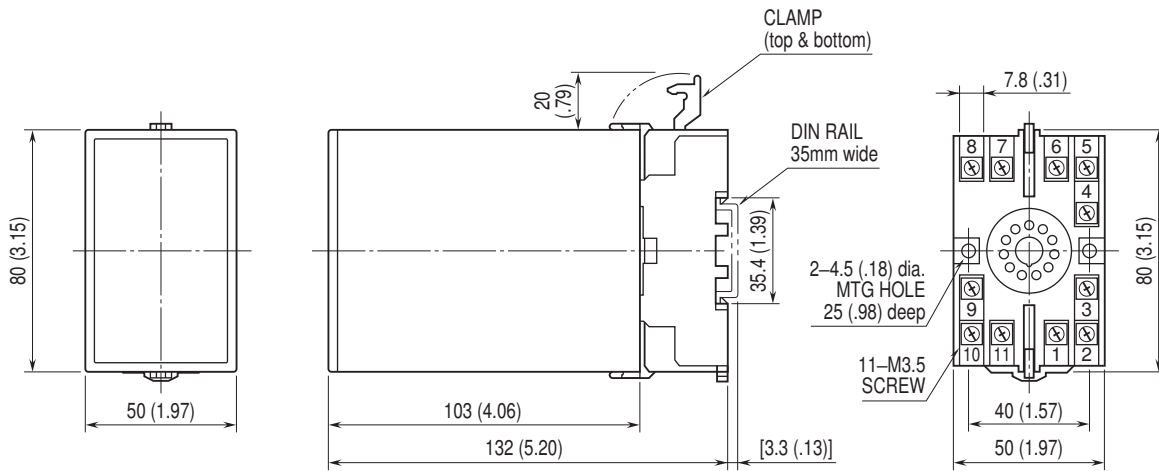
Dielectric strength: 2000 V AC @1 minute (input to output 1 to output 2 to power to ground)



EXTERNAL VIEW

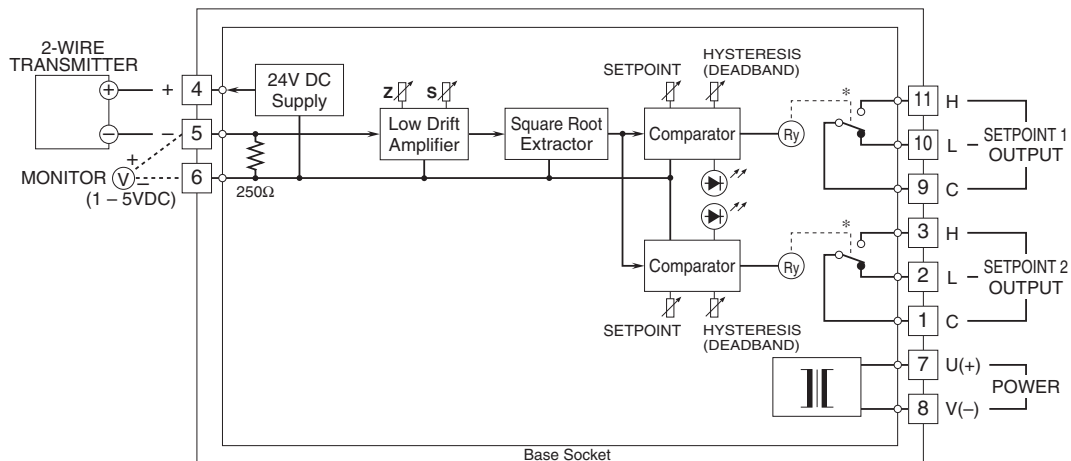


EXTERNAL DIMENSIONS & TERMINAL ASSIGNMENTS unit: mm (inch)



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

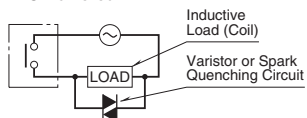
SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM



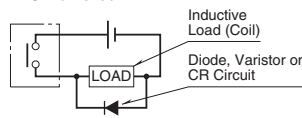
* Relay status for output codes "1" & "4", at power OFF.

■ Relay Protection

•AC Powered



•DC Powered





Specifications are subject to change without notice.



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