

Plug-in Signal Conditioners M-UNIT

DC ALARM

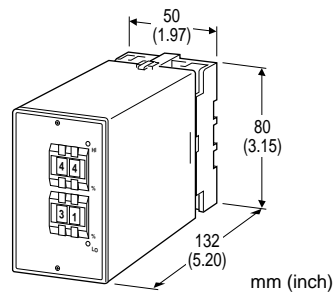
(thumbwheel switch adjustment)

Functions & Features

- Providing SPDT relay outputs at preset DC input levels
- Dual (Hi/Lo) trip
- Thumbwheel switch setpoint adjustments
- Enclosed relays
- Relays can be powered 110 V DC
- Isolation up to 2000 V AC
- High-density mounting

Typical Applications

- Annunciator
- Various alarm applications



MODEL: ASD-[1]1-[2][3]

ORDERING INFORMATION

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

Specify a code from below for each of [1] through [3].
(e.g. ASD-61-K/Q)

- Specify the specification for option code /Q
(e.g. /C01/S01)

[1] INPUT

Current

A1: 4 - 20 mA DC (Input resistance 50 Ω)

G: 0 - 1 mA DC (Input resistance 1000 Ω)

Voltage

4: 0 - 10 V DC (Input resistance 1 MΩ min.)

5: 0 - 5 V DC (Input resistance 1 MΩ min.)

6: 1 - 5 V DC (Input resistance 1 MΩ min.)

OUTPUT

Relay; SPDT or transfer contact

SETPOINT ADJUSTMENTS

1: Thumbwheel switch

[2] POWER INPUT

AC Power

K: 85 - 132 V AC

(Operational voltage range 85 - 132 V, 47 - 66 Hz)

L: 170 - 264 V AC

(Operational voltage range 170 - 264 V, 47 - 66 Hz)

DC Power

R: 24 V DC

(Operational voltage range 24 V ±10 %, ripple 10 %p-p max.)

P: 110 V DC

(Operational voltage range 85 - 150 V, ripple 10 %p-p max.)

[3] OPTIONS

/Q: With options (specify the specification)

SPECIFICATIONS OF OPTION: Q (multiple selections)

COATING (For the detail, refer to our web site.)

/C01: Silicone coating

/C02: Polyurethane coating

/C03: Rubber coating

TERMINAL SCREW MATERIAL

/S01: Stainless steel

GENERAL SPECIFICATIONS

Construction: Plug-in

Connection: M3.5 screw terminals

Screw terminal: Chromated steel (standard) or stainless steel

Housing material: Flame-resistant resin (black)

Isolation: Input to output to power

Setpoint adjustments: Thumbwheel switches (front); 0 - 99 % independently; 1 % increments

Hysteresis (deadband): Approx. 1 %

Front LEDs: Red LED turns on when the coil for Hi output is energized.

Green LED turns on when the coil for Lo output is energized.

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

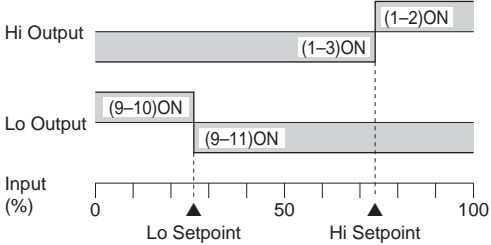
Maximum switching power: 120 VA or 30 W

Minimum load: 5 V DC @ 10 mA

Mechanical life: 5 x 10⁷ cycles

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

Alarm Trip Operation Terminal No. in parentheses



Trip Operation in Power Failure

: Terminals 1 – 3, 9 – 11 turn ON.

INSTALLATION

Power consumption

- AC: Approx. 3 VA
- DC: Approx. 3 W (130 mA at 24 V)

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

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

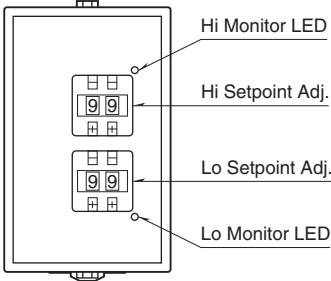
Mounting: Surface or DIN rail

Weight: 300 g (0.66 lb)

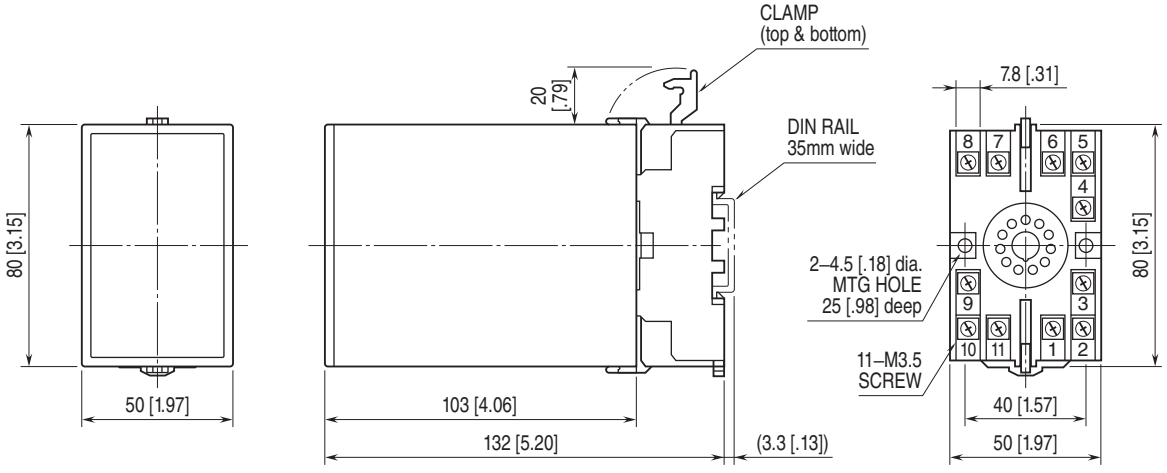
PERFORMANCE in percentage of span

- Setpoint accuracy: ±0.5 %
- Trip point repeatability: ±0.05 %
- Temp. coefficient: ±0.015 %/°C (±0.008 %/°F)
- Response time: ≤ 0.5 sec. (0 - 100 % at 90 % setpoint)
- Line voltage effect: ±0.1 % over voltage range
- Insulation resistance: ≥ 100 MΩ with 500 V DC
- Dielectric strength: 2000 V AC @1 minute (input to output to power to ground)

EXTERNAL VIEW

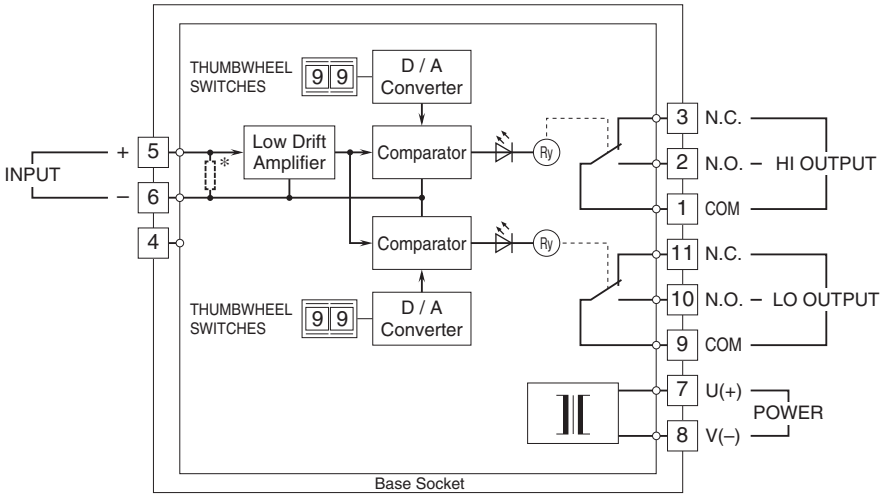


EXTERNAL DIMENSIONS & TERMINAL ASSIGNMENTS unit: mm [inch]

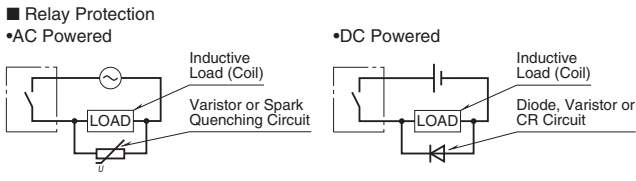


• When mounting, no extra space is needed between units.

SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM



*Input shunt resistor incorporated for current input.



⚠ Specifications are subject to change without notice.